ABSTRACT

NGARUIYA, KATHERINE. Organizational and Environmental Drivers of Culturally Competent Service Provision among Behavioral Health Agencies. (Under the direction of Dr. Richard M. Clerkin).

This study examines how organizational and environmental factors influence the service provision of behavioral health organizations. The analysis is conducted with publicly available data from: 1) the 2010 and 2015 National Survey of Substance Abuse Treatment Services, which provides organizational descriptors of behavioral health facilities; 2) the American Community Survey which captures demographic data of individuals living in the United States; 3) a compendium published by the Office of Minority Health which describes actions undertaken by state government agencies prescribing professional standards for organizations to be considered "culturally competent." Using Negative Binomial Regression, to examine the counts of services facilities provide, the results indicate that ownership, publicly subsidized payments, licensure and accreditation, and population characteristics are significantly associated with increased culturally competent service offerings. Whereas, NCLAS standards are not a significant influencer of increased culturally competent service offerings. Additional Logistic Regression analyses conducted, signal nuances in relationships between the organizational and environmental predictors and specific areas of culturally competent service. This study provides important practical insights on issues that affect service provision and contributes to the field's understanding about the organizational and environmental factors that influence culturally competent service.

Organizational and Environmental Drivers of Culturally Competent Service Provision among
Behavioral Health Agencies

by
Katherine Ngaruiya

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APPROVED BY:

_____   _____
Dr. Richard M. Clerkin   Dr. RaJade M. Berry-James
Committee Chair

_____   _____
Dr. Jason Coupet   Dr. Craig C. Brookins

DEDICATION

I dedicate this labor of love (blood, sweat and tears) to God and my parents. God, your strength was made perfect in my many weaknesses writing this dissertation (2 Corinthians 12:10). But I am reminded I can do ALL things through Christ who strengthens me (Philippians 4:13). Starting and finishing this journey would not have been possible without the love, support, and encouragement of my amazing parents.

BIOGRAPHY

Over the past 15 years, Katherine "Kat" Ngaruiya has enjoyed a vibrant career supporting multisector programs, projects and initiatives. These initiatives have bridged community understanding on education equity, immigrant voice, women's rights and healthcare disparities. Her research interests center on multicultural philanthropy, cultural competency, organization management and scholarship of teaching and learning (SOTL). She has published research in the Journal of Career Development, Armed Forces and Society, Public Personnel Management, Journal of Public Administration Research and Theory, and Journal of Nonprofit Education and Leadership. Currently, Kat owns a consulting firm, and partners with nonprofit and public agencies on strategic planning, fundraising and evaluation endeavors.

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CHAPTER ONE

Problem Statement

Health disparities between demographic groups remains a prominent concern among healthcare advocates in the United States. Organizational cultural competence, a practice by which organizations identify and react to the needs of culturally diverse populations, has become a widely supported approach to decreasing health disparities (Guerrero, 2010). Healthcare providers are increasingly recognizing that the ability to respond to the specialized needs of individuals from diverse cultures is a critical part of care (Siegel, Haugland & Chambers, 2003). As America becomes more structurally complex and ethnically diverse, organizations must be prepared to effectively provide services that meet the needs of a wide variety of cultural groups (Davis, 2007, p. 358).

The Substance Abuse Mental Health Services Administration (SAMHSA), the federal agency tasked with directing substance abuse and mental health services in America, consistently reports staggering mental health and substance abuse statistics (MH/SA). As such, behavioral health organizations that provide MH/SA services are the focus of this study due to the incidence of MH/SA diagnoses in the U.S. and the disparities that persist in MH/SA treatment and health outcomes noted below.

SAMHSA, reports an estimated 43.6 million (18.1%) Americans ages 18 and up experienced some form of mental illness and some 20.2 million adults (8.4%) had a substance use disorder in the past year (SAMHSA, 2016a). Of these, 7.9 million people had both a mental disorder and substance use disorder, also known as co-occurring mental and substance use disorders (SAMHSA, 2016a; SAMHSA, 2016b). Yet, according to Mental Health America

(2016), 57% of adults with mental illness in the United States receive no treatment, and, in some states, that number rises to 70%.

Historically, the mental health and addictions treatment systems have lagged behind physical health systems in the areas of patient-centered care and quality assessment and development (Croft & Parrish, 2013). Cost remains a considerable barrier to treatment for people needing mental healthcare and substance use services. According to a survey assessing mental health access issues between 2005 and 2009, a quarter of the 15.7 million Americans who received care listed themselves as the main payer for the services (Kiff, 2012). However, insurance typically does not fully cover costs for care, and this explains why access to mental healthcare and substance use services are consistently have lower access rates compared to other types of healthcare services. Additionally, stigma and negative attitudes about mental health and substance abuse issues also remain significant barriers to care (Kiff, 2012).

Significance

Cultural competence is a critical standard and important strategy to reduce healthcare disparities (Berry-James, 2012, p. 181). In theory, the essentiality of cultural competence is seen when we break down the constructs of culture and cultural competency. Culture is "the integrated pattern of human behavior that includes thought, communication, actions, customs, beliefs, values and institutions of racial, ethnic, religion or social group" (Cross, 1988, p.1). And cultural competence is "a set of cultural behaviors and attitudes integrated into the practice methods of a system, agency, or its professionals that enables them to work effectively in cross cultural situations" (National Center for Cultural Competence, 2001, p. 8). So, significant

attention has to be given to issues of culture and organizational competence, in order for organizations to serve clients effectively and reduce healthcare disparities.

In practice, competent care provided to vulnerable populations, helps alleviate and potentially eradicate barriers to care. Since underserved populations in many communities have unique needs, it is imperative that special considerations are made to address them. For research purposes, understanding the factors that lead organizations to provide culturally competent services is important, as policymakers, government administrators, funders, program participants, and other stakeholders expect programs to be successful (Lewis, Lesesne, Zahnise, Wilson, et al., 2012).

This underscores a central question in the fields of public management and organization behavior— understanding what motivates organizations to "do"— adopt a practice, implement a policy, or execute a plan. This study examines as set of drivers or influences that lead organizations to implement or adopt culturally competent services (CCS). Using 2015 data from the National Survey on Substance Abuse Treatment Services (N-SSATS)[1], this study operationalizes indicators of competence in two ways— language offerings and special programs for vulnerable populations. In particular, this study focuses on examining organizational competencies needed to work with diverse ethnic and social groups.

The argument emphasized in cultural competency literature regarding quality care is that one size does not fit all. Consensus is emerging that innovation in mental health and substance abuse (MH/SA) treatment should focus on organizational factors and institutional resources,

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[1] 2015 data published by the Substance Abuse and Mental Health Services Administration (SAMHSA)

rather than individual practitioners (Gone, 2015; Noe, Kaufman, Kaufman, Brooks, et al., 2014; Lum, 2010, Goode, 2009; Goode & Jackson, 2003). And, while research related to organizational cultural competence has risen in recent years, gaps remain in the literature around predictors of organizational cultural competent practices. This dissertation seeks to bridge this research gap by investigating the organizational and environmental drivers of CCS adoption.

The models in this dissertation are derived from organizational theories, policy-process theories, and frameworks from the cultural competency literature. Holistically, they shed light on why organizations might adopt culturally competent services, by highlighting different environmental and organizational conditions: organizational structure (i.e., public, private and nonprofit), regions of operation (i.e., northwest, southeast, rural, urban), and the funding source of organizations as predictors of CCS adoption. Figure 1 provides the conceptual framework for this study. The subsequent sections review the health and healthcare disparities, among different marginalized groups.
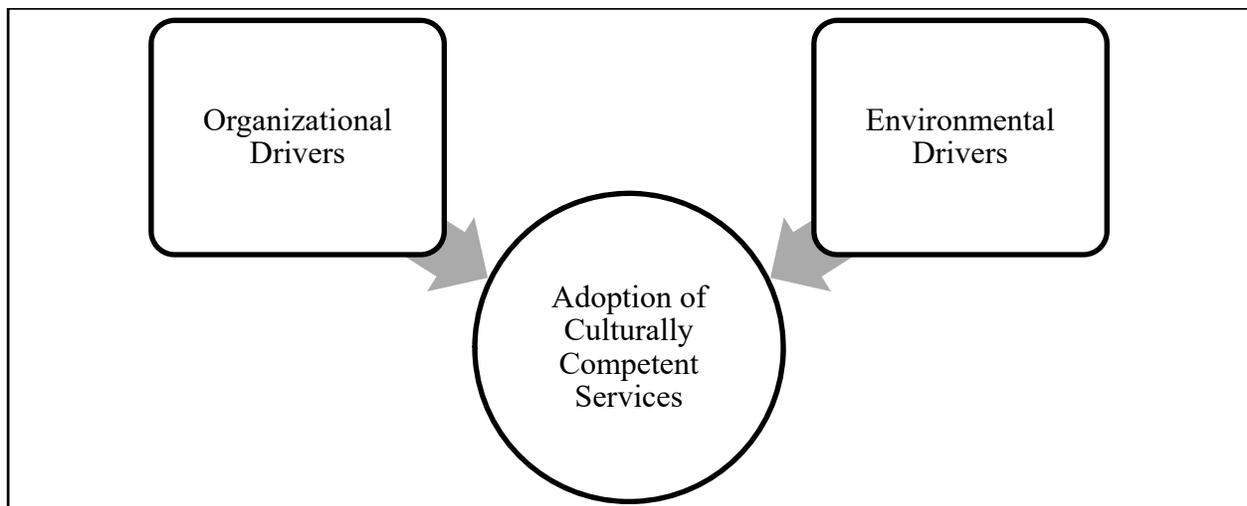
Figure 1. Dissertation Framework

Healthcare Disparities in the United States

America, the wealthiest country in the world, has surprisingly poor healthcare statistics (Pearl, 2015). The United States ranks last in life expectancy for men and second to last for women among peer nations. America ranks last on infant mortality among developed nations. And, worse still, U.S. healthcare outcomes fell from 20th to 27th from 1990 to 2010 in a ranking of the 34 most developed countries (Pearl, 2015). Even more shocking and outright concerning is the differentiated care for marginalized groups that leads to poorer healthcare outcomes and lower quality of life. This is particularly true regarding mental healthcare and outcomes.

Drug abuse and addiction are major public health pandemics. In fact, a large portion of drug treatment is funded by local, state, and federal governments to mitigate issues with this public health challenge (NIH, 2016). To illuminate the depths of the MH/SA healthcare crisis for vulnerable populations in particular, I review existing barriers and challenges for marginalized groups in the segments below, highlighting the health and healthcare disparities vulnerable populations face.

According to the Center for Health Equity Research and Promotion, "health disparities are defined as differences in the prevalence, mortality and burden of disease and other adverse health conditions that exist among specific population groups…and healthcare disparities are differences in access, process, and structure of healthcare among specific population groups" (Berry-James, 2012, 183). Following the discussion on disparities between cultural groups, I posit a conceptual model and research questions related to organizational drivers of CCS adoption in behavioral health settings.

Diversity and Healthcare Outcomes

Due to increased diversity in many communities, interactions between individuals with different cultural backgrounds, beliefs, practices, and languages, are on the rise (Rice & Matthews, 2012). With changing demographics of American communities, provision of culturally competent services has the potential to improve health outcomes, and result in greater client satisfaction with services (Anderson, Scrimshaw, Fullilove, Fielding et al., 2003). In other words, creating and maintaining culturally competent systems can improve healthcare systems, as cultural diversity is reinforced as a core part of the American landscape (Anderson et al., 2003).

Over the past two decades, organizations that provide mental-health services have adopted culturally competent services (CCS') in response to disparities observed in treatment settings between different populations based on race, nationality, age, gender and sexuality. However, service gaps remain (Chu et al. 2016; Sue, 2009). According to Dr. Karen Lincoln (as cited in California Watch, 2012), "there is a white norm around symptom presentation.…If you aren't looking for the right symptoms or if the language being used to describe the symptoms is unfamiliar to you, you can have disparities in diagnosis.…You tend to have misdiagnosis because clinicians are not culturally competent. It diminishes confidence in the mental-health system" (para. 10).

Cultural competence in healthcare describes the ability of systems to provide care to patients with diverse values, beliefs and behaviors, including tailoring delivery to meet patients' social, cultural, and linguistic needs (Tucker, Arthur, Roncoroni, Wall, & Sanchez., 2015; Betancourt et al., 2002). Studies show differences in referral and treatment patterns by healthcare-affiliated service organizations based on a client's race or ethnicity. In these

instances, providers that consciously or subconsciously held negative social stereotypes of minority groups had distorted interactions with clients, compounding issues of misdiagnosis and sub-par service delivery for persons of color (Anderson et al., 2003). From an organizational perspective, meeting the healthcare needs of a culturally diverse society requires forward thinking and visionary leadership to undertake an examination of the assumptions that shape and define organizational behavior (Wells, 2000, p.195).

Healthcare Outcomes: Non-Native English Speakers & Immigrant Populations

Immigration is a significant shaper of U.S. culture, and with different immigrant groups come different attitudes, beliefs and cultural practices related to accessing healthcare services. In recent years, global changes account for unprecedented movements of individuals crossing borders in search of better lives, opportunities, and conditions— the American dream (Marsella & Ring, 2003; Santiago-Rivera & Guzmán, 2008.). According to U.S. Census Bureau statistics, approximately 12% of the U.S. population is foreign born, and three out of four of these foreign born individuals immigrated to the U.S. after 1980 (Larsen, 2004). The presence of this expansive subgroup in the U.S. necessitates that research centered on immigrant healthcare needs, be conducted.

Many of the "white bias" healthcare issues experienced by racial minorities in the United States are reflected in immigrants, where they are compounded due to acculturation challenges. According to Bhugra, Wojcik & Gupta (2011), the barriers that immigrants face fit into four broad clusters: (a) culture shock, (b) loss of status, (c) expectations, and (d) family dynamics. The culture shock cluster refers to the anxiety faced by individuals adjusting to a new society. Culture shock brings about an overwhelming strain that interferes with an immigrant's ability to

gather information, solve problems, and make decisions (Oberg, 2006). The loss of status cluster refers to the fact that immigrants generally experience a loss of familiar things such as friends, places, family customs, social status, and social interactions when they migrate to the host country (Bhugra, Wojcik & Gupta, 2011). This loss can be particularly traumatizing.

There is well-documented research that immigrants face increased risk factors for struggling with mental health and substance use. Foreign nationals are overrepresented in poorer communities, earn lower wages, often deal with discrimination, and have limited opportunities for career mobility. These indicators are especially prevalent for undocumented workers (Rusch, Frazier & Atkins, 2015). Along with such cultural and environmental stressors, immigrants also encounter significant challenges accessing appropriate mental health and substance abuse care including "stigma for help-seeking, lack of health insurance, and language barriers" (Rusch et al., 2015, p. 2). Given the MH/SA risk factors for immigrants, the utilization rates of MH/SA services is thus a concern, especially when those with limited access, receive services from organizations that have not mastered culturally competent practice.

According to a recent Robert Wood Johnson report (2014), "race and ethnicity continue to influence a patient's chances of receiving many specific healthcare interventions and treatments, [essentially] your healthcare depends on who you are" (para. 1). Negative stereotypes and dismissive attitudes pertaining to minority healthcare persist, and these attitudes have detrimental effects on the health of racial and ethnic minorities (Yeh, Jewell & Thomas, 2016; Borinstein, 1992). Latinos and African Americans experience 30-40% poorer health outcomes than White Americans (Pearl, 2015). To date, access to mental healthcare by African Americans is characterized by low rates of outpatient care and high rates of emergency care. Data also

shows that depression in African Americans is often misdiagnosed in comparison to their Caucasian peers (Payne, 2012).

Healthcare Outcomes: LGBTQ Populations

The lesbian, gay, bisexual, transgender, or questioning (LGBTQ) community or sexual minorities is another population with measurable, diminished healthcare outcomes. "Because of cultural factors, the life of a GLBT person evolves developmentally different from that of a non-GLBT person" (Swan, French & Norman-Major, 2012, p. 142). As such, negative health outcomes for this group stem from a variety of issues. Typically, individuals who identify as lesbian, gay, bisexual, or transgender have reduced access to employer-provided health insurance and have to rebuff social stigma (Pearl, 2015). According to the National Alliance on Mental Illness (NAMI, 2016), bisexual and questioning individuals and those who elect not to disclose their sexual orientation or gender identity report higher rates of mental-health conditions than their non-LGBTQ counterparts.

Substance abuse research has demonstrated that client sexual orientation influences treatment outcomes (Cochran, Peavy & Robohm, 2007). Social inequalities in the LGBTQ community are the result of several influences: discrimination, denial of civil and human rights, abuse, victimization, and social exclusion, to name a few. Because of these social and civil inequities, "LGBTQ youth are 4 times more likely to attempt suicide, experience suicidal thoughts or engage in self-harm than straight people. Between 38-65% of transgender individuals experience suicidal ideation" (NAMI, 2016, para. 9). Additionally, an estimated 20-30% of LGBTQ people abuse substances, which is substantially higher than about 9% in the general

population. Similarly, 25% of LGBTQ individuals abuse alcohol, compared to 5-10% of the general population (NAMI, 2016).

While the statistics regarding mental health and substance abuse for LGBTQ populations are staggering, the challenges associated with access to quality care are just as tragic. A study by Grant and colleagues (2010) highlights several self-report barriers to treatment for LGBTQ respondents. They report "1) the refusal of care: 19% of our sample reported being refused care due to their transgender or gender non-conforming status, with even higher numbers among people of color in the survey; 2) harassment and violence in medical settings: 28% of respondents were subjected to harassment in medical settings and 2% were victims of violence in doctor's offices and; 3) lack of provider knowledge: 50% of the sample reported having to teach their medical providers about transgender care" (Grant et al., 2010, p.1). The cases where patients served as 'the educator,' invariably shifted the dynamic of the therapeutic alliance between medical provider and patient, negatively affecting treatment.

Research has shown evidence of homophobia (i.e., negative attitudes toward sexual minorities) in treatment settings, leading to ineffective service provision to clients who are gay or lesbian (Donaldson & Vacha-Haase, 2016; Crisp, 2006). A practitioner's preconceptions about the LGBT community inherently influence the treatment trajectory (e.g., the decision to focus on sexual orientation as part of the treatment problem or exclude sexual orientation as a part of the recovery process). Eagerness to include or exclude sexual orientation based on a practitioner's preconceptions rather than an explicit discussion with the client may damage the therapeutic process, ostracizing or making the client feel labeled (Donaldson & Vacha-Haase, 2016; Van Den Bergh & Crisp, 2004). Clearly, one size does not fit all when it comes to quality service treatment; provider bias can have a profoundly negative impact on clients' experiences in

treatment settings. Or stated differently, "treating everyone the same" approach does not adequately serve the needs of residents (Donaldson & Vacha-Haase, 2016).

Organizational policies have a significant impact on clients' recovery and lower rates of recidivism (Donaldson & Vacha-Haase, 2016; Fredriksen-Goldsen et al., 2014; Eliason & Hughes, 2004). However, many treatment practices and models are based on the experiences and expectations of Caucasian, heterosexual men. For treatment to be effective, it must address specific cultural variables that will support MH/SA diagnosis and treatment of clients from diverse backgrounds (Mays et al., 2017; Donaldson & Vacha-Haase, 2016).

Healthcare Outcomes: Veterans

An estimated 2.4 million military personnel from the United States have deployed to Iraq and Afghanistan since September 11, 2001 (Koenig et al., 2014). Many U.S. veterans present with challenging MH/SA healthcare issues. According to a 2014 study in JAMA Psychiatry, nearly one in four active duty members showed signs of a mental health condition (NAMI, 2016). The most common diagnoses assigned to veterans are depression, post-traumatic stress disorder (PTSD), and traumatic brain injuries (TBIs). These are all typically associated with combat experiences (NAMI, 2016). Another cause of PTSD in the military can be military sexual trauma (US Veterans Affairs, 2016).

Studies show that stressors associated with military service increase potential risk for post-service mental-health and substance abuse issues (Olenick, Flowers & Diaz, 2015). In fact, veterans experience mental health disorders, substance use disorders, post-traumatic stress, and traumatic brain injury at disproportionate rates compared to their civilian counterparts (Olenick, Flowers & Diaz, 2015).

In addition to battling the psychological impacts of war, veterans struggle making the transition from military to civilian life. While transitioning, veterans wrestle with competing social identities—military and civilian, a cultural stressor unique to this population (Koenig et al., 2014). It takes well-trained providers and culturally competent organizations to understand veterans' cultural capacity for resilience and to help veterans identify and successfully mediate the social norms of the military and civilian worlds (Koenig et al., 2014).

Working with veterans and military personnel, necessitates that healthcare professionals are mindful of military culture and the individual lived experience when disseminating services. Providers must minimize assumptions and/or exclusions of diagnostic options because of military status (Pearl, 2015) as biases adopted by providers lead to ineffective service provision (Crisp, 2006). For example, one diagnostic trend that has emerged in recent years is the questioning of whether PTSD is an overprescribed diagnosis among military and veteran families.

Veterans and military personnel are part of a culture with distinct values, customs, ethics, selfless duty, codes of conduct, implicit patterns of communication, and obedience to command (Olenick, Flowers, & Diaz, 2015). For this study, veterans and active military members are a discrete social group, for which specialized services are provided. Eliason and Hughes (2004) note that organizational practices drive provider behavior, which in turn impacts the client's progress. So, for this study, I will examine organizational programming, or lack thereof, available for service men and women.

Healthcare Outcomes: Seniors

The Dartmouth Institute for Health Policy and Clinical Practice recently issued a report card on healthcare provision to seniors in the United States. The report indicated wide disparities in healthcare service delivery to older adults regionally (Miller, 2016). And in the year 2050, it is estimated there will be nearly 84 million people in the United States who are 65 years old or older, according to the U.S. Census Bureau. That is nearly twice as many senior citizens as there were in 2012 (Leatherby, 2016). So getting MH/SA healthcare support right for seniors is crucial.

Newer statistics show that an estimated 20.4 percent of adults aged 65 and older met criteria for a mental disorder (Karel, Gatz & Smyer, 2012). Illicit drug use nearly doubled among people age 50-59 between 2002 and 2007, increasing from 5.1 percent in 2002 to 9.4 percent in 2007 (Blazer, Maslow & Eden, 2012). And the need for substance abuse treatment among seniors is estimated to increase from 1.7 million in 2000 and 2001 to 4.4 million in 2020 (Bergen-Cico & Cico, 2017; Gfroerer et al., 2003). Outside of major mental illness and substance use diagnoses, many seniors have personality disorders aggravated by protracted health issues (Bergen-Cico & Cico, 2017; Dwyer et al., 2010).

A sobering research finding is that seniors exhibiting signs of a mental disorder are "less likely than younger and middle aged adults to receive mental health services and less likely to receive care from a mental health specialist" (Karel, Gatz & Smyer, 2012, p. 187). This is due to the fact older adults typically have co-occurring physical conditions, and are more likely to access services in primary care settings in lieu of behavioral health facilities (Blazer, Maslow & Eden, 2012). But generally seniors underutilize mental health services for a host of reasons, such as: inadequate insurance coverage; a shortage of trained geriatric mental health providers; lack of

healthcare coordination between primary care and aging service providers; stigma surrounding

mental health and its treatment; denial of problems; and access problems such as transportation

(Yeh, Jewell, & Thomas, 2016; Bartels, Coakley, Zubritsky, et al., 2004).

The preceding paragraphs show that seniors are some of the most vulnerable participants

in the healthcare system. Without organizational intentionality towards adopting CCSs, the

future looks grim. In the past, society has reached consensus that social services, health

prevention and health services should be culturally sensitive to better meet the needs of older

minority Americans (National Center for Cultural Competence, 2001, p. 11). And given the fact

that in recent years, the senior population has become more linguistically, ethnically, and

religiously complex (National Center for Benefits Outreach and Enrollment, 2011), the

enactment of these CCS goals are more vital than ever. With increasing diversity in the senior

population, the provision of behavioral health services has to change.

The healthcare narratives of vulnerable populations highlighted above, show that the

absence of culturally competent services (CCSs) in behavioral health organizations leads to

diminished care that negatively affects patient outcomes. As such, specialized service offerings

for these vulnerable groups— non-English speakers, LGBT communities, military families,

veterans and seniors— is examined in the fourth chapter, because the implications of cultural

incompetence are staggering. But the problem of competency cannot be excised from the

conditions that foster or impede CCS adoption. It is a known fact that the political and social

climate in which these organizations exists have a significant impact on organizational

behaviors. In the sections that follow, I examine the national policy and cultural sentiments

around MH/SA.

Health Policy, CLAS Standards and Behavioral Health

Over the past decade, media outlets and policy changes have spotlighted substance abuse and mental health issues at the national level. In the United States, the influx of incidents of mass violence have shaped national discourse on gun laws, law enforcement, school safety, and provision of substance abuse/mental health services. Mental health issues and gun-rights issues remain tightly coupled conversations, due to media coverage of school and public shootings. Substance use is also hot-button issue, especially in light of states' decision to legalize marijuana, forever changing the dialogue and stigma associated with consuming drugs. In sum, there is a lot of policy and media noise concerning MH/SA issues that serves as a backdrop to behavioral health practice.

Over the past 20 years, the National Culturally and Linguistically Appropriate Services (CLAS) Standards have had significant policy implications for behavioral health practice in the United States. The Office of Minority Health (OMH) compiled the Standards to articulate a consistent and comprehensive approach to cultural and linguistic competence for healthcare organizations (U.S. DHHS, 2001). The Standards have served as a catalyst for efforts to achieve health equity and improve care, by providing baseline operating procedures for healthcare organizations (Diamond, Wilson-Stronks, & Jacobs, 2010).

In the original set of CLAS Standards, the first three Standards "focus on culturally competent care that healthcare organizations can use to attract, retain and promote personnel that possess the knowledge, skills, abilities, attitudes, and awareness to ensure that respectful, understandable and effective care is provided to all consumers" (Berry-James, 2012, p. 186). CLAS Standards four to seven "impact clinical care, by addressing "the language access services" previously mandated by the federal government" (Berry-James, 2012, p. 186).

Organizational supports for cultural competence are captured in CLAS Standards eight through

14, rounding out "the standards that govern clinical care (culturally competent care) and

nonclinical care (language assistance services) for consumers" (Berry-James, 2012, p. 190).

With the revised set of CLAS Standards, the Office of Minority Health has published a

blueprint for organizations to help them advance and sustain culturally and linguistically

appropriate services. The revised set of Standards (2013), are "grounded in a broad definition of

culture – one in which health is recognized as being influenced by factors ranging from race and

ethnicity to language, spirituality, disability status, sexual orientation, gender identity, and

geography" (HHS, 2013). Given this broad conceptualization, it is believed that "the Standards'

implementation "on the ground" will vary from organization to organization" (NCLAS

Standards Factsheet, p. 2).

Of note, the enhanced Standards are entwined with some federal regulatory issues. The

Office of Minority Health warns that "failure by a recipient of Federal financial assistance to

provide services consistent with Standards 5 through 8 could result in a violation of Title VI of

the Civil Rights Act of 1964 implementing regulation" (U.S. DHHS, 2013, p.30). Or stated

differently, "organizations receiving Federal funds must take reasonable steps to provide

meaningful access to their programs for individuals with limited English proficiency" (U.S.

DHHS, 2013, p. 18).

So, "although Standards 5 through 8 do not represent legal requirements, implementation

of these recommendations will help ensure that health care organizations serve persons of

diverse backgrounds…in accordance with the law" (U.S. DHHS, 2013, p. 30). Interestingly, the

communication and language proficiency Standards (Standards 5-8, Appendix A) were labelled

"mandates" in the original CLAS Standards, but that language is expunged in the enhanced

Standards. It seems the Office of Minority Health, wants to "promote collective adoption of all Standards as the most effective approach to improve the health and well-being of all individuals" U.S. DHHS, 2013, p. 30), and is much more particular with the language in new publications.

Culturally Competent Practice

Per the Department of Health and Human Services, "cultural competence describes the ability of an individual or organization to interact effectively with people of different cultures" (SAMHSA, 2016c). As such, it is important for organizations to have a vision of what culturally and linguistically appropriate services will look like in practice and to identify available and required resources needed to make the vision a reality (NCLAS Standards Factsheet). Organizations should be aware of the sociocultural barriers that proliferate health and healthcare disparities (Tucker et al., 2015; Betancourt et al., 2002). Cultural competence as a standard of care is thus an important strategy (Berry-James, 2012, p. 181). But the importance of institution and competitive market pressures in guiding organization behavior cannot be overstated (Weech-Maldonado, Elliott, Pradhan, Schiller, Dreachslin and Hays, 2012).

> "Consensus is growing that adoption of innovations in healthcare depends more on organizational factors … Of particular importance are institutional and personnel readiness (e.g., resources and motivation) and organizational dynamics (e.g., climate for change and staff attributes). …Organizational climate factors (e.g., clarity of mission and goals, staff cohesion, communication, and openness to change), along with institutional resources (staffing levels, physical resources, straining levels, and computer usage) are also significant" (Noe, Kaufman, Kaufman, Brooks, et al., 2014, p. 549).

Admittedly, MH/SA organizations are servants to many masters— accrediting boards, professional associations, healthcare guidelines, reimbursement agencies etc. But organizations that adopt CCS services have to remain responsive to their community's changing needs, and context-based demands (Hernandez et al., 2009). Being a culturally competent organization means investing in cultural competency policies and procedures i.e. making commitments to provide programming, and create supportive spaces, inclusive of all cultures. Stated differently, Sue (2001) notes that:

> cultural competence is the ability to engage in actions or create conditions that maximize the optimal development of client and client systems … on an organizational/societal level, advocating effectively to develop new theories, practices, policies, and organizational structures that are more responsive to all groups (p. 802).

According to Kirmayer (2012a), one can address cultural competence at multiple levels, one of them being the organization level. To date, there is little scholarly work available examining the predictors or proliferating factors of culturally competent practice in behavioral health organizations. This study offers insights on the factors that encourage CCS adoption, in light of the fact behavioral health organizations have several push and pull factors that drive their competency agendas. To conclude this chapter, I review this study's research questions, conceptual framework and subsequent chapters.

Data, Research Questions, Conceptual Model, and Subsequent Chapters

For this study, I collate data from three sources. The N-SSATS dataset provides variables related to organizational infrastructure, services offered and geographies of behavioral health organizations. The American Community Survey provides information on the state

demographics related to population, race and household income. A recently published

compendium by the Department of Health and Human Services provides descriptive information

on the cultural competency policies states have adopted, encouraged and enforced.

I discuss the theoretical implications of this study in chapter two. Four theoretical

frameworks are used to examine the proliferation and adoption of culturally competent

services— Publicness Theory, Institutional Theory, Resource Dependence Theory and

Contingency Theory. Figure 3 (below) depicts each theory in relation to organizational and

environmental pressures to adopt CCSs. The following questions guide this research and are

coupled tightly with the theories listed above:

1. What are the drivers of cultural competence in organizational settings?

2. What are the organizational characteristics that promote culturally competent programs
   and services?

3. What are the environmental characteristics that promote culturally competent programs
   and services?

Organizational Factors

Publicness Theory
Resource Dependence

CCS Indicators:

Diverse Language Offerings
Programs for Vulnerable Groups

Environmental Factors

Institutional Theory
Contingency Theory
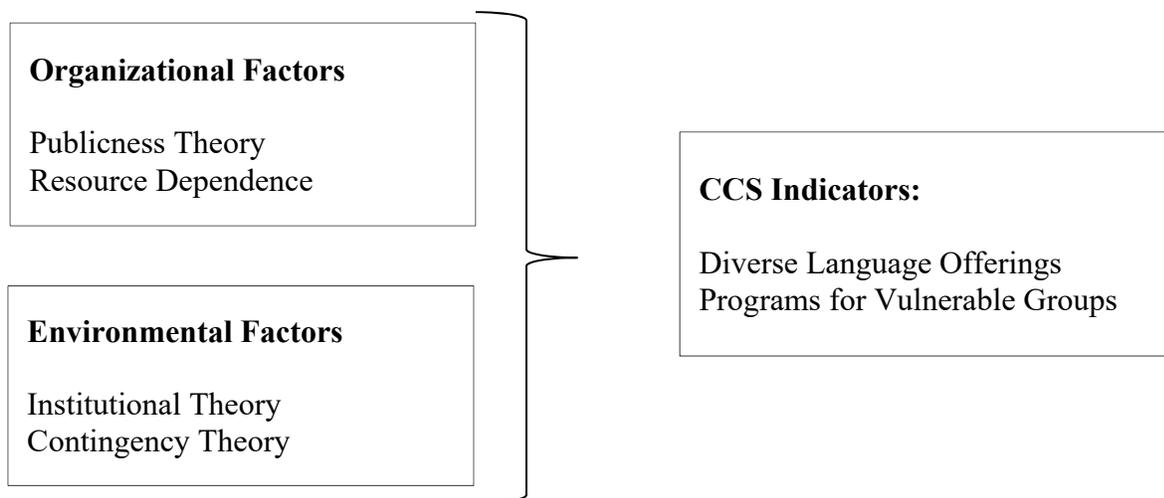
Figure 3. Organizational Theory Framework and CCS Provision

Chapter three provides the methodology of this study. I describe the research design and populations of interest captured in the N-SSATS dataset— non-English speakers, LBGTQ groups, hearing impaired, veterans, and seniors. I also discuss the predictor variables included in my model; funding source, accreditation, licensing, region of the country, and organization type (public, for-profit, nonprofit).

I review the findings from the regression analyses in chapter four. And in chapter five I discuss significant determinants of CCS adoption. This culminates in a review of theoretical and practical implications of CCS adoption among behavioral health organizations. My hope is this study will make an important contribution to practice, by examining predictors of organizational cultural competence, a critical link in the chain of MH/SA healthcare outcomes in the United States.

CHAPTER TWO

As chapter one showed, there is clear evidence for the value of culturally competent care. To date few studies have examined the administrative, political and environmental determinants of cultural competence. Generally discourse around cultural competency is relegated to the discussion of providers' attitudes and beliefs. But as behavioral health services in the U.S. are increasingly delivered by a mix of private, for-profit and public agencies, it is important for administrators implementing behavioral health policy and managing behavioral health organizations to understand the confounders of competent care. So, chapter two reviews the theoretical perspectives that may lead organizations to provide culturally competent services.

Organizational Competence and Decision Making

Diversity in language, geographic origin, ethnicity, and race have historically been referenced as indicators of cultural competence (Kirmayer, 2012a). But more recently, cultural competency definitions have begun to incorporate other dimensions of diversity such as socio-economic status, sexual orientation, persons with disabilities, and veterans. And while the indicators of competence have changed as practitioners grow in their understanding of distinct cultural groups, cultural competency as an organizational phenomenon, has also emerged.

Gallegos and colleagues (2008), operationalized cultural competence, as the incorporation and conversion of knowledge about individuals and groups of people into explicit standards, policies, practices, and attitudes used in cultural settings to increase the quality of services. The subsequent sections review the theories that explain organizational decision making, considering different environmental and organizational constraints. I provide an overview of the theories and a short rationale for including each perspective in this study.

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Applicable Theories and Frameworks to Understanding CCS Adoption

Theories provide the boundaries and parameters that scholars draw upon to understand and examine events. They are guiding assumptions that frame contexts from which scholars posit hypotheses, independent variables, and dependent variables and determine levels or units of analysis. Conversely, without theories, scholars have no basis or rationale to place value on variables considered important in a framework (Weible et al., 2011; Sabatier & Weible, 2007). In sum, "paradigms, theories and schools of thought serve important purposes. They help to organize knowledge, formalize predictions, ensure consistency, deepen explanation, aid in the development of rigorous hypotheses and facilitate the cumulative development of knowledge" (Miller, 2007, p. 177).

Publicness Theory scholars examine how the organization's publicness affects the nature of services the organization provides i.e. the impact of organization type on organization activity. Publicness theory is a core framework used by public administration scholars. As such, this study will examine degrees or fundamental differences between public and private organizations. This theory provides a lens from which to examine how legal ownership and political authority affects organizational ability to serve diverse clients.

Institutional theory provides a causal mechanism for explaining why organizations with similar isomorphic pressures behave alike. Typically, organizations that operate within similar social structures or boundaries tend to follow the same norms, guidelines, or schemas, so adoption of culturally competent practices should be comparable between organizations operating within the same professional contexts. For this study, I will examine how organizations with similar legal/regulatory statutes and organizations that receive the same professional credentialing, adopt CCS.

Resource dependence theory (RDT), explains organizational change and activity as a function of resource gaps or scarcities. With limited resources, organizations engage in activities that mitigate scarcity or promote solvency. Put differently, to maintain receipt of public dollars, organizations may adopt certain CCS. Alternatively, organizations that have more sources of funding, might be more capacitated to provide specialized services. Resource issues (i.e., funding sources like grants, fees, and donors) that affect organizational practice are considered through the lens of RDT.

Contingency theory provides a perspective to analyze how the organization adopts structures to safeguard against changes in the environment. Organizational factors are direct influencers of organizational adoption of CCSs. Contingency theory provides an economic rationale for why organizations choose to enter, remain in, and exit a community; that is, the organization that fits or adapts to meet the needs of the community is the one most likely to survive and become sustainable (Birken, Bunger, Powell & Turner et al., 2017). One set of environmental factors addressed in this study are changing community demographics. As community demographics change over time, it is highly likely that organizations will seek to adopt elements of CCS to ensure their organizational survival remains secure. A detailed discussion of each of theory is included below.

Publicness Theory

One of the most enduring questions in public administration is whether public and private organizations are fundamentally different. Over the past three decades, public administration, public management and business management researchers have devoted a significant amount of time to analyze this issue of "publicness" (Riccucci, 2010). Examining the internal and external

environmental factors that influence the set-up, behavior, and performance outcomes in organizations, in particular, has been a research focal point (Anderson & Whitford, 2016; Hall, Miller, Millar, 2016, Perry & Rainey, 1988; Rainey & Bozeman, 2000).

The core goal of publicness research remains— to explain the similarities and differences between varying organizational types (e.g., public and nonprofit organizations). But the debate in variance between public and private organizations is ongoing and a noteworthy body of research has emerged comparing public and private organizations using a variety of approaches to study which organizational attributes are shared across sectors and which are primarily sector-specific (Goldstein & Naor, 2005, p. 213). To date, the extant literature on Publicness Theory does not give a definitive answer to the question as to the effect of publicness on organizational performance. While organizational publicness has been shown to have mixed effects on organizational performance, scholars still examine this motivating phenomenon (Boyne, 2002; Heinrich & Fournier, 2004; Moulton, 2009; Walker & Bozeman, 2011).

Three underlying conceptual frameworks have emerged— the generic approach, the core approach, and more recently, the dimensional approach — to examine degrees of difference between private and public organizations (Goldstein & Naor, 2005, Merritt, 2014). The generic approach to organizational analysis is centered on the idea that differences between public and private organizations are unimportant. Publicness scholars that use this approach argue that all organizations face similar constraints and challenges, resulting in similar behaviors and outcomes (Merritt, 2014; Goldstein & Naor, 2015). Stated differently, the generic approach "discounts the importance of potential differences between public and private organizations, suggesting that management functions, organizational processes, and managerial values are

essentially identical across sector boundaries because they face similar constraints and challenges" (Goldstein & Naor, 2005, p. 213).

A contrasting ideology posited by Rainey, Backoff and Levine (1976), is the core approach. This approach stresses that important differences exist between public and private organizations (business firms), with one of the defining distinctions being their ownership. Rainey et al. (1976) theorize that public and private organizations—based on their sector affiliation or ownership—diverge in their internal structures and processes, environmental influences, and organization-environment transactions (Goldstein & Naor, 2005; Merritt, 2014). Put differently, public management choices, concerns and organizational outcomes are shaped by the electorate and the political milieu; whereas private management conclusions, concerns, and results are mainly guided by investors, consumers, and market forces (Walker & Bozeman, 2011; Nutt & Backoff, 1993). At present, industrial/organizational theorists, public administration researchers and performance management scholars concede that there are important differences between organizations in different sectors. However, a fundamental challenge of the core approach, even in Rainey et al.'s research, is that publicness theory does not handle organizations that are not easily classified by a conventional scheme as either purely public or purely private (for-profit), such as non-profit organizations (Goldstein & Naor, 2005; Bozeman and Bretschneider, 1994).

The third and final approach, is the dimensional approach. Based on this approach, publicness is not a single discrete attribute. Instead, public and private organizations are defined based on a two dimensions— political and market forces (Bozeman, 1987). These dimensions have been empirically tested in their relation to organizational activities, rationalizations and constraints (Bozeman & Moulton, 2011). They have also been measured using indicators such as

organizational ownership, funding, and social control (Goldstein & Naor, 2005; Anderson, 2014). Of note, this dimensional approach of publicness is widely thought to impact internal organizational functions such as goals, structures, and managerial values (Boyne, 2002).

Because organizations are more or less public depending on their legal ownership, funding source, social control and a myriad of other factors (Andrews et al., 2011; Bozeman, 1987; Bozeman & Bretschneider, 1994), Bozeman and Bretschneider (1994, p. 218) state that "the core and dimensional approaches are complementary alternatives." As such, these two approaches are used to guide this study's definition and measurement of publicness. Legal ownership (from the core approach), and additional indicators of political authority (from the dimensional approach) will be used for hypothesis development and analysis. The merit of these indicators, and related hypotheses are discussed in more detail below.

Political Authority Dimension of Publicness and Funding

According to Bozeman's original definition of publicness, political authority affects the behavior and functioning of organizations across different sectors (Bozeman, 1987; Andrews, Boyne & Walker 2011). And political authority is typically associated with some form of government structure or policy (Bozeman, 2013).

Since the political authority dimension was posited, scholars chiefly associate publicness with the extent to which an organization is subject to political authority (Bozeman, 1987). Put another way, organizations that are closely linked to government and whose authority and activity is grounded in the law are more public (Bozeman & Moulton, 2011). One of the key contributors to the differences in organizational structures and processes are the political contexts in which they function (Pandey, 2010, p. 565). And according to Bozeman (1987), to the extent

that an organization is more constrained by political forces, it is more public, conversely, an organization more constrained by economic factors, is more private.

However, the boundaries between political forces and economic factors are somewhat blurred in research. Examples of political authority measures used in empirical studies include: the composition of an organization's budget, as a proportion of government resources (Bozeman & Bretschneider, 1994; Chun & Rainey, 2005); Medicaid and Medicare funding (Heinrich & Fournier, 2004); and the amounts of federal versus state funding given to higher education institutions (Feeney & Welch, 2012). These examples highlight that while funding is an economic motivator, it is also used as a measure of political authority, since the funding is coming from public programs and sources.

Practical Implications of Publicness

According to the core approach of Publicness Theory, an enterprise or organization is deemed public, for-profit or nonprofit based on legal status. Rules and regulations dictate how organizations are classified. As previously stated, the hallmark of this approach is that the organization's structure is linked to the organizational activities, outputs and performance. In fact, public administration scholarship prior to and following Bozeman's seminal work has largely evaluated an organization's behavior based on its legal ownership (Andrews, Boyne & Walker, 2011; Rainey & Bozeman, 2000; Perry & Rainey, 1988).

The organizations surveyed annually via the N-SSATS instrument self-identify as government, for-profit, nonprofit. Based on the core approach to publicness, the governance structure of the organizations, i.e. the ways in which decision-making is made in an organization, is the basis for determining an organization's publicness (Margiono, Zolin & Chang, 2015).

Generally, the efforts of nonprofit and governmental organizations, are typically described in terms of the mission of the organization and the strategies employed in pursuit of a public-centered mission, so they are considered to be more similar than for-profit entities (Moore, 2000; Oster, 1995). And managers within the nonprofit and government sectors have been shown to share similar values (Miller-Stevens, Taylor & Morris, 2015). Stated differently, nonprofit organizations aim to achieve some public value or contribute to a public benefit (Margiono, Zolin & Chang, 2015). Additionally, the value of nonprofits or government organizations is not principally measured by their financial performance, in sharp contrast to their for-profit counterparts (Oster, 1995, p. 140; Margiono, Zolin & Chang, 2015).

Given these discrete organizational classifications and motivations, the first set of hypotheses address potential differences in services based on sector affiliation. These hypotheses are governed by the core approach ideology of publicness theory. Therefore, I explore the nature of the relationship between publicness, sector affiliation and CCS adoption by testing the following hypotheses:

H1 Private for-profit organizations will offer fewer culturally competent services than government or private nonprofit organizations.

H2 Government organizations will offer more culturally competent services than private nonprofit organizations and private for-profit organizations.

H3 Private nonprofit organizations will offer more culturally competent services than private for-profit organizations.

Publicness dimensional theorists posit that there are fundamental differences between public and private organizations, stemming from different economic and political motivations,

which yields varied performance, management, and structure (Heinrich and Fournier, 2004). Organizational factors that serve as evidence of publicness include level of government funding, and degree of exposure to government regulation (Bozeman, 1987; Bozeman and Bretschneider, 1994). The conventional school of thought for this study is that public or more public organizations, will strive for equity, "understood as rights-based, system-wide availability and accessibility" (Khoo, 2013, p.4). As such, organizations deemed as [more] public based on acceptance of public funding for payment of services, will adopt more CCS practices.

Public sources of funding such as Medicaid and Medicare are often used as proxies or indicators of publicness (Merritt, 2014). Medicare is a federally administered health insurance program which mainly supports people aged 65 and older, and in special cases people with disabilities. Medicaid is a healthcare program that assists people with low incomes, individuals with disabilities and people with abnormal conditions. While CCS adoption is expected to vary between organizations, based on sector, I also expect to observe differences in culturally competent practice based on payment form accepted by institution. The organizations that receive public funding, will adopt more culturally competent services to cater to a broader based of clients, since one of the main determinants of publicness is inclusivity (Kaul & Mendoza, 2003).

> **H4** Organizations that accept Medicaid will offer more targeted services for cultural groups than organizations that do not accept Medicaid

> **H5** Organizations that accept Medicare will offer more targeted services for cultural groups than organizations that do not accept Medicare

While no formal test for publicness exists, the publicness literature underscores that differences exist between organizations based on a myriad of internal and external factors. For

this study, the conservative expectation is that CCS adoption will vary by organizational sector and acceptance of public funding (based on the ideals of equity and accessibility professed by government and nonprofit agencies).

Institutional Theory

Institutionalization has been described as the process by which patterns become normative and cognitive fixtures of an organizational environment, with little intentionality by organizations that exist within it (Powell & Colyvas, 2008). Zucker (1987) noted that institutionalization in organizations has two defining characteristics: "1) a rule-like, social fact quality of an organization patter of action (exteriors); and 2) an embedding in formal structures, such as formal aspects of organizations that are not tied to particular actors or situations (nonpersonal/objective)" (p.444). By Zucker's definition, pressures or "institutional isomorphisms," steer the organization to respond to legitimated forces, as isomorphisms are constraining processes that force one unit in a population to resemble other units that face the same set of environmental conditions (Hawley, 1968). As such, isomorphic pressures foster the homogenization of organizations as organizations adopt practices and procedures of peers (Meyer and Rowan, 1977).

In DiMaggio and Powell's (1983) landmark work on institutional theory, we see (a) organizations seek legitimacy within their environment and (b) isomorphic pressures lead to organizational change. Additionally, institutional processes are the social practices, obligations, or actualities that form socially acceptable rules within a particular environment (DiMaggio &

Powell, 1983). Based on this theory, one organizational lever influencing organizational decisions to adopt CCS is institutional pressure.

Over the years, additional institutional perspectives have emerged, explaining organizational behavior from different viewpoints (Amenta & Ramsey, 2010). For example, from the sociological perspective, organizations adapt as cultural mores and stories spread. From the historical perspective, organizations adapt to their environment based on time sequences. And lastly, from the political perspective, significant weighting is placed on the role of policies and the impact they have on the organizations that have to abide by them (Amenta & Ramsey, 2010). Greenwood and Hinings (1996) created a framework for understanding pressures shaping organizations highlighting. They offer unique insights on institutional changes within organizational fields, examining the incidence of radical change and the extent to which change is achieved (Greenwood & Hinings, 1996, p.1023).

In a newer study, Furusten (2013), categorized the institutional environments that shape organizational practice, with two levels— immediate environments and indirect environments. According to Furusten, the immediate environment "comprises the information, rules and services produced [by organizations]," whereas the indirect environment includes "conditions that can be linked to movements and social trends" (p.28). This is a helpful framework in examining the immediate environments of organizations, and the potential differences in institutional exchanges and products across organizational types with varied licensures and accreditations. Furusten's framework is captured in visual form, in Figure 2, below.
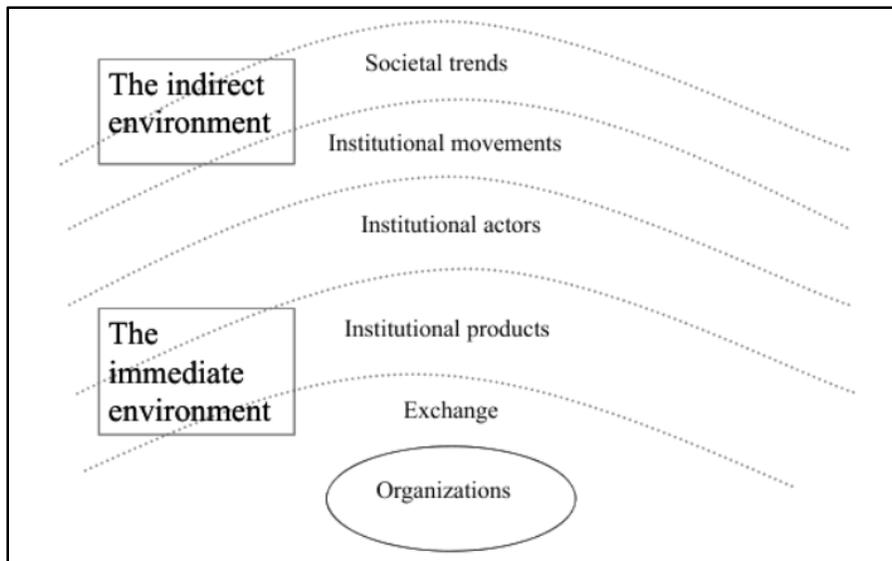
Figure 2. The Institutional Environment (Furusten, 2013, p. 30)

While the focus on ideas, beliefs, and values as the foundation for change is not unique to institutional theory, institutional theorists are distinct, because they stress ideational frameworks as originating outside of the organization (Greenwood & Hinings, 1996, p. 1026). As such, institutional arguments rely not on aggregations of individual action, or on patterned interactions games between individuals, but on "institutions that structure [organizational] action" (Amenta & Ramsey, 2010, p. 16). Actors simply constrain, or stymie their agendas in deference to the institutional goals and norms (Amenta & Ramsey, 2010).

In sum, "institutional theories of organizations provide a complex perspective of organizations" (Zucker, 1987) as they link organizations to the happenings in the world around them. Even with new scholarly contributions, at its core, institutionalism addresses the question about 'why organizations look alike.' The central idea is that governing rules and values within an environment or organizational field shape the behaviors of organizations, causing the organizations within the environment to look more similar than dissimilar. For this study,

institutional theory becomes an important framework for understanding how isomorphic pressures or variables like accrediting or licensing bodies influence CCS adoption by MH/SA organizations.

Normative and Coercive Isomorphic Pressures

Historically, normative pressures and coercive pressures have been shown to accelerate or impede organizational change (Meyer & Rowan, 1977). Normative dimensions "introduce prescriptive, evaluative, and obligatory dimensions into social life" (Scott & Davis, 2007), and in many cases, new practices and ideas, are transmitted through professions networks or professional standards (DiMaggio & Powell, 1986; Mizruchi & Fein, 1999; Powell et al., 2005). For example, professional networks hold significant power as socializers of values and worldviews that are diffused among actors through education and training opportunities (Roy & Seguin, 2000). And organizations operate under public norms which may mirror prevailing community interests which organizations adopt to increase their organizational legitimacy (DiMaggio & Powell, 1991),

Coercive pressures by definition are "formal and informal pressures exerted on organizations by other organizations upon which they are dependent" (DiMaggio & Powell 1983, p. 150). They are "regulative [demands]" emphasizing explicit formalized processes that govern organizational action i.e. policies and rules, monitoring and compliance, and sanctioning activities (Weech-Maldonado et al., 2012). Typically, authority is awarded to an external agency or entity to manage, instruct, or guide organizational behavior (Weech-Maldonado et al., 2012; Carman, 2009). Stated differently, coercive pressures in the environment compel organizations to conform to conventional standards and beliefs (Carman, 2009, p. 258).

Normative isomorphic pressures are described by some scholars as "best practices" or professional frameworks (Hasmath & Hsu, 2014; Cao, Li & Wang, 2014). Other researchers describe normative isomorphisms as shared procedural standards, or collective methods and routines, adopted by organizations (Alyahya, Hijazi & Harvey, 2018). Often, professional expectations are diffused and strengthened within professional fields through information exchange activities such as formal education, association participation, conference communication, and professional consultation (DiMaggio and Powell 1983; Cao, Li & Wang, 2014). Over the past decade, the Office of Minority Health have implemented numerous professional exchanges, recommended procedural standards and provided professional consultation to normalize culturally competent practice among healthcare organizations. More recently, with the launch of the "Think Cultural" initiative, the OMH has made strides to support the dissemination and practice of the enhanced CLAS standards.

Within the context of culturally competent services examined in this study, I argue that coercive pressures stem from industry associations and licensing from state agencies, as organizations must follow certain rules to maintain their credentials. On the other hand, normative pressures stem from the guidelines and professional recommendations outlined in the NCLAS Standards. Compared to coercive pressures, normative pressures generally influence organizational attitudes and behaviors in a much less compelling manner (Cao, Li, Wang, 2014). The Standards while important guidelines for culturally competent practice, are not strict regulations, so organizations may not be as compelled to follow their framework for service provision (NCLAS Standards Factsheet). In this study, three different variables are examined, as they capture different types of isomorphic pressures to which MH/SA organizations are responsive. These nuances are examined in more detail below.

Practical Isomorphism and Organizational Credentialing

Typically, accredited health providers and organizations in a region are considered to be more trustworthy and arguably have more credibility as a proven partner in care (Indian Health Service, 2016). According to the Department of Health and Humans Services in New Jersey, "accreditation is a private, voluntary function designed to promote recognition of program quality" (DHHS New Jersey). Stated differently, accreditation is an external pressure that can influence the internal operations of an organization (Morest, 2009).

As an external evaluation undertaken by a "designated authority" accreditation reviews set the stage for organizational change, as organizations engage in self-assessment, evaluation, dialogue and review recommendations (Greenfield et al., 2011). While accreditation is a voluntary process, maintaining accreditation requires organizations adhere to a set of professional or organizational standards specified by the accrediting body. For MH/SA organizations, accreditation from organizations like the National Committee for Quality Assurance (NCQA) and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), highlighted in the N-SSATS dataset, guide organizational processes. As such, I argue accreditation is a coercive isomorphic pressure.

Licensing, on the other hand, is "a legally mandated government function designed to ensure the protection of persons served by regulated programs" (DHHS New Jersey). Whereas organizational accreditation is awarded by regionally or nationally recognized accrediting agencies, licensing is typically managed at the state level (Chriqui et al., 2007). As such, licensing attends to issues of coercive pressures organizations respond to in their state. In the N-SSATS dataset, licensing and certifications are administered by a state substance abuse agency, state mental health department, state department of health, or a hospital licensing authority.

State authorizing agencies set the statewide standards for organizations in the MH/SA field. Because of this, state authorizers have the power to enforce loose or stringent standards in substance abuse treatment facilities (Chriqui et al., 2007; Rooney& Van Ostenberg, 1999). As such, they have significant authority to become powerful ''agents of change'' (Goldman et al. 2001) in their ability to implement rules and regulations that set the tone for CCS. So, licensing processes are also viewed as coercive pressures for substance abuse service providers.

Legitimizing forces i.e. accrediting and licensing bodies and policy boards significantly impact organizational practice (Guerrero, Marsh, Cao, Shin, & Andrews, 2014; Guerrero & Andrews, 2011). Institutional legitimizers organizations do have say and sway over organizational practice. Interestingly, in recent years, healthcare purchasing coalitions such as the National Business Group on Health become more active in informing their memberships about cultural competence and racial/ethnic disparities in healthcare. Accreditation agencies, including the National Committee for Quality Assurance (NCQA) and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), have also taken steps to track healthcare disparities and cultural competence (Betancourt et al., 2003; Tucker et al., 2015). Drawing from research theories and practical diffusion of cultural competent services by state agencies and accrediting bodies, I hypothesize the following:

H6 Organizations that are licensed by a hospital or state authority will offer more culturally competent services than non-licensed organizations

H7 Organizations that are accredited by CAHO/CARF/NCQA/COA/HFAP will offer more culturally competent services than non-accredited organizations

Practical Implications Isomorphism and CLAS Standards

As noted in chapter one, the National Culturally and Linguistically Appropriate Services (CLAS) Standards, "are a comprehensive series of guidelines that inform, guide, and facilitate practices related to culturally and linguistically appropriate health services" (NCLAS Standards Factsheet). The Office of Minority Health (OMH) compiled the Standards to articulate a consistent and comprehensive approach to cultural and linguistic competence for healthcare organizations (U.S. DHHS, 2001). The Standards have served as a catalyst for efforts to achieve health equity and improve care, by providing baseline operating procedures for healthcare organizations (Diamond, Wilson-Stronks, & Jacobs, 2010).

Berry-James (2012) notes that system and policy factors, such as Medicare, Medicaid, impact both "health disparities i.e. differences in prevalence, mortality and burden of disease between population groups and healthcare disparities i.e. differences in access, process and structure of healthcare among specific population groups" (p. 183). Because system and policy factors, impact population disparities, it is important to consider the impact of state-level CLAS guidelines on culturally competent service provision.

As previously referenced, normative pressures "introduce prescriptive, evaluative, and obligatory dimensions into social life" (Scott & Davis, 2007). The enhanced National CLAS Standards do not represent statutory requirements (U.S. DHHS, 2013), but they do represent professional standards and prescriptive behavior for MH/SA organizations wanting to be considered "culturally competent." As such, I argue that the CLAS Standards are important normative isomorphic pressures for behavioral health facilities in the United States.

The compendium published by the Department of Health and Human Services, spotlights actions undertaken by state government agencies focuses on cultural and linguistic policy

support (U.S. DHHS, 2016). Of the 32 states examined, only one (New Jersey), implemented or

engaged in state level action prior to 2004. Meaning between 2000 and 2004, state level action

around CCS, was simply not evident in state-level activities. Table 1, below, details the CLAS

state-level activity from 2001-2015.

Table 1. National CLAS Standards Implementation Activities

State CLAS Activity	Number of States
Strategic Plans	20
Partnerships Task Forces	18
Needs Assessments	14
Policies, Procedures and Regulations	9
Subtotal: Planning, Policies, Collaboration	29 States Represented
Training	22
Technical Assistance	7
Provides Grant Funding	5
Subtotal: Training and Technical Assistance	24 States Represented
Web Development	17
Reports/Toolkits	13
Newsletters/short pubs	9
Conferences/presentations	2
Videos/non-print media	1
Subtotal: Dissemination	24 States Represented

* The subtotal represents the unduplicated count of states for each category

Organizational environmental characteristics, policy events, and other peer group

pressures, are precursors to innovation and adoption decisions (Braun et al., 2007, Diamond,

Wilson-Stronks, & Jacobs, 2010). For this study, examining the adoption of National Culturally

and Linguistically Appropriate Services (CLAS) at the state-level, is an examination of how

normative isomorphic pressures affect culturally competent practices of behavioral health

organizations in different states. Based on the state-level CLAS standards and guidelines

outlined in the enhanced standards (Appendix A), I posit that:

H8 Organizations located in states that have adopted National CLAS standards, will offer more culturally competent services

Resource Dependence Theory

RDT's theoretical focus addresses organizational adaptations made for survival, based on resource needs and uncertainties. As key contributors to the RDT framework, Mindlin and Aldrich (1975) and Pfeffer and Salancik (2003), argue that organizations strive to reduce uncertainty, maintain autonomy, and secure resources needed to ensure organizational survival within an organizational environment. Essentially, "organizations build administration and governance to manage the power and demands associated with these dependencies" (Coupet, 2013, p. 256). As such, organizational behavior revolves around the organization's desire to temper resource scarcity by any means necessary.

Pfeffer and Salancik (2003), note that resource dependence theory (RDT) has two broad tenets: 1) organizations are constrained by, and depend on, other organizations that control critical resources, and to maintain autonomy, organizations attempt to manage their dependencies in external groupings and; 2) organizations are inescapably bound by the conditions of their environment. Effectiveness (i.e., an external standard of how well an organization is meeting the demands of groups and organizations concerned with its activities) is derived from the management of demands, especially demands from groups upon which the organization depends for resources and support.

Because of this, resource dependence theory complements the institutional perspective, in its focus on market pressures that impact power dynamics within an organizations and its broader environment (Greenwood & Hinings, 1996). Typically, several patterns of constraints, or

resource dependencies, exist within an organization. These dependencies are the drivers of change in organizational practice, because organizations remain hyper-responsive to marketplace forces (competition, availability of resources). Organizations make changes in their organizational structure to account for dependency shifts and changes within the environment (Greenwood & Hinings, 1996; Nemati et al., 2010).

Dependencies, whether monetary (i.e. funders) or advocacy based (i.e. local legislators), steer organizational decision-making. Within this framework, cultural competency development and adoption becomes a decisional point that is driven by the desire to erode dependencies and/or stabilize resources (Nemati et al., 2010; Pfeffer & Salancik, 2003). Because resources are the cache of each organization, resource holders have the capability to dictate the importance of prioritizing cultural competence as an organizational activity. Based on RDT, organizations dependent on resources will conceivably adapt their organizational practice to retain access to resources. For example, in their original form, the CLAS language mandates were linked to federal funding in the regulatory language of Title VI, of the Civil Rights Act of 1964, which "required that all entities receiving federal financial assistance, including healthcare organizations, take steps to ensure the limited English proficiency persons have meaningful access to the health services that they provide" (Berry-James, 2012, p. 187).

One mechanism utilized to reduce dependencies is revenue diversification. In general, revenue diversification is viewed as a positive organizational strategy as it mitigates the effect of dependency constraints. Organizations manage dependence in part by "diversifying resource streams to diminish both the concentration of power and organizational volatility associated with any single resource relationship" (Coupet, 2013, p. 356; Kingma, 1993). Revenue diversification is especially lauded by nonprofit organizations (Tuckman & Chang, 1991; Powell & Colyvas,

2008). But while revenue diversification decreases resource dependence, it also blurs the distinctions between nonprofits and other sectors, especially with the rise of joint ventures between nonprofits and for-profit entities, and hybrid organizations like social enterprises (Froelich, 1999; Kerlin, 2006; Allen, 2014). Compounding resource dependency effects is the instability in the economy, which leaves fewer resources and produces uncertainty about future acquisitions (Barman, 2008; Froelich, 1999; Keating et al., 2005).

Resources are counted as organizational inputs, and thus are a critical component of an organization's lifecycle (Carman, 2009). In the N-SSATS survey, organizations are asked to supply information on various forms of payments they accept (i.e. self-payment, private insurance, Medicare and Medicaid). Organizations are also asked to disclose whether they receive funding from local, state or federal sources. However, while the survey captures revenue streams and types of funding, one limitation is that the dataset includes no tallies of dollars or budgetary information tied to those sources.

Practical Implications of Resource Dependence

According to Pfeffer and Salancik (2003), perceived vulnerability is defined as an organization's belief of the magnitude of its dependence on external resources and influences required to conduct its operations. And according to Carroll and Stater (2009), perceived revenue diversification is "a prudent revenue generation strategy to minimize the volatility of revenue portfolios managed by nonprofit [and arguably all types of] organizations" (p. 949). As such, organizations with low levels of perceived vulnerability, will likely expend more resources to serve a broader audience, due to lower levels of perceived vulnerability.

But since most research around the concepts of perceived vulnerability and revenue diversification is grounded in nonprofit scholarship, it's difficult to say what the effects of multiple streams of revenue will have on for-profit and public agencies. Additionally, it is unknown whether MH/SA providers will count CCS gaps as a vital deficiency that must be addressed with resources available.

Chang and Tuckman (1994), Froelich (1999) and Frumkin and Keating (2002), are a few scholars who have examined the relationship between revenue diversification and perceived vulnerability. They found that nonprofits with several revenue sources had lower levels of perceived vulnerability, as funding sources were viewed as interchangeable or replaceable (Allen et al., 2014). However, these studies included some examination of the organizational budget, a variable not included on the N-SSATS instrument. With the absence of budget information, and the inability to measure financial resources against revenue streams, I argue that multiple revenue streams will have an effect on CCS adoption, but I am unsure of the direction of the relationship. As such, I posit that:

> **H9** Multiple revenue streams and culturally competent service will be significantly
> related.

Contingency Theory

To answer the third research question about the impacts of environmental characteristics on CCS adoption by MH/SA organizations, I use contingency theory. The contingency perspective depicts organizational change as a function of organization-environment fit, i.e. organizations morph until they find the best fit to accommodate shifts in their external environment. Put another way, "organizations change over time due to changes in their

contingencies" (Donaldson, 2006, p. 37). So finding a best fit creates alignment between internal structures and external conditions (Bradshaw, 2009).

Traditional discussions of fit have emphasized the matching of organizations to a particular context variable (Ansari, Fiss & Zajac, 2010). Drazin and Van de Ven's (1985) article on "forms of fit" challenged scholars to move away from normative definitions of "fit," because within the contingency framework, simple organizations can become more complex organizational structures, as they reconcile internal and external factors. The goal of this change cycle (Figure 4), also known as the structural adaptation to regain fit (SARFIT) model, is to enhance organizational performance.
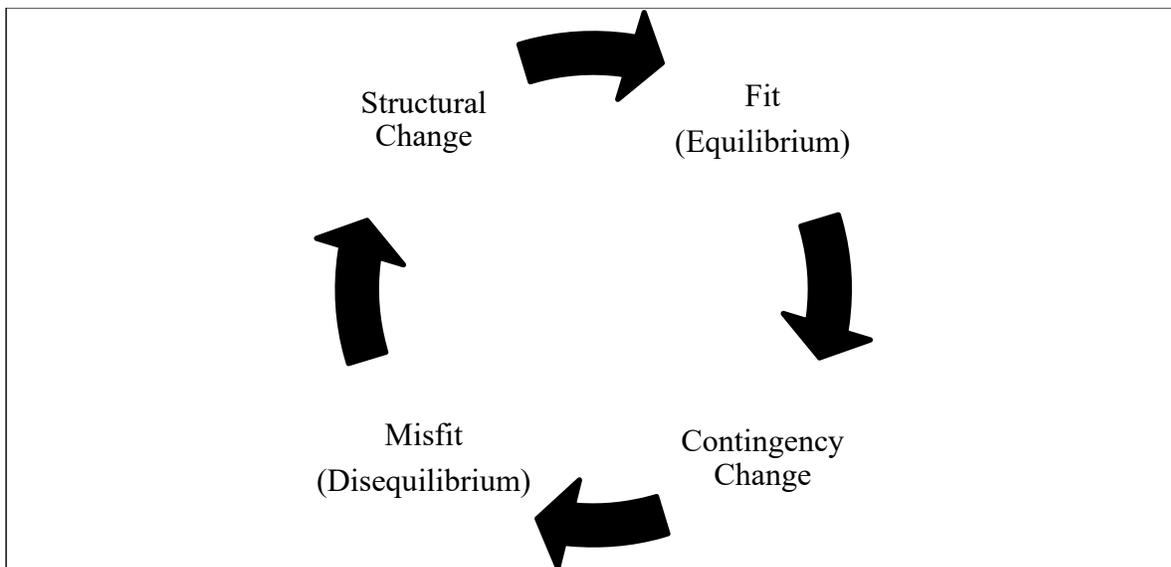
Figure 4. Contingency Theory Change Cycle (Adapted from Donaldson, 2006)

One set of "supply-side" factors or characteristics that impact organizational functioning are community demographics (Ansari et al., 2010). As such, examining community demographics becomes an important characteristic within the structural contingency framework.

My study focuses on examining demographics within a region and the changes in organizational practice of cohorted groups of organizations.

Contingency theory provides a complementary perspective to the three other theories referenced. Contingency theory touches on aspects of different theories: the organizational structure of Weberian bureaucracy, the organizational performance ideals of Taylorism, and other classical theories and some extant neo-classical theories, since individually these theories organizational behavior (Drazin & Van de Ven, 1985).

What makes contingency theory different is that organizational form and fit will always depend on context, defined as a "characteristic of the organization's culture, environment, technology size or task" (Drazin & Van de Ven's, 1985, p. 515). Or stated differently, the organization responds to its environment, so that the environment can absorb the outputs it produces (Hatch, 2018). Per this definition, demographic shifts are considered a characteristic of the organization's environment. Because of this, organizations that change based on ecology are doing so to optimize their environmental changes to enhance performance metrics, reach or visibility in the community.

When demography emerges in social science research, it is generally focused on local demographic definitions and organized communities (Arum, 2000, p.396). As such, MH/SA organizations located within a particular region will likely respond to demographic changes in their region, to account for cultural shifts within their contexts. The levels of analysis for this study pertaining to place/regional boundaries are Northeast, Southeast, Midwest, etc., as well as state level geography. As stated in chapter one, to remain culturally competent and relevant, organizations that provide MH/SA services must adapt their service options and programs in response to a community's needs (Hernandez et al., 2009).

Practical Implications of Contingency Theory

Within a management system, contingency planning involves anticipating possible problems or changes that may occur in the environment, and remaining flexible to adapt to significant (subjective to the organization), contextual changes. "As such, one of the first steps to take in moving toward cultural competence in a public [or private] agency…is to make public services programming and public services delivery visible and accessible by translating program materials and providing the program in the primary client's language" (Rice & Matthews, 2012). This sentiment holds true for MH/SA services provided in private settings as well.

Community conditions or norms within communities may influence organizational practice within local communities. Smith (2008) examined a community in New York state, known for resettling refugees successfully, raising questions about the relationships between socioeconomic environments, social norms, and organizational structures and the success of resettling refugees over a 15-year time period. A summary of the findings reads:

"Evidence of host community adaptation at the organizational level in terms of behavioral flexibility and perseverance tended to cluster according to the aspect of refugee resettlement needs in question. For the areas of education and healthcare, there was considerable evidence for adaptation in procedures, staffing, and use of other resources. In contrast, for the areas of housing and employment there was little evidence of adaptation of procedures or staffing, but ample evidence of the use of other resources such as more patience in applying standard procedures and utilizing natural social support networks." (Smith, 2008, p.333)

Smith (2008) acknowledges with refugee dynamics and community demography shifting, organizations made an effort to modify services. One of the primary ecological factors for the

resettlement needs of housing and employment was local population from the 1980s through the 1990s (Smith, 2008). Additionally, according to a number of empirical studies, demographic characteristics within a region can have a significant effect on the adoption of organizational practices (Strang & Soule, 1998). This study provides the basis for my final hypothesis.

H10 Organizations located in more diverse demographic regions, will offer more culturally competent services

The ten hypotheses address different perspectives from which to examine the pressure points associated with organizational adaption to advancements in programming in the MH/SA field. As stated previously, cultural competency is generally looked at as an individual-level construct, but the key contribution of this study is the examination of CCS at the organizational level, through descriptive and predictive analyses. To that point, chapter three dives into the methodology of this study i.e. the research design, a description of the N-SSATS dataset, and the operationalization of the variables of interest.

CHAPTER THREE

Chapter three describes the research design, data sources, and methodological approach. This chapter lays the groundwork for empirical analyses, linking the theories discussed in the literature review, the analytical approaches selected, and a discussion of how the variables are operationalized.

The environments of mental health and substance abuse treatment facilities contain, at varying levels, institutional features associated with dimensions theorized in research models. Hypotheses 1-8 and 10 are concerned with organizational factors that influence CCS adoption. Whereas hypotheses 9 and 11 address the environmental influences on culturally competent service provision. Before I examine the method and analytical framework used to test the hypotheses, a complete list of the research questions and hypotheses below.

RQ 1 What are the drivers of cultural competence in organizational settings?

RQ 2 What are the organizational characteristics that lead to the adoption of culturally competent programs and services?

RQ 3 What are the environmental characteristics that promote culturally competent programs and services?

H1 Private for-profit organizations will offer fewer culturally competent services than government or private nonprofit organizations.

H2 Government organizations will offer more culturally competent services than private nonprofit organizations and private for-profit organizations.

H3 Private nonprofit organizations will offer more culturally competent services than private for-profit organizations.

H4 Organizations that accept Medicaid will offer more targeted services for cultural groups than organizations that do not accept Medicaid

H5 Organizations that accept Medicare will offer more targeted services for cultural groups than organizations that do not accept Medicare

H6 Organizations that are licensed by a hospital or state authority will offer more culturally competent services than non-licensed organizations

H7 Organizations that are accredited by CAHO/CARF/NCQA/COA/HFAP will offer more culturally competent services than non-accredited organizations

H8 Organizations located in states that have adopted National CLAS standards, will offer more culturally competent services

H9 Multiple revenue streams and culturally competent service will be significantly related

H10 Organizations located in more diverse demographic regions, will offer more culturally competent services

Research Design

The quantitative design for this study is critical for examining the descriptive and relationship-based research questions. When the goal of the research is to determine associations, directionality of relationships between variables, and predictive factors, quantitative research designs are the best fit. Each of the variables included in the study are theory driven and are based on the empirical studies previously cited.

The goal of the study is to analyze and understand the effects of different organizational and environmental factors on the cultural competency of behavioral health organizations. As such, this study includes a mix of quantitative analyses- correlation matrices and multiple

regression analyses, to examine relationships between variables and test the overall fit of models/test individual predictors of culturally competent practice.

In the previous chapter, I posited a series of hypotheses based on publicness, institutional, resource dependence and contingency theories. In this chapter, I detail the methodology, to examine the eleven hypotheses posited. But, before I dive into variable discussion, I provide a description of the publicly available datasets I merged for my study- N-SSATS, American Community Survey and NCLAS database.

Data for the Study

National Survey of Substance Abuse Treatment Services

In the interest of examining national data, and analyzing culturally competent services of organizations across different sectors, I elected to use secondary data for this study. The National Survey of Substance Abuse Treatment Services (N-SSATS) public data, has been collected since the mid-nineties, and data files are available for the years between 1997 and 2015. The N-SSATS data is maintained by the Office of Applied Studies, housed in the Substance Abuse and Mental Health Services Administration (SAMHSA). The N-SSATS is designed to collect data on the location, characteristics, services offered, and number of clients in treatment at alcohol and drug abuse facilities (both public and private) throughout the 50 States, the District of Columbia, and other U.S. jurisdictions.

N-SSATS is designed to collect information from all facilities in the United States, both public and private, that provide substance abuse treatment. The responses given allow for research on the dynamic characteristics and configurations of behavioral health providers across

the United States. Some of the objectives of N-SSATS are to collect multipurpose data that can be used to:

- assist SAMHSA and State and local governments in assessing the nature and extent of services provided in State-supported and other treatment facilities and in forecasting treatment resource requirements;

- analyze general treatment services trends and conduct comparative analyses for the nation, regions, and States; generate the National Directory of Drug and Alcohol Abuse Treatment Programs, a compendium of facilities approved by State substance abuse agencies for the provision of substance abuse treatment; and update the information in SAMHSA's Substance Abuse Treatment Facility Locator, a searchable database of facilities approved by State substance abuse agencies for the provision of substance abuse

For the 2015 N-SSATS questionnaire, there were 17,669 facilities in the survey universe. Of these facilities, 12 percent were found to be ineligible for the survey because they had closed or did not provide MH/SA services. Of the remaining 15,537 facilities, 14,234 facilities (92 percent) completed the survey and 13,873 (89 percent) were eligible for the codebook analysis. For the 2010 N-SSATS questionnaire, there were **17,204** facilities in the survey universe. Of these facilities, 10.5 percent were found to be ineligible for the survey because they had either closed or did not provide MH/SA services. Of the remaining 15,390 facilities, 14,060 facilities (90 percent) completed the survey and 13,339 (86.7 percent) were included in the data file.

Limitations of the N-SSATS

According to SAHMSA, specific technical concerns and data limitations must be taken into account when interpreting N-SSATS data. Limitations that could affect the data integrity of this study are outlined below.

- N-SSATS attempts to obtain responses from all known treatment facilities, but it is a voluntary survey. There is no adjustment for the approximately 4 percent of facility non-response.

- Multiple responses were allowed for certain variables (e.g., services provided and specialized programs). Tabulations of these variables include the total number of facilities reporting each response.

The American Community Survey

I use data from the American Community Survey (ACS), a large nationally representative sample of households in the United States, to examine demographic variables that may influence specialized services offered. The American Community Survey (ACS) is an ongoing survey that provides vital information on a yearly basis about the United States and its people. The (ACS) helps local officials, community leaders, and businesses understand the changes taking place in their communities. It is the premier source for detailed population and housing information about our nation (The ACS, 2018).

Questions for the ACS have been remained steady since 2009, and most ACS developments since 2009 have been new combinations of variables/tables rather than substantive changes in the questions. One area of concern, is the margins of error as the geographic region

localizes. But since this study is using data at the state level, margins of error are minimized (Hayslett, personal interview, September, 2017).

The Culturally and Linguistically Appropriate Services

Lastly, variables of interest for this study are pulled from the compendium published by the U.S. Department of Health and Human Services in 2016. The compendium underscores actions taken by state government agencies to adopt and implement Culturally and Linguistically Appropriate Services standards (U.S. DHHS, 2016). National CLAS Standards implementation activities were identified through an environmental scan, conducted in late 2014 and early 2015, of resources available through major article databases and grey literature presented on the internet.

The DHHS team completing this assessment collected data through a "low-touch" methodology, whereby information was derived solely from a search of resources available through major article databases and "grey literature," available online. Grey literature consists of *"documents produced at all levels of government, academics, business and industry in print and electronic formats that are protected by intellectual property rights, of sufficient quality to be collected and preserved by libraries and institutional repositories, but not controlled by commercial publishers"* (Libguides, 2016). The search was conducted in late 2014 and early 2015 (U.S. DHHS, 2016). Since this compendium is a report on state-sponsored CLAS activities, state actions related to CLAS implementation is publicly available.

The DHHS compendium is the final data source used for this study. The sections below detail the variables included in the quantitative models. The chapter concludes with a description of the analysis used.

Selection of Variables for Analysis

Dimensions of cultural competence are the dependent variables of interest in this study. Since culture is used in a myriad of ways, so bounding its meaning for this study is important. One way I examine culture is as a group-level phenomenon that influences individuals' perceptions, values, and behavior (Maznevski, Gomez, DiStefano, Noorderhaven, & Wu, 2002). Borrowing from Cross's (1988) definition of culture as "the integrated pattern of human behavior that includes thought, communication, actions, customs, beliefs, values and institutions of racial, ethnic, religion or social group" (p.1)— "social groups" is the operative word. As such, the expectation is that people from different cultures respond to and are receptive to different treatment modalities. The question is not whether organizational cultural competence, is good or bad, but one of how well organizations cater to diverse cultures, with differentiated needs, over time.

This study's primary dependent variable (organizational cultural competence) is operationalized in two ways— services offered in multiple languages and special programs for vulnerable populations. These cultural groups with group identifiers have shared understandings within their social environments that members use to distinguish behaviors and values that are acceptable (Triandis, 2001; Nelson, Brunel, Supphellen, & Manchanda, 2006).

One prominent organizational cultural competence assessment published by the U.S. DHHS (2001), outlines "specific arenas for evidence of cultural competence" (p. 4). These are the critical arenas or spheres in which cultural competence should be evident or manifest in an organization. The assessment lists seven domains of competence, namely (1) organizational values, (2) governance, (3) planning and monitoring/evaluation, (4) communication, (5) staff development, (6) organizational infrastructure, and (7) services and interventions.

These seven domains are modelled in Figure 5. Based on the domain descriptions, several dimensions are linked to variables in this study. The fourth domain, "communication" is defined as "universal language access and linguistically competent service provided" and relates to the language dependent variables. The sixth domain "organizational infrastructure" is defined as "the organizational resources required to deliver or facilitate delivery of culturally competent services." Or stated differently, organizational infrastructure, is the "overall budgetary allocation and investment in cultural competence activities" (U.S. DHHS, 2001 p. 13) and relates to the inclusion of several financial measures used in the models. And the seventh domain "services and interventions" is defined as the "facilitation of clinical, public health, and health related services in a culturally competent manner" (U.S. DHHS, 2001, p. 5). The services and interventions dimension connect to the "special programs" facilities provide to veterans, LGBTQ communities and seniors.

Support for developing cultural competence in systems of care at the organizational level has steadily grown (Hernandez & Isaacs, 1998; Hernandez & Nesman, 2006; Betancourt, Green, Carillo & Owusu et al., 2016). As noted by Harper and colleagues (2006), there are several issues confounded with competent care, namely issues of access and availability of services tailored to different groups and the opportunity for equitable outcomes. As such, models will include variables related to demographics, languages spoken in the household and poverty indicators. Lastly, other scholars that use the N-SSATS dataset and examined program-level and environmental-level predictors of organizational behavior, typically included ownership, accreditation, licensing and payment for services variables (Terplan, Longinaker & Appel, 2015; Heinrich & Cummings, 2014; Terry-McElrath, Chriqui, McBride, 2011).

DOMAINS

"What are the critical areas in which cultural competence should be evident?"

- Organizational Values
- Governance
- Planning & Monitoring/ Evaluation
- Communication
- Staff Development
- Organizational Infrastructure
- Services/ Interventions

FOCUS AREAS

"What particular areas should be examined for evidence of cultural competence?"

Areas of Evidence within Domains

- Structure
- Process
- Output

INDICATORS

"What specific evidence should be monitored and assessed?"

- Organizational Perspective Intermediate Outcomes
- Client Perspective Intermediate Outcomes
- Community Perspective Intermediate Outcomes

Figure 5. An Organizational Cultural Competence Assessment Profile (U.S. DHHS, 2001)

Three N-SSATS studies, also guided the selection of the predictor variables used in this study. First, Terry-McElrath, Chriqui and McBride's (2011) study which examined program-level and state-level factors related to Medicaid payment acceptance at outpatient substance abuse treatment programs. Secondly, Heinrich and Cumming's (2014) study which examined adoption and diffusion of evidence-based addiction medications in substance abuse treatment, and the various organizational, environmental and policy factors that influence adoption. And lastly, Terplan, Longinaker and Appel's (2015) article examining women-centered drug treatment services in the United States that includes a mix of organizational and environmental influences in a bivariate analysis. Benchmarking against these studies in which the researchers used the N-SSATS survey to test models and examine service provision towards various populations, was an essential part of my research process.

A summary table of this study's dependent and independent variables are listed in Table 2. And a detailed description of each variable is included in the sections that follow. Publicly available N-SSATS datasets do not include unique identifiers for individual facilities, so it is not possible to track individual facilities across time. This study only includes an analysis of culturally competent services for 2010 and 2015, in order to measure change (if any) in services offered pre- and post- ACA implementation.

Table 2. Summary of Variables

Dependent	Independent Variables	Control Variables
Multilingual Services	ownership (organizational type)	geographic stratification
Special Programs	revenue streams: Medicare, Medicaid, private insurance etc.	treatment modality
	licensing	
	Accreditation	
	CLAS standards (state policy)	
	population characteristics	

Dependent Variable: Multilingual Services

According to U.S. Census Bureau statistics, approximately 12% of the U.S. population is foreign-born, and three out of four individuals who are foreign born have immigrated to the U.S. since 1980 (Larsen, 2004). Along with cultural and environmental stressors, foreign-born nationals typically encounter significant challenges accessing appropriate MH/SA care due to language barriers" (Rusch & Atkins, 2015, p. 2).

In a medical study by Fernandez, Schillinger, Grumbach, Rosenthal et al. (2004), language was used as proxy for practitioner competency noting that greater language fluency was strongly associated with optimal interpersonal processes of care and practitioner responsiveness to patients' problems and concerns (Fernandez et al., 2004). Weech-Maldonado et al. (2012) examine CCS practices among hospitals that provide MH/SA services, and use language access as a metric for cultural competence. Hernandez et al. (2009) argue that culturally competent systems of care promote accessibility, when organizations ensure that services and materials are presented in the languages used by the community.

Based on these studies, I measure language offerings as a metric of cultural competence. All language survey items are coded as binary variables, with 1 equating to "Yes" and 0 equating to "No." Respondents were not given the option of other responses i.e. "Don't Know" and "Refused" included in other survey items. Less than one percent of responses for each language indicator were reported as missing.

Table 3. Language Indicators in N-SSATS Dataset

Survey Question/Variable Name	Response Type
LANG Does this facility provide substance abuse treatment services in a language other than English at this location?	Yes/No
SIGNLANG Does this facility provide substance abuse treatment services in sign language (for example, American Sign Language, Signed English, or Cued Speech) for the hearing impaired at this location?	Yes/No

Dependent Variable: Special Programs and Services

Culturally tailored programs have been linked to improved behavioral health outcomes for clients (Matthews et al., 2013). And some scholars operationalize customized approaches to treatment as a measure of cultural competence at the organization- level (Horevitz, et al., 2013).

The N-SSATS survey captures different populations of individuals that access treatment including vulnerable groups that have typically been disenfranchised. One metric of the CLAS standards is that staff provide care in a manner compatible with their cultural health beliefs and practices. Matthews et al. (2013), discuss the benefits of smoking cessation programming targeted for LGBTQ populations. In another study examining patient disparities in healthcare

organizations, provider cultural competence was linked to improved quality of care and lower

disparities for racial minorities and individuals with HIV (Saha et al., 2013). So, including

special programs targeted at different cultural groups, as measures of CCS adoption, is following

this research trend.

Table 4 (below) details the special programs captured in the N-SSATS survey. All special

programs indicators are coded as binary variables, with 1 equating to "Yes" and 0 equating to

"No." Respondents were given the option of one additional response type i.e. "Don't Know."

Less than one percent of facilities gave this response in each of these categories. Less than one

percent of data was missing for each of the special programs and services variables. To examine

the amount of special services offered by MH/SA organizations, I create a new additive index, or

composite variable, from this list of special programs variables.

Table 4. Special Programs and Services Indicators

Special Programs	Response Type
SRVC Indicate whether this facility offers a specially designed substance abuse treatment program or group exclusively for that type of client at this location. SRVC63 Specific program/group for seniors SRVC62 Specific program/group for lesbian/gay/bisexual/trans/quest SRVC113 Specific program/group for veterans	Yes/No

Independent Variable: Organizational Type

In the N-SSATS dataset, "ownership" is a proxy for organizational type. It is treated as a categorical variable with six levels referenced in Table 5. As noted in the discussion on "publicness" in Chapter 2, organization typology can have a significant effect on organizational programming. The first set of hypotheses in this study address the potential differences in services based on sector affiliation, based on differentiated sector goals and motivations.

For this variable, facility respondents were asked to classify their organization by organizational field captured in Table 5. According to Publicness Theory, workforce sector tends to influence language, standards, and principles of management adopted (Gilbert & Glinow, 2015; Anderson, 2014). Similar to credentialing isomorphic pressures, organizational typologies provide constraints and pressures that may lead to homogenization within organizational type (Gilbert & Glinow, 2015).

From an empirical standpoint, numerous studies have examined the relationship between organizational type and program deliverables. In a recent study by O'Neil, Beauvais, and Scholl, (2013), the authors examine the role of organizational structure on organizational behaviors. They conclude that organizational type, plays a role in the strategic activities an organization takes on. Ashworth et al. (2009) assess compliance and convergence within organizational fields; they posit that public organizations usually grow to look like. Additionally, in numerous publicness studies, authors cite that public organizations struggle with goal ambiguity on important characteristics of organizations. This influences structural dimensions, attitudes, behaviors, and organizational outcomes in public organizations, making them different from private business and nonprofit organizations (Linder & Foss, 2018; Hillman, Tandberg, & Fryar,

2015; Pitts, Hicklin, Hawes, Melton, et al., 2010; Chun & Rainey, 2005). In sum, numerous

empirical studies show that organizational type or sector affects organizational behavior.

Table 5. Organizational Ownership

N-SSATS Survey Question/Variable Name	Response Type

OWNERSHP
 	
Is this facility operated by:
  1. Private for-profit organization
  2. Private non-profit organization
  3. State government
  4. Local, country or community government
  5. Tribal government
  6. Federal government
	Categorical Classification

Independent Variables: Organizational Credentialing

In multiple studies, scholars examine institutional pressures, by measuring the impact of

organizational credentialing. Organizational credentialing represent, coercive, normative and

mimetic isomorphic pressures, and have been linked to organizational homogenization (Pitts,

Hicklin, Hawes, Melton, et al., 2010; Heinrich & Fournier, 2004; Rowan & Miskel, 1999).

Hanson (2001), in particular, found that isomorphic pressures, in this case, accreditation, court

decisions, teacher training programs, influenced public schools in one region of the country, to

act like schools in other regions. At the individual level, professional associations and

credentialing organizations have been used as measures of isomorphic pressures. Professional

associations have been shown to affect practitioner behavior (Factor, Oliver & Stecklov, 2012;

Gilbert & Von Glinow, 2015).

Based on these studies, I measure isomorphism using two variables denoting organizational credentialing- licensure and accreditation. Organizational licensure and accreditation are coded as binary variables, with 1 equating to "Yes" and 0 equating to "No." The two dichotomous credentialing variables are included to examine the effects of institutional isomorphic pressures on culturally competent service provision by behavioral health organizations.

Table 6. Credentialing

N-SSATS Survey Question/Variable Name	Response Type
LICEN Does this facility or program have licensing, certification, or accreditation from: state substance abuse agency, state mental health department, state department of health, or hospital licensing authority?	Yes/No
ACCRED Does this facility or program have licensing, certification, or accreditation from: The Joint Commission, CARF, NCQA, or COA?	Yes/No

Independent Variable: State NCLAS Standards

In May 2013 the Enhanced CLAS Standards were published, entitled "National Standards for Culturally and Linguistically Appropriate Services in Health and Health Care: A Blueprint for Advancing and Sustaining CLAS Policy and Practice" (HHS, 2013). The updated standards were intended to bridge understanding about the Standards by explaining them more clearly. The updated standards also reflect health changes and are more closely aligned with other initiatives such as the Affordable Care Act (ACA) and the work of the Joint Commission.

The 2013 standards reference both health and health care organizations and acknowledge those working in health care, public health, behavioral health, human/social services, and

community health. As discussed in chapter two, 32 states have adopted the "enhanced National CLAS standards which promote CCS practices among behavioral health organizations (HHS, 2013). The compendium includes 32 states and describes a total of 172 activities that meet inclusion activity standards. It shows a significant number of states are actively implementing CLAS Standards and, most notably, the integration of the Standards into their strategic plans. The new compendium includes a Tracking CLAS tool that identifies what states and other agencies are doing to provide culturally and linguistically appropriate services to the communities they serve.

System and governance factors, such as Medicare and Medicaid affect both health and healthcare disparities for vulnerable populations (Berry-James, 2012). As such re-commitments are needed to the value of social equity (Berry-James, 2015). However, effecting change in disease rates, access, and treatment has to be addressed at a policy level in communities, because system and policy factors, are significant institutional pressures that impact population disparities. And health care policies, such as the Affordable Care Act, have helped to highlight the importance of cultural and linguistic competency as part of high quality health care and services (NCLAS Standards Factsheet).

The compendium describes state-level action related to NCLAS adoption. Based on state activity, responses to NCLAS adoption by state are coded as "1— Yes" and states in which no action has taken place are coded as "0— No." Creating this variable, by merging the compendium data with the N-SSATS and ACS datasets, using the FIPS codes for individual states, ensures I can account for the role of state-supported cultural and linguistic guidelines on culturally competent service provision, as an environmental predictor. I will be able to measure the effect of NCLAS state adoption has on organizational cultural competency.

Independent Variable: Revenue Stream

For this study, revenue streams are counted as measures of organizational resources. Maintaining a diversity of revenue sources, is typically a prudent revenue generation strategy that helps minimize the volatility of revenue portfolios, and perceived vulnerability (Carroll & Stater, 2008, p. 949). A few studies where resources are operationalized as revenue streams include:

Blum, Davis and Roman (2013) operationalize resources as funding streams. They argue that funding patterns affect innovation adoption, "with greater adoption associated with higher proportions of earned income from third party fees for services, and less adoption associated with funding from criminal justice sources" (p. 37). Moulton and Eckerd (2012) examine different sources of funding as resources that drive nonprofits to adopt different types of roles (advocate, innovation, service provider etc.). Found particular dependence on public support– plays an important preservation role in the nonprofit sector. Kerlin and Pollak (2011) operationalize resources as revenue streams. In their study, Kerlin and Pollack use RDT to examine if nonprofits with different revenue streams- commercial, grant and private contributions- replace government grants with commercial revenue, over time. Table 7 is a breakdown of the resources/funding streams measured in the N-SSATS survey.

Table 7. Revenue Sources

N-SSATS Survey Question/Variable Name	Response Type
Which of the following types of client payments or insurance are accepted by this facility for substance abuse treatment? REVCHK1 Accepts cash or self-payment REVCHK2 Accepts private health insurance REVCHK5 Accepts Medicaid payments REVCHK8 Accepts Medicare payments REVCHK10 Accepts State Financed Health Insurance	Yes/No

Independent Variables: Population Characteristics

According to SAMHSA (2016b), "to produce positive change, prevention practitioners must understand the cultural context of their target community, and have the willingness and skills to work within this context." Controlling for the influence geographic locations, and differences in MH/SA serve provision, has long been a hallmark of behavioral health research (Rieckmann et al., 2016; Friedmann, Alexander, & D'Aunno, 1999; Alegría et al., 2016; Alonso et al., 2004). Due to the influence of racial/ethnic and language stratification, geographic demography invariably impacts culturally competent service provision (Alegría et al., 2016). As such state demographics are included as a control variable in the regression models.

Data on racial/ethnic changes, and foreign-born residents/languages represented in the state is extracted from the 2010 and 2015 American Community Survey. For organizations located in the same states, facing similar demographic compositional factors, there may be organizational heterogeneity within organizations, because of demographic contingency factors (Donaldson, 2006; Van de Ven et al., 2013). New variables are created to capture state total populations, Hispanic residents in a state and poverty levels at the state level.

Table 8. Population Characteristics

ACS Survey Question/Variable Name	Response Type
Percent of population that is Hispanic in the state	Continuous
Percent of population for whom poverty status is determined: Income in the past 12 months is below poverty level in the state	

Control Variables: Geographic Stratification

Geographic variables are frequently used as control variables in N-SSATS research studies Terplan, Longinaker and Appel (2015), Bachhuber, Southern, and Cunningham (2014), Heinrich and Cummings (2014), and Terry-McElrath, Chriqui, McBride (2011). Due to the potential influence of regional characteristics and values, on organizational decision making in this study, I control for state population and regional census divisions. While the N-SSATS survey captures locations of facilities at the city and state level, SAMHSA only publishes state-level information for the location of these facilities.

Since the N-SSATS instrument does not allow for county-specific estimation, state is the first possible stratification level, and used in similar studies (Terplan, Longinaker & Appel, 2015). For this study, the N-SSATS variable "State Population" is used to control for the effect of state size. Additionally, to control for the regional characteristics related to CCS adoption, a new variable, Census Regions is created. This variable divides the U.S.-based facilities into larger areas. The regions and affiliated states are listed below:

The Northeast includes: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

The Midwest consists of Ohio, Michigan, Indiana, Wisconsin, Illinois, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.

The South, has more states than any other region, including: Delaware, Maryland, Virginia, West Virginia, Kentucky, North Carolina, South Carolina, Tennessee, Georgia, Florida, Alabama, Mississippi, Arkansas, Louisiana, Texas, and Oklahoma.

The West consists of Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, California, Oregon, Washington, Alaska, and Hawaii.

Table 9. Geographic Stratification

ACS Survey Question/Variable Name	Response Type
Census Region Region 1- Northeast Region 2- Midwest Region 3- South Region 4- West	Categorical Classification
Total population in the state	Continuous

Control Variables: Treatment Modality

The relationship between treatment modality and organizational outcomes has received greater attention in recent years (Schmit, 2016; Ginieri-Coccossis, 2008; Schultz, Remick-Barlow, & Robbins, 2007), particularly in N-SSATS studies (Terplan, Longinaker & Appel 2015; Bachhuber, Southern, & Cunningham, 2014; Heinrich and Cummings, 2014; and Terry-McElrath, Chriqui, & McBride, 2011). Treatment modality has also been linked to variance in cost structures, caps on clients served and turnover in staff in behavioral health organizations (Knudsen, Ducharme, & Roman, 2009; Eby, Burk, & Maher, 2010; French, Popovici, & Tapsell, 2008). These organizational shifts have an important impact on CCS sustainability, thus making modality an important control variable. As such, treatment modality i.e. whether the facility is

an inpatient, outpatient or hospital-based program, are the final set of control variables used in this study.

Table 10. Treatment Modality

ACS Survey Question/Variable Name	Response Type
Hospital inpatient substance abuse services Residential (non-hospital) substance abuse services Outpatient substance abuse services	Yes/No

Analytic Approach and Data Analysis

In SAMHSA's public data files, organizations do not have a unique identifier that is repeated in each survey iteration. According to Dr. Cathie Alderks (2018), SAMHSA wants to protect the confidentiality of the organizations participating in the study. As such, limited organization-specific information is disseminated to the public. For example, organizational client counts, county/city location, and staff counts are not made available for public consumption but they are pieces of information collected by the Department. A request to access more granular, organizational level data, for this study, was denied.

As previously stated, the goal of this study is to analyze the relationships between organizational and environmental characteristics and culturally competent services offered by MH/SA organizations. Specifically, the study examines the influence of internal and external factors on the "amount" of culturally competent services offered by different treatment centers. As such, a new variable is computed to tally how many services are offered by each facility. The new variable is an index of four binary variables from the N-SSATS dataset:

1) Services offered in Sign Language
2) Services offered in language other than English

3) Specific program for clients part of the LGBT community
4) Specific program for seniors

One thing to note is data from SAMHSA is not cohorted even though the same organizations are invited to complete the N-SSATS survey each year. So, a cross-sectional analysis will be conducted, in the absence of panel data. Survey responses from 2010 and 2015 N-SSATS were selected for analysis, to model change (if any) pre- and post-implementation of the Affordable Care Act— implementation of different aspects of the policy were implemented between 2011 and 2015. The Affordable Care Act, adopted in 2010, was expected to trigger an increase in overall funding for substance abuse services, particularly a greater expansion of Medicaid coverage for MH/SA services (Buck, 2011). Additionally, scholars and service providers expected to see changes in the types and characteristics of service providers, and state administration of these services (Buck, 2011).

Poisson, Negative Binomial or Zero-Inflated Regression Models

When modeling count data, i.e. where the dependent variable is non-negative and integer-valued, such as the number of fish caught at a lake, the number of services offered by a health center or the number of accidents in a city, Poisson Regression has become a common approach used by researchers (Hoffman, 2016; Smith, Preisser, Neelon & Maciejewski, 2014). As such, Poisson Regression (PR), Negative Binomial Regression (NBR) and Zero-Inflated Negative Binomial Regression (ZINBR) were all considered for modeling the relationship between the predictor variables and the outcome variable- number of culturally competent services offered. With Poisson Regression, one critical assumption is that the variance equals the mean (Hoffman, 2016; Smith et al., 2014). If this assumption is violated, due to overdispersion or

underdispersion, then other Poisson analyses need to be considered— Negative Binomial

Regressions or Zero-Inflated Models.

The variability in Poisson models is useful for examining models where different

assumptions hold true. Negative binomial regression is used for analyzing data when there is an

overdispersed outcome variable i.e. when the variance is larger than the mean (Hoffman, 2016;

Smith et al., 2014). Zero-inflated negative binomial regression is for modeling count variables

with excessive zeros and is also for models with over dispersed count dependent variables (Smith

et al., 2014. To account for the potential excess of zeros in the dependent variable, with

organizations that do not offer any of the services included in the cultural competency count

variable, a zero-inflated analysis will be considered for analysis.

Of note, there is some contention about whether or not Poisson models should only be

used with count variables that have a potentially infinite value e.g. traffic accidents in a city, or

traffic stops in a county etc. However, based on recent publications in Public Administration

journals, this assumption is not practiced across all disciplines. For example, in a study

examining active representation of women in U.S. bureaucracies, the authors examine counts of

women-friendly policies that have been adopted by a municipality ranging from (0-13) and use

negative binomial regression (Meier & Funk, 2017). Another study published in the International

Public Management Journal, examined the perceptions of managers responding to a list of

benefits gleaned from public-private partnerships (Brogaard, 2018).

Traditional OLS regression was not considered for modeling the relationships between

the independent and dependent variables. This is because OLS assumes a symmetric distribution

of errors, and a test of normality for the dependent variable in both years, highlights this

assumption is not met (in addition to other OLS assumptions). The results of the Test for

Normality are included in Chapter Four. Also, as described by Hoffman (2016), count data often violates at least three key assumptions of OLS regression: 1) possible values only consist of whole numbers; 2) negative counts do not exist; and 3) count data often include a substantial number of cases equaling zero of the dependent variable.

In sum, this study will test the effect of two levels of influence on culturally competent service provision: organizational and environmental factors. Organizational characteristics are operationalized through the use of the following variables: program offerings, organizational ownership (government, nonprofit, for-profit), accepted revenue sources, treatment modality, licensure and accreditation. Environmental factors are operationalized through the following indicators: total population, racial demography, poverty statistics, NCLAS policies and census region. Various Poisson models will be tested in the analysis phase and reviewed in chapter four, to ensure the conditions described above are met. Additionally, chapter four contains a complete list of variables (and their codes), and an overview of descriptive statistics of the variables introduced in this chapter.

CHAPTER FOUR

"Health and healthcare disparities occur across a broad range of cultural dimensions. For example, disparities exist across socioeconomic status, language, gender, disability status, citizenship status, and sexual identity and orientation" (Kaiser Family Foundation, 2018). Organizational cultural competence, a practice by which organizations identify and react to the needs of culturally diverse populations, has become a widely supported approach to decrease the negative health consequences associated with culturally incompetent care (Guerrero, 2010). So, the goal of this study is to answer three questions: 1) what are the drivers of cultural competence in organizational settings? 2) What are the organizational characteristics that lead to the adoption of culturally competent programs and services?; and 3) What are the environmental characteristics that promote culturally competent programs and services?

These questions and the theories of Publicness, Institutional, Resource Dependence and Contingency, provide the framework to examine the impact of internal and external influences on CCS and service provision. As noted in chapter three, two years of data are included in the analysis (2010 and 2015), to measure organizational behavior pre-and post-Affordable Care Act implementation. Of note, the policy effect is not measured directly through the survey instruments and is not included in my hypotheses. But I do measure the change in cultural competent service offerings at the different time points. A table with merged data from both years, and a new dummy variable for Year, is included in Chapter Five as a proxy variable to account for the effects of the ACA implementation over time. Appendix B provides an overview of all the dependent, independent and control variables examined used in this study.

Descriptive Statistics: Dependent Variables

In Table 11, the CCS_Count variable, which is a tally of culturally competent services provided, changed between years. In 2010 46% of organizations did not offer a single culturally competent service examined in this study, but this number dropped to 38% in 2015. Again in 2010, 29% of organizations offered just one of the culturally competent services included in the index variable, while in 2015, 24% of behavioral health organizations provided at least one of the culturally competent services. In 2010, 22% of organizations offered two of the four services examined in this study, but in 2015, nearly a third (28%) of organizations offered two of four services. Finally in 2010, less than five percent of organizations offered three or four specialized services for the cultural groups being examined, while in 2015, ten percent of organizations offered three or four culturally competent services.

We also see the proportions of program-related culturally competent services offered by MH/SA organizations changed over the years. In 2010, only 42% of organizations reported offering services in language other than English and about 46% of organizations reported doing the same in 2015. And fewer organizations offered services in Sign Language in 2010, compared to 2015. Appreciable change is seen in the number of organizations that offered special program for LGBT clients and seniors. In 2010, only 6% of organizations offered programming for the LGBT community, while in 2015, nearly 17% of organizations had established some form of LGBT programming. In 2010, seven percent of organizations offered special services for seniors, but in 2015 this number jumped to 19% — meaning more organizations implemented a special service for seniors. Programming for veterans was not measured in 2010, but in 2015 seventeen percent of organizations had established some form of programming for veterans.

Table 11. Descriptive Statistics for Dependent Variables

Variable	2010			2015		
	Min	Max	% (No.)	Min	Max	% (No.)
Dependent Variables						
CCS_Count						
0 CC services provided	—	—	46% (6111)	—	—	38% (5205)
1 CC service provided	—	—	29% (3776)	—	—	24% (3307)
2 CC services provided	—	—	22% (2859)	—	—	28% (3899)
3 CC services provided	—	—	3% (336)	—	—	7% (902)
4 CC services provided	—	—	>1% (84)	—	—	3% (395)
Services in language other than English	0	1	42% (5499)	0	1	46% (6325)
Services in Sign Language	0	1	28% (3671)	0	1	30% (4176)
Program for LGBT clients	0	1	6% (784)	0	1	17% (2356)
Program for seniors	0	1	7% (885)	0	1	19% (2541)
Program for veterans[a]	—	—	—	0	1	17% (2353)
N= Valid Cases			*13,166*			*13,708*

    a.   Specific program or group for veterans was not a survey item in the 2010 questionnaire

Descriptive Statistics: Independent Variables

A compilation of the predictor variables for this study are found in Table 12. Predictors include: characteristics of MH/SA organizations and the community demographics of where these organizations are located. The data for Table 12 is collated from two sources; 1) the N-SSATS survey responses, and 2) state level demographic data from the American Community Survey (ACS).

To begin the analysis, an independent-samples t-test was conducted to compare changes in means between 2010 and 2015 for the predictor variables (Garson, 2012). The results show that there is statistically significant change in means between 2010 and 2015, for all the variables in Table 12, with the exception of Census Regions, Hospital Inpatient and Outpatient. An

asterisk symbol beside the variable name denotes a significant statistical change is observed. The complete independent-samples t-test table is provided in Appendix E.

Based on Table 12, little proportionate change is observed in the means of the predictor variables between 2010 and 2015, as most variables increased by a few percentage points between 2010 and 2015. Some variables saw a decrease between the years, namely: the number of government and private-nonprofit organizations; NCLAS implementation, cash or self-payment as a revenue source; hospital inpatient programs and nonhospital residential facilities.

The two variables with the largest change, with upward ticks, are Medicaid (5% change) and Accreditation (4% change). Fewer organizations reported accepting Medicaid as a revenue source in 2010, in comparison to 2015. Similarly, fewer organizations reported being accredited by an external accrediting body, the Joint Commission Association and Health Organization, Commission on Accreditation of Rehabilitation Facilities, National Committee for Quality Assurance, or Council on Accreditation, in 2010, when compared to 2015. The rationale behind these changes are examined in more depth below.

Concerning the change in the acceptance rates of Medicaid, one potential reason for this is the introduction of the Affordable Care Act (ACA). The ACA dramatically expanded health insurance for addiction treatment in the United States (Andrews, Abraham, Grogan & Pollack, et al., 2015). In 2014, substance use treatment became an Essential Health Benefit (EHB) under the Patient Protection and Affordable Care Act. An EHB is a required set of health care services that every insurance plan sold in the Health Insurance Marketplace must cover (Andrews et al., 2015). Medicaid has become the largest payer of substance abuse disorder treatment, and with the EHB designation, Medicaid acceptance by programs has increased as more states have adopted Medicaid policies allowing substance abuse treatment coverage since the ACA was

enacted (Guerrero, Garner, Cook, Kong et al. 2017, Terry-McElrath, Chriqui, McBride, 2011). There is no unique proxy or indicator to measure the ACA a variable in this study, so time as operationalized by a new "Year" variable is added to Table 21 in Chapter Five, and is the final Negative Binomial Regression computed using a merged dataset from both years, to control the effects of time (and ACA rollout).

The other variable with an appreciable change is organizational accreditation by one of the major healthcare accrediting organizations, Joint Commission Association and Health Organization, Commission on Accreditation of Rehabilitation Facilities, National Committee for Quality Assurance, or Council on Accreditation. In 2010, 43% of organizations were accredited by one of the national accrediting agencies, while in 2015, an average of 47% of organizations report being accredited by one of these agencies. This change appears to be due to an increase in the number of organizations seeking healthcare accreditation as highlighted in Figures 6 and 7 below. They provide a tally of organizations accredited by each body— Figures 6 and 7 are images from the N-SSATS annual reports. An increase is observed in the number of organizations seeking CARF accreditation. While an additional accrediting body was added to the 2015 survey i.e. Healthcare Facilities Accreditation Program (HFAP), and organizations had a larger pool of accreditation agencies to choose from, "HFAP did not add significantly to the responses" (Alderks, 2018).

Facility licensing, certification, or accreditation, by facility operation and primary focus of facility: 2010
Number

							Licensing, certification, or accreditation organization					
mary focus				Number of facilities [1]								
	Total	Any listed agency/ organization	State substance abuse agency	State mental health dept.	State department of health	Hospital licensing authority	Joint Commis-sion [2]	CARF [2]	NCQA [2]	COA [2]	Other State/ local agency/ organization
Total	13,339	12,612	10,924	4,712	5,519	949	2,556	2,909	371	664	1,075

Figure 6. Facility Accreditation 2010

Table 4.15a. Facility licensing, certification, or accreditation, by facility operation: Number, 2015

				Number of facilities [1]								
					Licensing, certification, or accreditation organization							
	Total	Any listed agency/ organization	State substance abuse agency	State mental health department	State department of health	Hospital licensing authority	Joint Commis-sion	CARF	NCQA	COA	HFAP	Other national organization or federal/state/ local agency
otal	13,873	12,936	10,943	5,380	6,222	909	2,512	3,680	365	695	131	656

Figure 7. Facility Accreditation in 2015

The last variable with a noticeable change between years is the combined revenue regressor. This variable is a count of revenue sources accepted by organizations surveyed. In 2010, 20% of organizations had only one source of funding, but this number dropped to 16% in 2015. Conversely, in 2010, 18% of organizations reported having four sources of revenue they accepted, whereas in 2015, 22% of organizations reported having four sources of revenue they accepted. These statistics highlight that organizations are looking to diversify their funding base, and accepting additional forms of payment. This finding is supported by newer researcher in the behavioral health field that "deteriorating economic conditions may increase financial pressures on treatment providers, prompting them to seek new sources of revenue" (Cantor, Stoller & Saloner, 2017).

With the mix of dependent variables and independent variables included in Tables 12 and 13, several analytical approaches were considered for this study. The section that follows delves into the process of elimination used to settle on the correct analytic approach to test the hypotheses and answer the research questions posed.

Table 12. Descriptive Statistics for Independent Variables

Variable	2010			2015		
	Min	Max	Sum % (No.)	Min	Max	Sum % (No.)
Ownership: Government*	0	1	11% (1448)	0	1	10% (1344)
Ownership: Private non-profit*	0	1	58% (7557)	0	1	56% (7479)
Ownership: Private for-profit*	0	1	31% (3974)	0	1	34% (4631)
Revenue_Combined						
0 Revenue Sources	—	—	5% (568)	—	—	5% (606)
1 Revenue Source	—	—	20% (2370)	—	—	16% (1961)
2 Revenue Sources	—	—	20% (2385)	—	—	19% (2416)
3 Revenue Sources	—	—	17% (2024)	—	—	16% (2042)
4 Revenue Sources	—	—	18% (2217)	—	—	22% (2771)
5 Revenue Sources	—	—	20% (2335)	—	—	22% (2779)
Revenue: Cash or self-payment*	0	1	92%(11958)	0	1	91%(12329)
Revenue: Private health insurance*	0	1	66% (8438)	0	1	69% (9335)
Revenue: Medicaid payments*	0	1	57% (7286)	0	1	63% (8547)
Revenue: Medicare payments*	0	1	34% (4293)	0	1	35% (4670)
Revenue: State financed health insurance*	0	1	42% (5129)	0	1	48% (6266)
Licensed (State Hospital/Authority)*	0	1	91%(11970)	0	1	92%(12196)
Accredited (JCAHO/CARF/NQC/COA)*	0	1	43% (5679)	0	1	47% (6492)
NCLAS Implementation*	0	1	78%(10326)	0	1	78%(10535)
Percent Hispanic*	1%	46%	201,320	1%	48%	215,151
	9,692	14,089,411	39,093,220,184	10,422	15,184,545	39,912,612,662
Percent Below Poverty*	8%	22%	196,401	8%	22%	196,866
	61,577	5,783,043	24,788,538,362	61,314	5,891,678	24,143,779,812
State Population*	564,460	37,349,363	164,554,029,630	586,107	39,144,818	166,106,055,689
Census Region: West	0	1	28% (3729)	0	1	27% (3734)
Census Region: South	0	1	28% (3634)	0	1	29% (4010)
Census Region: Midwest	0	1	24% (3112)	0	1	24% (3280)
Census Region: Northeast	0	1	20% (2696)	0	1	20% (2694)
Hospital Inpatient	0	1	6% (734)	0	1	5% (706)
Non-Hospital Residential*	0	1	25% (3323)	0	1	24% (3286)
Outpatient	0	1	81%(10707)	0	1	82%(11274)

* denotes a statistically significant change in means between 2010 and 2015

Modeling Change in Culturally Competent Service Provision

      Negative Binomial Regression (NBR) is determined to be the optimal approach to examine the effects of organizational and environmental factors, on culturally competent service offerings. Below, I discuss the analyses performed that led to the selection of NBR as the analytic approach, by providing a summary of the output for each of the analyses performed i.e. normality testing, Poisson Regression, Negative Binomial Regression and Zero-Inflated Negative Binomial Regression. I also offer the rationale as to why the correlational analyses were not appropriate for these data.

OLS Regression

      As discussed in Chapter Three, I created a new index variable combining the four culturally competent service variables included in the 2010 and 2015 N-SSATS datasets—services offered in language other than English, services offered in Sign Language, specially designed program for LGBT clients and specially designed program for seniors. The new variable was named CCS_Count. Since this variable could be considered continuous, one assumption of OLS is met. However, to select OLS as the analytic approach, other assumptions need to be met.

      A normality test on the new outcome variable was performed to determine whether it is normally distributed, a key assumption of OLS Regression, as non-normality can produce statistically inaccurate results (Garson, 2012). The results of the normality tests for 2010 and 2015 are shown in Table 13. The normality tests indicate that OLS is not the appropriate analytic approach for these data, as both tests have a p-value less than 0.05. The Kolmogorov-Smirnov Test (K-S test) result is statistically significant, so we can assume the cultural competence

outcome variable is statistically different from a normal distribution, and is not normally distributed. Given the results of the normality test, I progressed to another analytic approach— Poisson Regression— as it is appropriate for count data.

Table 13. Tests of Normality

	2010			2015		
	Kolmogorov-Smirnov[a]			Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.	Statistic	df	Sig.
CCS_Count	0.28	13166	.00	.23	13708	.00

a.Lilliefors Significance Correction

Poisson Regression

Poisson regression is one member of the analytic family known as the generalized linear model (Coxe, West & Aiken, 2009). "The Poisson family of regression models provides improved and easier to implement analyses of count data, where count data reflects the number of occurrences of a behavior in a fixed period of time…Poisson regression is an important alternative to OLS regression because when the mean of the outcome variable is low, OLS regression produces undesirable results including biased standard errors and significance" (Coxe, West & Aiken, 2009, p.121).

One critical assumption of Poisson Regression is that the variance equals the mean (Hoffman, 2016; Smith et al., 2014). The Poisson model assumes that the Dependent Variable's conditional mean and variance are equal, i.e. the model assumes equidispersion. The condition in which the variance is larger than the mean in a dependent variable is known as overdispersion (Coxe, West & Aiken, 2009, p.130), and is a violation of a key assumption of Poisson. So, in

order to determine if a Poisson model fits this data, the deviance, in the goodness of fit statistics are examined and provided in Table 14.

Table 14. Poisson Regression Goodness of Fit Count of Dependent Variable

YEAR		Models with Separate Revenue Sources			Models with Combined Revenue Sources		
		Value	df	Value/df	Value	Df	Value/df
2010	Deviance	12520.639	11709	1.069	12576.933	11713	1.074
	Scaled Deviance	12520.639	11709		12576.933	11713	
	Pearson Chi-Square	11084.623	11709	.947	11096.984	11713	.947
	Scaled Pearson Chi-Square	11084.623	11709		11096.984	11713	
	Log Likelihood[b]	-13574.829			-13602.976		
	Akaike's Information Criterion (AIC)	27189.657			27237.952		
	Finite Sample Corrected AIC (AICC)	27189.729			27237.998		
	Bayesian Information Criterion (BIC)	27337.054			27355.869		
	Consistent AIC (CAIC)	27357.054			27371.869		
2015	Deviance	10638.434	9076	1.172	10684.714	9080	1.177
	Scaled Deviance	10638.434	9076		10684.714	9080	
	Pearson Chi-Square	8941.053	9076	.985	8977.345	9080	.989
	Scaled Pearson Chi-Square	8941.053	9076		8977.345	9080	
	Log Likelihood[b]	-12401.801			-12424.941		
	Akaike's Information Criterion (AIC)	24843.603			24881.883		
	Finite Sample Corrected AIC (AICC)	24843.696			24881.943		
	Bayesian Information Criterion (BIC)	24985.915			24995.732		
	Consistent AIC (CAIC)	25005.915			25011.732		

As seen in Table 14, the deviance is greater than 1, indicating overdispersion of the dependent variable, which violates one core assumption of Poisson Regression, as the counts of the mean and the counts of the variance are not equal. Since the data is overdispersed, it can yield inaccurate inferences concerning the regression parameters, so alternate strategies for modeling the data need to be considered. As such the rationales for utilizing other Poisson family members— Negative Binomial Regression (NBR) and Zero-Inflated Negative Binomial Regression (ZINBR) — are provided in the sections below.

Other Poisson Regression Models

In cases where overdispersion has been identified, researchers recommend modeling the data using analytical approaches that accommodate overdispersion such as NBR. In cases where excess zeros are also present, the ZINBR model is a recommended alternative (Hoffman, 2016; Smith et al., 2014). A review of the outcome variable statistics, shows that in 2010, 46% of organizations did not offer one of the four culturally competent services incorporated in the CCS_Count variable, and in 2015, that number dropped to 38% of organizations (Table 11).

Given the excess number of zeros present in the CCS_Count variable, NBR and ZINBR models were selected for the next set of analyses. The first set of Poisson models using the NBR approach included both combined and separate revenue sources, and yielded similar coefficients. The second set of Poisson models using the ZINBR approach would not converge in the Stata application. But, with a forced conversion, I noticed the ZINBR coefficients were very similar to the NBR regression coefficients, and so the NBR was reasoned to be the appropriate analytical approach for this study.

There is also a theoretical rationale for selecting NBR instead of ZINBR to analyze these data. Scholars recommend using a Zero-Inflated Negative Binomial Regression (ZINBR), for models with an excess of zeros. However, ZINBR assumes that the zeros come from two sources: 1) sampling (those that occur by random) and; 2) structural (those that occur through systematic error) (Smith et al., 2014). However, the zeros from this study do not occur by random i.e. each facility in the study elects to provide certain services. And there is no evidence of systematic error. Given these research justifications, NBR is selected as the final analytic approach for this study. The goodness of fit statistics and omnibus test for the NBR models are included in Appendix C. The likelihood ratio chi square test is significant, indicating that there is

a significant improvement in fit over a null model. The results from the NBR parameter

estimates are presented in Table 15. The hypotheses are reviewed after Table 15.

Table 15. Negative Binomial Regression (NBR)

Parameter	2010 Model Separate Revenue Sources IRR*(SE)*	2015 Model Separate Revenue Sources IRR*(SE)*	2010 Model Combined Revenue Sources IRR*(SE)*	2015 Model Combined Revenue Sources IRR*(SE)*
Predictor Variables				
Ownership				
Government	1.315***(.052)	1.205**(.056)	1.356***(.050)	1.239*** (.055)
Nonprofit	1.257***(.035)	1.186*** (.035)	1.298***(.034)	1.219*** (.034)
For-Profit	—	—	—	—
Accepts Revenue				
Cash or self-payment	1.244***(.060)	1.156*(.061)	—	—
Private health insurance	.996(.036)	1.008(.039)	—	—
Medicaid	1.338***(.037)	1.225*** (.039)	—	—
Medicare	1.192***(.035)	1.258*** (.035)	—	—
State financed health insurance	1.127***(.034)	1.079* (.035)	—	—
Revenue Combined	—	—	1.159***(.011)	1.134*** (.011)
Institutional Pressures				
Licensed by external agency	1.322***(.058)	1.256***(.063)	1.348***(.057)	1.267*** (.061)
Accredited by external agency	1.144***(.030)	1.135***(.032)	1.151***(.030)	1.133*** (.032)
NCLAS implementation	1.058 (.039)	1.040 (.038)	1.055(.039)	1.041 (.038)
Population Characteristics				
Percent Hispanic	1.006*(.002)	1.005*(.002)	1.006*(.002)	1.005* (.002)
Percent below poverty	1.030***(.007)	1.014* (.007)	1.031***(.007)	1.017* (.007)
Control Variables				
Geographic Stratification				
State population	1.000(2.1532E-9)	1.000(2.2099E-9)	1.000 (2.1464E-9)	1.000(2.1927E-9)
West	1.143**(.049)	1.076(.051)	1.105*(.049)	1.058 (.050)
South	1.047(.050)	1.055(.048)	1.017 (.050)	1.042 (.048)
Midwest	1.071(.0481)	.974(.046)	1.041 (.046)	.957 (.046)
Northeast	—	—	—	—
Treatment Modality				
Hospital inpatient	1.341*** (.062)	1.248***(.063)	1.317*** (.061)	1.261***(.062)
Non-hospital residential	1.061 (.045)	1.036 (.048)	1.029(.045)	.999 (.047)
Outpatient substance	1.240*** (.052)	1.126* (.055)	1.228*** (.051)	1.112* (.054)
N	11729	9096	11729	9096
(Scale)	1[b]	1[b]	1[b]	1[b]
(Negative binomial)	1[b]	1[b]	1[b]	1[b]

*≤ 0.05, ** P ≤ 0.01, *** P ≤ 0.001

Hypotheses One to Three: Publicness Theory and Organizational Type

Based on the core approach to publicness theory, important differences exist between public and private organizations. Publicness theorists argue that there are fundamental differences between public, nonprofit and for-profit organizations, stemming from different economic and political motivations, which lead to variations in performance, management, and structure (Heinrich and Fournier, 2004).

The results from Table 16 show some differences in the count of culturally competent services that for-profit, nonprofit and government organizations provided in 2010 and 2015. Of note, in both 2010 and 2015, for-profit organizations had the largest proportion of zero services offered (56% and 46% respectively), indicating many for-profit organizations elect not to provide specialized services to their clients. When the count of services increased to one, the ownership effect was weakened, and we see the proportions become equitable across ownerships types. Some force is driving facilities to provide at least one culturally competent service, regardless of organizational category. The sharpest difference is observed when the count of culturally competent services increases to two. The nonprofit and government percentage of two-services offered is nearly double the rate of for-profit organizations in the year 2010. This gap decreases in 2015, but a larger percentage of government and nonprofit organizations still elect to offer two culturally competent services. The percentage of facilities that provide three and four specialized services is mirrored between the three ownership types. Of note, Table 16 shows that more organizations in 2015 are offering one or more culturally competent services, than they did in 2010.

Table 16. Cross tabulations CCS_ Count and Ownership

				For-Profit, Nonprofit and Government (local, state, federal)			
				For-Profit	Nonprofit	Government	Total
2010	CCS_Count	0	Count	2206 (55.5)	3175 (42.0)	614 (42.4)	5995 (46.2)
		1	Count	1139 (28.7)	2187(29.0)	392 (27.1)	3718 (28.7)
		2	Count	482 (12.1)	1958 (25.9)	405 (28.0)	2845 (21.9)
		3	Count	115 (2.9)	188 (2.5)	30 (2.1)	333 (2.6)
		4	Count	32 (0.8)	45 (0.6)	6 (0.4)	83 (0.6)
	Total		Count	3974 (100)	7553 (100)	1447 (100)	12974 (100)
2015	CCS_Count	0	Count	2117 (45.7)	2516 (33.7)	438 (32.6)	5071 (37.7)
		1	Count	1127 (24.4)	1826 (24.4)	296 (22.0)	3249 (24.2)
		2	Count	954 (20.6)	2392 (32.0)	498 (37.1)	3844 (28.6)
		3	Count	334 (7.2)	493 (6.6)	61 (4.5)	888 (6.6)
		4	Count	96 (2.1)	246 (3.3)	50 (3.7)	392 (2.9)
	Total		Count	4628 (100)	7473 (100)	1343 (100)	13444 (100)

Table 17 below shows that the Chi-Square test is significant for both years (p = .000), which means there is a significant difference in the organizational groups and their provision of culturally competent services. As substantiated by the literature, there are distinct differences in the culturally competent services offered by government, non-profit and for-profit organizations.

Table 17. Chi-Square Tests

YEAR		Value	df	Asymptotic Significance (2-sided)
2010	Pearson Chi-Square	368.340[a]	8	.000
	Likelihood Ratio	393.840	8	.000
	Linear-by-Linear Association	172.830	1	.000
	N of Valid Cases	12974		
2015	Pearson Chi-Square	320.128[b]	8	.000
	Likelihood Ratio	325.817	8	.000
	Linear-by-Linear Association	152.127	1	.000
	N of Valid Cases	13444		

H1 Private for-profit organizations will offer fewer culturally competent services than government or private nonprofit organizations.

In the NBR model, being a government entity or a nonprofit organization is positive and significant at the .001 level, when compared to for-profit agencies. The NBR results highlight that both government and private nonprofit organizations are likely to offer more culturally competent services than for-profit organizations, when controlling for the other variables in the model. In sum, the results indicate that ownership does have a significant effect on the number of culturally competent services organizations provide. The first hypotheses is supported.

H2 Government organizations will offer more culturally competent services than private nonprofit organizations and private for-profit organizations.

The relationship between government organizations and for-profit organizations is modeled in Table 15, where for-profits are the reference group for the ownership variable. Based on the NBR analysis, when for-profit organizations are the reference category, government organizations are likely to offer more culturally competent services, holding all other variables

constant. These findings are true for both years, with both separate and combined revenue sources modeled in the analyses.

To examine the relationship between government and nonprofit organizations, I ran a new NBR model, switching the reference category of the ownership variable to government organizations. A snapshot of the results of this NBR are found in Table 18. The coefficients indicate that nonprofits are not statistically different than government organizations in their provision of culturally competent services.

Based on data in Table 15 and Table 18, hypothesis two is partially supported. Government agencies are likely to offer more culturally competent services than for-profit organizations. However, there is no significant difference in culturally competent service offerings between government and nonprofit organizations, so the first part of the hypothesis is not supported. Since both government and nonprofit organizations aspire to achieve some kind of public benefit (Margiono, Zolin & Chang, 2015), it is conceivable they would exhibit similar behaviors.

Table 18. Snapshot of New NBR Models with Government as Reference Category

Parameter	2010 Model Separate Revenue Sources OR*(SE)*	2015 Model Separate Revenue Sources OR*(SE)*	2010 Model Combined Revenue Sources OR*(SE)*	2015 Model Combined Revenue Sources OR*(SE)*
Predictor Variable Ownership				
For-Profit	.761***(.052)	.830***(.056)	.738***(.050)	.807***(.055)
Nonprofit	.956(.035)	.985(.052)	.958***(.034)	.987(.052)
Government	—	—	—	—

*≤ 0.05, ** P ≤ 0.01, *** P ≤ 0.001

H3 Private nonprofit organizations will offer more culturally competent services than private for-profit organizations.

Lastly, the NBR results in Table 15, show that nonprofit organizations are significantly likely to offer more culturally competent services, than private for-profit organizations, when all other predictors are held constant. So, hypothesis three is supported with these data. Rainey et al. (1976) theorized that because public and for-profit organizations diverge in their internal structures and processes, environmental influences, and organization-environment transactions, their organizational outputs will vary (Rainey, Backoff & Levine, 1976; Goldstein & Naor, 2005; Merritt, 2014). In this model, nonprofits act more similarly to government organizations, whose behavior is driven by community forces. This explains some of the differences observed in culturally competent services offered by nonprofits versus for-profit organizations whose behavior is dictated by market forces (Walker & Bozeman, 2011; Nutt & Backoff, 1993)

Hypotheses Four and Five: Publicness Theory and Public Funding

'Empirical publicness' explains organizational behavior based on their mix of political and economic authority. From this perspective, publicness is governed by a variety of dimensions (e.g., resource publicness, personnel publicness) that affect organization behaviors and outcomes (Bozeman & Moulton, 2011, p. i364). Scholars identify that public or more public organizations strive for equity, "understood as rights-based, system-wide availability and accessibility" (Khoo, 2013, p.4) – and since public funding sources are disseminated based on accessibility principles, organizations that accept these sources of funding are believed to have a greater degree of publicness.

Because of this, sources of funding such as Medicaid and Medicare are often used as proxies or indicators of publicness (Merritt, 2014). As such, per hypotheses four and five, it is

anticipated that organizations that accept public funding for payment of services, will adopt more culturally competent practices.

H4 Organizations that accept Medicaid will offer more targeted services for cultural groups than organizations that do not accept Medicaid

H5 Organizations that accept Medicare will offer more targeted services for cultural groups than organizations that do not accept Medicare

Hypotheses four and five are supported by the results in the NBR model. Table 15 shows that both Medicaid and Medicare are positive and significant predictors of culturally competent service provision in both 2010 and 2015, when holding other predictors in the model constant. Stated differently, organizations that accept these forms of government-sponsored funds, are likely to provide more targeted services for diverse cultural groups, when all other predictors are held constant— a finding mirrored in other N-SSATS studies (Terplan, Longinaker & Appel, 2015; Cohn, Stanton, Elmasry, Ehlke & Niaura, 2016; Brown, Vartivarian & Alderks, 2011). From a publicness perspective these value-laden public purse strings (Aulich, 2011; Anderson & Whitford, 2016), dictate organizational behavior that lead to services that improve access and equity for diverse groups.

Hypotheses Six to Eight: Institutional Theory and Isomorphic Pressures

Studies have shown that organizational accreditation and licensure impact MH/SA organizational practice, especially decisions to provide ancillary services (Guerrero, Marsh, Cao, Shin, & Andrews, 2014; Guerrero & Andrews, 2011). As such, the first and second hypotheses based on institutional theory assumptions, address the impact of coercive isomorphic pressures on culturally competent service provision.

As noted in chapter 2, coercive isomorphisms compel organizations to conform to particular standards (Carman, 2009, p. 258). As such, both accreditation and licensure are considered forms of coercive pressures. Of note, accreditation is a voluntary process that is why only 43% of organizations received accreditation in 2010, and 47% of organizations were accredited by National Committee for Quality Assurance (NCQA) and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), in 2015. Conversely, most states have laws that require MH/SA organizations to submit to a state-sanctioned accreditation process. As such, 91% of facilities reported being were licensed by a state authority in 2010, and 92% reported being licensed by a state entity in 2015. The number of organizations that are licensed by a state authority is markedly different than organizations accredited by an external agency because most states implement and maintain systems to ensure compliance with state regulations and statutes related to facility licensure (Chriqui et al., 2007).

H6 Organizations that are licensed by a hospital or state authority will offer more culturally competent services than non-licensed organizations

H7 Organizations that are accredited by CAHO/CARF/NCQA/COA/HFAP will offer more culturally competent services than non-accredited organizations

Reviewing results from Table 15, we can see that both licensure and accreditation are positive and significant predictors of culturally competent service provision, when other predictors are held constant. It appears that organizations that are licensed by a state entity or accredited by an external accrediting body, are likely to provide more culturally competent services, than non-licensed or non-accredited agencies, holding other variables constant. Hypotheses six and seven are supported by the data in this study, and it appears coercive

isomorphism provides some explanatory power as to why behavioral health organizations elect to provide culturally competent services. These hypotheses draw from institutional theory, addressing the coercive isomorphic pressures that organizations abide by, to "fit in" with behavioral health peers and retain their external validity and accreditation (Hasmath & Hsu, 2014; Cao, Li & Wang, 2014).

H8 Organizations located in states that have adopted National CLAS standards, will offer more culturally competent services

This is the first hypothesis that is not supported by the results in Table 15. NCLAS Implementation was not a significant predictor of CCS provision in any of the four NBR models examined, when other predictors are held constant. Given that the Standards are guidelines and are not enforceable by law, the normative pressures from state efforts to promote the CLAS standards seem to have a lesser effect on organizational decisions to provide culturally competent services. As such, hypothesis eight is not supported by the results from the NBR analysis.

The CLAS Standards represent normative pressures as they are organizational guidelines that the Office of Minority Health intimates may be interpreted and applied differently by behavioral health organizations (NCLAS Standards Factsheet). Unlike credentialing requirements which come with external authoritative pressures from accreditation bodies and state entities, the CLAS Standards are more of normative suggestions and as such, are less compelling forces (Cao, Li, Wang, 2014).

Hypothesis 9: Revenue Streams and Resource Dependence

Nonprofits, for-profit and government agencies choose combinations of financial risk and return tradeoffs when they select different revenue streams. One way to mediate financial risk is by diversifying revenue streams (Kingma, 1993). According to Carroll and Stater (2009), revenue diversification is "a prudent revenue generation strategy to minimize the volatility of revenue portfolios managed by nonprofit [and arguably all types] organizations" (p. 949).

Hypothesis nine did not include a relational direction between the outcome variable and independent indicator, "Revenue Combined." However, I anticipated a statistically significant relationship between revenue sources and provision of culturally competent services. One consideration was that organizations that accepted more revenue sources, might elect to serve more people through specialized services due to perceived financial stability (Carroll & Stater, 2009). Another thought was that organizations might be incented to accept a wide range of revenue sources, in order to maximize the number of clients they can serve at a facility through specialized programs and augment revenue generation. Given that the relationship between funding diversity and culturally competent service provision has not been tested in this breadth in other studies, I think this relationship is an important one to examine.

H9 Multiple revenue streams and culturally competent service will be significantly related

The results from the NBR in Table 15, show that the count variable of revenue sources (Revenue_Combined) was significant in both 2010 and 2015. Organizations that accept more revenue sources are likely to provide more culturally competent services, when other variables are held constant. Additionally, each of the individual revenue sources with the exception of

private health insurance were positive and significant predictors of CCS, meaning that organizations that accept cash, Medicare, Medicaid and State Financed Health Insurance were likely to provide more specialized programming, holding other factors constant. In sum, the number of revenue sources accepted by behavioral health facilities has a significant effect on their provision of culturally competent services. Hypothesis nine is supported by the NBR results.

Hypothesis 10: Community Demographics and Contingency Theory

The contingency perspective depicts organizational change as a function of organization-environment fit. In other words, organizations change in order to adapt to external contingencies in their evolving environments (Donaldson, 2006, p. 37). From the Contingency theoretical perspective, the purpose for finding or maintaining "fit" is to foster organizational alignment between internal structures and external conditions (Bradshaw, 2009).

From a practice standpoint, research has shown that racial/ethnic minorities and individuals with low household incomes are more likely to experience culturally insensitive health care and dissatisfaction with behavioral health care (Tucker, Williams, Roncoroni & Heesacker, 2017; Tucker et al., 2015). Since substance abuse and mental health treatment researchers continue to push for examination of policy and program factors that lead to effective treatment and positive outcomes (Heinrich & Lynn, 2002), I included two American Community Survey variables in the models; namely, percent of population that is Hispanic, and percent of families that live below the poverty line. I wanted to determine how state-level population characteristics influence service offerings, as contingent environmental factors that change over

time, and have the potential to influence organizational action. And this leads to my final hypothesis for this study.

H10 Organizations located in more diverse demographic regions, will offer more

culturally competent services

The variable "Percent Hispanic" was positively and significantly associated with the provision of culturally competent services, when holding all other variables constant. More explicitly, this means organizations located in states with higher populations of Hispanics were likely to provide more culturally competent services in their communities. Additionally, organizations located in states with a higher percentage of individuals living below the poverty line, were likely to provide more culturally competent services, as "Percent Below Poverty" was significantly and positively associated with CCS provision in each of the four NBR models, controlling for the other predictors. In sum, community demographics or population characteristics significantly affect the services behavioral health organizations provide, and hypothesis ten is supported by the data.

Summary of Hypotheses and Findings

H1 Private for-profit organizations will offer fewer culturally competent services than government or private nonprofit organizations. *(Supported)*

H2 Government organizations will offer more culturally competent services than private nonprofit organizations and private for-profit organizations. *(Partially Supported)*

H3 Private nonprofit organizations will offer more culturally competent services than private for-profit organizations. *(Supported)*

H4 Organizations that accept Medicaid will offer more targeted services for cultural groups than organizations that do not accept Medicaid. *(Supported)*

H5 Organizations that accept Medicare will offer more targeted services for cultural groups than organizations that do not accept Medicare**.** *(Supported)*

H6 Organizations that are licensed by a hospital or state authority will offer more culturally competent services than non-licensed organizations. *(Supported)*

H7 Organizations that are accredited by CAHO/CARF/NCQA/COA/HFAP will offer more culturally competent services than non-accredited organizations. *(Supported)*

H8 Organizations located in states that have adopted National CLAS standards, will offer more culturally competent services. *(Not Supported)*

H9 Multiple revenue streams and culturally competent service will be significantly related. *(Supported)*

H10 Organizations located in more diverse demographic regions, will offer more culturally competent services. *(Supported)*

Logistic Regression and Binary Indicators of Cultural Competence

While each of my ten hypotheses are addressed through the NBR analyses, I wanted to more deeply examine the effect of the predictor variables on the unique kinds of culturally competent services facilities provide. Stated differently, I wanted to measure the organizational and environmental influences on individual culturally competent services provided by agencies surveyed via the N-SSATS, namely: 1) services offered in language other than English; 2) services offered in Sign Language; 2) special programming for LGBT clients; 4) special programs for seniors and; 5) special programs for veterans (only measured in 2015). By doing

this, I can more comprehensively address some of the challenges discussed in chapter one regarding poorer conditions of care for marginalized groups. Understanding the factors that facilitate or impede service provision, is an important aspect of this study.

I selected Logistic Regression for my analytic approach as each of the five outcome variables are binary variables. Binary logistic regression is used when the dependent variable is dichotomous and the independent variables are of any type (Garson, 2012). Because the outcome variables are not continuous or multivariate, OLS and multinomial regression are not appropriate for this last phase of data analysis. Additionally, the data met two of the key assumptions for binary logistic regression. First, each outcome measure has two options – yes or no. Second, the response to one outcome variable did not influence the response to another variable i.e. the responses are independent.

Binary Logistic Regression

Logistic regression was performed using separate analyses for the 2010 and 2015 N-SSATS, ACS and NCLAS datasets. The outputs for the 2010 and 2015 bivariate analyses yield similar results, so I only interpret the 2015 coefficients in this section. I provide a rationale for the few instances where a variable changed from insignificant to significant (or the reverse) between the five-year period. The results of the logistic regression yield several meaningful findings as shown in Table 19. The 2010 logits can be found in Appendix D. I begin my review of the results for each culturally competent service area after Table 19.

Table 19. Logistic Regressions

2015	LANG OR(SE)	SIGNLANG OR(SE)	LGBT OR(SE)	SENIORS OR(SE)	VETERANS OR(SE)	LANG OR(SE)	SIGNLANG OR(SE)	LGBT OR(SE)	SENIORS OR(SE)	VETERANS OR(SE)
Ownership										
Government	1.811***	3.748***	0.499***	0.541***	1.152	1.922***	3.849***	0.520***	0.581***	1.192
	(0.159)	(0.353)	(0.0614)	(0.0617)	(0.119)	(0.163)	(0.353)	(0.0622)	(0.0640)	(0.118)
Nonprofit	1.774***	3.081***	0.635***	0.570***	0.678***	1.911***	3.155***	0.654***	0.597***	0.682***
	(0.0948)	(0.193)	(0.0428)	(0.0375)	(0.0471)	(0.0974)	(0.192)	(0.0418)	(0.0372)	(0.0448)
For-Profit	—	—	—	—	—	—	—	—	—	—
Accepted Revenue										
Cash or self-payment	1.511***	1.364**	0.992	0.983	0.896	—	—	—	—	—
	(0.138)	(0.142)	(0.117)	(0.113)	(0.100)					
Private health insurance	0.852**	1.415***	0.946	0.847*	0.988	—	—	—	—	—
	(0.0498)	(0.0955)	(0.0705)	(0.0617)	(0.0750)					
Medicaid	1.709***	1.661***	1.019	0.931	0.806**	—	—	—	—	—
	(0.101)	(0.111)	(0.0775)	(0.0695)	(0.0621)					
Medicare	1.448***	1.685***	1.155*	1.601***	1.342***	—	—	—	—	—
	(0.0792)	(0.0961)	(0.0833)	(0.113)	(0.0984)					
State financed health Insurance	1.225***	1.049	1.226**	1.048	1.075	—	—	—	—	—
	(0.0668)	(0.0618)	(0.0877)	(0.0733)	(0.0783)					
Revenue Combined	—	—	—	—	—	1.274***	1.399***	1.078***	1.062**	1.022
						(0.0212)	(0.0262)	(0.0234)	(0.0224)	(0.0217)
Institutional Pressures										
Licensed (State Hospital/ Authority)	1.685***	1.828***	1.110	1.010	0.631***	1.788***	1.804***	1.087	0.954	0.588***
	(0.159)	(0.207)	(0.131)	(0.112)	(0.0642)	(0.166)	(0.201)	(0.126)	(0.103)	(0.0584)
Accredited (JCAHO/CARF/ NCQA)	1.371***	1.415***	1.049	0.990	1.165*	1.355***	1.427***	1.044	0.981	1.160*
	(0.0666)	(0.0776)	(0.0655)	(0.0605)	(0.0744)	(0.0653)	(0.0777)	(0.0650)	(0.0595)	(0.0736)
NCLAS Implementation	1.156*	1.000	1.098	1.079	1.161	1.158*	1.005	1.089	1.050	1.139
	(0.0688)	(0.0654)	(0.0871)	(0.0819)	(0.0918)	(0.0685)	(0.0655)	(0.0861)	(0.0795)	(0.0899)
Population Characteristics										
Percent Hispanic	1.030***	0.975***	1.012**	1.013**	1.008	1.031***	0.975***	1.012**	1.013**	1.007
	(0.00387)	(0.00404)	(0.00457)	(0.00441)	(0.00455)	(0.00385)	(0.00403)	(0.00456)	(0.00439)	(0.00454)
Percent Below Poverty	1.041***	1.042***	0.984	1.003	1.014	1.046***	1.046***	0.984	1.007	1.015
	(0.0111)	(0.0121)	(0.0133)	(0.0131)	(0.0135)	(0.0111)	(0.0121)	(0.0132)	(0.0132)	(0.0135)

Table 19. Continued

Control Variables										
Geographic Stratification										
State Population	1.000	1.000**	1.000	1.000	1.000	1.000	1.000**	1.000	1.000	1.000
	(3.55e-09)	(3.95e-09)	(4.15e-09)	(4.02e-09)	(4.18e-09)	(3.50e-09)	(3.92e-09)	(4.13e-09)	(3.99e-09)	(4.15e-09)
West	1.016	2.126***	0.891	0.783**	0.870	0.954	2.086***	0.891	0.787**	0.893
	(0.0786)	(0.186)	(0.0853)	(0.0736)	(0.0860)	(0.0729)	(0.181)	(0.0847)	(0.0732)	(0.0876)
South	1.003	2.115***	0.919	0.731***	0.912	0.976	2.070***	0.920	0.736***	0.925
	(0.0740)	(0.173)	(0.0838)	(0.0657)	(0.0850)	(0.0714)	(0.169)	(0.0834)	(0.0656)	(0.0855)
Midwest	1.023	1.583***	0.630***	0.638***	0.656***	0.967	1.565***	0.625***	0.638***	0.667***
	(0.0719)	(0.122)	(0.0591)	(0.0572)	(0.0628)	(0.0671)	(0.120)	(0.0582)	(0.0565)	(0.0632)
Northeast	—	—	—	—	—	—	—	—	—	—
Treatment Modality										
Hospital inpatient	1.209	2.262***	1.028	1.524***	1.278*	1.171	2.388***	1.026	1.661***	1.376**
	(0.125)	(0.240)	(0.133)	(0.177)	(0.155)	(0.119)	(0.250)	(0.131)	(0.189)	(0.164)
Non-hospital residential	0.689***	0.892	1.744***	1.521***	1.778***	0.631***	0.850*	1.699***	1.404***	1.733***
	(0.0512)	(0.0707)	(0.157)	(0.135)	(0.158)	(0.0460)	(0.0664)	(0.150)	(0.122)	(0.150)
Outpatient	1.153	1.082	1.247*	1.425***	1.450***	1.106	1.092	1.214	1.368**	1.422***
	(0.0979)	(0.0983)	(0.128)	(0.146)	(0.148)	(0.0929)	(0.0986)	(0.124)	(0.139)	(0.144)
N	9141	9137	9102	9102	9102	9141	9137	9102	9102	9102

Services offered in Language Other than English

Ownership is significantly associated with diverse language offerings in treatment settings. Nonprofit and government organizations are significantly more likely than for-profit organizations to provide services in diverse languages, as indicated by the results in Table 19, regardless of whether the revenue sources are separate or combined. Examining the models with combined separate revenue sources, we see that Nonprofits are 1.91 times more likely than for-profits to provide services in a foreign language, while government agencies are 1.92 times more likely to provide services in a foreign language, than a for-profit organization.

Revenue source is significantly associated with language offerings. Increasing the number of revenue sources also increases the odds that an organization will provide services in diverse languages. Additionally, organizations that accept cash or self-payment, Medicare, Medicaid, or state financed health insurance are significantly more likely to provide services in a language other than English. However, the opposite relationship is true for organizations that accept private health insurance. They are significantly less likely to provide services in multiple languages.

The CLAS standards are a significant predictor of services offered in language other than English. I believe this is because CLAS standards five through eight of the enhanced standards (Appendix A), mirror the legal requirements for healthcare providers, which state that organizations must be linguistically competent to serve clients who are not proficient with English. This likely accounts for why NCLAS is a positive predictor of language offerings, but not other services supporting different cultural groups. Additionally, organizations that are accredited or licensed by an external body are significantly have increased odds for providing

services in diverse languages. As such, institutional pressures significantly influence organizational decisions to provide services in multiple languages.

Both population characteristics are significantly associated with provision of services in diverse languages in the bivariate analyses. Since percent Hispanic is significantly associated with provision of services in a language other than English, it is likely that organizations located in areas with higher densities of Hispanics, will offer services in multiple languages. Additionally, since percent below poverty is positively associated with provision of services in a language other than English, organizations located in areas with larger populations of people living below poverty are also more likely to provide services in diverse languages.

In sum, the independent variables for this study— organizational ownership, multiple revenue sources, institutional pressures (with the exception of CLAS standards), and population characteristics— all significantly affect service provision in diverse languages. This finding is true even after controlling for state-level and program-level factors— state population, geographic stratification and treatment modality.

Services offered in Sign Language

Both nonprofit and government organizations are significantly more likely than for-profit organizations to provide services in Sign Language. Nonprofits are 3.16 times as likely as for-profit organizations to provide services in Sign Language, while government agencies are 3.85 times as likely to provide services in Sign Language, when compared to a for-profit organization, based on the models with the combined revenue, holding all other variables constant. Concerning revenue, the combined revenue variable is significantly and positively associated with services provided in Sign Language. Additionally, four sources of payment organizations are positively

associated with treatment provided in Sign Language. These are cash or self-payment, private health insurance, Medicaid and Medicare private health insurance. State financed health insurance was not significantly associated with treatment in Sign Language. These findings are likely explained by the fact Sign Language is a cultural issues and necessary accommodation for people with hearing issues. Since being deaf or hard of hearing is considered a disability, organizations do not want the financials of an organization to impede provision of this particular service to clients, so most of the financial indicators are positively associated with treatment Sing Language.

Treatment provided in Sign Language is significantly and positively associated with licensure and accreditation. However, the CLAS standards are not a significant predictor of treatment provided in Sign Language, counter to the relationship between CLAS and multiple languages. This is likely because the CLAS standards outline the need for services for individuals who are not proficient in English, but there is no disability-related language in the original or enhanced CLAS standards. The lack of overlap between the standards and laws related to accommodations, likely accounts for why the NCLAS variable is not a significant associated with services in Sign Language.

For the Population Characteristics, Percent Hispanic is significantly, but negatively associated with treatment in Sing Language. Conversely, percent below poverty has a significantly positive relationships with services provided in Sing Language. From an accommodation standpoint, income level, financial resources and ownership do not deter or impede treatment in Sing Language.

Services offered for LGBT Clients

N-SSATS survey items delve into facility offerings of targeted services for cultural groups. One set of services captured in the questionnaire is special programming provided to LGBT clients. Of the organizations surveyed, nonprofits and government organizations are significantly less likely than for-profit organizations to provide these types of programs. Nonprofits are 0.65 times likely than for-profit organizations to provide services for LGBT clients, while government agencies are 0.52 times less likely to provide special programming for LGBT clients, when compared to for-profit organizations, when revenue sources are separate, and other variables are held constant.

Revenue source has a mixed effect on LGBT programming. The combined revenue sources are positively and significantly associated with LBGT service provision. In 2015, only Medicare and state financed health insurance significant predictors of LGBT service provision. However, in the 2010 dataset, cash or self-payment was negative predictor of LGBT service provision, while private health insurance was a positive predictor of LGBT services, but comes an insignificant factor in 2015. This flip in significance between private sources of funding to public sources of funding accepted by agencies, can likely be attributed to the ACA expansion which led to expanded coverage for LGBT communities, specifically. In fact, the ACA ensured that "many LGBT Americans who were not able to afford health insurance or health care would be able to apply for Medicaid or Medicare [government subsidized insurance] in every state" (Baker & Krehely, 2011, p. 21).

The racial and ethnic demographics of a state are positively and significantly associated with services provided to LGBT clients. In the 2010 model, Percent Hispanic was moderately associated specialized services for LGBT clients. However, in 2015, Percent Hispanic became a

stronger predictor of LGBT services. I believe this relationship is explained by findings from a city-level study showing that "treatment centers located in cities with higher populations of Latinos and African Americans actually provided more programming for special populations, such as programming for persons who are gay or lesbian, or were diagnosed with HIV/AIDS." (Vélez, Campos-Holland & Ardnt, 2008, p. 195). The percent of the population living below poverty was not significantly associated with LBGT service provision in the logit models.

Services offered for Seniors

Nonprofit and government organizations are significantly less likely than for-profit organizations to provide specialized services for elderly clients, as indicated by the results in Table 19, regardless of whether the revenue sources are separate or combined. Nonprofits are 42.9% less likely than for-profit organizations to provide special services to seniors, while government agencies are 46.6% less likely to provide services for seniors, than for-profit organizations, when the revenue sources are separated in the logistic models.

Revenue source has a mixed effect on services offered for seniors. Accepting private health insurance is a significant, but negative predictor of organizational focus on services for seniors. While conversely, organizations that accept Medicare, are significantly more likely to provide services for seniors, when holding all other variables constant. The other sources of revenue do not have a statistically significant relationship with the senior services variable. Institutional pressures from licensing agencies, accrediting bodies, and NCLAS standards did not influence service provision to seniors.

The only population characteristic that significantly affects services to seniors is Percent Hispanic. This variable has a positive relationship with the outcome of service provision to

seniors, meaning organizations in communities with Hispanics are more likely to provide

services to their seniors. This finding might be attributed to some recent research on elderly

population that highlights there is an unprecedented number of older adults (65+) who are also

the most diverse than any time in our history (Park & Jacobs, 2018, p. 195). Of particular

interest, Park and Jacobs found that the aging population in the United States includes a growing

Limited English Proficient immigrant and refugee sub-population, thus explaining the significant

and positive relationship between Percent Hispanic and senior services. The variable Percent

Below Poverty was not a statistically significant influencer of service provision to seniors.

Services offered for Veterans

The outcome variable, services offered to veterans, was a new cultural group added to the

2015 N-SSATS survey. So this is the only outcome variable in the logistic models that was not

included in the dependent, count variable used in the NBR models. However, as noted in chapter

one, veterans are diagnosed with mental health disorders, and substance use disorders at

disproportionately higher rates, and I wanted to examine the effect of the predictor variables on

service provision for veterans.

Nonprofit organizations are significantly less likely to provide services to veterans, when

compared to for-profit organizations. In fact, nonprofits are 0.68 times less likely than for-profit

organizations to provide services to veterans. Government agencies do not have a significant

relationship to service provision to veterans.

Interestingly, this is the only model were the combined revenue indicator is not

significantly associated with the culturally competent service. Of the five sources of accepted

payment only Medicaid and Medicare are significant predictors of providing services to veterans,

however they have inverse relationships associated with services provided to veterans. Organizations that accept Medicaid are significantly less likely to provide services to veterans, holding all other variables constant. While organizations that accept Medicare are significantly more likely to provide services to veterans, holding all other variables constant. There is no 2010 veteran services variable, as such it is difficult to determine any changes that might be related to the ACA rollout. However, there is some evidence that non-elderly veterans are exploring dual benefit sources i.e. VA benefits and Medicaid. But an interesting finding is that a number of Veterans have expressed concern about the ACA coverage, particularly that Medicaid might negatively impact their receipt of VA benefits (Martinez et al., 2017). These factors may be contributing to the differences observed in these two public sources of funding.

Interestingly, organizations licensed by a state authority are significantly less likely to provide services to veterans. However, organizations that are accredited by an external body are more likely to provide services to veterans. NCLAS standards had no influence on veteran service provision. And the population characteristics in these models had no bearing on services provide to veterans.

Summary of Logistic Regression Findings

The Logistic results indicate nonprofits and government agencies are more adept at providing services in diverse languages and Sign Language than, for-profit organizations when all other variables are held constant. This relationship is reversed when we examine the effect of ownership on services focused on cultural groups. We see that for-profits are significantly more likely to provide services to LGBT clients, seniors and veterans, when compared to nonprofit

organizations. This finding holds true for government agencies, except government facilities are not significantly associated with provision of services to veterans.

The effect of revenue source on service provision was mixed. The Revenue Combined was significantly and positively associated with each form of cultural competence, with the exception of Veteran services. Each of the revenue sources were significantly associated with the language outcome variables, with the exception of state health insurance and services provided in Sign Language. But revenue effect especially for the public sources, varies significantly when examining cultural groups. The variability in results for Medicaid and Medicare, can be explained by the fact each state develops their own eligibility requirements, as well as coverage parameters for medical care and medications. As a result of state autonomy, there is substantial variability in substance use treatment coverage across states (McKnight, 2015).

Institutional pressures from licensing agencies, accrediting bodies, and NCLAS standards, had a mixed effect on culturally competent service provision. Licensing and accreditation are positively associated with services in language other than English and Sign Language. Whereas NCLAS standards are only significant and positively associated with services provided in foreign languages. None of the institutional pressures influence services provided to LGBT and seniors. And then Licensing has an inverse relationship with services provided to veterans, while Accreditation has a positive, significant relationship to services provided to veterans.

Population characteristics are strong predictors of services provided in languages other than English, and Sign Language. However, various characteristics have a differentiated effects on services provided to cultural groups. One variable that is significant in four out of five models is Percent Hispanic. It is positively associated with: 1) provision of services in language other

than English, 2) services to LGBT clients, and 3) services to seniors. However, percent Hispanic is negatively and significantly associated with services made available in sign language.

Chapter 5, provides a final discussion of the results gleaned from Chapter 4. It's important to examine the relationships between the predictor variables and the outcome variable in the NBR models, reviewed earlier in this chapter. Additionally, I will review the limitations of this study and discuss opportunities for future for research.

CHAPTER FIVE

In Chapter 4, I performed a series of NBR analyses to shed light on the research questions posed in this study, and the hypotheses made. I also performed additional Logistic Regression analyses to analyze the effect of organizational and environmental influences on different types of culturally competent services provided by behavioral health organizations. The findings reviewed in Chapter 4 highlight that most of the hypotheses were supported by the data, and the Logistic Regression models shed additional light on how the different types of specialized services are influenced by different sets of organizational and environmental factors.

Theoretical Lens and Variable Operationalization Review

There are a myriad of organizational and environmental factors that contribute to the delivery of culturally competent services (CCS) in MH/SA facilities across the country. Behavioral health research underscored by Publicness Theory address the question of why public-serving organizations, such as government and nonprofit agencies, appeal to a wider constituency by providing more diverse service offerings and contribute to the social good (Heinrich & Fournier, 2004). Additionally, other studies use the Publicness lens to explain or examine why organizations that accept public sources of funding i.e. Medicaid and Medicare might be more likely to provide culturally competent services (Terplan, Longinaker & Appel 2015; Heinrich & Lynn, 2002). In this study, both of these operationalizations of "public" are used in the NBR and Logistic Regression analyses, to examine a broader range of public aspects of organizations. By examining both organizational form/ownership and acceptance of government/public forms of funding as measures of publicness, this study is able to cast a wider analytical net in understanding the publicness questions related to CCS provision.

Institutional Theory explains why organizations with similar isomorphic pressures behave alike. Typically, organizations that operate within similar social structures or boundaries tend to follow the same norms, guidelines, or schemas, so adoption of culturally competent practices should be comparable between organizations operating within the same professional contexts. Examining how organizations with similar regulatory statutes or organizations that receive the same professional accreditations, adopt CCS, was an important aspect of this study, since most MH/SA are accredited by state and/or professional accrediting bodies. As previously noted, institutional forces "the formal pressures exerted on organizations by other organizations upon which they are dependent" (DiMaggio & Powell 1983, p. 150), such as accrediting bodies are a powerful and significant influences on organizational decision making.

From a Resource Dependence Theory (RDT) perspective, organizational change is made to preserve, maintain or mitigate resource gaps or scarcities. For this study, I argue that organizations that have more sources of funding, are likely more capacitated to provide specialized services. Stated differently, the financial variables in this study are included as a mechanism to assess whether monetary resources from varying payment sources influence CCS adoption.

As noted in Chapter 1, Contingency Theory provides an economic rationale for why organizations offer specialized services; the main idea being that when organizations meet the needs of the community they enhance their long-term survival and sustainability (Birken, Bunger, Powell & Turner et al., 2017). For this study, the population characteristics define the potential market for the organization and as such services need to address business demands from the evolving community. My research hypotheses was that as demographics change in the

five-year time horizon, behavioral health organizations would adopt more CCS to ensure their organizational survival.

The theoretical framework for this study (Figure 3) theorizes that CCS adoption is driven by forces internal and external to the organization. The results from Table 15 and Table 19 highlight that these theories provide a useful way of organizing the factors influencing CCS provision, however, the framework needs to be confirmed by additional quantitative analyses and qualitative analyses in the future to examine the nuances associated with specific culturally competent services organizations can and do provide. Table 20 provides a review of the theories used in this study, as well as the hypothesized relationships between the organizational and environmental factors and the CCS indicators referenced in Figure 3.

Table 20. Hypothesis Testing

Theory	Hypothesis Test
Publicness Theory	**H1** Private for-profit organizations will offer fewer culturally competent services than government or private nonprofit organizations. *(Supported)* **H2** Government organizations will offer more culturally competent services than private nonprofit organizations and private for-profit organizations. *(Partially Supported)* **H3** Private nonprofit organizations will offer more culturally competent services than private for-profit organizations. *(Supported)*
	H4 Organizations that accept Medicaid will offer more targeted services for cultural groups than organizations that do not accept Medicaid. *(Supported)* **H5** Organizations that accept Medicare will offer more targeted services for cultural groups than organizations that do not accept Medicare**.** *(Supported)*
Institutional Theory	**H6** Organizations that are licensed by a hospital or state authority will offer more culturally competent services than non-licensed organizations. *(Supported)* **H7** Organizations that are accredited by CAHO/CARF/NCQA/COA/HFAP will offer more culturally competent services than non-accredited organizations. *(Supported)* **H8** Organizations located in states that have adopted National CLAS standards, will offer more culturally competent services. *(Not Supported)*
Resource Dependence Theory	**H9** Multiple revenue streams and culturally competent service will be significantly related. *(Supported)*
Contingency Theory	**H10** Organizations located in more diverse demographic regions, will offer more culturally competent services. *(Supported)*

Results and Discussion

While there is a plethora of research on the value of culturally competent services, this study examines a largely unanswered question about what motivates organizations to adopt culturally competent services i.e. the factors that influence service provision to diverse language speakers and vulnerable populations. The question is framed around "adoption" or "provision" since the N-SSATS only captures this type of information i.e. "whether the organizations offers specific services." The N-SSATS instrument does not capture the how services are implemented i.e. "the on-going use of the practice" (Guerrero, 2011; Roman, Ducharme & Knudsen, 2006).

The NBR and Logistic Regression results indicate that the independent variables have different influences on CCS provision. From the NBR analyses (Table 15), we see that the organizational-level predictors (ownership and multiple revenue sources) are in fact significantly associated with provision of more culturally competent services. Whereas the environmental factors (licensure, accreditation, NCLAS policies and state-level population characteristics) have mixed effects on organizational decision to provide culturally competent services. The Logit Models (Table 19) provide some depth and nuance to the NBR findings, as we see that culturally competent service services and practices are not created equal. A description as to why these findings are timely and important are referenced below.

Organizational Drivers: Ownership Matters

H1 Private for-profit organizations will offer fewer culturally competent services than government or private nonprofit organizations. *(Supported)*

From this study, we see that the public-private designation is a significant factor in the volume or amount of culturally competent services MH/SA agencies elect to provide. Based on

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the NBR results (Table 15), for-profits offer fewer culturally competent services than government and nonprofit agencies. One explanation for this finding is that nonprofit and government organizations purpose to add public value or contribute to a public good, so are more likely to offer culturally response services (Margiono, Zolin & Chang, 2015; Heinrich & Fournier, 2004). A second explanation is that the organizational health of nonprofits or government organizations is not primarily dictated by their financial performance or budgetary efficiency, in sharp contrast to their for-profit counterparts (Oster, 1995, p. 140; Margiono, Zolin & Chang, 2015). For-profit organizations have been shown to serve fewer disadvantaged clients, accept more private payees, and focus on providing targeted services to maximize profits (Terry-McElrath, Chriqui & McBride, 2011; Heinrich & Fournier, 2004)

The Logit analyses (Table 19), provide additional insight about the effects of organizational form on service provision. Often times, offering culturally competent or appropriate services is considered to be time consuming, complex, and expensive (Center for Substance Abuse Treatment, 2014). Based on the Logit models, we see for-profits do provide culturally competent services to vulnerable populations. The "yes/no" decision is not dictated by values, but rather by strategic decisions that improve operational efficiency and maximize earnings (Heinrich & Fournier, 2004). Interestingly, this divergence in selection, has caused some scholars to concede that public and nonprofit agencies may perform better on access and equity, but for-profits may score higher on efficiency and effectiveness (Andrews, Boyne & Walker, 2011).

H2 Government organizations will offer more culturally competent services than private nonprofit organizations and private for-profit organizations. *(Partially Supported)*

Based on the results in Table 18, government agencies are likely to offer more culturally competent services than for-profit organizations. However, there is no statistically significant difference between the number of culturally competent services that government and nonprofit agencies provide. As such, the second hypothesis in this study is partially supported. As discussed in the section above, numerous publicness scholars identify that nonprofit and government agencies are structurally similar in their public benefit goals (Margiono, Zolin & Chang, 2015). Therefore, the efforts of nonprofit and governmental organizations, are typically described in terms of the mission of the organization and the strategies employed in pursuit of a public-centered responsibility, so nonprofit and government agencies are considered to be more structurally similar than for-profit entities (Moore, 2000; Oster, 1995). This is likely contributing to the non-significant relationships between nonprofit and government organizations in their provision of culturally competent services.

This hypothesis and resulting finding is also important as it addresses some criticism raised in the MH/SA literature that scholars too quickly lump public and nonprofit organizations together, and should be more mindful about considering the public-private divide between government and nonprofit/for-profit agencies (Heinrich & Lynn, 2002). By examining the relationship between government and nonprofit agencies, we start to examine the differences (or lack thereof) between organizations considered structurally public versus private.

H3 Private nonprofit organizations will offer more culturally competent services than private for-profit organizations. *(Supported)*

The NBR results in Table 15, show that nonprofit organizations will likely offer more culturally competent services, than private for-profit organizations. In their seminal article on

Publicness, Rainey et al. (1976) theorized that because nonprofit and for-profit organizations diverge in their internal structures and processes, environmental influences, and organization-environment transactions, their organizational outputs would vary. This theory has been supported by additional research over the years related to public and for-profit agencies (Miller-Stevens, Taylor & Morris, 2015, Goldstein & Naor, 2005; Merritt, 2014; Margiono, Zolin & Chang, 2015).

One factor that may also be influencing the results in CCS provision between for-profits and nonprofits, is the nondistribution constraint, which prohibits nonprofits from distributing net earnings among individuals who oversee the organization. This constraint encourages nonprofits to act in ways that promote social benefit not private interests i.e. act more like their government counterparts (Heinrich & Fournier, 2004). Consistent with the results discussed in the sections above, we see that public and nonprofits agencies are more closely aligned in their provision of culturally competent services, in comparison to for-profit organizations, when other institutional, demographic and resource factors are controlled for.

In sum, this study confirms that ownership or organizational form plays a significant role for MH/SA organizations and their CC service provision decisions. Ownership status (government, nonprofit and for-profit) may lead to organizational tradeoffs when considering how many services to offer, and what kinds of CC services to offer, based on social-benefit, equity, efficiency and investor concerns among other considerations.

Organizational Drivers: Publicly Subsidized Payments

H4 Organizations that accept Medicaid will offer more targeted services for cultural groups than organizations that do not accept Medicaid. *(Supported)*

H5 Organizations that accept Medicare will offer more targeted services for cultural groups than organizations that do not accept Medicare. *(Supported)*

These hypotheses address the monetary resource publicness of behavioral health organizations. With support from the NBR models in Table 15, it is believed that organizations accepting government-sponsored funds, will likely provide more specialized services for diverse cultural groups— a finding mirrored in several N-SSATS studies (Terplan, Longinaker & Appel, 2015; Cohn, Stanton, Elmasry, Ehlke & Niaura, 2016; Brown, Vartivarian & Alderks, 2011). From a publicness perspective these value-laden public purse strings (Aulich, 2011; Anderson & Whitford, 2016), may influence organizational behavior that lead to services that improve access and equity for diverse groups.

As noted in the literature review in chapter two, organizational choice to accept public sources of funding such as Medicaid and Medicare are often used as proxies of publicness (Merritt, 2014). This is because Medicare is a federally administered health insurance program which mainly supports people aged 65 and older, and Medicaid is a healthcare program that assists people with low incomes, individuals with disabilities and people with abnormal conditions. It is reasonable to believe that organizations that accept public funding, will adopt more culturally competent services to cater to a broader based of clients, since one of the main determinants of publicness is inclusivity (Kaul & Mendoza, 2003). The Medicare, Medicaid, government and nonprofit variables (relative to for-profits), follow similar patterns in their associations with the CCS_Count variable in the NBR models. They positively influence the number of services facilities are likely to provide. However, the logit models showcase there are some nuances in the direction of relationships with specialized services. So, on hand the NBR analyses reveal that agency publicness is an important, positive predictor of CCS provision, and

integral to in determining the volume of CC services offered. However, on the other hand, the logistic regressions provide evidence that other factors influence the types or kinds of culturally competent services agencies make available to their communities.

Given these variable relationships, this study reinforces that Medicare and Medicaid are important measures of publicness and have a significant effect on organizational decision making with regards to offering culturally appropriate services, as noted by other scholars (Heinrich &Fournier, 2004; Andrews, Boyne & Walker, 2011; Merritt, 2019). This is important as scholars continue to reflect on the role of publicness in MH/SA treatment programs and continue to address the theoretical question of "what makes an organization public?" an ongoing inquiry in the field of public administration.

Environmental Drivers: Licensure and Accreditation Pressures

H6 Organizations that are licensed by a hospital or state authority will offer more culturally competent services than non-licensed organizations. *(Supported)*

H7 Organizations that are accredited by CAHO/CARF/NCQA/COA/HFAP will offer more culturally competent services than non-accredited organizations. *(Supported)*

As noted in Chapter 4, these hypotheses are framed by the institutional theory perspective and address the coercive isomorphic pressures that organizations abide by to retain their validation and accreditation by external entities (Hasmath & Hsu, 2014; Cao, Li & Wang, 2014). In particular, accrediting and licensure standards are "regulative [demands]" emphasizing explicit formalized processes that govern organizational action i.e. policies and rules, monitoring and compliance, and sanctioning activities (Weech-Maldonado et al., 2012; Carman, 2009).

When it comes to isomorphic pressures, there is a growing body of research, highlighting positive relationships between professional accreditation and provision of culturally responsive care and improved client outcomes (Guerrero, et al., 2013; Coll & Haas, 2013; Guerrero, Aarons, & Palinkas, 2014; Guerrero, Marsh, Cao, Shin, & Andrews, 2014). As such, new extrapolations are being made regarding quality of care standards and delivery of evidence-based treatments (Guerrero, Khachikian, Kim, Kong, & Vega, 2013). In fact, Heinrich and Fournier (2004) make the argument that organizations that put forth the time, financial resources and human capital to meet state or national standards for treatment practices, will likely invest in the appropriate resources to provide comprehensive care to diverse groups.

The results from the NBR analyses add to these research narratives. They underscore that isomorphic pressures from licensing and accrediting entities do in fact influence CCS provision. Organizations that are licensed or accredited by an external agency have increased odds of providing more culturally competent services, controlling for other factors in the models. The influences of licensure and accreditation are different in the bivariate analyses where we see licensure and accreditation are positively associated with language-related services, but do not have statistically significant relationships to services for diverse social groups. Isomorphic pressures from external entities seem to affect the breadth of services offered by agencies, but have mixed effects on the various types of culturally competent services organizations offer.

It is important to note that "many accrediting bodies require a cultural competence plan that is assessed as part of the accreditation process," even though the standard of competence might be set very low (Center for Substance Abuse Treatment, 2014). Accrediting agencies that provide CCS resources and lay out expectations for organizations to implement culturally responsive practices, put implicit and likely explicit pressure on organizations to comply in order

to maintain their accreditation. So in sum, the results of this study indicate that the effect of licensing and accrediting bodies should not be understated.

Environmental Drivers: CLAS Standards and Policies in States

H8 Organizations located in states that have adopted National CLAS standards, will offer more culturally competent services. *(Not Supported)*

As noted in chapter two, the CLAS standards are meant to inform, guide and facilitate cultural competency. They are not legal requirements. However, the ACA brought the issue of cultural competency to the forefront, giving more institutional weight and credence to the NCLAS Standards (U.S. DHHS, 2013). In recent years, state-level administrators have been promoting the value-laden Standards and articulating the need for culturally competent practice as evidenced by data from the Office of Minority Health's compendium (U.S. DHHS, 2013). It is these political and public administration factors that led me to posit this hypothesis.

While the Standards are not legal requirements in and of themselves, CLAS standards five through eight of the enhanced standards (Appendix A), mirror the legal requirements for healthcare providers, which state that organizations must be linguistically competent to provide services to clients who are not proficient with English. This likely accounts for why the NCLAS variable increases the odds of organizations providing services in different languages in the logistic models (Table 19), but does not increase the potential of additional CCS offerings supporting various cultural and social groups in the NBR analysis (Table 15). As such, for this study, coercive pressures, have a more significant impact on the number of services offered by organizations than normative pressures.

This research finding highlights that when it comes to studying organizational cultural competence, recognizing that different variables have different relationships to different kinds of culturally competent services organizations can provide. So, the framing and operationalizing of CCS is important. For this study, while the NCLAS variable does not explain an increase in odds of providing more culturally competent services, it does explain why organizations would be more likely to provide services in languages other than English, because the CLAS standards language mimic legal statutes about competent service provision to non-English speakers.

Organizational Drivers: Revenue and Payment Mechanisms

H9 Multiple revenue streams and culturally competent service will be significantly related. *(Supported)*

One notable finding is that the provision of culturally competent services was closely tied to payer mechanisms— a finding mirrored in other mental health and substance abuse studies (Terplan, Longinaker & Appel, 2015; Heinrich & Cummings, 2014; Guerrero, 2013; Terry-McElrath, Chriqui, McBride, 2011). The results from the NBR analysis in Table 15, show that the index variable for revenue sources (Revenue Combined) was significant in both 2010 and 2015. This finding suggests that as the number of revenue sources, increases, so does the likelihood that organizations will offer more culturally competent services. And there are a number possible explanations for this, but one is simply that organizations want to mediate financial risk by diversifying revenue streams (Kingma, 1993). According to Carroll and Stater (2009), revenue diversification is "a prudent revenue generation strategy to minimize the volatility of revenue portfolios managed by nonprofit [and arguably all types] organizations" (p. 949. This positive association, could also be explained by the fact that by accepted a variety of

revenue diversification, organizations build in increase their opportunity to serve more individuals, which in turn buffers financial capacity challenges.

A quick review of the Logistic Regressions reinforces that individual revenue sources have mixed relationships with CCS provision in 2010 and 2015. This means that the type of funding accepted (cash/self-payment, private health insurance, Medicare, Medicaid and state financed health insurance), has differential effects on the number of services provided to communities, controlling for other variables in the model. However, the Revenue Combined variable is positively and significantly associated with each of the culturally competent services, with the exception of specific services for Veterans. This makes sense from a resource dependence perspective, as increasing revenue sources reduces perceived vulnerability, because funding sources are interchangeable (Chang & Tuckman, 1994; Froelich, 1999; Frumkin & Keating, 2002). The vulnerability averted due to having more funding sources, appears to bolster organizational confidence in providing more specialized services to linguistic and cultural groups. In sum, the number of revenue sources accepted by behavioral health facilities, rather than the type, has a significant effect on organizational provision of culturally competent services.

Environmental Drivers: Changing Demographics

H10 Organizations located in more diverse demographic regions, will offer more culturally competent services. *(Supported)*

Another interesting finding in this study is the relationship between culturally competent services and population characteristics. The variable "Percent Hispanic" was positively and significantly associated with the provision of more culturally competent services, it was also

highly significant with the individual culturally competent services modeled in the logistic regressions with the exception to logistic regressions. These findings are supported by similar results of a study examining the impact of race and ethnicity on MH/SA service provision in cities across the U.S. (Vélez, Campos-Holland & Arndt, 2008). Treatment centers located in cities with higher concentrations of racial minorities, were more likely to provide in languages other than English (Vélez et al., 2008). Additionally, treatment centers in cities with larger proportions of diverse racial groups, provided more specialized services for vulnerable groups such as gay/lesbian clients, individuals diagnosed with HIV/AIDS and seniors (Vélez et al., 2008).

In a separate study, researchers examining behavioral health organizations in Vermont, found that numerous organizational leaders did not feel the need to address cultural and linguistic competency in their work. Their response to incorporating culturally and linguistic competent practices were: "we are 98.2% white," "cultural competence does not apply to us", "there are no people of color in our communities", "and we are a predominantly white state so why do we need to focus on cultural competence?" (Avila, Kamon, Beatson, 2016, p. 84). Simply put, leadership apathy or ignorance towards cultural competence might also explain some of the variability in the results observed in the logistic models.

Conversely, organizations located in states with lower income communities are more likely to provide culturally competent services. Poverty has been described as a "structural vulnerability" related to substance abuse (Bourgois, Holmes, Sue, & Quesada, 2017), so it is reasonable that organizations would offer more culturally competent services in locations that have more economically disadvantaged residents. Another reason organizations located in more economically depressed states might provide more linguistically and culturally diverse services

is that research points to the fact immigrants are over-represented in communities of concentrated poverty (Rush, Frazier & Atkins, 2015).

In sum, the data shows that population characteristics significantly affect the services behavioral health organizations provide. Based on prior studies, an organization's location influences the resources community members will have access to when seeking treatment. In particular, there is empirical support the kinds of treatment centers available in communities is associated with the racial makeup of a community (Vélez et al., 2008).

Combined 2010 and 2015 NBR Analysis with Year as Variable in Model

To complete this study and shed more light on culturally competent service provision by behavioral health organizations surveyed by SAMHSA, I elected to do one last set of NBR analyses in which the two sets of data from 2010 and 2015 were combined into a single data set, and a new "Year" binary variable was computed. The results of this NBR are included in Table 21 below. While the direction of relationships mimic the previous set of NBR analyses performed, "Year" is also a significant variable in this model, indicating that organizations surveyed in 2015 were significantly more likely to offer culturally competent services. And as noted earlier in Chapter 3, in Table 11, the proportion of organizations offering more than one culturally competent service also increased between the years.

As previously noted, cross-sectional analysis was conducted in this study due to the absence of panel data i.e. the same subjects were not surveyed in 2010 and 2015. Combining the data and measuring the effect of the "Year" variable in Table 21 provides some insight into what factors are associated with CCS adoption pre- and post-implementation of the Affordable Care Act.

The Affordable Care Act, adopted in 2010, was expected to trigger an increase in overall funding for mental health and substance abuse services, particularly a greater expansion of Medicaid coverage for MH/SA services (Terry-McElrath, Chriqui, McBride, 2011; Buck, 2011). The ACA provided coverage and parity protections, making mental health and substance abuse treatment more accessible to millions of Americans, many of whom were previously uninsured (Wishner, 2017). Interestingly, over the five-year timeframe examined in this study, we see an increase in the number of organizations accepting Medicaid and Medicare as a form of payment for services rendered as shown in Table 12. This increase is likely attributed to the fact organizations could serve more people due to expansions in coverage made available at the state-level, the removal of pre-existing conditions in insurance coverage for individuals and an increase in eligible people covered, who would be able to access services.

After cross-walking the NBR results in Table 15, and the results in Table 21, we see that organizational and environmental factors seem to be somewhat unaffected by changes in the healthcare laws. The data in these regression tables signal there is no change in the variables of interest for this study (ownership, revenue acceptance, institutional pressure, population characteristic) and their respective relationships to the CCS_Count variable. However, the statistical significance for "Year" does highlight that the later point in time (2015) is significantly and positively associated with the provision of more culturally competent service to different linguistic, cultural and social groups. These results should cue public policy makers, administrators and researchers to the idea that policy changes may influence the environment but there are other variables that influence and affect organizational behavior. Of note, I am also unaware of any national studies that have examined cultural competency service provision with this level of breadth and depth, and I am excited by these initial findings.

Table 21. Negative Binomial Regression 2010 and 2015 Combined Data

Parameter	NBR Separate Revenue Sources		NBR Combined Revenue Sources	
	IRR	Std. Error	IRR	Std. Error
Predictor Variables				
Ownership				
Non-Profit	1.258***	.0380	1.296***	.0369
Government	1.220***	.0248	1.258***	.0238
For Profit	—	—	—	—
Accepted Revenue				
Cash or self-payment	1.194***	.0425	—	—
Private health insurance	1.002	.0265	—	—
Medicaid	1.284***	.0267	—	—
Medicare	1.225***	.0249	—	—
State financed health insurance	1.102***	.0246	—	—
Revenue Combined	—	—	1.146***	.0076
Institutional Pressures				
Licensed (State Hospital/Authority)	1.288***	.0423	1.308***	.0417
Accredited (JCAHO/CARF/NCQA)	1.141***	.0220	1.144***	.0219
NCLAS Implementation	1.048	.0274	1.048	.0274
Population Characteristics				
Percent Hispanic or Latino	1.005**	.0017	1.005**	.0017
Percent Below Poverty	1.022***	.0049	1.024***	.0049
Year				
2015	1.342***	.0209	1.343***	.0208
2010	—	—	—	—
Control Variables				
Geographic Stratification				
State Population	1.000	1.5384E-9	1.000	1.5316E-9
West	1.114**	.0353	1.085*	.0350
South	1.053	.0347	1.032	.0344
Midwest	1.023	.0326	1.001	.0323
Northeast	—	—		
Treatment Modality				
Hospital inpatient	1.295***	.0442	1.290***	.0436
Non-hospital residential	1.050	.0329	1.014	.0325
Outpatient substance	1.186***	.0375	1.172***	.0373
N	20, 865		20,865	
(Scale)				
(Negative binomial)				

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Research Contributions to the Field

Several research implications, and practical implications can be drawn from this study. First my findings suggest that organizational and environmental factors affect both the count of services offered and type of services offer. This is a substantive finding for the behavioral health field, because most scholars examine CCS measures as stand-alone outcome variables. For example, researchers have examined correlates of services offered to women (Terplan, Longinaker & Appel, 2015), services offered to LGBT clients (Fredriksen-Goldsen et al., 2014), and services offered to Medicaid recipients (Terry-McElrath, Chriqui, McBride, 2011). This modeling does not align with how culturally competent services are implemented or administered, in most agencies. In reality organizations do not just provide translated materials or programs to non-English speakers, they offer a variety of specialized services for women, adolescents, veterans etc. So, examining singular-service areas does not capture the complex nature or ways variables can influence, and affect organizational services.

The analytical models utilized in this study offer a robust way to make sense of culturally competent service provision and better understand organizational and environmental characteristics that lead to the adoption of culturally competent programs and services— the research questions posed at the beginning of this study. By understanding what contributes to culturally competent systems of care, we have the potential to change the treatment experiences and outcomes of vulnerable groups such as ethnic minorities, non-native English speakers, seniors and veterans (referenced in chapter one), and reduce the overall cost to society (Center for Substance Abuse Treatment, 2014).

This study also addresses some criticisms from behavioral health researchers who contend that organizational theories are underutilized in their examination of substance abuse

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program outcomes (Heinrich & Lynn, 2002, p. 604). This study provides important theoretical contributions to the field's understanding about the organizational and environmental factors that influence CC services. The analyses show statistically significant and substantively important relationships among measures of ownership (government, nonprofit and for-profit), financial resources and revenue (revenue sources accepted by agencies, and a combination of revenue sources), measures of institutional isomorphisms (licensure, and accreditation), and population characteristics and population characteristics (community demographics of Hispanics and individuals living in poverty). Combining this mix of variables, highlights that various public administration and organizational theories can contribute to our understanding of CC adoption by behavioral health agencies. These findings could be useful in examining new models that explain factors that facilitate or impede service delivery to diverse linguistic, social and cultural groups.

Lastly, this study dovetails from the vast literature that examines CCS activities at the practitioner level. For example, scholars have studied the role of schoolteachers as key cultural brokers for students and parents that they associate with, has been examined (Shepard, 2013; Ward & Ward, 2003; Sleeter, 2001). Numerous researchers have examined attitudes, behaviors and competencies of mental health and substance abuse counselors in treatment planning with clients (Gone, 2015; Kirmayer, 2012b; Lie, Lee-Rey, Gomez, Bereknyei, & Braddock III, 2011; Guerrero, Campo, Urada, & Yang, 2012; Saha, Korthuis, Cohn, Sharp, et al., 2013). And several studies have focused on the clinical practices of staff in larger healthcare systems, medical-centers and hospitals (Mareno & Hart, 2014; Chae, Park, Kang, & Lee, 2012; Bhui, Warfa, Edonya, McKenzie, & Bhugra, 2007). The more PA scholars continue to examine organizational elements of cultural competence, the better public administrators will become at identifying

factors that promote culturally competent systems of care, and ensure individuals from

marginalized or vulnerable populations are served well.

Limitations

While this study provides important insights on the relationships between environmental

and organizational variables on CCS provision, several limitations of this study should also be

considered. The first limitation of this study is that it was conducted using a secondary database,

with non-cohorted data. Since the N-SSATS data are cross-sectional, I cannot measure causality.

I describe associations, influences and linkages drawn between the primary independent

variables and the outcome variable of cultural competence, but I do not make causal claims. I do

think these analyses are appropriate in providing an overview of a topic that has not been studied

from this angle, or with this breadth and depth.

Secondly, this data only allows me to examine counts of services, but does not cater to an

examination of the frequency, mode, or quality of CC service delivery. As such, the analyses can

only be used to provide descriptive narrative around the relationships between variables for

organizations surveyed in 2010 and 2015. However, N-SSATS does publish a list of

organizations that respond to the survey each year. There is potential to conduct deeper analyses

and examine how behavioral health organizations structure, or deliver culturally competence

services by sampling a subset of agencies in the survey year of interest.

The final limitation of this study is the inability to examine the data at a more granular

level— particularly to explore the culturally competent service offerings of organizations in

different cities, counties or regional municipalities. SAMHSA in recent years has made efforts to

maintain the autonomy of respondents or shield their identity by releasing results that can only

be analyzed at the state level. During the years when SAMHSA did make data available that disclosed the organizations city or municipality, interested parties were able to pinpoint specific organizations in the dataset, by reviewing different organizational markers obtained from the N-SSATS survey (Alderks, 2018). To encourage and sustain high N-SSATS response rates, the Department of Health and Human Services, made the decision to shield organizational data by removing individual markers in the N-SSATS survey. However, with future analysis, I would like to examine how the relationships change based on geographic granularity as some scholars have noted some nuances in service delivery between urban and rural areas, as well as different municipalities— one third of treatment centers are located outside of metropolitan areas, in more rural areas (Vélez et al., 2008). I would like to test and model differences in CCS provision within states.

Future Research

This study presents several opportunities for future scholarship. Questions around access and effectiveness of mental health and substance abuse treatment services are central themes of the ongoing healthcare debate (Merritt, 2019). Based on the review of the logistic regression results in Table 19 in Chapter 4, and the organizational influencers of culturally competent services, these variables are not telling the whole story of what drives organizations to provide specialized services, especially when we consider that culturally competent or culturally appropriate services can improve and increase access for diverse groups (Center for Substance Abuse Treatment, 2014).

While SAMHSA does not make available identifying information about the organizations surveyed, they do publish the names of the organizations included in the annual survey process.

Similar to the case study published by Avila, Kamon, Beatson (2016), future research could explore why these variables influence specialized service offerings in different ways through interviews with SA/MH organizational leaders. There is opportunity to examine these phenomena in more depth, and glean greater understanding from qualitative analyses that was not conducted in this study. Although this is a preliminary study of factors related to cultural competency service provision, it provides a starting point for future research on factors that influence organizational adoption of culturally competent service provision.

From an organizational behavior standpoint, one area for future research that I think would be valuable to the field is more explanation around how organizations define culturally competent service provision. Is it simply offering specialized programming? And if yes, what is deemed the adequate frequency or intensity of programming offered, to qualify an organization as offering culturally competent services? For example, does providing services to clients in an alternate language via translators versus hiring staff trained in a particular language, yield the same type of client outcomes?

Somewhat tangential to this study, but something that I observed in the early research phases, is that there is a lot of definitional fluidity in how cultural competency is operationalized in behavioral health research. In the behavioral health field, we see that "more programs are being developed with diverse populations…but of the thirty-six new programs added since September 2015 to the National Registry of Evidence-Based Programs and Practices of the Substance Abuse and Mental Health Services Administration (SAMHSA), fourteen were developed with racially and ethnically diverse patients but only two described culturally adapted treatment" (Alegría et al., 2016, p.6). The lack of definitional clarity regarding what constitutes culturally competent service provision, presents a challenge to SA/MH research, when it comes

to measuring and understanding what drives CC service provision. I would be interested in pursuing a qualitative approach to examine what behavioral health providers consider "culturally competent practice."

PA, Cultural Competency and Behavioral Healthcare

As conversations around diversity, equity and inclusion gain traction in the United States, there is also growing demand for culturally competent public administrators. In theory, competence in public administration is a "respect for, and understanding of, diverse ethnic and cultural groups, their histories, traditions, beliefs, and value systems" in the provision and delivery of services (Bailey, 2000, p.179). And in practice, cultural competence is the ability of public organizations and employees to offer services that reflect the varied cultures of the constituents and clients they serve (Bailey, 2015).

The Substance Abuse Mental Health Services Administration (SAMHSA), is the administrative arm of the U.S. government that oversees patterns of behavior among MH/SA organizations nationally. In its administrative function, SAMHSA collects data on the activities, programs, services, outputs and outcomes of MH/SA agencies via a number of survey instruments conducted annually, including the N-SSATS. According to Dr. Alderks (2018), SAMHSA collects and collates extraordinary amounts of data each year to stay current on trends in the field. The federal agency also disseminates information to various stakeholders such as: the Center for Disease Control (CDC), internal divisions at SAMHSA such as the Center for Substance Abuse Treatment, policymakers, researchers and the general public. And while culturally competent service provision is a topic of conversation at SAMHSA, they cannot commit significant resources to do this level of data analysis and choose instead to make the N-

SSATS data publicly available, so that researchers can examine these issues more deeply (Alderks, 2018).

My consultations with Dr. Alderks highlighted that there are a plethora of stakeholders interested in understanding the intersections of organizational theory, behavioral health and culturally competent service provision. The growing recognition of the importance of culturally competent service and organizational responsiveness to the needs of culturally diverse populations in the research community is noteworthy (Merritt, 2019; Kaiser Family Foundation, 2018; Berry-James, 2012; Guerrero & Andrews, 2011; Guerrero, 2010). And the mounting interest "from healthcare policy makers, providers, insurers and educators as a strategy to improve quality of care and eliminate racial/ethnic disparities in healthcare" (Betancourt & Green, 2007, p. 99; Wishner, 2017), showcases that CCS provision is an integral topic to practitioners and researchers.

So, why is culturally competent service provision so important? As discussed in Chapter 1, offering culturally competent services is critical because it has been linked to more effective treatment and decrease in ongoing drug use, and relapse occurrences. Additionally, trend data from the National Healthcare Disparities Report (NHDR) highlight that access to healthcare services, and provision quality healthcare remains a major challenge for cultural and social groups, and this can only be mitigated with CCS provision (Berry-James, 2012, p. 184). Beyond the personal benefits accrued by individuals accessing CC behavioral health services, there are even higher stakes in question. The potential return on the CCS investment is quite significant, as evidence suggests that culturally competent treatment has the potential to reduce the long-term social and medical consequences of substance use, and the overall cost to society (Center for Substance Abuse Treatment, 2014).

There clearly are factors that facilitate and factors that frustrate the provision of culturally competent services (Heinrich & Lynn, 2002), based on the simple fact that the majority of organizations surveyed in 2010 and 2015 did not provide more than two culturally competent services for diverse linguistic, cultural and social groups (Table 11). Normatively, it seems wrong that more organizations are not diversifying their services to CCS to multiple cultural groups. But empirically, this trend makes sense— MH/SA clientele may in fact be accessing more specialist organizations, instead of generalist providers. And based on some of research grounded in the publicness and resource dependency literature, organizations elect to provide fewer services, in order to maintain more efficiency and effectiveness in their service models (Heinrich & Fournier, 2004; Andrews, Boyne & Walker, 2011). The challenge remains as to whether these organizational models are in fact meeting the reported needs of clients. In an era where conversations about diversity, equity and inclusion are trending topics, I would argue, that the research questions posed in this study are important as behavioral health organizations wrestle with valuation and provision of culturally competent services.

Conclusion

There are countless organizational and environmental characteristics that influence organizational behavior. And this research begins to examine questions about the drivers of culturally competent services among behavioral health organizations, using a mix of Organizational Theories— Publicness, Institutional, RDT and Contingency Theories. This study provides some valuable insights on the influences of culturally competent services, with the depth and breadth of the analyses undertaken. We see some organizational and environmental

drivers are only related to certain linguistic or social supports. Whereas others are more cross-cutting, and affect the number of services offered as well as the characteristics of those services. The NBR analyses in particular (Table 15) highlight that CCS provision by behavioral health organizations is primarily influenced by sector affiliation, payment sources, accreditation standards and the population characteristics. However, based on the insights from theory and practice we see that the pattern of relationships between organizational influences, environmental influences, and culturally competent service are complex. Much can and still needs to be learned about the factors that compel organizations to offer culturally competent services— some influences compound disparities in services, and some influences eradicate them (Heinrich & Fournier, 2004). This study provides some revelations about how organizational ownership, revenue sources, accrediting bodies and community demographics impact behavioral health agencies, a step towards understanding the drivers of MH/SA culturally competent service provision. More research is needed to examine factors that influence the number of culturally competent services offered at facilities, in addition to investigating perceptions of behavioral health leaders' views on CCS provision.

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APPENDICES

Appendix A. NCLAS Standards

The National Standards for Culturally and Linguistically Appropriate Services in Health and Healthcare aim to improve healthcare quality and advance health equity by establishing a framework for organizations to serve the nation's increasingly diverse communities.

Principal Standard
1) Provide effective, equitable, understandable and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy and other communication needs.

Governance, Leadership and Workforce
2) Advance and sustain organizational governance and leadership that promotes CLAS and health equity through policy, practices and allocated resources.
3) Recruit, promote and support a culturally and linguistically diverse governance, leadership and workforce that are responsive to the population in the service area.
4) Educate and train governance, leadership and workforce in culturally and linguistically appropriate policies and practices on an ongoing basis.

Communication and Language Assistance
5) Offer language assistance to individuals who have limited English proficiency and/or other communication needs, at no cost to them, to facilitate timely access to all healthcare and services.
6) Inform all individuals of the availability of language assistance services clearly and in their preferred language, verbally and in writing.
7) Ensure the competence of individuals providing language assistance, recognizing that the use of untrained individuals and/or minors as interpreters should be avoided.
8) Provide easy-to-understand print and multimedia materials and signage in the languages commonly used by the populations in the service area.

Engagement, Continuous Improvement and Accountability
9) Establish culturally and linguistically appropriate goals, policies and management accountability, and infuse them throughout the organizations' planning and operations.
10) Conduct ongoing assessments of the organization's CLAS-related activities and integrate CLAS-related measures into assessment measurement and continuous quality improvement activities.
11) Collect and maintain accurate and reliable demographic data to monitor and evaluate the impact of CLAS on health equity and outcomes and to inform service delivery.
12) Conduct regular assessments of community health assets and needs and use the results to plan and implement services that respond to the cultural and linguistic diversity of populations in the service area.
13) Partner with the community to design, implement and evaluate policies, practices and services to ensure cultural and linguistic appropriateness.
14) Create conflict- and grievance-resolution processes that are culturally and linguistically appropriate to identify, prevent and resolve conflicts or complaints.
15) Communicate the organization's progress in implementing and sustaining CLAS to all stakeholders, constituents and the general public.

Appendix B. Codes and Labels of Variables

Table B1. Codes and Labels

Data Source	2010 Code	2010 Question/Label	2015 Code	2015 Question/Label
		Dependent Variables		
N-SSATS	CCS_Count	Index variable: LANG+SIGNLANG+SRVC62+SRVC63	CCS_Count	Index variable: LANG+SIGNLANG+SRVC62+SRVC63
	LANG	Treatment in language other than English	LANG	Treatment in language other than English
	SIGNLANG	Treatment in sign language	SIGNLANG	Treatment in sign language
	SRVC62	Specific program/ group for clients who identified as lesbian/gay/ bisexual/trans (LGBT)	SRVC62	Specific program/ group for clients who identified as lesbian/gay/ bisexual/trans (LGBT)
	SRVC63	Specially designed program/group for seniors/older adults	SRVC63	Specific program/ group for seniors
	N/A	N/A	SRVC113	Specific program/ group for veterans
		Independent Variables		
N-SSATS	Ownership3	Ownership (excl- Tribal Gov): Ownership 1- For Profit Ownership 2- Nonprofit Ownership 3- Government (local, state, fed)	Ownership3	Ownership (excl- Tribal Gov): Ownership 1- For Profit Ownership 2- Nonprofit Ownership 3- Government (local, state, fed)
	REVCHK1	Accepts cash or self-payment	REVCHK1	Accepts cash or self-payment
	REVCHK2	Accepts private health insurance	REVCHK2	Accepts private health insurance
	REVCHK5	Accepts Medicaid payments	REVCHK5	Accepts Medicaid payments
	REVCHK8	Accepts Medicare payments	REVCHK8	Accepts Medicare payments
	REVCHK10	Accepts state financed health insurance	REVCHK10	Accepts state financed health insurance
	Licensed	Lic/cert/accred by hospital or state authority	Licensed	Licensed/certified/accredited by hospital or state authority
	Accredited	Lic/cert/accred by JCAHO/CARF/NCQA/COA	Accredited	Licensed/certified/accredited by JCAHO/CARF/NCQA/ COA/HFAP
NCLAS	NCLAS Implementation	NCLAS state adoption	NCLAS Implementation	NCLAS state adoption
ACS	State_Population	Total State Population	State_Population	Total State Population
	Percent Hispanic	% Population that is Hispanic or Latino	Percent Hispanic	% Population that is Hispanic or Latino
	Percent Below Poverty	% Population For Whom Poverty Status Is Determined: Income in the Past 12 Months is Below Poverty Level	Percent Below Poverty	% Population For Whom Poverty Status Is Determined: Income in the Past 12 Months is Below Poverty Level

Table B1. Continued

<table>
<tr><td colspan="5" align="center">**Control Variables**</td></tr>
<tr>
<td>ACS</td>
<td>Census Region</td>
<td>Region 1- Northeast
Region 2- Midwest
Region 3- South
Region 4- West</td>
<td>Census Region</td>
<td>Region 1- Northeast
Region 2- Midwest
Region 3- South
Region 4- West</td>
</tr>
<tr>
<td rowspan="3">N-SSATS</td>
<td>CTYPE4</td>
<td>Hospital inpatient substance abuse services</td>
<td>CTYPE4</td>
<td>Hospital inpatient substance abuse care offered</td>
</tr>
<tr>
<td>CTYPE7</td>
<td>Residential (non-hospital) substance abuse services</td>
<td>CTYPE7</td>
<td>Non-hospital residential substance abuse care offered</td>
</tr>
<tr>
<td>CTYPE1</td>
<td>Outpatient substance abuse services</td>
<td>CTYPE1</td>
<td>Any outpatient substance abuse care offered</td>
</tr>
</table>

*N-SSATS- National Survey of Substance Abuse Treatment Services collected annually by the Substance Abuse and Mental Health Services Administration

*NCLAS (Culturally and Linguistically Appropriate Services) data is from a compendium compiled by the Office of Minority Health.

*ACS- American Community Survey. Annual surveys from Census Bureau

Appendix C. Goodness of Fit Tests for NBR Models

Table C1. Goodness of Fit[a] Separate Revenue Sources Model

YEAR		Value	df	Value/df
2010	Deviance	8035.592	11709	.686
	Scaled Deviance	8035.592	11709	
	Pearson Chi-Square	6377.482	11709	.545
	Scaled Pearson Chi-Square	6377.482	11709	
	Log Likelihood[b]	-14484.488		
	Akaike's Information Criterion (AIC)	29008.976		
	Finite Sample Corrected AIC (AICC)	29009.048		
	Bayesian Information Criterion (BIC)	29156.372		
	Consistent AIC (CAIC)	29176.372		
2015	Deviance	6180.745	9076	.681
	Scaled Deviance	6180.745	9076	
	Pearson Chi-Square	4375.353	9076	.482
	Scaled Pearson Chi-Square	4375.353	9076	
	Log Likelihood[b]	-13344.670		
	Akaike's Information Criterion (AIC)	26729.341		
	Finite Sample Corrected AIC (AICC)	26729.433		
	Bayesian Information Criterion (BIC)	26871.653		
	Consistent AIC (CAIC)	26891.653		

Dependent Variable: CCP_Combined SIGNLANG+LANG+SRVC62+SRVC63

Model: (Intercept), Private, Nonprofit and Government, Accepts cash or self-payment, Accepts private health insurance, Accepts Medicaid payments, Accepts Medicare payments, Accepts state financed health insurance , Licensed by hospital or state authority, Accredited by JCAHO/CARF/NCQA/CARF, NCLAS Implementation, State Population, % Hispanic or Latino, % Population For Whom Poverty Status Is Determined Income in the Past 12 Months Below Poverty Level, Census Regions, Hospital inpatient substance abuse services, Non-hospital residential substance abuse care offered , Any outpatient substance abuse care offered[a]

a. Information criteria are in smaller-is-better form.

b. The full log likelihood function is displayed and used in computing information criteria.

Table C2. Omnibus Test Separate Revenue Sources Model

YEAR	Likelihood Ratio Chi-Square	df	Sig.
2010	642.013	19	.000
2015	395.760	19	.000

Compares the fitted model against the intercept-only model.

Table C3. Goodness of Fit[a] Combined Revenue Sources Model

YEAR		Value	df	Value/df
2010	Deviance	8067.599	11713	.689
	Scaled Deviance	8067.599	11713	
	Pearson Chi-Square	6365.835	11713	.543
	Scaled Pearson Chi-Square	6365.835	11713	
	Log Likelihood[b]	-14500.491		
	Akaike's Information Criterion (AIC)	29032.982		
	Finite Sample Corrected AIC (AICC)	29033.029		
	Bayesian Information Criterion (BIC)	29150.899		
	Consistent AIC (CAIC)	29166.899		
2015	Deviance	6202.357	9080	.683
	Scaled Deviance	6202.357	9080	
	Pearson Chi-Square	4383.641	9080	.483
	Scaled Pearson Chi-Square	4383.641	9080	
	Log Likelihood[b]	-13355.477		
	Akaike's Information Criterion (AIC)	26742.953		
	Finite Sample Corrected AIC (AICC)	26743.013		
	Bayesian Information Criterion (BIC)	26856.803		
	Consistent AIC (CAIC)	26872.803		

Dependent Variable: CCP_Combined SIGNLANG+LANG+SRVC62+SRVC63

Model: (Intercept), Private, Nonprofit and Government, REVCHK1 + REVCHK2 + REVCHK5 + REVCHK8 + REVCHK10, Licensed by hospital or state authority, Accredited by JCAHO/CARF/NCQA/CARF, NCLAS Implementation, State Population, % Hispanic or Latino, % Population For Whom Poverty Status Is Determined Income in the Past 12 Months Below Poverty Level, Census Regions, Hospital inpatient substance abuse services, Non-hospital residential substance abuse care offered , Any outpatient substance abuse care offered[a]

a. Information criteria are in smaller-is-better form.

b. The full log likelihood function is displayed and used in computing information criteria.

Table C4. Omnibus Test[a] Combined Revenue Sources Model

YEAR	Likelihood Ratio Chi-Square	df	Sig.
2010	663.300	16	.000
2015	374.147	15	.000

a. Compares the fitted model against the intercept-only model.

Appendix D. Logistic Regressions 2010

Table D1. Logits 2010

	LANG OR(SE)	SIGNLANG OR(SE)	LGBT OR(SE)	SENIORS OR(SE)	LANG OR(SE)	SIGNLANG OR(SE)	LGBT OR(SE)	SENIORS OR(SE)
Ownership								
Government	1.373***	3.221***	0.556***	0.592***	1.494***	3.250***	0.584***	0.638***
	(0.101)	(0.267)	(0.0862)	(0.0830)	(0.106)	(0.262)	(0.0876)	(0.0868)
Nonprofit	1.435***	2.620***	0.598***	0.571***	1.562***	2.689***	0.611***	0.604***
	(0.0695)	(0.155)	(0.0550)	(0.0501)	(0.0722)	(0.155)	(0.0532)	(0.0505)
For-Profit	—	—	—	—	—	—	—	—
Accepted Revenue								
Cash or self-payment	1.442***	1.822***	0.730*	1.015	—	—	—	—
	(0.118)	(0.188)	(0.109)	(0.160)				
Private health insurance	0.800***	1.215**	1.255*	0.908	—	—	—	—
	(0.0406)	(0.0728)	(0.124)	(0.0878)				
Medicaid	1.603***	1.818***	1.066	1.093	—	—	—	—
	(0.0817)	(0.106)	(0.107)	(0.107)				
Medicare	1.340***	1.301***	1.034	1.778***	—	—	—	—
	(0.0672)	(0.0705)	(0.106)	(0.170)				
State financed health insurance	1.350***	1.165**	1.055	1.049	—	—	—	—
	(0.0656)	(0.0625)	(0.102)	(0.0969)				
Revenue_Combined	—	—	—	—	1.242***	1.367***	1.066*	1.149***
					(0.0183)	(0.0229)	(0.0320)	(0.0332)
Institutional Pressures								
Licensed (State Hospital/Authority)	1.542***	2.066***	1.036	0.841	1.612***	2.211***	0.988	0.805
	(0.123)	(0.216)	(0.150)	(0.112)	(0.126)	(0.229)	(0.141)	(0.105)
Accredited (JCAHO/CARF/NCQA)	1.311***	1.460***	0.875	0.869	1.311***	1.460***	0.890	0.882
	(0.0555)	(0.0692)	(0.0750)	(0.0722)	(0.0549)	(0.0686)	(0.0759)	(0.0726)
NCLAS Implementation	1.129*	1.047	1.123	1.322*	1.111	1.048	1.132	1.306*
	(0.0618)	(0.0640)	(0.133)	(0.149)	(0.0605)	(0.0639)	(0.134)	(0.147)
Population Characteristics								
Percent Hispanic	1.034***	0.978***	1.013*	0.999	1.034***	0.978***	1.013*	1.000
	(0.00347)	(0.00373)	(0.00640)	(0.00619)	(0.00345)	(0.00371)	(0.00642)	(0.00616)
Percent Below Poverty	1.035***	1.085***	0.993	1.025	1.038***	1.086***	0.992	1.028
	(0.0101)	(0.0117)	(0.0204)	(0.0201)	(0.0100)	(0.0117)	(0.0204)	(0.0202)

Table D1. Continued

Control Variables								
Geographic Stratification								
State Population	1.000	1.000	1.000	1.000[*]	1.000	1.000	1.000	1.000[**]
	(3.10e-09)	(3.65e-09)	(5.43e-09)	(5.46e-09)	(3.09e-09)	(3.64e-09)	(5.42e-09)	(5.45e-09)
West	0.966	2.029[***]	0.908	1.072	0.897	1.924[***]	0.915	1.049
	(0.0665)	(0.164)	(0.118)	(0.139)	(0.0609)	(0.154)	(0.118)	(0.134)
South	0.999	1.705[***]	0.638[**]	0.707[*]	0.948	1.656[***]	0.633[**]	0.703[**]
	(0.0700)	(0.136)	(0.0912)	(0.0971)	(0.0657)	(0.132)	(0.0896)	(0.0958)
Midwest	0.995	1.559[***]	0.734[*]	0.917	0.931	1.519[***]	0.734[*]	0.916
	(0.0638)	(0.112)	(0.0954)	(0.111)	(0.0589)	(0.109)	(0.0946)	(0.110)
Northeast	—	—	—	—	—	—	—	—
Treatment Modality								
Hospital inpatient	1.233[*]	2.113[***]	1.035	2.151[***]	1.150	2.052[***]	1.051	2.317[***]
	(0.115)	(0.204)	(0.198)	(0.307)	(0.106)	(0.195)	(0.198)	(0.324)
Non-hospital residential	0.759[***]	1.097	2.105[***]	1.857[***]	0.705[***]	1.072	2.140[***]	1.700[***]
	(0.0505)	(0.0787)	(0.244)	(0.204)	(0.0463)	(0.0757)	(0.244)	(0.183)
Outpatient	1.313[***]	1.232[*]	1.567[***]	1.688[***]	1.253[**]	1.243[**]	1.592[***]	1.615[***]
	(0.0988)	(0.100)	(0.210)	(0.216)	(0.0937)	(0.100)	(0.212)	(0.205)
N	11729	11733	11733	11733	11729	11733	11733	11733

Appendix E. T-Tests Analyses

Table E1. Independent Samples T-Tests

		Levene's Test for Equality of Variances		T-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Accepts cash or self-payment	Equal variances assumed	32.542	.000	2.850	26665	.004	.010	.003	.003	.017
	Equal variances not assumed			2.853	26662.874	.004	.010	.003	.003	.017
Accepts private health insurance	Equal variances assumed	152.871	.000	-6.212	26364	.000	-.036	.006	-.047	-.025
	Equal variances not assumed			-6.208	26212.048	.000	-.036	.006	-.047	-.025
Accepts Medicaid payments	Equal variances assumed	430.081	.000	-10.903	26338	.000	-.066	.006	-.077	-.054
	Equal variances not assumed			-10.895	26180.054	.000	-.066	.006	-.077	-.054
Accepts Medicare payments	Equal variances assumed	15.195	.000	-1.948	26107	.051	-.011	.006	-.023	.000
	Equal variances not assumed			-1.948	26059.179	.051	-.011	.006	-.023	.000
Accepts state financed health insurance	Equal variances assumed	309.330	.000	-10.268	25187	.000	-.064	.006	-.077	-.052
	Equal variances not assumed			-10.271	25151.230	.000	-.064	.006	-.077	-.052
Licensed by hospital or state authority	Equal variances assumed	90.861	.000	-4.759	26354	.000	-.016	.003	-.023	-.010
	Equal variances not assumed			-4.759	26143.909	.000	-.016	.003	-.023	-.010
Accredited by JCAHO/CARF/NCQA/CARF	Equal variances assumed	419.292	.000	-31.611	23392	.000	-.204	.006	-.217	-.191
	Equal variances not assumed			-31.724	22256.190	.000	-.204	.006	-.216	-.191
NCLAS Implementation	Equal variances assumed	39.775	.000	3.150	26887	.002	.016	.005	.006	.026
	Equal variances not assumed			3.152	26880.759	.002	.016	.005	.006	.026

Table E1. Continued

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Percent Hispanic or Latino	Equal variances assumed	3.338	.068	-2.715	26887	.007	-.39877	.14686	-.68663	-.11092
	Equal variances not assumed			-2.715	26815.472	.007	-.39877	.14689	-.68669	-.11085
Percent Below Poverty Level	Equal variances assumed	12.204	.000	17.931	26887	.000	.56076	.03127	.49947	.62206
	Equal variances not assumed			17.932	26844.783	.000	.56076	.03127	.49947	.62206
State Population	Equal variances assumed	8.662	.003	2.856	26887	.004	385042.088	134834.346	120759.813	649324.363
	Equal variances not assumed			2.856	26838.781	.004	385042.088	134838.984	120750.700	649333.476
Census Regions	Equal variances assumed	11.366	.001	-.216	26887	.829	-.003	.013	-.029	.023
	Equal variances not assumed			-.216	26799.241	.829	-.003	.013	-.029	.023
Hospital inpatient substance abuse services	Equal variances assumed	9.658	.002	1.554	26886	.120	.004	.003	-.001	.010
	Equal variances not assumed			1.553	26722.190	.121	.004	.003	-.001	.010
Non-hospital residential substance abuse care offered	Equal variances assumed	23.652	.000	2.433	26886	.015	.013	.005	.002	.023
	Equal variances not assumed			2.432	26795.015	.015	.013	.005	.002	.023
Any outpatient substance abuse care offered	Equal variances assumed	14.322	.000	-1.892	26887	.058	-.009	.005	-.018	.000
	Equal variances not assumed			-1.892	26791.674	.059	-.009	.005	-.018	.000