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Organizational characteristics associated with the provision of cultural competency training in home and hospice care agencies

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Abstract

Background—Despite the increasing interest in community-based health care, little information exists on cultural competency training and its predictors in this setting.

Purpose—We examined the associations between six organizational characteristics and the provision of cultural competency training (CCT) in home health care and hospice (HHHC) agencies.

Methodology—We used cross-sectional data from the agency component of the 2007 National Home and Hospice Care Survey (NHHCS). The CCT provision composite was comprised of three items: whether the agency provides mandatory cultural training to understand cultural differences/beliefs that may affect delivery of services to: (a) all administrators, clerical, and management staff; (b) all direct service providers; and (c) all volunteers. Organizational characteristics were volume, ownership status, chain membership, teaching status, accreditation status, and formal contracts.

Principal Findings—The weighted sample ($n = 14,469$) had a mean CCT provision score of 1.75 (range = 0 – 3). Our ordinal logistic regression model showed that Joint Commission accreditation increased CCT provision odds in the home health (HH) (odds ratio [OR] = 2.07, 95% confidence interval [CI] [1.01, 4.24]) and hospice (OR = 4.40, 95% CI [2.07, 9.38]) settings. Teaching status increased CCT provision odds (OR = 2.71, 95% CI [1.19, 6.17]) in HH. Formal contracts increased CCT provision odds (OR = 4.03, 95% CI [1.80, 9.00]), whereas not-for-profit ownership decreased CCT provision odds (OR = 0.19; 95% CI [0.07, 0.50]) in the hospice setting.

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Prior presentations

A research poster based on this work was presented at the annual international meeting of the International Society of Pharmacoeconomics and Outcomes Research in Montreal, QC, Canada in May 2014 and the annual scientific meeting of the Gerontological Society of America annual meeting in Washington D.C. in November 2014.

Conflict of interest

The authors declare no potential conflicts of interests in relation to this work.

Practice Implications—HHHC agencies need to increase their CCT practices to overcome health disparities in an increasingly diverse and aging population.

Keywords

Disparities; Cultural Competence; Training; Hospice; Home health

Background

Cultural competency has been described as an organizational strategy to address health care disparities (Betancourt, Green, Carrillo, & Park, 2005; Brach & Fraserirector, 2000; Chin et al., 2012; Weech-Maldonado, Al-Amin, Nishimi, & Salam, 2011). The National Quality Forum (2009) defines cultural competency as “the ongoing capacity of health care systems, organizations, and professionals to provide for diverse patient populations high-quality care that is safe, patient-friendly and family-centered, evidence based, and equitable.” At the organizational level, cultural competency can be characterized as consisting of six domains: (a) leadership, (b) integration into management systems and operations, (c) workforce diversity and training, (d) community engagement, (e) patient-provider communication, and (f) care delivery and supporting mechanisms (Weech-Maldonado, Dreachslin, Brown, Pradhan, Rubin, et al., 2012).

We focus in this study on one of these cultural competency domains: the provision of cultural competency training (CCT) in home health care and hospice (HHHC) agencies. We propose the following definition for CCT: The use of structured training to improve the ability of health care leaders and providers to adapt health care to the cultural needs and preferences of patients and families.

Although prior research has not solidly linked CCT to better patient outcomes across racial/ethnic groups, current evidence shows that it improves the knowledge, attitudes, and skills of health professionals, and can potentially increase patient satisfaction (Beach et al., 2005; Weech-Maldonado, Elliott, Pradhan, Schiller, Hall, et al., 2012). CCT has been incorporated in the national standards on culturally and linguistically appropriate services (CLAS) (U.S. Department of Health and Human Services/Office of Minority Health, 2013).

The significance of HHHC emanates from the increasing interest in community-based health care (Caffrey, Sengupta, Moss, Harris-Kojetin, & Valverde, 2011; Wysocki et al., 2014), especially given the aging of the U.S. population and the lower per capita costs of community-based care compared to institutional care (Kaye, Harrington, & LaPlante, 2010).

While a few studies have examined CCT in one or more HHHC agencies (Jovanovic, 2012a, 2012b; Reese & Beckwith, 2014; Schim, Doorenbos, & Borse, 2006), nationally-representative information on the provision and predictors of CCT in these agencies is lacking. Our study makes a contribution to the literature by addressing this information gap. Specifically, we describe a new CCT provision scale and examine associations between this scale and a number of HHHC organizational characteristics using nationally-representative data.

Conceptual Framework

Resource dependence theory is an open-system theory that is useful in conceptualizing how organizations respond to their external environments. It posits that the environment is the source of scarce and critical resources and that organizations depend on resources in their environments for survival (Pfeffer & Salancik, 1978). Thus, organizational changes may reflect rational operational and strategic accommodations — in response to key factors and constituencies in the environments — intended to secure a stable flow of resources (Oliver, 1990). However, differences in organizational characteristics influence the need and ability of organizations to respond to key constituencies in their technical environments (Banaszak-Holl, Zinn, & Mor, 1996).

Similar to other health care organizations, HHHC agencies have been facing increased complexity in their external environments: While payers have traditionally emphasized cost-effective health care services, there has been a growing trend in recent years to emphasize cultural competence care as well (National Quality Forum, 2009; U.S. Department of Health and Human Services/Office of Minority Health, 2013). One strategy for HHHC agencies to respond to their technical environment and improve their market share is to increase their cultural competency practices (Weech-Maldonado, Dreachslin, Brown, Pradhan, Rubin, et al., 2012). We view differentiation of HHHC agencies based on provision of CCT as a rational adaptive response to changing environmental conditions intended to secure a stable flow of resources. That is, the more HHHC agencies can demonstrate higher CCT provision, the more they will be able to offer culturally competent care as a strategy to attract more patients and secure more resources from their environment. We derive hypotheses for how a number of key organizational characteristics can influence the ability of HHHC agencies to provide CCT to their staff.

Research Hypotheses

Resource dependency theory supports the prediction that large HHHC agencies have more slack resources that can allow them to experiment with new strategies by lowering risks during change (Kaluzny, McLaughlin, & Jaeger, 1993). An example of this notion is the widespread adoption of total quality management among large hospitals when this organizational innovation was introduced in the health care industry (Barness et al., 1993). Large HHHC organizations are more likely to be able to provide CCT as a strategy to improve care for various patient groups compared to smaller agencies. Supporting this prediction, a recent study found that larger hospitals have a higher degree of cultural competency (Weech-Maldonado, Dreachslin, Brown, Pradhan, Rubin, et al., 2012). Therefore:

Hypothesis 1. Larger HHHC agencies will be associated with higher CCT provision scores than smaller agencies.

From a resource dependency lens, organizational ownership status affects the extent of available resources to pursue cultural competency practices such as CCT provision. Specifically, for-profit health care organizations emphasize efficiency and profitable services. On the other hand, not-for-profit (NFP) organizations strive to cater specifically to

the needs of their communities (Proenca, Rosko, & Zinn, 2003), and patients from diverse backgrounds are more likely to have slack sources for CCT. Support for the association between NFP status and cultural competency is available in the hospital setting. Therefore:

Hypothesis 2. NFP agencies will be associated with higher CCT provision scores than for-profit agencies.

A chain agency is an agency that is part of a group of agencies operating under one corporate authority or corporate ownership (Park-Lee & Decker, 2010). From a resource dependence standpoint, belonging to a chain would afford an HHHC agency access to more resources than the agency could secure on its own because organizations depend on other organizations to provide important resources to one another (Zinn, Mor, Castle, Intrator, & Brannon, 1999). Given this greater access to resources, we expect that chain-affiliated HHHC agencies will exhibit higher CCT provision scores than stand-alone agencies. This is because chain affiliation offers opportunities for sharing and strengthening CCT training resources across individual agencies in the entire chain. Therefore:

Hypothesis 3. HHHC agencies that are part of a chain will be associated with higher CCT provision scores than stand-alone agencies.

Teaching health care organizations are viewed as leaders in their local communities and are expected to adopt the highest standards of care that would contribute to meeting the needs of diverse patient groups. As such, we expect that teaching hospitals would allocate the needed resources to embrace culturally competent care. Meeting these expectations is essential for teaching health care organizations to retain their position as leaders of medical care. From a resource dependency perspective, teaching HHHC agencies are more likely to provide CCT in order to fulfil their part of the social contract. Therefore:

Hypothesis 4. Teaching HHHC agencies will be associated with higher CCT provision scores than non-teaching agencies.

HHHC agencies may seek accreditation as a mechanism to obtain market legitimacy and attract business from insurers and payers. Accreditation programs, such as those by the Joint Commission (formerly, the Joint Commission on Accreditation of Healthcare Organizations [JCAHO]), entail certain requirements that encompass commonly agreed upon standards appropriate for each type of health care setting. The Joint Commission has encouraged the adoption of cultural competence practices in HHHC settings as an important element of providing safe quality care (The Joint Commission, 2009). For example, the Joint Commission's standards establish the need to respect patients' cultural and personal values, beliefs, and preferences, as well as effective communication in addressing patients' health literacy and language needs. As such, we expect that:

Hypothesis 5. Joint Commission-accredited HHHC agencies will be associated with higher CCT provision scores than non-accredited agencies would.

One of the premises of resource dependence theory is that any given organization may not have all the resources necessary for its survival (Pfeffer & Salancik, 1978). Thus, relying on outside organizations to provide a stream of patient referrals through formal contracts can generate these needed resources. This contracting approach also makes HHHC agencies

more competitive and subsequently better suited for survival (Oliver, 1990). To be able to secure more contracts from outside organizations with various population groups, HHC agencies should be willing to invest in CCT in order to differentiate themselves from their peers. Therefore, we expect that:

Hypothesis 6. HHC agencies with formal contracts with outside organizations will be associated with higher CCT provision scores than those with no formal contracts.

Methods

We used data from the public-use file of the agency component of the 2007 National Home and Hospice Care Survey (NHHCS) (National Center for Health Statistics, 2009). The NHHCS is a nationally representative cross-sectional survey of home health (HH) and hospice agencies. A sample of 1,545 agencies was randomly selected with probabilities proportional to agency size from over 15,000 organizations representing the population of HHC agencies in the U.S. in 2007 (Dwyer, Harris-Kojetin, Branden, & Shimizu, 2010). The data were collected from 2007 to 2008 using in-person interviews with agency directors and their designated staff. The weighted response rate for the agency file was 59% (Dwyer et al., 2010).

Measures

We used original and derived survey variables as defined in the NHHCS data dictionary (National Center for Health Statistics, 2009). We coded “do not know/refused” and “not applicable/could not be ascertained” responses as missing. Overall, missingness in our variables ranged from 0.4% to 8.9%.

Dependent Variable

The dependent variable was a summary composite score (range= 0 – 3), created based on three survey indicator variables (1 = yes; 0 = no) that tap into the provision of CCT construct — whether the agency provides mandatory cultural training to understand cultural differences/beliefs that may affect delivery of services to: (a) all administrators, clerical, and management staff; (b) all direct service providers; and (c) all volunteers. Prior research shows support for the construct validity and internal consistency reliability of this composite score (AbuDagga, Mara, Carle, & Weech-Maldonado, 2015). Finally, internal consistency reliability analysis supported adequate reliability for this scale (Cronbach’s alpha= 0.60) as well.

Independent Variables

There were six organizational characteristics that we hypothesized would be associated with CCT provision: (1) size (volume), (2) ownership (NFP vs for-profit) status, (3) chain membership, (4) teaching status (whether or not agency is used as a training site for students), (5) accreditation status (whether the agency is Joint Commission-accredited), and (6) presence of formal contracts with outside agencies or organizations (including an assisted living facility, boards and care home, life care, or a continuing care retirement

community; a hospital; a skilled nursing facility; a hospice; a managed care or private insurance provider, or other organizations) to provide services to residents or patients.

We used three indicator variables to measure patient volume based on total (50 or under, 51 – 499, and 500 or more) annual admissions, and indicator variables (1 = “Yes,” 0 = “No”) to measure the remaining five independent variables.

Control Variables

We included a few control variables: telemedicine capabilities, organizational complexity, specialized nurse staffing, leadership characteristics, and urban location.

Because telemedicine is still considered a new innovation in HHHC, agencies choosing to adopt this technology value innovation. Agencies with telemedicine capabilities may see the value in CCT and embrace it before those without telemedicine capabilities. We assessed telemedicine capabilities by an indicator variable (1 = “Yes,” 0 = “No”). Similarly, organizational complexity is expected to be associated with CCT provision. We measured organizational complexity as a summary score of total number of specialized services provided (range = 0 – 5): (1) mental health, (2) respite, (3) medical social, (4) ethnical issues counseling, and (5) grief services. Intuitively, effective provision of these specialized services may require CCT beyond routine care.

There is an increasing focus on cultural competency training in advanced and specialized nursing education programs (Whitfield, 2013). As such, nurses with advanced training may facilitate the provision of CCT. We defined specialized nurse staffing as having a nurse specialist or nurse practitioner on staff or through formal contracts with outside agencies or organizations.

Finally, we included two leadership variables related to the agency administrator: (1) whether the administrator has beyond-bachelor education or not, and (2) tenure (measured as the number of years of being an administrator at any agency). Finally, we controlled for urban location as measured by whether the agency is located in metropolitan or micropolitan statistical area or not.

Analytic Approach

Our analyses took the complex sampling survey design into account (Dwyer et al., 2010) and used finite population correction (personal communication with NHHCS staff, 2014), rendering the results generalizable to the entire HHHC population. Because HH, hospice, and mixed agencies (offering both HH and hospice services) differ in numerous ways (Park-Lee & Decker, 2010), we stratified our analyses by these three agency types as applicable.

We used weighted percentages or means and 95% confidence intervals (CI) to describe the study measures. We calculated Spearman’s ranks correlations for our study measures in the overall sample. We used ordered logit regression models (Hosmer Jr, Lemeshow, & Sturdivant, 2000) to examine the association between the independent variables and the CCT provision composite, adjusting for the control variables. By using an ordered logit, we account for the ordinal nature of the dependent variable and for the degree of

implementation of CCT. We conducted a sensitivity analysis for this model using only two items of the CCT scale (dependent variable): whether mandatory CCT was provided for (1) all administrative staff and (2) direct service providers. Results from this model were largely similar to those of the three-item CCT scale; therefore, we decided to only report the results for the three-item CCT scale. Statistical analyses were conducted at the $p < 0.05$ significance level and performed in SAS version 9.3.

Results

The total weighted sample was 14,469 agencies: 10,816 HH, 2,218 hospice, and 1,435 mixed. Therefore, HH accounted for 75% of the overall weighted sample, whereas hospice and mixed agencies accounted for 15% and 10% of the sample, respectively.

The weighted percentage distribution of the three items was generally similar across the three settings, except for volunteer services in the home health setting. Specifically, 58.13% of the home health agencies provided this training to all administrative, clerical, and management staff and 63.59% provided the training to all direct service providers, whereas only 8.18% provided this training to volunteers (Table 1). In the hospice setting, 79.67%, 81.29%, and 78.89% of the agencies provided this training to all of their administrative, clerical, and management staff; direct service providers; and volunteers, respectively. In the mixed setting, 71.01%, 75.40%, and 71.43% of the agencies provided this training to all of their administrative, clerical, and management staff; direct service providers; and volunteers, respectively. In the overall sample, 9.57% of the agencies provided CCT for administrative, clerical, and management staff only; 13.59% provided this training to direct service providers only; 31.03% provided this training for both administrative staff and direct service providers; 4.31% provided this training to either volunteers only, or volunteers and other groups; and 20.99% provided training for all three groups (7.82% did not offer training to any of these three groups and 11.31% had missing data for all three CCT items).

The mean CCT provision composite for the overall weighted sample was 1.75 (95% CI [1.62, 1.89]): The corresponding mean score was 2.60 (95% CI [2.48, 2.71]) for hospice agencies, 2.30 (95% CI [2.12, 2.48]) for mixed agencies, and 1.45, (95% CI [1.33 – 1.65]) for HH agencies (Table 2).

Fifty three percent of the overall weighted sample had annual patient admissions that ranged from 51 to 499 (95% CI [0.46, 0.61]), and 88% were located in urban areas (95% CI [0.86, 0.90]). Thirty five percent were NFP agencies (95% CI [0.29, 0.41]), 30% were part of a chain (95% CI [0.24, 0.36]), 53% had formal contracts with outside organizations (95% CI [0.46, 0.60]), 31% were Joint Commission-accredited (95% CI [0.25, 0.38]), and 44% were used as training facilities (95% CI [0.37, 0.50]). Table 2 presents the results for the rest of the control variables along with the descriptive results for each of the three agency types. Table 3 presents the correlation matrix of the study measures in the overall sample. All correlations between the independent and control variables were below 0.80, a typical threshold in assessing potential multicollinearity.

Regression Results

The results of the weighted conditional ordinal logit regression model are shown in Table 4. For the overall sample, teaching status (OR = 2.21, 95% CI [1.22, 3.99]) and Joint Commission accreditation (OR = 1.68, 95% CI [1.01, 2.80]) increased the odds of CCT provision, providing support for the study hypotheses.

The analysis breakdown by the agency setting shows that results for HH agencies mirrored those of the overall sample, as both teaching status (OR = 2.71, 95% CI [1.19, 6.17]) and Joint Commission accreditation (OR = 2.07, 95% CI [1.01, 4.24]) increased the odds of CCT provision as hypothesized. For the hospice setting, Joint Commission accreditation (OR = 4.40, 95% CI [2.07, 9.38]) and formal contracts with outside agencies or organizations (OR = 4.03, 95% CI [1.80, 9.00]) increased the odds of CCT provision; also supporting the study hypotheses. On the other hand, NFP ownership decreased the odds of CCT provision in the hospice setting (OR = 0.19; 95% CI [0.07, 0.50]), contrary to the study hypothesis. The agency size hypothesis was supported in the mixed setting only: Smaller agencies with 50 or less and those with 51 – 499 annual admissions had lower odds of CCT provision with OR = 0.02 (95% CI [0.004, 0.12]) and OR = 0.30 (95% CI [0.13, 0.67]), respectively, compared to those with 500 or more annual admissions.

Among the control variables, more specialized services increased the odds of CCT provision in the overall sample (OR = 1.86, 95% CI [1.52, 2.29]) as well as the HH (OR = 1.44, 95% CI [1.01, 2.04]) and hospice settings (OR = 1.45, 95% CI [1.02, 2.05]). On the other hand, urban location increased the odds of CCT provision (OR = 2.87, 95% CI [1.39, 5.93]) in the hospice setting only.

Two leadership characteristics were significantly associated with CCT provision in the hospice setting: Longer agency administrator's tenure was associated with increased odds of CCT provision (OR = 1.06, 95% CI [1.01, 1.12]), whereas administrator's graduate education decreased the odds compared to those with a bachelor education or lower (OR = 0.23, 95% CI [0.10, 0.51]).

Discussion

This study provides the first nationally-representative data on CCT provision in HHHC settings. We found that hospices had the highest CCT provision composite score, while HH agencies had the lowest score.

As predicted by resource dependency theory, we found support for our hypotheses regarding CCT provision and most of the organizational characteristics that we considered; however, these predictions were not seen consistently in all settings. Of all organizational characteristics considered, Joint Commission accreditation predicted CCT provision in most settings, underscoring the importance of the institutional environment in this cultural competency area. Accreditation standards increasingly emphasize cultural competency and patient-centered care (Betancourt & Green, 2010). Therefore, it follows that accredited agencies were more likely to provide CCT activities, potentially as a mechanism to increase

their external legitimacy and, as a result, acquire more resources from their external environment.

Looking at the agency-type results, our hypothesis related to the positive association between teaching status and CCT provision was supported in the HH setting only. It should be noted that only about a third of HH agencies were teaching agencies, compared to the majority of such agencies in the hospice and mixed settings. As such, teaching status may have a stronger influence on organizational activities in HH agencies compared to other settings. The institutional expectations that teaching organizations practice the latest standards of care may explain the role of teaching status in predicting the provision of CCT among HH agencies. Teaching HH agencies are also likely to be influenced by their strong linkages with academic medical centers, which are more likely to have more formal training programs including those focusing on cultural competency.

Our hypothesis regarding the positive association between the existence of formal contracts with outside agencies/organizations and CCT provision was supported in the hospice setting only. This may be explained by the fact that hospices are more highly dependent on such contracts with hospitals, skilled nursing facilities, and managed care organizations, than other type of agencies. Additionally, hospices with these types of formal contracts are more likely to face further scrutiny and expectations with respect to their workforce training activities, particularly as it relates to cultural competency in end-of-life care. As such, hospice agencies with these contractual arrangements may seek to provide CCT training as means to obtain more patient referrals from outside contractors. However, to our knowledge, no prior research has investigated the influence of formal contracting with outside organizations and cultural competency practices in community-based settings.

As expected, we found that small patient volume was negatively associated with CCT provision in the mixed setting; this is likely due to the fact that small organizations might deprioritize CCT and other cultural competency practices due to their limited overall resources. Contrary to our hypothesis, NFP ownership had a negative association with CCT provision in the hospice setting. However, no similar associations were found in other settings. This could be because for-profit hospices tend to engage in more outreach activities to low-income and minority communities compared to their NFP counterparts (Aldridge et al., 2014). We also note that there has been a recent trend of conversion from the NFP to the for-profit sector in the hospice industry (Thompson, Carlson, & Bradley, 2012). The lack of support for our chain affiliation hypothesis contradicts the findings of a previous study that showed that chain affiliation increases the adoption of patient-centered care strategies in hospices (Carlson et al., 2011). We speculate that our finding might be because chain organizations may not have begun to share CCT resources with their community-based affiliate organizations. Further research is needed to determine this relationship.

Our finding that specialized services were associated with CCT provision is expected, because these services involve mental health and similar supportive services which make CCT an integral component of care, compared to routine services. Although telemedicine has been increasingly shown to be related to better patient outcomes in the HH setting (Dellifrairie & Dansky, 2008), it was not associated with CCT provision in this study.

Further research is needed to explore the role of telemedicine on the cultural competency practices of HHHC organizations, especially in relationship to the numbers of racial/ethnic minorities who actually utilize telemedicine services. Our finding that urban status was associated with CCT provision in hospice agencies suggests that urban hospices may face greater competition compared to rural hospices, and may seek to provide CCT as a differentiation strategy to attract diverse patients.

Similar to previous research that showed that agency leadership is critical for the adoption of cultural competency (Reese & Beckwith, 2014), we found that an administrator's tenure was associated with increased CCT provision in the mixed setting. However, further research is needed to examine our paradoxical finding that administrator's higher education level was negatively associated with CCT provision.

The results of this study should be interpreted with a number of limitations in mind. First, data limitations precluded the examination of the role of environmental characteristics (such as the size of minority populations and competition rate among agencies) on CCT provision. Second, the NHHCS survey did not inquire of the specific content of CCT programs offered across various HHHC organizations. Therefore, our approach of using a composite of three indicator variables of CCT provision across the three trainee groups does not capture possible variations across programs. Third, our study was limited to cultural competency training and does not address other aspects of cultural competency (including workforce diversity). Fourth, although our data are nationally representative of U.S. HHHC organizations, they date back to 2007–2008. These organizations may have experienced structural or environmental changes in more recent years that may influence the relationships observed in this study. Therefore, more recent data are needed to replicate our findings. Fifth, the cross-sectional design of the NHHCS data precludes longitudinal analyses of how organizational factors influence CCT provision over time. Sixth, we are not able to assess the association between CCT and other organizational performance or clinical outcomes. Therefore, future research is needed to examine whether the provision of CCT translates into better outcomes for various racial/ethnic minority groups.

Practice and Research Implications

The findings of our study have implications for policymakers, managers, and researchers. Our findings show that Joint Commission accreditation is the most consistent predictor of CCT provision across HHHC setting. This relationship is likely to continue given the release of Joint Commission standards in 2012 related to cultural competency (The Joint Commission, n.d.). This finding is consistent with previous studies that have found that accreditation promotes organizational change and professional development (Greenfield & Braithwaite, 2008) and is associated with better quality performance (Schmaltz, Williams, Chassin, Loeb, & Wachter, 2011). As such, policymakers should consider the promotion of accreditation by HHHC agencies, particularly among under-resourced agencies.

Our findings also show that agencies procuring external formal contracts and offering specialized services have higher CCT scores. These findings suggest that managers may use CCT as a differentiation strategy to increase their market positioning and attract external

resources. On the other hand, smaller agencies have lower CCT scores, suggesting that these agencies may lack the resources to implement systematic CCT. This provides an opportunity for health plans and public payers to provide resources and incentives that can promote CCT programs in these smaller organizations.

Given the variations in CCT provision, policymakers and managers should increase efforts to provide CCT across all HHHC agency types, particularly in home health agencies, which lag behind hospices in this regard. Policymakers need to consider incentivizing HHHC providers to increase the provision of CCT and other cultural competency practice through value purchasing programs or other initiatives.

HHHC managers should prioritize CCT as a necessary skill for their workforce. For example, they could integrate this training into their quality improvement activities, in order to ensure an organization-wide adoption of this important cultural competency aspect.

There are several CCT curricula available (U.S. Department of Health and Human Services, n.d.), and managers should select a program that suits the needs of their patient populations. Although financial constraints may make it difficult for HHHC managers to train all of their staff, they should consider providing this training, at a minimum, to service providers who interact with patients directly.

It is time for cultural competency researchers to expand their focus to this important community-based setting. Particularly, more research is needed to understand the best practices that are conducive to a culturally competent workforce in community-based organizations and how these organizations can overcome structural and environmental barriers to effective adoption of cultural competency training programs that serve the needs of their patients. This research should also seek to advance the current research by ultimately investigating the link between effective CCT, and clinical and equity outcomes for various minority groups.

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Table 1

Weighted Means and 95% CI for Study Measures in Overall Sample and Agency Types

	Overall (n=14,469)	Home Health (n=10,816)	Hospice (n=2,218)	Mixed (n=1,435)
Variable	Mean [95% CI]	Mean [95% CI]	Mean [95% CI]	Mean [95% CI]
CCT provision composite	1.75 [1.62, 1.89]	1.49 [1.33, 1.65]	2.60 [2.48, 2.71]	2.30 [2.12, 2.48]
50 annual admissions	0.17 [0.10, 0.23]	0.19 [0.10, 0.28]	0.14 [0.05, 0.24]	0.004 [0.00, 0.01]
51 – 499 annual admissions	0.53 [0.46, 0.61]	0.52 [0.43, 0.62]	0.66 [0.55, 0.76]	0.42 [0.32, 0.52]
500 annual admissions	0.30 [0.24, 0.36]	0.28 [0.21, 0.36]	0.20 [0.14, 0.27]	0.58 [0.48, 0.68]
NFP ownership	0.35 [0.29, 0.41]	0.25 [0.18, 0.31]	0.61 [0.50, 0.72]	0.74 [0.66, 0.83]
Chain affiliation	0.30 [0.24, 0.36]	0.32 [0.24, 0.41]	0.28 [0.18, 0.37]	0.18 [0.10, 0.26]
Teaching status	0.44 [0.37, 0.50]	0.33 [0.25, 0.42]	0.66 [0.55, 0.78]	0.84 [0.77, 0.91]
JCAHO accreditation	0.31 [0.25, 0.38]	0.31 [0.23, 0.39]	0.26 [0.17, 0.35]	0.43 [0.32, 0.54]
Formal contracts with outside organizations	0.53 [0.46, 0.60]	0.41 [0.32, 0.49]	0.90 [0.82, 0.98]	0.92 [0.89, 0.96]
Telemedicine capabilities	0.21 [0.16, 0.26]	0.20 [0.14, 0.26]	0.16 [0.07, 0.26]	0.33 [0.25, 0.41]
Nurse specialist or NP on staff	0.13 [0.09, 0.17]	0.12 [0.06, 0.17]	0.14 [0.10, 0.18]	0.22 [0.14, 0.30]
No. of specialized services	1.92 [1.72, 2.12]	1.26 [1.08, 1.45]	4.17 [4.01, 4.33]	3.53 [3.24, 3.82]
Urban location	0.88 [0.86, 0.90]	0.88 [0.86, 0.91]	0.89 [0.87, 0.92]	0.83 [0.78, 0.87]
Graduate education of administrator	0.27 [0.21, 0.33]	0.23 [0.15, 0.30]	0.37 [0.27, 0.48]	0.44 [0.33, 0.55]
Tenure of administrator	8.55 [7.47, 9.62]	8.09 [6.70, 9.48]	8.89 [7.69, 10.09]	11.50 [10.02, 12.97]

Note. CCT = cultural competency training; CI = confidence interval; JCAHO = Joint Commission on Accreditation of Healthcare Organizations; NFP = not-for-profit; NP = nurse practitioner.

Table 2

Unweighted Spearman's Rank Correlation Matrix of Study Measures in Overall Sample* (n=1,036)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. CCT provision composite	1.00														
2. 50 annual admissions	-0.07	1.00													
3. 51 – 499 annual admissions	-0.04	-0.33	1.00												
4. 500 annual admissions	0.09	-0.25	-0.83	1.00											
5. NFP ownership	0.09	-0.14	-0.09	0.17	1.00										
6. Chain affiliation	-0.08	0.07	-0.01	-0.03	-0.40	1.00									
7. Teaching status	0.14	-0.24	-0.08	0.22	0.40	-0.20	1.00								
8. ICAHO accreditation	0.12	-0.12	-0.20	0.28	0.18	-0.02	0.13	1.00							
9. Formal contracts with outside organizations	0.24	-0.12	-0.03	0.10	0.17	-0.12	0.25	-0.01	1.00						
10. Telemedicine capabilities	-0.01	-0.12	-0.16	0.23	0.14	-0.01	0.14	0.09	0.01	1.00					
11. Nurse specialist or NP on staff	0.03	-0.11	-0.16	0.22	0.11	-0.09	0.17	0.09	0.11	0.07	1.00				
12. No. of specialized services	0.32	-0.14	0.01	0.07	0.28	-0.15	0.32	0.04	0.36	0.02	0.17	1.00			
13. Urban location	0.07	-0.16	-0.22	0.31	-0.11	0.02	0.07	0.11	0.08	0.06	0.19	0.01	1.00		
14. Graduate education of administrator	0.09	-0.07	-0.19	0.24	0.23	-0.14	0.16	0.08	0.14	0.17	0.24	0.14	0.17	1.00	
15. Tenure of administrator	0.07	-0.07	-0.11	0.15	0.17	-0.19	0.20	0.05	0.05	0.14	0.18	0.14	0.004	0.18	1.00

Note. CCT = cultural competency training; ICAHO = Joint Commission on Accreditation of Healthcare Organizations; NFP = not-for-profit; NP = nurse practitioner.

* Significant correlation coefficients ($p < 0.05$ or $p < 0.01$) are bolded.

Table 3

Weighted Ordinal Logit Estimates for CCT Provision in Overall Sample and Agency Types

	Overall (n=10,887)	Home Health (n=7,928)	Hospice (n=1,730)	Mixed (n=1,229)
	OR [95% CI]	OR [95% CI]	OR [95% CI]	OR [95% CI]
< 51 annual admissions	0.93 [0.31, 2.82]	0.55 [0.13, 2.27]	2.74 [0.81, 9.32]	0.02 [0.004, 0.12] **
51 – 499 annual admissions	0.89 [0.53, 1.51]	0.55 [0.22, 1.35]	2.09 [0.93, 4.66]	0.30 [0.13, 0.67] **
NFP ownership	1.08 [0.60, 1.94]	1.35 [0.51, 3.57]	0.19 [0.07, 0.50] **	0.80 [0.32, 2.00]
Chain membership	1.15 [0.60, 2.17]	0.87 [0.37, 2.05]	1.40 [0.54, 3.61]	0.91 [0.35, 2.36]
Teaching status	2.21 [1.22, 3.99] *	2.71 [1.19, 6.17] *	0.68 [0.33, 1.42]	0.38 [0.14, 1.01]
JCAHO accreditation	1.68 [1.01, 2.80] *	2.07 [1.01, 4.24] *	4.40 [2.07, 9.38] **	0.84 [0.38, 1.86]
Formal contracts	1.36 [0.83, 2.25]	0.87 [0.45, 1.69]	4.03 [1.80, 9.00] **	1.30 [0.62, 2.72]
Telemedicine capabilities	1.33 [0.75, 2.36]	2.09 [0.84, 5.18]	1.56 [0.48, 5.12]	0.77 [0.38, 1.54]
Nurse specialist/NP on staff	0.75 [0.40, 1.39]	0.95 [0.35, 2.58]	0.67 [0.29, 1.52]	0.85 [0.37, 1.93]
No. of specialized services	1.86 [1.52, 2.29] **	1.44 [1.01, 2.04] *	1.45 [1.02, 2.05] *	1.13 [0.83, 1.54]
Urban location	1.40 [0.83, 2.37]	1.18 [0.52, 2.68]	2.87 [1.39, 5.93] **	1.86 [0.85, 4.08]
Graduate education of administrator	0.83 [0.38, 1.82]	0.91 [0.27, 3.03]	1.05 [0.54, 2.06]	0.23 [0.10, 0.51] **
Tenure of administrator	0.99 [0.95, 1.02]	0.97 [0.92, 1.01]	0.99 [0.94, 1.04]	1.06 [1.01, 1.12] *

Note. CCT = cultural competency training; CI = confidence interval; JCAHO = Joint Commission on Accreditation of Healthcare Organizations; NFP = not-for-profit; NP = nurse practitioner.

* $p < 0.05$.

** $p < 0.01$.