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Moving towards culturally competent health systems: Organizational and market factors

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ABSTRACT

Cultural competency has been proposed as an organizational strategy to address racial/ethnic disparities in the healthcare system; disparities are a long-standing policy challenge whose relevance is only increasing with the increasing population diversity of the US and across the world. Using an integrative conceptual framework based on the resource dependency and institutional theories, we examine the relationship between organizational and market factors and hospitals' degree of cultural competency. Our sample consists of 119 hospitals located in the state of California (US) and is constructed using the following datasets for the year 2006: Cultural Competency Assessment Tool of Hospitals (CCATH) Survey, California's Office of Statewide Health Planning & Development's Hospital Inpatient Discharges and Annual Hospital Financial Data, American Hospital Association's Annual Survey, and the Area Resource File. The dependent variable consists of the degree of hospital cultural competency, as assessed by the CCATH overall score. Organizational variables include ownership status, teaching hospital, payer mix, size, system membership, financial performance, and the proportion of inpatient racial/ethnic minorities. Market characteristics included hospital competition, the proportion of racial/ethnic minorities in the area, metropolitan area, and per capita income. Regression analyses were conducted to assess the relationship between the CCATH overall score and organizational and market variables. Our results show that hospitals which are not-for-profit, serve a more diverse inpatient population, and are located in more competitive and affluent markets exhibit a higher degree of cultural competency. Our results underscore the importance of both institutional and competitive market pressures in guiding hospital behavior. For instance, while not-for-profit may adopt innovative/progressive policies like cultural competency simply as a function of their organizational goals, linking cultural competency with organizational performance may be essential to attract more profit driven hospitals.

Introduction

Unequal access, treatment and outcomes in health care are global concerns (Whelan, Weech-Maldonado, & Dreachslin, 2008). We live in an increasingly diverse world. The United Nations (2008) estimates that at the global level, international migrants numbered 214 million in 2008 with Europe and North America attracting the most migrants. In countries like Australia over 25% of the population is foreign-born. The increasing diversity in the population has led to concerns over disparities in health status between ethnic/racial minorities and the White majority (Committee of Experts on Health Services in a Multicultural Society, 2006). In the United States, the existence of racial/ethnic disparities in access and outcomes of health care has been well documented (Institute of Medicine, 2003).

Cultural competency has been proposed as a health care organizational strategy to reduce disparities in care in the US and across the world (Committee of Experts on Health Services in

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a Multicultural Society, 2006; Ngo-Metzger et al., 2006; Weech-Maldonado et al., 2012). The National Quality Forum (NQF) (2008, p. 2) defines cultural competency as the "ongoing capacity of healthcare systems, organizations, and professionals to provide for diverse patient populations high-quality care that is safe, patient and family centered, evidence based, and equitable". Cultural competency can be achieved through "policies, learning processes, and structures by which organizations and individuals develop the attitudes, behaviors, and systems that are needed for effective cross-cultural interactions" (National Quality Forum, 2008, p. 2).

The organizational systems approach views health care organizations as a system comprised of interrelated and interdependent sub-systems, such as patient care, ancillary services, professional staff, financial, informational, physical, and administrative sub-systems (Longest, Rakich, & Darr, 2000). Successful implementation of cultural competency requires an organizational commitment towards a systems approach (Curtis, Dreachslin, & Sinioris, 2007; Dreachslin & Myers, 2007), where cultural competency practices are integrated throughout the organization's management and clinical sub-systems.

To date relatively few studies have assessed the extent of cultural competency and diversity management practices of US hospitals. Weech-Maldonado, Dreachslin, Dansky, De Souza, and Gatto (2002) found that hospitals in Pennsylvania, US have been relatively inactive with respect to cultural competency practices, and that equal employment requirements are the main driver of diversity management policy. This study was replicated in Australia by Whelan et al. (2008) who report that Australian hospitals were not heavily engaged in diversity management though they appear to have higher system support for cultural competency than hospitals situated in Pennsylvania, US. A study of Alabama, US hospitals shows that while hospitals have taken initial steps to prepare for a diversifying patient population, much more work needs to be done (Whitman & Davis, 2008).

Using survey data from the Cultural Competency Assessment Tool of Hospital (CCATH), this study examines the organizational and market factors associated with greater hospital cultural competency in the state of California, US. Among the US states, California has a unique racial/ethnic profile. It is among the states with the lowest proportion (40%) of non-Hispanic Whites (with only Hawaii and New Mexico ranked lower) (US Census Bureau, 2011). California has the second highest percentage of Asians in the country, about 12% (second only to Hawaii), and the second highest percentage of Hispanic/Latinos at around 38% (with only New Mexico higher) (Kaiser Family Foundation, 2011). In addition, it has a particularly high proportion of foreign-born population (27%) while 43% of households speak a language other than English at home (US Census Bureau, 2010). Therefore, California presents a particularly compelling case for delivering culturally competent care.

California nevertheless is emblematic of the US of tomorrow which is growing increasingly diverse. US Census Bureau (2011) estimates that by 2042, the US will be a "minority-majority" country with the proportion of non-Hispanic Whites falling to approximately 46%. Therefore, this study has national implications particularly for hospitals located in ethnically diverse neighborhoods.

Despite the potential advantages of delivering culturally competent care, not all hospitals are doing so. Some hospitals may not realize the potential positive benefits of cultural competency, while other hospitals may be dissuaded by the financial investments. It is important, therefore, to understand the patterns underlying the adoption of these practices across US hospitals and the factors which motivate hospitals to become culturally competent. Only by better developing our understanding, we can hope to design appropriate public policies and tailor them to the right set of hospitals. Our study therefore has important public policy implications.

Measuring hospital cultural competency

The conceptual underpinning of our measurement framework—the CCATH—is briefly described in this section. The CCATH draws from two comprehensive frameworks on organizational cultural competency: 1) The US Department of Health and Human Services' (DHHS) Office of Minority Health national standards for culturally and linguistically appropriate services (CLAS) in health care (Office of Minority Health, 2001); and 2) NQF's (2008) "A Comprehensive Framework and Preferred Practices for Measuring and Reporting Cultural Competency".

The CLAS standards provide guidelines on policies and practices aimed at developing culturally appropriate systems of care (Office of Minority Health, 2001). The 14 CLAS standards are categorized into three themes: Culturally Competent Care (Standards 1–3), Language Access Services (Standards 4–7), and Organizational Supports for Cultural Competence (Standards 8–14).

Based on NQF's (2008) framework, we propose six domains for hospital cultural competency: 1) leadership; 2) integration into management systems and operations; 3) workforce diversity and training; 4) community engagement; 5) patient–provider communication; and 6) care delivery and supporting mechanisms. *Leadership* recognizes that organizational leaders, including clinical leaders, administrative leaders, and the Board of Trustees, play an essential role in developing and implementing cultural competency activities, in setting organizational policy and strategy, and in monitoring organizational performance. *Integration into management systems and operations* focuses on whether cultural competency is integrated throughout all management practices of the organization. *Workforce diversity and training* can be viewed as a mean to providing more effective services for culturally diverse populations via human resource practices; it also relates to whether training and development activities include state-of-the-art content in cultural competency. *Community engagement* refers to active outreach as well as community inclusion and partnership in organizational decision-making. *Patient-provider communication* includes all communication between the patient and clinicians as well as support staff. *Care delivery and supporting mechanisms* encompasses the delivery of care, the physical environment of where the care is delivered, and links to supportive services and providers. While the first four domains pertain to management sub-systems, the latter two are considered clinical sub-systems. Based on the systems approach, organizations become culturally competent by adapting their management and clinical sub-systems to the needs of a more diverse workforce and patient population. Appendix 1 shows the relationship between the NQF cultural competency domains and the CLAS standards.

Conceptual framework

Two complementary theoretical perspectives viz. resource dependence theory and institutional theory are used to articulate specific organizational and environmental factors motivating culturally competent behavior.

Resource Dependence Theory (RDT) conceptualizes the environment in terms of other organizations with which the focal organization engages in exchange relationships (Pfeffer & Salanick, 1978). The environment is not limited to market forces (competition, availability of resources), but also encompasses government regulations as well as cultural and social norms. Organizations make changes in their organizational structure to facilitate and stabilize their exchange relationships (Oliver, 1990); within this perspective, organizations can be understood as coalitions designed to ensure availability of needed external resources. RDT argues that power is the currency which mediates the relationship

between organization and the environment (Scott & Davis, 2007). Power of an organization is a function of the importance of required resources and the nature of resource control. For instance, in the case of concentration of scarce and needed resources, organizations may exhibit a greater degree of dependence upon their environment, and may be forced to make changes to adapt to their relative lack of power in this relationship. To summarize, RDT focuses on the role of power in understanding organizational responses to environmental forces and has assumed increasing importance with corporatization of the U.S. healthcare system and the influx of market forces.

Institutional theory seeks to examine why organizations are homogenous with often little differentiation between organizations in the same organizational field. DiMaggio and Powell (1983, p. 148) define organizational field as "sets of organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products." Neo-institutional theorists argue that organizations adopt isomorphic structures and practices—rationalized myths—as a means to strengthen their legitimacy which, in turn, improves the likelihood of organizational survival (Tolbert, 1985). Legitimacy is defined as a "generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions" (Suchman, 1995 p. 574). Legitimacy is an organizational resource acquired by establishing congruence between organizational values and expected social behavior (Mathews, 1993), and is deemed essential for long-term survival (DiMaggio & Powell, 1983). To summarize, institutional theory focuses on organizational response to institutional forces which traditionally have included state actors, professional bodies, and local community boards.

The current work on institutions and markets promotes a less antagonistic view between these two perspectives. Theorists acknowledge that market forces are increasingly important in health care but point out that institutional forces retain their importance. For instance, Scott, Ruef, Mendel, and Caronna (2000) has explained how the American Medical Association (AMA) has come to play a very significant role in US healthcare policy; similarly local communities deeply influence the structure and financing of health care (Alexander & D'Aunno, 2003). Therefore, a hybrid view has gained increasing credence which recognizes the importance of both market and institutional forces in explaining organizational behavior, and emphasizes their complementarities to explain organizational response to environmental pressures (Alexander & D'Aunno, 2003; Greening & Gray, 1994; Scott et al., 2000; Zinn, Weech-Maldonado, & Brannon, 1998).

Hypotheses

Based on institutional theory, Scott argues that institutional environments are composed of "cultural-cognitive, normative, and regulative elements" (Scott, 2008; Scott & Davis, 2007; Scott et al., 2000). In a developed organization, all three pillars of institutions find expression and their interaction guides the behavior of the organization. The three pillars "constitute the system of meanings, norms, values, beliefs, and rules in which all organizations are embedded" (Caronna, 2004 p. 45).

Normative pillars "introduce a prescriptive, evaluative, and obligatory dimension into social life" (Scott & Davis, 2007). Organizations operate under societal norms which may reflect, among other things, dominant community interests which organizations perforce adopt to increase their organizational legitimacy (DiMaggio & Powell, 1991), and may be guided by professional networks to which organizations belong. Not-for-profit (NFP) hospitals hold their assets in trust for their local communities and are expected to manage them for the communities' welfare rather than advance private profit (Chait, Ryan, & Taylor, 1995; Kane & Magnus, 2001). Therefore, NFP hospitals are more likely to abide by community expectations than for-profit (FP) hospitals in order to ensure institutional legitimacy and avail necessary resources. As the board of trustees is principally responsible for setting hospital policy, local communities can exert a powerful influence on all hospital activities through their representation in hospital boards (Weiner & Alexander, 1998). Therefore, NFP hospitals are expected to exhibit a higher degree of cultural competency compared to for-profit hospitals.

Hypothesis 1. Not-for-profit hospitals will have a higher degree of cultural competency compared to for-profit hospitals.

On the other hand, the regulative pillars emphasize "explicit regulative processes: rule-setting, monitoring, and sanctioning activities" (Scott, 2001), that is, the authority vested in professional organizations and governments to guide organizational behavior (Caronna, 2004). Public hospitals in the US are typically owned by municipalities and state governments. In many large cities, public hospitals operate in close association with state health departments. In recent years, state and local governments have increasingly emphasized culturally competent care (Brach, Paez, & Irene, 2006; Commonwealth Fund, 2005). As such, public hospitals are more likely than for-profit hospitals to face pressure from policymakers to adopt cultural competency practices in response to an increasingly diverse patient population. Similarly, while jointly funded at the federal and state levels, Medicaid is operated by state governments. Therefore, it is expected that hospitals with a higher proportion of Medicaid patients are more likely to conform to the regulatory pressures exerted by competent local authorities.

Hypothesis 2. Public hospitals have a higher degree of cultural competency compared to for-profit hospitals.

Hypothesis 3. Hospitals with a higher proportion of Medicaid patients have a higher degree of cultural competency.

The third pillar of institutional system is cultural-cognitive. It consists of "the shared conceptions that constitute the nature of social reality and the frames through which meaning is made" (Caronna, 2004 p. 46). Scott (2008) argues that social life is only possible because individuals and organizations accept social constructs and agree to conform to its demands. On similar lines, Scott et al. (2000) argue that organizations must conform to 'social defined organizing recipes' in order to retain their legitimacy and ensure adequate resources. Teaching hospitals are generally visualized as leaders in delivering medical services within their local community. It would be expected that teaching hospitals would introduce innovations in service delivery and would be among the earliest to embrace shifting patient expectations and demand. Meeting these community expectations is essential for teaching hospitals to retain their position as leaders of medical care. Therefore, applying a cultural-cognitive lens, leaders of teaching hospitals are more likely to adopt cultural competency in order to fulfill their part of the social contract and retain organizational legitimacy.

Hypothesis 4. Teaching hospitals have a higher degree of cultural competency compared to non-teaching hospitals.

Resource dependency theorists argue that access to greater internal organizational resources permits larger organizations to accommodate environmental demands through internal restructuring (Greening & Gray, 1994). Larger organizations have the flexibility to strategize and adopt riskier structures and procedures

as extra resources reduce the risk of failure (Kaluzny, McLaughlin, & Jaeger, 1993). Similarly, system affiliation provides hospitals with increased access to resources including improved access to capital, management resources, and information systems and technologies (Banaszak-Holl, Berta, Bowman, Baum, & Mitchell, 2002; Tennyson & Fottler, 2000). This increased capacity allows hospital system members to be more responsive to environmental pressures compared to independent hospitals. Therefore, it is expected that larger hospitals and hospital system members will exhibit greater culturally competent behavior.

Hypothesis 5. Larger hospitals have a higher degree of cultural competency.

Hypothesis 6. Hospital system members have a higher degree of cultural competency compared to independent hospitals.

For both historical and other reasons (Tufts Health Care Institute, 2010), the California insurance market is heavily dominated by managed care. Kaiser, one of the pioneers of managed care in US, has captured nearly 1/3rd of the market while approximately 50% of California Medicaid patients (Medi-Cal) are enrolled in health maintenance organizations (HMO) plans (California Healthcare Foundation, 2011).

The managed care model has traditionally focused on lowering costs; therefore, hospitals with a higher proportion of managed care patients are more likely to face greater environmental pressures to reduce costs (Bokhari, 2009; Robinson, 1996). Cultural competency may require costly initial investments which may include hiring personnel (e.g. interpreters and bilingual staff) as well as physical investments (e.g. language compliant signage). The Office of Management and Budget (2002) estimates that interpreters would cost $25–26 per hour while the cost of telephone interpretation was estimated to be $132 per hour. Additionally, insurers do not typically reimburse hospitals for providing interpreter services or related services (multilingual telephone operations) (Ku & Flores, 2005). This may deter hospitals with a higher proportion of managed care patients from adopting cultural competency practices.

On the other hand, hospitals with a stronger bottom line would have the financial resources to invest in cultural competency. The literature on corporate social responsibility suggests corporations reporting better financial performance are more likely to engage in socially responsible behavior (Campbell, 2007). This simply follows from the slack resource theory which argues that profitable organizations can spare additional resources to invest in socially conscious behavior (Waddock & Graves, 1997). Therefore, it is expected that hospitals with a lower proportion of managed care patients and higher financial performance will exhibit greater culturally competent behavior.

Hypothesis 7. Hospitals with a lower proportion of managed care patients have a higher degree of cultural competency.

Hypothesis 8. Hospitals with higher financial performance have a higher degree of cultural competency.

In an era of increasing patient choice, hospitals have focused on improving care to retain patients and increase patient satisfaction. Cultural competency builds trust and understanding between patients and providers. Trust translates into a long-term relationship between the patient and the hospital. A more satisfied patient may lead to positive word-of-mouth publicity for the hospital as well as repeat visits. Therefore, from a RDT perspective, hospitals with a higher proportion of minority patients would be expected to show greater adoption of cultural competency practices in order to provide an overall more satisfactory experience to their clientele.

Hypothesis 9. Hospitals with a greater proportion of racial/ethnic minority inpatient population have a higher degree of cultural competency.

RDT suggests that hospitals located in diverse communities would adopt culturally competent care to attract patients. By structuring their care according to the needs of their communities, they can potentially attract more minority patients, increase market share and command greater resources (Brach & Fraser, 2002). In addition, consistent with normative rules of institutional theory, hospitals would be obliged to be culturally attuned to the needs of their communities. Therefore, it is expected that hospitals in markets with a higher proportion of minorities will exhibit more culturally competent behavior.

Hypothesis 10. Hospitals located in markets with a higher proportion of racial/ethnic minorities have a higher degree of cultural competency.

Organizations in more competitive markets need to respond to demands of resource-providing constituents as they face increased competition for a limited pool of shared resources (David & Rhee, 1998; Pfeffer & Salanick, 1978; Starkey, Weech-Maldonado, & Mor, 2005). Cultural competency strengthens the hospital's position within its market and legitimizes it as a consumer driven organization. This, in turn, may provide a competitive advantage in securing a regular flow of resources from these constituencies. On similar lines, under normal competitive pressure, hospitals may be motivated to engage in socially responsible behavior to enhance their reputation and preserve their market share as has been noted previously in other industries (Campbell, 2007). Therefore, it is expected that hospitals in more competitive markets will exhibit greater culturally competent behavior.

Hypothesis 11. Hospitals located in more competitive markets have a higher degree of cultural competency.

Methods

Data

Five sources of data were used in the analysis: Cultural Competency Assessment Tool of Hospitals (CCATH) Survey, Office of Statewide Health Planning & Development's (OSHPD) Hospital Inpatient Discharges (HID) and Annual Hospital Financial Data (AHFD), American Hospital Association (AHA) Annual Survey, and the Area Resource File (ARF). The study received Human Subjects Approval from the University of Florida's Internal Review Board.

The sampling frame for the CCATH mail survey consisted of all general and children hospitals listed in the California Hospital Association Directory (344 hospitals) in 2006. The survey was mailed to the Chief Executive Officer (CEO) of each hospital. We followed a multi-stage survey approach as suggested by Dillman's (1978) Total Design Method: first mailing, postcard reminder, second mailing, phone call reminder, email reminder, and emailing an electronic version of the survey. We obtained a 37 percent response rate (125 hospitals) with this multi-stage approach. We assessed potential non-response bias by comparing respondent hospitals with non-respondent hospitals on several organizational and market level variables. Respondent hospitals were less likely to be part of a system (59% vs. 70%). However, respondent hospitals were not significantly different ($p < 0.05$) than non-respondent hospitals in terms of teaching status, ownership (government, for-profit, not-for-profit), size, % of non-White inpatients, % Medicaid patient days, % managed care patient days, total profit margin, market competition (Herfindahl Index), % of non-White population in the county, % of non-English speakers in the county, location in a metropolitan area, and per capita income.

The OSHPD HID data was used to calculate the proportion of racial/ethnic minorities for inpatient discharges for each hospital. The OSHPD AHFD data was used to calculate the hospital's financial performance. The AHA Annual Survey data was used to identify the organizational characteristics. The Area Resource File (ARF) data was used to identify hospital market (county) characteristics. Using hospital and county identifiers, the HID, AHFD, AHA and ARF data were merged with the CCATH survey data. After dropping 6 specialist hospitals, the final analytic sample consisted of 119 general acute-care hospitals.

Variables

The dependent variable was degree of cultural competency, or an average score of the CCATH scales. The CCATH measures were developed to reflect the six NQF domains and fourteen CLAS standards (Weech-Maldonado et al., 2012). The CCATH was subject to extensive testing, including pilot testing, focus groups, cognitive interviews, and field testing (Hays et al., 2006; Weech-Maldonado et al., 2012).

Exploratory and confirmatory factor analysis of field test data supported 12 CCATH composite scales (sub-domains): Leadership and Strategic Planning, Data Collection on Inpatient Population, Data Collection on Service Area, Performance Management Systems and Quality Improvement, Human Resources Practices, Diversity Training, Community Representation, Availability of Interpreter Services, Interpreter Services Policies, Quality of Interpreter Services, Translation of Written Materials, and Clinical Cultural Competency Practices. The 12-factor model provided good fit to the data: Chi-square = 90.8 (p-value = 0.17); Comparative Fit Index (CFI) = 0.96; Tucker–Lewis Index (TLI) = 0.97; and the Root Mean Square Error of Approximation (RMSEA) = 0.035 (Weech-Maldonado et al., 2012). Appendix 1 shows the relationship between the NQF domains, the CCATH scales, and the CLAS standards. For further details on the CCATH survey and items please see Hays et al. (2006), Office of Minority Health (2001), Weech-Maldonado et al. (2012).

Table 1 shows the Cronbach's alpha and the mean score for each sub-domain. All the CCATH domains had alphas greater than 0.60, and nine of the 12 composites had alphas greater than 0.70. The mean score for each composite was obtained by: 1) linear transformation of each item to a 0–100 possible range; and 2) calculating the average of the items within each composite.

An average score for the 12 CCATH scales was calculated and used as the dependent variable. Second-order factor analysis results confirmed that it is was appropriate to aggregate the CCATH composites to obtain an overall mean score: Chi-square = 92.9 (p-value = 0.12); Comparative Fit Index (CFI) = 0.95; Tucker–Lewis Index (TLI) = 0.96; and the Root Mean Square Error of Approximation (RMSEA) = 0.039.

Table 1
CCATH scales, number of items, internal consistency reliabilities, means and standard deviations.

CCATH scale	Number of items	Alpha	Mean[a]	Std dev
Leadership and strategic planning	6	0.79	35.8	33.6
Data collection on inpatient population	2	0.70	87.1	29.8
Data collection on service area	7	0.84	60.5	31.3
Performance management systems and QI	3	0.78	33.3	35.0
Human resources practices	8	0.66	62.2	21.4
Diversity training	3	0.68	53.7	35.5
Community representation	2	0.84	40.2	45.6
Availability of interpreter services	4	0.87	70.2	25.7
Interpreter services policies	4	0.65	61.1	32.5
Quality of interpreter services	3	0.75	58.1	40.7
Translation of written materials	6	0.81	52.3	22.8
Clinical cultural competency practices	4	0.76	81.4	23.3

[a] Range 0–100, with score of 100 indicating full adherence to each respective CCATH sub-domain.

The independent variables consisted of organizational and market variables hypothesized to be associated with degree of cultural competency. Organizational variables included ownership status, teaching hospital, payer mix, size, system membership, financial performance, and the proportion of racial/ethnic minorities of the inpatient population. Ownership status was a categorical variable with three levels: government, not-for-profit, for-profit. Teaching hospital status was a dichotomous variable. Two measures of payer mix were included: 1) proportion of Medicaid patients, which was the ratio of Medicaid inpatient days to total inpatient days; and 2) proportion of managed care patients, calculated as the ratio of managed care inpatient days to total inpatient days. Size (number of beds) represented a continuous variable. Health system membership was a dichotomous variable. The proportion of racial/ethnic minority patients was calculated as the percentage of inpatient discharges from racial/ethnic minorities (other than non-Hispanic Whites). Financial performance was operationalized as total margin, which is an overall measure of financial performance and is calculated as follows: Total profit margin = (total revenue-total expenses)/total revenue.

Market characteristics included hospital competition and the proportion of racial/ethnic minorities in the hospital county. Hospital competition was assessed using the Herfindahl Index (HI) (range 0–1) of the hospital's health service area (HSA), as defined in the Dartmouth Atlas of Health Care. The HI was the sum of the squares of the individual hospital market shares (proportion of a hospital's inpatient days to total HSA inpatient days), with lower values of HI indicating a more competitive market. The proportion of racial/ethnic minorities represented the percentage of the total hospital county population that were racial/ethnic minorities (other than non-Hispanic Whites). Control variables included an indicator or whether the hospital was located in a metropolitan area and the mean per capita income of the hospital county. Missing data for the independent and control variables was less than 5% in all instances.

Analysis

The dependent variable, degree of cultural competency (mean = 58.75; range = 0–96.5), had approximately a normal distribution (skewness = −0.16; kurtosis = −0.14). Bivariate and multivariate regression analyses were used to model the relationship of the hospital's degree of cultural competency with the organizational and market factors hypothesized to be associated with cultural competency. Approximately 9% of the hospitals in the sample were Kaiser Foundation Hospitals; therefore we conducted a sensitivity analysis to examine the effect of including Kaiser hospitals in our sample. While Kaiser hospitals had significantly higher CCATH scores than non-Kaiser hospitals, the multivariate results were essentially the same after excluding the Kaiser hospitals. Therefore, we report the results for the full sample of hospitals.

Results

Descriptive statistics for all independent variables are presented on Table 2, followed by regression results on Table 3. Bivariate regression results show that not-for-profit hospitals had scores 14 points (0–100 scale) higher than for-profit hospitals ($p < .01$), while teaching hospitals had unadjusted CCATH scores that averaged 21 points higher than non-teaching hospitals ($p < .001$). Each additional 40 beds were associated with 2 points higher CCATH scores ($p < .001$). Being a member of a hospital system was associated

Table 2
Means and standard deviations of dependent and independent variables.

	Mean	Std dev
Dependent variable		
CCATH overall score (0–100)	58.75	18.57
Independent variables		
Government hospital (1/0)	0.26	0.44
Not-for-profit hospital (1/0)	0.54	0.50
For profit hospital (1/0)	0.17	0.38
Teaching hospital (1/0)	0.11	0.32
Size (beds)*	190.98	159.37
System member (1/0)	0.59	0.49
% Medicaid inpatient days	31.64	23.46
% Managed care inpatient days	28.78	24.60
Total margin	3.7	10.72
% Non-White inpatients	44.02	26.31
% Non-White population in the county	49.22	18.33
Herfindahl Index (0–1)	0.57	0.36
Metropolitan area (1/0)	0.85	0.36
Per capita income ($)	30,665	9,210

*Missing data for hospital size was 4%.

with approximately 7 points higher CCATH scores ($p < .10$). A 10% increase in the managed care inpatient population resulted in 2 points higher CCATH scores ($p < .01$), while a 10% increase in the Medicaid inpatient population was associated with approximately 2 points lower CCATH scores ($p < .05$). A 10% increase in the racial/ethnic minority inpatient population resulted in 2 points higher CCATH scores ($p < .001$). Other organizational characteristics, such as government hospital and total margin were not significantly ($p < .10$) associated with hospital cultural competency in bivariate analyses.

All market variables were significantly associated with hospital cultural competency in bivariate analyses. Hospitals in more competitive markets (lower Herfindahl Index) had approximately 19 points higher CCATH scores ($p < .001$). Hospitals in metropolitan areas had 10 points higher CCATH scores ($p < .05$). A 10% increase in the county minority population was associated with approximately 2 points higher CCATH scores ($p < .05$). Finally, an increase of $10,000 in the hospital's county per capita income was associated with 6 points higher CCATH scores ($p < .001$).

Multivariate regression results indicate that not-for-profit hospitals had adjusted CCATH scores that averaged 16 points higher than for-profit hospitals ($p < 0.001$), providing support for hypothesis 1. For every 10% increase in the racial/ethnic diversity of the inpatient population, hospitals had an increase of 3 points in their CCATH scores ($p < 0.001$), providing support for hypothesis 9. While the proportion of Medicaid inpatients (hypothesis 3), being a teaching hospital (hypothesis 4), size (hypothesis 5), system membership (hypothesis 6), and the proportion of managed care inpatients (hypothesis 7) were associated with cultural competency in bivariate analyses, these relationships were not statistically significant once we controlled for other organizational and market factors. Similar to the bivariate results, other organizational characteristics such as being a government hospital (hypothesis 2) and financial performance (hypothesis 8) were not significantly associated ($p < .05$) with cultural competency in the multivariate analysis.

In terms of market characteristics, hospitals in more competitive markets, as indicated by a lower Herfindahl Index, had 11 points higher CCATH scores ($p < 0.05$). This provided support for hypothesis 11. On the other hand, there was no support for hypothesis 10. While the diversity of the county was associated with cultural competency in bivariate analysis, this relationship did not hold in multivariate analysis. With respect to the control variables, hospitals in counties with a higher per capita income had greater cultural competency ($p < .01$), but those located in metropolitan areas did not differ from those in non-metro areas.

Table 3
Regression results for CCATH mean scores (0–100) by organizational and market factors.

	Unadjusted model			Fully adjusted model		
	B	Standard error	*P*	*B*	Standard error	*P*
Organizational factors						
Government hospital[a]	5.07	4.88	0.302	7.07	5.52	0.203
Not-for-profit hospital[a]	13.55	4.34	0.002	16.30	4.62	0.001
Teaching hospital	21.14	5.22	0.001	8.07	6.78	0.234
Size	0.05	0.01	0.001	0.01	0.01	0.364
System membership	6.79	3.47	0.053	2.85	3.44	0.410
% Medicaid inpatient days	−0.16	0.07	0.032	−0.05	0.08	0.526
% Managed care inpatient days	0.19	0.07	0.009	−0.02	0.08	0.780
Total margin	0.18	0.16	0.280	−0.01	0.15	0.990
% Non-White inpatients	0.24	0.06	0.001	0.28	0.08	0.001
Market factors						
% Non-White population	0.20	0.09	0.031	−0.11	0.12	0.384
Herfindahl index	−18.70	4.45	0.001	−10.57	5.10	0.041
Metropolitan county	11.53	4.69	0.015	−6.22	5.42	0.254

[a] Reference group: For-profit hospital.

Discussion

Drawing from both resource dependence and institutional theories, this study hypothesized how various organizational and market factors would be associated with the degree of hospital cultural competency. Results suggest that institutional elements as implied by ownership type are important predictors of cultural competency activities. There are also important resource dependence factors at play as hospitals with a more diverse inpatient population and located in markets with greater competition exhibited a higher degree of cultural competency.

The resource dependence and institutional theories provide a context for understanding the development of the US healthcare system: Conforming to social expectations confers legitimacy on organization which, in turn, ensures availability of resources essential for survival (Alexander & D'Aunno, 2003). The traditional dominance of institutionalization on shaping the healthcare system has been challenged by the rise of corporatization and influx of market economics. Some scholars argue that the institutional forces are now subordinate to market demands. Others, however, have argued for a more complementary perspective with organizational behavior shaped by constant interaction of institutional and market forces (Alexander & D'Aunno, 2003). We adopt a similar integrative approach in our conceptual framework. Our findings, which underline the importance of both institutional and market forces in the provision of culturally competent care, provide further empirical support for this view.

There are several policy and research implications of this study. First, our findings suggest that not-for-profit hospitals show greater organizational cultural competency than FP hospitals. This result is consistent with the different missions of FP and NFP hospitals with the latter more attuned to community needs as opposed to the narrower focus on profits among FP hospitals. Further research is required to understand the effect of adopting cultural competency practices on market share, revenues, and ultimately financial performance. A business case for culturall competency, where hospitals adopting these practices gain a competitive advantage with positive implications for their financial performance, is likely to motivate FP hospitals to increase their cultural competency activities. For instance, in a study of UK health care organizations, King, Dawson, Kravitz, and Gulick (2010) found that diversity training reduced the likelihood of minorities experiencing

discrimination in their jobs; this had positive implications for job satisfaction, and, in turn, for organizational performance.

Second, study findings indicate that hospitals with a more diverse inpatient population have greater cultural competency. This proved to be a more important predictor of cultural competency activities than organizational slack resources such as size or financial performance. This suggests that hospitals are responsive to the cultural and linguistic needs of their inpatient population. There are also potential economies of scale in the provision of certain cultural competency activities, such as professional interpreter services and dedicated staff to diversity efforts, which may explain the positive relationship between the diversity of the inpatient population and organizational cultural competency. This finding suggests that minorities receiving care in hospitals with a less diverse inpatient population may face greater barriers to health care than those receiving care in hospitals with a more diverse patient population. Further research is needed to examine the implications of lower organizational cultural competency for inpatient experiences and outcomes, especially for diverse patient populations.

Third, hospitals in more competitive markets as shown by the Herfindahl Index had greater CCATH scores. Competition proved to be more important than the racial/ethnic diversity of the hospital county in explaining cultural competency activities. This finding parallels prior research that has shown that hospitals in more competitive markets have better quality of care (Gaynor, 2006; Sari, 2002). As hospitals compete for market share they are more inclined to implement cultural competency practices to increase their market competitiveness. However, the fact that county diversity is not correlated with CCATH scores suggests that hospitals may not have fully grasped the business potential afforded by providing culturally competent care in diverse markets. Some hospitals may simply be more interested in attracting the more affluent White population. Or it may also suggest a degree of inertia in delivering culturally competent care even in the presence of strong market demand. Therefore, government interventions may be necessary to push hospitals to become culturally competent. The government can motivate hospitals by either mandates—for instance, making it mandatory for hospitals to provide interpreter services or by providing financial incentives. Irrespective of the favored policy approach, our results suggest a stronger role for government and may hold lessons for other countries around the globe which are trying to promote culturally competent healthcare systems.

In recent years, the US Centers for Medicare and Medicaid Services (CMS) has moved from a purely regulatory approach in which health care organizations were penalized for poor quality to a broader paradigm which includes, apart from penalties, market and consumer driven approaches like quality reporting and value-based purchasing. Public reporting is predicated on the idea that empowering consumers with information on quality (Mukamel & Mushlin, 1998) will incentivize competition in the healthcare market based on relative quality of care (Marshall, Shekelle, Leatherman, & Brook, 2000). Recent public reporting efforts by CMS of the Consumer Assessments of Healthcare Providers and Systems hospital survey (HCAHPS) are expected to result in quality improvement initiatives aimed at improving patient experiences with care (Giordano, Elliott, Goldstein, Lehrman, & Spencer, 2010). On similar lines, CMS' Inpatient Value-Based Hospital Purchasing program seeks to monetarily reward hospitals which meet certain quality goals (Center for Medicare & Medicaid Services, 2011). To the extent that cultural competency practices are associated with better patient experiences, there will be a market incentive for the implementation of such practices. Policymakers can further strengthen these incentives by incorporating cultural competence practices directly into public reporting or quality metrics considered for incentive payments. While these approaches require further development and refinement, they do suggest pathways other countries may adopt to motivate their healthcare providers to become culturally competent. Indeed, there is ample scope for policymakers across different countries to exchange ideas and learn from each other's successes and failures.

There are several limitations to this study. First, the study is limited to California, US which limits generalizability. Despite this potential shortcoming, California is an important state to study issues related to cultural competency given the racial/ethnic diversity of the state. Second, the survey had a relatively low response rate, which may result in potential response bias. However, we found that respondent hospitals did not differ from non-respondent hospitals in terms of a large number of organizational and market variables. Respondent hospitals were less likely to be part of a system. Some system hospitals may have not participated thinking that a system or coordinated response was necessary. There may still be unobserved differences between respondent and non-respondent hospitals. A major limitation we should expect is selection bias wherein hospitals with greater cultural competency are more likely to respond to our survey. It is possible that we may have overestimated average hospital cultural competency activities. On the other hand, there is no reason to believe that this possible selection bias would have any interaction with organizational characteristics like for-profit status; therefore comparisons by hospital type may be valid and unaffected. Despite these limitations, this study provides important insights into the organizational and market factors associated with hospital cultural competency activities.

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Appendix A. Supplementary data

Supplementary data related to this article can be found online at doi:10.1016/j.socscimed.2012.03.053.

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