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AN ASSESSMENT OF CULTURAL VALUES AND RESIDENT-CENTERED CULTURE CHANGE IN US NURSING FACILITIES

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Abstract

Background—Culture Change initiatives propose to improve care by addressing the lack of managerial supports and prevalent stressful work environments in the industry; however, little is known about how Culture Change facilities differ from facilities in the industry that have not chosen to affiliate with the resident-centered care movements.

Purpose—To evaluate representation of organizational culture values within a random sample of U.S. nursing home facilities using the Competing Values Framework (CVF) and to determine whether organizational values are related to membership in resident-centered Culture Change initiatives.

Design and Methods—We collected reports of cultural values using a well-established CVF instrument in a random survey of facility administrators and directors of nursing within all states. We received responses from 57% of the facilities that were mailed the survey. Directors of nursing and administrators did not vary significantly in their reports of culture and facility measures combine their responses.

Findings—Nursing facilities favored market-focused cultural values on average and developmental values, key to innovation, were the least common across all nursing homes. Approximately 17% of facilities reported all cultural values were strong within their facilities. Only high developmental cultural values were linked to participation in culture change initiatives. Culture Change facilities were not different from non-Culture Change facilities in the promotion of employee focus as organizational culture, as is emphasized in group culture values. Likewise, Culture Change facilities were also not any more likely to have hierarchical or market foci than non-Culture Change facilities.

Practice Implications—Our results counter the argument that Culture Change facilities have a stronger internal employee focus than facilities more generally but does show that Culture Change facilities report stronger developmental cultures than non-Culture Change facilities, which

indicates a potential to be innovative in their strategies. Facilities are culturally ready to become resident-centered and may face other barriers to adopting these practices.

Keywords

Long-term care; managerial values; culture change

Introduction

The U.S. Nursing Home Culture Change movement proposes to improve care by addressing a lack of managerial supports and prevalent stressful work environments in this industry. Culture Change further promises to address persistent quality problems in U.S. nursing home care that include inappropriate use of medications (Lau, Kasper, Potter, & Lyles, 2004), impoverished facilities with consistent low quality care (Mor, Zinn, Angelelli, Teno, & Miller 2004), and dissatisfaction among both residents and staff (Kemper, Heier, Barry, Brannon, Angelelli, et al., 2008). Problems with the quality of nursing home care have been accompanied by equally troublesome problems improving the work environment that have led to persistent staff dissatisfaction and turnover (Castle and Engberg 2005). Organizational-level management has contributed to all of these problems (Eaton, 2000; Kohn, Corrigan, & Donaldson, 2000; Wunderlich and Kohler 2001).

It can be easier to define the goals and principles behind Culture Change, which include making care processes more resident-centered and improving the work environment, than defining what culture change entails in terms of organizational changes. The organizational changes proposed under Culture Change include comprehensive restructuring of care processes, development of managerial supports, and incorporating resident-friendly environmental designs, and facilities have varied in what practices or changes are actually made (Koren 2010; Rahman and Schnelle 2008). A number of organized groups have promoted Culture Change within nursing homes by proposing principles for change and providing help to facilities in how to make needed changes. These movements include the “Eden Alternative” (Thomas 2003), the “Green House” model (Rabig, Thomas, Kane, Cutler and McAlilly 2006) and more recently the “Regenerative” movement (Eaton 2000).

The oldest, the Eden Alternative, started in 1991 (Thomas 2003) and now includes over 300 registered facilities across U.S., Canada, Europe and Australia. The Green House Project carries the Eden principles further in the development of the environment and staffing and as the most recent Culture Change movement includes over 40 campuses across the U.S. The Live Oak Regenerative Communities, similar to the Green House Project, represent a small set of facilities that again have developed their own core principles for resident-centered care. In all three groups, a number of facilities closely pursue principles of change laid out by the movement’s founders and over time, changes have gained traction and the movements have persisted. At the same time, while the tenets of Culture Change were laid out as early as 1991, the Culture Change movement itself is said to have begun relatively recently in 1997 with the first large meeting of proponents of change in the Pioneer Network (Miller, Miller, Jung, Sterns, Clark and Mor 2010; Rahman and Schnelle 2008). The Pioneer Network is a professional network that includes nursing home staff nationwide who advocate for the principles of resident-centered care. All of these groups provide substantial resources for both defining and implementing Culture Change in nursing homes.

While the movements themselves articulate the larger vision and set of principles behind implementation, individual facilities may adopt Culture Change work practices without necessarily seeking membership in Culture Change groups. In fact, the Centers for Medicare and Medicaid Services (CMS) has developed a tool in the last ten years ---the “Artifacts of

Culture Change Tool,” ---which codifies a set of 79 items in care practices, the facility environment, family and community relations, leadership, workplace practices, and resident outcomes relevant to Culture Change. Within the Artifacts, modifications to the physical environment are equally as important as changes in work practices. Facilities can use the Artifacts to determine whether they are aligned with resident-centered care and this tool is perhaps the most comprehensive identification of elements of Culture Change. Today, much of the literature on Culture Change is focused on how different types of work practices improve resident care and rarely connects to theoretical models of how institutions and organizations change or when facilities transform into Culture Change institutions.

Conceptual Framework

Institutional change occurs when there are major changes in the social norms regarding care provision (Scott, Ruef, Mendel, and Caronna 2000) and Culture Change groups play a critical movement role in providing both resources and definitive models for the normative changes to resident-centered nursing home care (Rahman and Schnelle 2008). By affiliating with a Culture Change group, a facility indicates that it is not just making incremental improvements in work practices but committing to wide scale change in care. Subsequently, we argue that a facility’s affiliation with Culture Change groups will be related to key elements in their organizational culture. We define nursing home culture using the Competing Values Framework (CVF), a commonly used survey instrument for measuring and studying organizational culture (Cameron and Quinn 2006).

The systematic study of organizational culture in large samples has arisen largely in the last 25 years (Martin 2002; Scott, Mannion and Marshall 2003) and several recent studies provide promising statistical evidence that culture is linked to performance in the healthcare setting (Davies, Mannion, Jacobs, Powell and Marshall 2007; Zazzali, Alexander, Shortell and Burns 2007). The CVF is one of the few comprehensive culture instruments used to compare culture across organizations. It dichotomizes the values promoted within organizations along two dimensions: whether the organization predominately values an internal or external focus and whether the organization favors stability or flexibility in response to organizational needs. The **internal vs. external dimension** reflects whether organizations focus activities on improving work processes or on identifying external opportunities for change while the **stability vs. flexibility dimension** indicates whether managers enforce adherence to existing rules or processes or whether they provide employees flexibility to meet immediate needs and environmental changes (Zuckerman, Dowling & Richardson 2000).

These two dimensions were first identified by Hofstede (1980) as critical to organizational behavior across a variety of organizations and cultures. Consequently, use of the CVF contrasts with healthcare specific models of organizational culture, which often focus on particular values and often examine only whether these specific values are present across contexts. This is true, for example, of the patient safety culture research, which examines whether facilities adopt internal foci and flexibility and rarely considers whether facilities value a focus on external conditions or rigidity in work processes (Miller, Miller, Jung, et al. 2010; Singer, Gaba, Geppert, Sinaiko, Howard and Park 2003). In these cases, cultural studies may miss the relative importance of values aligned across these dimensions.

Juxtaposing the two value dimensions within the CVF results in four competing or diametrically opposed cultural types: a group culture, a developmental culture, a hierarchical culture and a market culture. **Group cultures** (high internal focus and flexibility) have participative leaders, members motivated by membership and attachment to the group, and emphasize member development and commitment. **Developmental cultures** (high external

focus and flexibility) have entrepreneurial leaders, members motivated by growth and creativity needs, and emphasize growth and resource acquisition. **Market cultures** (high external focus and stability) have directive leaders and members who are motivated by competition, and emphasize productivity and efficiency. **Hierarchical cultures** (high internal focus and stability) have conservative leaders, members motivated to follow rules and maintain order, and a focus on control and efficiency as markers of effectiveness. Figure 1 shows the juxtaposition of the CVF's two dimensions and four cultural types. The CVF's use of "competing" values implies managers grapple with conflicting priorities and make choices of which values to emphasize although scholars have come to recognize that high-performing organizations may promote multiple, and sometimes conflicting, values (Shortell, O'Brien, Carman, Foster, Hughes, Boerstler, and O'Connor 2004).

Reliable and valid CVF survey instruments use a set of value statements for each cultural type to which respondents assign priority or importance (Yeung, Brockbank, and Ulrich 1991; Scott, Mannion, Davies, and Marshall 2003). Organizations tend to be an amalgam of the four culture types, with one or two types being most prominent. Previous studies in health care have used the CVF to examine organizational culture within physician practices (Zazzali, Alexander, Shortell and Burns 2007), U.S. and U.K. hospitals (Shortell, O'Brien, Carman et al. 1995; Davies, Mannion, Jacobs, Powell, and Marshall 2007), and for unit-specific cultures in U.S. hospitals (Baker, King, MacDonald, and Horbar 2003) and team-level dynamics in chronic care delivery (Shortell, Marsteller, Lin, Pearson, Wu, Mendel, Cretin, and Rosen 2004). Scott-Cawiezell and colleagues used the CVF to study nursing home cultures in 31 Colorado nursing homes (Scott-Cawiezell, Jones, Moore, and Vojir 2005). In most of these healthcare specific studies, group culture appeared to be the predominate culture present and the second strongest values were either market or hierarchical. Only in the Baker, King, MacDonald et al. (2003) study were developmental cultural values strongest, which may be attributable to the high level of flexibility required in neonatal intensive care units.

Organizational culture should be related to involvement in the Culture Change movement because organizational cultural values define work practices (Schein 2004). Furthermore, top managers who are responsible for defining organizational values also make choices about whether to involve the facility in Culture Change groups. Culture Change groups clearly highlight a coherent set of work practices encouraging flexibility and an internal focus in managing staff, which has included flexibility in scheduling work shifts, providing additional employee education, eliminating the need to wear uniforms, cross-training employees for jobs, and providing job enrichment. In addition, Culture Change has paid some attention to employee' needs, including career ladders for CNAs and day care on site (Bowman 2006). Subsequently, we expect the relationship between Culture Change and the CVF will emphasize the role of staff in the facility. Hence, our first hypothesis is that:

HYPOTHESIS 1: Affiliation to Culture Change groups is more likely in facilities with strong group cultures

We also expect that Culture Change reflects a facility's focus on resident needs and indeed, Culture Change groups often use the term "resident-centered" to reflect this priority. As part of developing a culture more responsive to customer needs, we expect Culture Change facilities to score higher on cultural values associated with an external focus and willingness to be flexible or responsive to what residents want. Subsequently, we expect that flexibility in responding to external needs (a developmental culture) will be strong in Culture Change facilities. There are some changes in Culture Change nursing homes that are also fairly rigid; for example, the Artifacts tool includes some well-defined expectations for changes in the physical environment and resident care but in these cases, changes are designed to facilitate flexibility in care processes otherwise. Consequently, we hypothesize:

HYPOTHESIS 2: Affiliation to Culture Change groups is more likely in facilities with high developmental cultures

Methods

This paper identifies variability in organizational cultures and affiliation with Culture Change groups from a survey of facilities' top managers within a nationally representative sample of facilities. The survey targeted top managers, including the Nursing Home Administrators (NHAs) and the Directors of Nursing (DONs), because they are primarily responsible for promoting organizational values and affiliating the facility with external groups within the Culture Change movement (Davies, Mannion, Jacobs, Powell and Marshall 2007; Banaszak-Holl, Bradley, Nembhard and Taylor 2010).

For this study, we sampled nursing homes first surveyed in 2005 and 2006 (blinded for review) and which we re-contacted for participation from late fall of 2008 through early 2009. The initial 2005–06 study examined staff turnover rates in these facilities and provides baseline data for a larger study of staff changes in the industry. The original sample included 2,018 facilities, excludes facilities with less than 50 beds, but was nationally representative of nursing homes identified within the Online Survey Certification and Reporting (OSCAR) database (blinded for review). As previously reported, the initial 2005–06 sample parallels the industry in terms of for-profit ownership, chain membership, occupancy rates and number of beds within facilities.

In this study, we have drawn an approximately 50% random sample from the previously representative sample of U.S. nursing homes (N=1,056) in order to retain information on turnover from the prior study. Our sample size was constrained for financial reasons but we sought to maintain representativeness of the original 2005–06 sample in order to evaluate organizational culture across the industry. In general, our sample matched the original in terms of for-profit ownership and chain membership although facilities experienced slightly lower occupancy rates (83% vs. originally 87% occupancy on average) and fewer beds (118 beds vs. originally 122 beds on average).

Surveys were mailed separately to the NHAs and DONs in all 1,056 nursing facilities. Our methods for following up with non-respondents were based on Dillman's approach (Dillman 1991), which uses token payments as indicators of goodwill towards respondents and then uses rigorous follow-up methods to reduce respondent loss (Dillman 1991). Subsequently, surveys were sent with a \$5 dollar gift card to express our gratitude for the respondent's participation. Of the contacted facilities, 37 had closed since the prior survey and subsequently, have been dropped from the study. Telephone call reminders were made to non-respondents in the four months following the initial survey mailing and a second mailing was sent to all non-respondents following the telephone followup. Excluding the closed facilities, our final sample came from 1,056 facilities or 2,112 contacted individuals. Among individuals, 38.7% or 817 responded to the survey, including 419 NHAs and 398 DONs. Among NHAs responding to our survey, 41% had been in their positions for 2 years or less, while 40% had been in their current position for five years or more. We did find that facilities with lower occupancy rates were more likely to have NHAs with shorter tenures and while we note that occupancy rate was also related to the likelihood of responding to our survey, we cannot test for response bias based on individual tenure. Among DONs, 45% of respondents had been in their positions for 2 years or less while 40% had been in their current position for five years or more; short tenure for DONs was not related to any of the facility characteristics related to the likelihood of response. These numbers suggest our respondents have experienced less turnover than is seen in the industry as a whole (see Castle 2005 for comparisons). We did perform sensitivity analyses that indicated the results

reported in this paper are not affected by respondents' tenure significantly. Among facilities, we have 232 facilities in which both the DON and the NHA responded and overall, we had responses from at least one respondent at 57% or 585 nursing homes.

We matched survey data to the 2009 OSCAR data, which includes all nursing homes that are Medicaid and Medicare certified. OSCAR is the most comprehensive source of facility-level information on nursing homes and from these data, we drew information on organizational characteristics including facility size and ownership, and aggregate resident mix.

Past research on the original 2005–06 sample has found that despite lower levels of participation among poorer quality facilities, non-response has not typically jeopardized generalizability (blinded for review). We examined whether facility characteristics affected response rates using available information on facilities in OSCAR data. We found that respondents and non-respondents within our sample differed on a few variables (appendix A provides a table comparing respondent and non-respondent facilities), with respondent facilities more likely to come from geographic areas with lower per capita incomes, somewhat less likely to be for-profit and reporting slightly higher occupancy rates.

CVF Instrument

From past research, the CVF measures have been demonstrated to have reliability on the order of .70 or higher using Cronbach's alpha and the validity of these measures has been established in other industries using multitrait-multimethod analyses (Spreitzer & Quinn 1991). Each of the four cultural values in the CVF is identified using four Likert-scaled questions. In these questions, respondents were asked to rate on a scale from 1 (strongly disagree) to 7 (strongly agree) whether "possible values are operating and emphasized in your nursing home as a whole." Subsequently, a nursing home may score high on more than one cultural type. For example, a nursing home administrator may rate values of both a group and developmental culture as strong within their facility.

For a **group culture**, respondents were asked about values emphasizing: 1) human relations, teamwork, and cohesion, 2) employee concerns and ideas, 3) participation and open discussion and 4) morale. For a **development culture**, values included: 1) innovation and change, 2) new ideas, 3) creative problem solving, and 4) decentralization. For a **market culture**, values included: 1) outcome excellence and quality, 2) getting the job done, 3) goal achievement and 4) doing one's best. For a **hierarchical culture**, values included: 1) order, 2) stability and continuity, 3) dependability and reliability and 4) predictable outcomes.

A preliminary factor analyses, using Varimax rotation and principal axis factoring extraction method, showed that several of the measures fit within several of the CVF quadrants (an appendix of factor results is available upon request from authors). Specifically, the CVF scale for market culture includes several measures, including whether the facility values 1) outcome excellence and quality and 2) doing one's best, which align closely with the group culture measures. In fact, these two market culture measures loaded initially on the group culture scale. However, in both cases, the measures also loaded on a second eigenvalue, which included the other market culture items. For the sake of retaining interpretation of the original CVF scales, we have chosen to include items in the cultural scales defined by the CVF.

Culture Change Questions

Both the DON and NHA were also asked to indicate whether their facilities "had a formal connection to a specific Culture Change initiative" from the following list of options: Eden

Alternative, Regenerative, Green House, or Other (which they were then asked to specify). A final model, the Wellspring Model, was not named in our survey although their principles address similar issues as the Culture Change movements named in our survey. The Wellspring Model included only 11 facilities in Wisconsin originally but now has spread to almost 50 facilities nationwide. Respondents may have included this as an “other” type of Culture Change in our responses. We also asked whether the facility’s DON and NHA individually belonged to the Pioneer Network, which is a professional group facilitating Culture Change.

Our results are reported at the facility level. Analyses were also done comparing NHA and DON reports of culture in facilities in which both responded and we found that ratings on the CVF values did not vary systematically by position of respondent. When responses were available from both the NHA and DON in a facility, we averaged their responses and in other cases, we used the reports of the sole respondent from those facilities.

In our results we provide descriptive statistics both for individual questions and scales aggregating responses within each CVF quadrant. In a number of facilities, respondents rated values across the quadrants uniformly high; in other words, these are facilities in which a single cultural quadrant is not emphasized more than others. Consequently, we also report the percent of facilities that score all values strongly, as defined as the highest part of the range (values of 6 or 7). These facilities may seek to routinely balance competing values in their organizations and that is also a meaningful measure of organizational culture. Culture Change initiatives expect facilities to make a complimentary set of changes in the management and work practices in their facilities, and specifically, to “change the organizational culture of nursing homes while attending to residents’ healthcare needs” (Zimmerman and Cohen 2010, pg. 717). Our focus on whether facilities belong to Culture Change initiatives differs from other recent studies of Culture Change by focusing on the organizational level initiative; in comparison, in a recent Commonwealth survey, respondents were asked which work practices common across Culture Change initiatives were present in their facility (Doty, Koren and Sturla, 2008). For analytic purposes, we specify a Culture Change initiative as present if either the DON or NHA report it. The relationship between top managers’ reports of organizational values and Culture Change membership is evaluated using logistic regression and controlling for structural differences across facilities.

Findings

Table 1 provides information on the respondents’ reports of the extent to which they value the elements of the CVF. Overall, respondents tended to identify with values strongly; the mean values on all indicators of cultural values are above 5.5 and for the scale of group culture the mean values are all above 6.0 out of 7. In addition, our table reports the percent of facilities in which respondents rated a cultural item as a 6 or a 7 and for all but two value items that percentage is over 60%. The two items on which facilities scored lower on that value include whether the facility values decentralization (only 54% of facilities scored that a 6 or higher) and whether they valued order within the facility (only 55% of facilities scored that a 6 or higher). In addition, looking across all cultural value items, approximately 17% reported all four CVF types of cultural values as important (scores of 6 or higher).

Table 1 also reports mean values on the created cultural type scales by facility. Four items were used to construct each of the culture scales and in all cases, the individual items fit well within the competing value scales, as demonstrated by Cronbach Alpha scores above .75 for all four cultural types. In addition, Table 1 shows that nursing homes rated themselves highest on cultural values associated with market performance, second highest on values

related to internal employee needs, third highest on values emphasizing hierarchical structure and finally, reported the lowest values for the development scale. These results are highly consistent with what has been found in other health care settings as will be discussed under implications.

Table 2 reports the mean values on the culture scales first comparing across facilities in which Culture Change initiatives are and are not present and secondly, comparing facilities where either the DON or the NHA belong to the Pioneer Network to those in which neither belong to the Pioneer Network. First, it should be noted that participation in Culture Change initiatives is only about 20% of all facilities. Furthermore, staff at only 10% of facilities reported belonging to the Pioneer Network, and within that, less than 4% of DONs belonged to the Pioneer Network. Furthermore, in visually comparing the cultural values across facilities that do or do not report Culture Change or staff involvement in the Pioneer Network, there are no noticeably large differences in the organizational values across facilities.

Table 3 reports the logistic regression results for modeling likelihood of membership in Culture Change initiatives (in the first three columns) and staff affiliation with the Pioneer Network (in the last three columns), controlling for structural differences across facilities. Models were run including all four CVF scales together and then, separately entering each of the CVF value scales into the model. Developmental cultural values have a significant effect on likelihood of both membership in Culture Change initiatives and staff affiliation with the Pioneer Network, regardless of whether the CVF scales are entered as a group or individually into the model. The substantive impact of these effects are small; however, this result is consistently statistically significant across models (except for full model under Pioneer Network analysis). These findings suggest that organizations that emphasize developmental cultural values are more likely affiliated with the Culture Change movement organizations. Causal direction, however, cannot be ascertained with the cross-sectional nature of the data. Of the structural controls included in the model, the proportion of private pay residents is the only factor that also affects affiliation with Culture Change initiatives.

Practice Implications and Conclusions

Our findings that nursing home management staff across facilities rate an employee focus and group values highly reflects the importance of a focus on employee retention within the health care industry and is also consistent with previous studies using the CVF instrument for organizational culture research in a variety of health care settings, which consistently find these values rated highly. On the other hand, the fact that among all types of organizational values, market values were strongest across all nursing homes indicates that the nursing home sector overall has a strong focus on external customers, which may be driven partly by a regulatory emphasis on performance and may also reflect increasing market competition among nursing homes. Further research in this area should explore whether key differences in state long-term care policies, including the stringency of regulatory environments and levels of Medicaid payment rates for nursing home care, affect internal organizational values for facilities. Finally, the fact that the two strongest cultural values are situated in opposing quadrants suggests that nursing homes engage competing values in their quest for effectiveness, which may again reflect pressures for performance.

We also found a much lower prevalence of formal affiliations with Culture Change initiatives than the prevalence of culture change work practices found in previous research (Doty, Koren and Sturla 2008). If our estimate is representative of the population of U.S. nursing homes, approximately 20 percent of all facilities claim affiliation with Culture Change groups, which would be less than 4,000 facilities nationwide. In part, this supports

findings from other research that has found many facilities develop patient-centered practices but fewer identify with the institutional movements or groups associated with Culture Change (Doty, Koren and Sturla 2008).

This view is strengthened by our finding that affiliation with Culture Change initiatives was linked to a greater emphasis on the value of innovativeness within organizational culture and a focus on allowing staff to be creative in problem solving (elements of development cultures) but was not related to a stronger focus on employee concerns and needs or staff morale (elements of the group cultures) than in facilities more generally. In other words, while all facilities rate group culture values highly, Culture Change facilities were no more likely than other facilities to report high values on this scale. These findings support our hypotheses that facilities connected to Culture Change initiatives have unique elements to their organizational cultures not found in the industry as a whole and furthermore, that development cultures are a distinguishing feature of Culture Change facilities. We were limited in our interpretation of the magnitude of change in CVF values among Culture Change facilities because it can be difficult to interpret interorganizational differences in cultural value scores, although we note that the differences are small. Furthermore, our results do not support the hypothesis that Culture Change facilities are also unique in the extent of their employee empowerment focus.

In returning to generalizability, our study respondents were relatively comparable to non-respondents on many dimensions key to representation of the population of US nursing homes (blinded for review). However, our sample was more likely to include facilities in areas with lower per capita incomes and less likely to be for-profit, which affects our ability to generalize to for-profits, which may be more likely to need culture changes. For-profit facilities are also underrepresented in our sample and they may face competing values present because of the demands of the market that affect the importance of organizational culture. These facilities may struggle with achieving desired organizational cultures and consequently, should be the target of future research. With good representation of facilities in areas with low income, our findings apply to facilities that may, because of their location, suffer from a lack of resources to achieve desired organizational cultures (Mor, Zinn, Angelelli, and Miller 2004). Finally, the extent to which responses differed by facility quality is unclear so we cannot indicate whether results apply equally well to facilities with differing levels of quality.

Our research has several other limitations. Within our original sampling frame, the smallest facilities with less than 50 beds were excluded and these facilities may have different cultural orientations. We know from the general organizational literature that smaller facilities are more likely to be newer. And, among new facilities, hierarchical values should be extremely low because new, and consequently entrepreneurial, organizations have a relative lack of focus on bureaucratic mechanisms of coordination and control. We also do not have longitudinal data that would allow us to understand how implementation of Culture Change occurs over time. We asked simply for reports of affiliation to Culture Change groups and cannot say how longstanding these affiliations are, which would be a valuable way for future researchers to examine institutional development of the Culture Change movement. On the other hand, our link to the prior study of nursing home staff turnover can facilitate further research on how organizational culture may impact changes in staff turnover over time and we are exploring this issue.

Our focal questions examined the representation of organizational values within the nursing home industry and the relationship between organizational values and Culture Change affiliation. From a managerial perspective, these questions are critical because organizational change processes and the presence of organizational values have been cited

as key factors to spreading Culture Change within the nursing home industry (Miller, Miller, Jung, Sterns, Clark and Mor 2010; Sterns, Miller and Allen 2010). Our measurement of organizational values used Likert scales on which respondents rated their perception of cultural values ---values that may be perceived as socially desirable. For the CVF, the tendency of respondents to rate a number of values highly suggests social desirability may have affected responses. Despite this, though, facility responses were observed across the full range of the value scales and as we show in this paper, these scales are valid in predicting meaningful relationships to managerial actions, including whether top management report affiliation with external groups such as the Culture Change movement. Future research should explore further the meaning and interpretation of cultural value scales within the context of the nursing home.

Despite these limitations, our results highlight that cultural values emphasizing employee contributions are fairly widespread across the industry. Resident-centered approaches often emphasize the importance of shifting institutional norms and values to drawing employees' attention to resident needs. Despite these values being promoted to some extent across the nursing home industry, most facilities do not report any affiliation to Culture Change. These results support past research that indicates attention needs to be placed on the implementation process by which strong values for employee involvement translate into new work practices supporting culture change (Burger et al. 2009; Rahman and Schnelle 2008; Tyler and Parker 2011) and on the front-line staff's reaction or response to culture change values as promoted by top management (Rosemond, Hanson, Ennett, Schenk, and Weiner 2012; Miller et al. 2010). These processes problems in implementing culture change may be greater barriers to industry-wide adoption of Culture Change than ideological differences across facilities.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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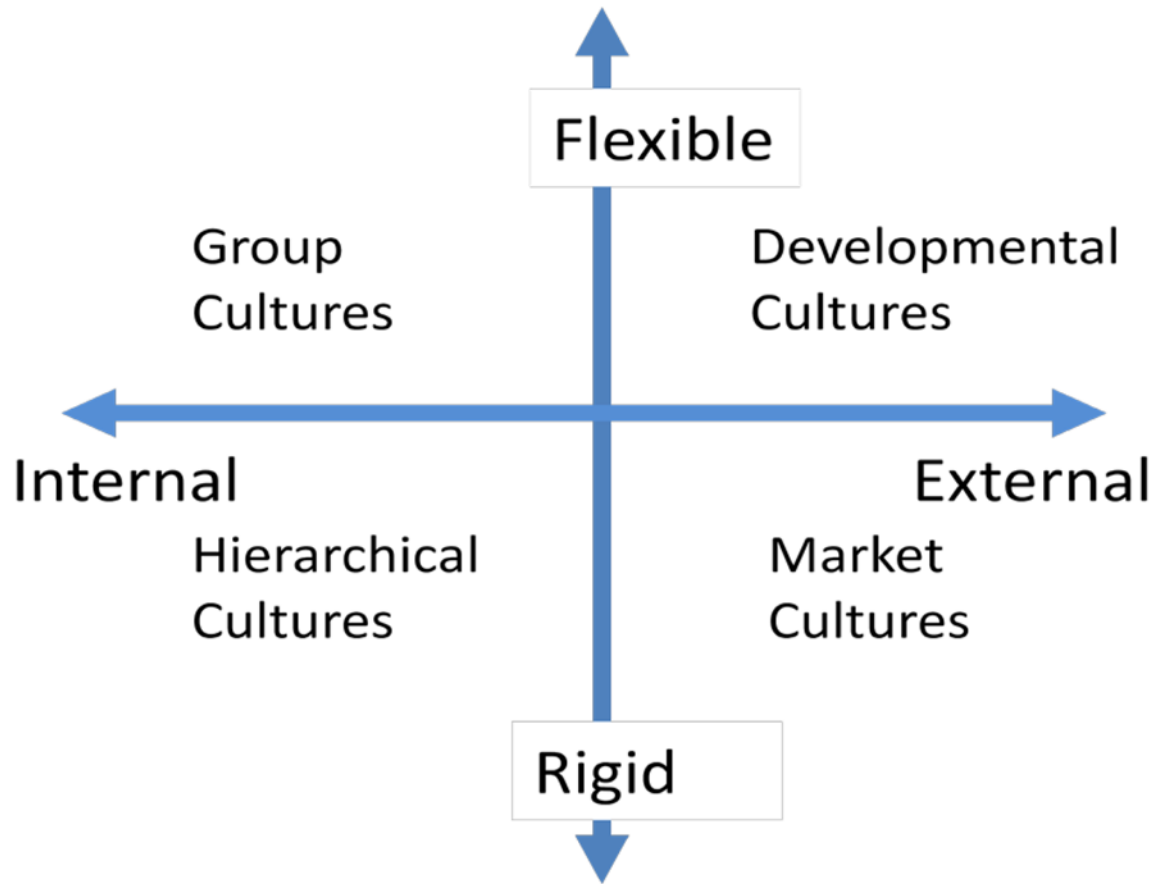


Figure 1.
Competing Values Framework Dimensions and Cultural Types

Table 1

Descriptive statistics on components and scales for the Competing Values Framework (CVF).

	Mean	SD	% High*	Cronbach's Alpha
Group	24.64	3.11	72%	.873
Participation and open disc	6.08	0.94	75	
Employee concerns	6.16	0.85	77	
Human relations	6.20	0.94	76	
Morale	6.17	0.94	77	
Developmental	22.60	3.38	50	.807
Innovation & change	5.46	1.05	49	
Creative problem solving	5.83	1.01	64	
Decentralization	5.42	1.18	47	
New ideas	5.85	1.01	64	
Market	24.89	2.93	72	.837
Outcome excellence & quality	6.43	0.79	86	
Getting the job done	6.14	0.92	75	
Goal achievement	5.97	0.98	70	
Doing one's best	6.31	0.90	81	
Hierarchical	23.78	3.18	57	.602
Predictable outcomes	5.74	0.96	57	
Stability	6.22	1.65	77	
Order	5.59	1.05	51	
Dependability	6.24	0.84	80	
% Facilities that rate all 16 value items 6 or higher			14	

* High is a value of 6 or 7 on the Likert Scale for individual items and a value of 24 or higher for the CVF scales.

Table 2

Comparisons of CVF ratings across culture change initiatives.

	% facilities reporting	Mean values on culture scales (std dev in parentheses)			
		Group	Develop.	Market	Hierarch
Facility Culture Change					
Any Culture Change	20.4	24.7 (3.7)	23.1 (3.7)	24.8 (3.4)	23.5 (3.3)
No Culture Change	79.6	24.7 (3.3)	22.3 (3.7)	24.9 (3.2)	23.8 (2.9)
Pioneer Membership					
Either NHA or DON in Pioneer network*	10%	25.2 (3.8)	23.2 (4.3)	25.3 (3.5)	23.9 (3.2)
No Pioneer Membership	90%	24.6 (3.4)	22.5 (3.6)	24.8 (3.3)	23.6 (3.1)

* The count of facilities in which any (i.e., either) DON or NHA are in the Pioneer network includes some facilities in which both NHA or DON are in Pioneer.

Table 3

Logistic model predicting Culture Change Affiliation (Std. errors in parentheses).

	Membership in CC Initiative						Membership in Pioneer Network					
Intercept	.095 (.646)	-.136 (1.04)	-.176 (.949)	-1.30 (.863)	-.008 (.950)	-.194 (.915)	-.867 (.890)	-2.19 (1.57)	-2.67 (1.46)	-2.76 (1.27)	-2.06 (1.44)	-1.33 (1.27)
Chain-owned	-.081 (.176)	-.118 (.188)	-.099 (.180)	-.088 (.181)	-.28 (.179)	-.060 (.180)	-.104 (.258)	-.152 (.273)	-.065 (.265)	-.055 (.264)	-.153 (.264)	-.143 (.263)
# Beds	-.001 (.001)	-.001 (.001)	-.001 (.001)	-.001 (.001)	-.001 (.001)	-.001 (.001)	-.001 (.002)	-.001 (.002)	-.001 (.002)	-.001 (.002)	-.001 (.002)	-.002 (.002)
For-profit	-.219 (.192)	-.234 (.204)	-.169 (.197)	-.250 (.199)	-.155 (.197)	-.217 (.198)	-.018 (.282)	-.135 (.297)	-.129 (.286)	-.127 (.288)	-.059 (.288)	-.085 (.287)
Occupancy rate	-.466 (.599)	-.466 (.647)	-.345 (.617)	-.454 (.621)	-.555 (.614)	-.499 (.613)	-.199 (.811)	-.137 (.861)	-.122 (.833)	-.130 (.831)	-.149 (.828)	-.126 (.822)
Prop. Medicare	.453 (.625)	.163 (.694)	.385 (.644)	.309 (.663)	.322 (.647)	.460 (.661)	-.388 (.910)	-.170 (.958)	-.021 (.926)	-.190 (.935)	-.437 (.944)	-.305 (.928)
Prop. Private Pay	.112* (.056)	.080 (.060)	.101 (.057)	.125 (.057)**	.118 (.057)**	.109 (.057)*	.112 (.073)	.055 (.082)	.124 (.076)	.099 (.075)	.105 (.076)	.082 (.077)
Group		-.074 (.062)	.005 (.029)					-.039 (.093)	.069 (.047)			
Develop.		.146 (.046) ***		-.059 (.027)**				.111 (.067)		.087 (.042)**		
Market		.012 (.063)			.005 (.030)			.034 (.095)			.058 (.048)	
Hierarchical		-.061 (.056)				.014 (.028)		-.033 (.082)				.029 (.038)

Appendix A

Descriptive characteristics of respondents and nonrespondents.

Variable	Respondents N=561		Non-Respondents N=453		T-Test	
	Mean	S.D.	Mean	S.D.	T-Value	P-value
Chain-owned (1=yes)	0.53	0.50	0.56	0.50	1.04	0.30
For profit (1=yes)	0.67	0.47	0.72	0.45	1.83	0.07
Hospital-based (1=yes)	0.06	0.24	0.06	0.23	-0.37	0.71
Numb. of beds	116.5	65.42	121.3	105.69	0.89	0.37
Occupancy rate	0.84	0.15	0.83	0.15	-1.85	0.07
Numb Quality Defic	1.55	1.55	1.43	1.36	-1.32	0.19
Prop. Medicare	0.14	0.15	0.14	0.14	-0.43	0.67
Prop. Private Pay	2.22	1.62	2.24	1.66	0.17	0.86
Average ADL Score	0.24	0.11	0.23	0.11	-0.71	0.48
Herfindahl (beds in cnty)	1770.94	2010.52	1643.38	1980.50	-1.03	0.30
Per capita income	27,539.15	6,989.52	28,638.17	7514.09	2.33	0.02
Numb. elderly per sqmile	144.37	381.27	155.91	349.04	0.48	0.63