Relationship Between Staff-reported Culture Change and Occupancy Rate and Organizational Commitment Among Nursing Homes in South Korea

Minhong Lee, PhD,[1] Jae-Sung Choi, PhD,[*,2] Jinseop Lim, PhD,[3] and Young Sun Kim, MA[4]

[1]Department of Social Welfare, Dong-Eui University, Busan, South Korea.
[2]Department of Social Welfare, Yonsei University, Seoul, Korea.
[3]Long-term care research lab, Health Insurance Policy Research Institute, Seoul, South Korea.
[4]School of Social Welfare, Yonsei University, Seoul, South Korea.

*Address correspondence to Jae-Sung Choi, PhD, Department of Social Welfare, Yonsei University, 134 Shinchon-dong, Seodaemun-gu, Seoul, Korea 120-749. E-mail: jaesung@yonsei.ac.kr

Purpose: This study aims to examine culture change in nursing homes in South Korea and to identify the outcomes of culture change implementation. **Design and Methods:** Data were taken from survey responses from 223 top- or mid-level staff among nursing homes in South Korea that were selected through a proportionate random-stratified sampling method from four regions nationwide. Culture change in nursing homes was operationalized by five person-directed care (PDC) constructs and three organizational environment constructs, and outcome quality was indicated by changes to occupancy rate and organizational commitment. **Results:** After controlling for facility characteristics, the effect of staff-reported culture change on occupancy rate and organizational commitment was analyzed through the multiple-regression method. Consistent with previous research, this study revealed positive effects of culture change for nursing homes in South Korea. The study found that staff-reported culture change correlated with occupancy rate and organizational commitment. **Implications:** Given that culture change variables were significantly related to occupancy rate and organizational commitment, the findings of the study provide a persuasive argument that policies and/or programs to support culture change in nursing homes should be enhanced. Management-level workers in these facilities should have the skills and knowledge to foster more PDC and a more person-directed environment.

Key Words: Culture change, Person-directed care, Person-directed environment, Occupancy rate, Organizational commitment, Nursing home, South Korea

The rapid growth of the elderly population in South Korea has resulted in an increased need for long-term care (LTC) services for older adults with mental and physical disabilities. The country's long-standing tradition emphasizes filial piety (Chee, 2000), and because of this, family members generally take primary responsibility for caring for their parents (Lee, Yoon, & Kropf, 2007). However, rapid industrialization and urbanization have led to dramatic social changes such as declines in multigenerational living arrangements, increases in women's employment, and the weakening of filial piety as a cultural value (Kim, 2001). Many

families are now unwilling or unable to provide adequate care for older relatives.

In order to deal with the higher demand for LTC services, the Korean government in 2007 launched a Long-Term Care Insurance Scheme (LCIS), and the program came into operation in July 2008 (Kwon, 2009). LCIS is a social insurance program supplemental to the country's National Health Insurance system. LCIS has resulted in a dramatic increase in the number of nursing homes in Korea over a short period. In 2006, before the implementation of the scheme, there were 898 nursing homes in the country with a total of 52,628 beds. This increased to 1,832 nursing facilities with 81,262 beds by 2008 and 3,852 nursing homes with 131,074 beds by 2010 (Korean Ministry of Health and Welfare, 2011)—an increase of 428% in the number of nursing homes over 4 years. Moreover, this increase was clearly meeting a real demand: only 0.3% of the over-65 population lived in nursing homes in 2002; however, as of 2010, the percentage had reached approximately 2.1% (Table 1).

The remarkable growth of nursing homes in South Korea raises many profound LTC quality control issues. Major concerns include the dehumanization of nursing home residents and poor working conditions of caregiving staff (Lee, 2011). "Dehumanization" refers to a condition often observed in "total" institutions where life is prescribed by a single authority (Goffman, 1961): "people who lived in total institutions, he observed, ate, slept, and socialized at the same time on a permanent 24-hour basis with groups of other residents according to a schedule developed by and imposed by institutional authorities" (Ronch, 2004, p. 62). Older residents in nursing homes are more likely to experience declines in physical, emotional, and social health than are community-dwelling elders. Formal caregivers in nursing homes are vulnerable to burnout and high turnover owing to inadequate compensation, long working hours, staff shortages, little opportunity for achievement, and prohibitively complicated bureaucracy (Lee, 2010). All these problems point to a continuing decrease in the quality of life of nursing home residents.

Table 1. Change in Number of Nursing Homes in South Korea, 2006–2010

	2006	2007	2008	2009	2010
Number of nursing homes	898	1,186	1,832	2,712	3,852
Number of beds	52,628	61,406	81,262	99,350	131,074

In coping with the issues confronting nursing homes in South Korea, caregivers may need to look at positive examples from the United States. The history of the personal care field is short in South Korea compared with the United States, which has a well-established nursing and personal care industry integrated into the market economy system. In South Korea, on the other hand, prior to the launch of the national LTC program, most nursing homes were administrated by nonprofit organizations targeted to the low-income elderly population (Lee, 2008). Thus, demand has always exceeded supply. However, the launch of LCIS has created a larger nursing market and made possible the rapid growth of the number of nursing-care providers, most of which operate on a for-profit basis. Conflict between profit imperatives and quality standards will likely grow in scope and importance in the near future.

The United States has a long history of efforts made to improve the quality of life of its nursing home residents (Arnetz et al., 2011; Choi, Flynn, & Aiken, 2011; Kang, Meng, & Miller, 2011; Miller et al., 2010), and there is ample reason to believe that this issue will be of similar concern in South Korea. The movement for nursing home culture change in the United States, which has appeared since the 1990s, will be a sound reference for a society like South Korea, which has recently and rapidly developed its own LTC system (Brune, 2011; Rahman & Schnelle, 2008; Ronch, 2004; Shura, Siders, & Dannefer, 2011). Positive examples of culture change in nursing homes were also found in Canada (Gnaedinger, 2003), Australia (MacKenzie, 2003), New Zealand (Miller, Booth, & Mor, 2008), Swiss (Monkhouse, 2003), and the United Kingdom (Hughes, 2008).

Culture change often involves improvements to person-directed care (PDC) and the person-directed environment (Elliot, 2010; White, Newton-Curtis, & Lyons, 2008), including resident direction, a homelike atmosphere, close relationships, staff empowerment, collaborative decision making, and other quality-improvement processes (Koren, 2010). In particular, new models of LTC, such as the Eden Alternative, Pioneer Network, Green House Project, Live Oak Regenerative Community, and Wellspring have been developed and are advocated by proponents who are passionate in their efforts to initiate culture change in nursing homes (Brune, 2011; Caspar, O'Rourke, & Gutman, 2009; Kehoe & Heesch, 2003; Miller et al., 2010; Shura et al., 2011; Thomas, 2003; White et al., 2008).

A number of studies in Western countries have demonstrated positive results from culture change in nursing homes. For example, positive outcomes for residents in the facilities included improvements in psychosocial health (e.g., quality of life, life satisfaction, dignity, loneliness, autonomy, depression, or emotional well-being) and physical health (e.g., infection rates, medication use, falls, cognition, and mortality; Hill, Kolanowski, Milone-Nuzzo, & Yevchak, 2011). Organizational benefits from culture change included decreased staff turnover, increased customer satisfaction (of both residents and their families), greater organizational commitment (staff), higher occupancy rates, and a positive public reputation (Farrell & Elliot, 2008).

Although the terminology of culture change in LTC services is not familiar in South Korea, person-directed service is a very popular concept in other human-service areas. Some administrators in nursing homes have also acted on such motives, leading to efforts to improve PDC by placing emphasis on individualized care, resident and staff empowerment in decision-making processes, and the creation of a homelike environment (Lim, 2011). These efforts may imply that there is a spontaneous movement toward nursing home culture change in South Korea. However, thus far, there has been no empirical study of PDC in this type of setting. This study will identify staff-reported culture change among the country's nursing homes as well as the positive outcomes from the adoption of the culture change philosophy. The findings of the study shed further light on the life of residents in such facilities.

Culture Change in Theory

As a theory or movement, culture change implies not only specific interventions toward improving resident outcomes but also comprehensively transforming the entire organization (Hill et al., 2011). The first approach is used interchangeably with PDC or resident-directed care and posits that an institutional model of care can become an individualized and consumer-oriented model of care (Elliot, 2010). The PDC model calls attention to older residents' "choice, dignity, respect, self-determination, and purposeful living" (Rahman & Schnelle, 2008, p. 242). Transforming the entire organization focuses on the staff culture, working environment, physical environment, and leadership practices (Hill et al., 2011). Specifically, aims like providing direct caregivers

with decision-making autonomy, enhancing the flexibility of front-line workers, creating a collaborative working environment, altering the physical environment of a nursing home in order to make it a home, and giving the staff leadership and empowerment training opportunities need to be achieved to complete the transformation (Doty, Koren, & Sturla, 2008).

The conceptual and empirical literature on culture change in nursing homes frequently reports positive effects for older adults with disabilities. Several studies have revealed improvement in quality of life and care satisfaction in nursing homes in which culture change has flourished (Kane, Lum, Cutler, Degenholtz, & Yu, 2007; Rahman & Schnelle, 2008; Wyllie, 2001). LTC providers espousing culture change activities observed significant decreases in resident boredom, loneliness, and helplessness—traits often described as the three plagues of nursing homes (Bergman-Evans, 2004; Ruckdeschel & Van Haitsma, 2001), and also as antecedents to aggressive and agitated behavior in nursing home residents (Dettmore, Kolanowski, & Boustani, 2009). Robinson and Rosher (2006) found significant decreases in depression with successful culture change, and Grant (2008) testified to significant increases in choice, autonomy, and dignity for residents in "culture change nursing homes."

Past research has also suggested a correlation between culture change and positive physical-health outcomes in nursing homes (Hill et al., 2011). For example, employing a quasi-experimental research design, Thomas (1996) showed declines in medication use, medication cost, mortality, and infection rates to be correlated with culture change reforms among 160 nursing home residents in the United States. In a similar study, Ransom (2000) reported significant decreases in medication use, infection rates, and mortality rates among 734 older adults in six facilities in Texas. In addition, Kane et al. (2007), who used 2-year longitudinal designs with experimental (one facility, $n = 40$) and comparison groups (two facilities, $n = 80$) in a Mississippi community, found a significantly lower rate of incontinence in residents of culture change nursing homes than in comparison facilities.

Several studies have also suggested positive organizational outcomes resulting from culture change activities in nursing homes. These effects of resident-directed care and home environment include decreased staff turnover, improvements in the organizational commitment of staff, higher occupancy rates, and improved reputation in the

community (Bott et al., 2009; Farrell & Elliot, 2008). For instance, Grant (2008) verified that culture change has a positive effect on resident quality of life, staff satisfaction, and financial benefits by interviews with 812 staff and 950 residents in 17 nursing homes located in Wisconsin and Pennsylvania. In another study of 1,435 nursing homes across the United States, 35% of the sample was culture change adopters, and the number of PDC and person-directed environment initiatives was positively associated with higher occupancy rates (Doty et al., 2008). In addition, Elliot (2010) empirically confirmed that adopters of more individualized and resident-oriented practices observed significant improvements in occupancy rate and revenue, using a quasi-experimental methodology with a list of 9,944 nursing homes in the United States.

In summary, previous studies have supported the notion that culture change in LTC settings positively affects resident health, safety, and well-being; customer satisfaction; and staff satisfaction. In addition, increased occupancy and organizational commitment are considered to be positive byproducts of culture change. In this study, we focus only on the effects of organizational outcomes in nursing homes according to their level of culture change implementation.

On the basis of a review of studies that assessed positive outcomes of culture change for nursing homes, the following two hypotheses are formulated.

- Hypothesis 1: The staff-reported level of culture change implementation by nursing homes will be related to the occupancy rate of the nursing home.
- Hypothesis 2: The staff-reported level of culture change implementation by nursing homes will be related to the level of organizational commitment of the staff in the nursing home.

This study can contribute to culture change research by testing the relationship of culture change with occupancy rate and organizational commitment among nursing facilities in South Korea. Although this study design is in some ways similar to those of previous studies that investigated the organizational outcomes resulting from culture change (Bott et al., 2009; Doty et al., 2008; Elliot, 2010; Farrell & Elliot, 2008), it is the first such empirical study performed in a non-Western culture. Korean society is still strongly influenced by filial piety and Confucian family values, especially in comparison with Western societies. This study is a test of whether the positive

effects of culture change identified in Western cultures will emerge in an Asian culture as well. In addition, the research findings can contribute to the culture change literature by providing some evidence that this new paradigm for nursing homes can be internationally practiced and recognized.

Methods

Sample and Procedure

This study employed some data that were originally collected in a national nursing home survey in 2010 by the Center for Social Welfare Research at Yonsei University, Seoul. The survey was partially funded by the Asan Foundation and was completed by top- or mid-level staff at nursing facilities identified from a comprehensive listing of nursing home information in 2010, provided by Korea's Ministry of Health and Welfare. The survey was completed by staff via mail and there was no direct contact with residents. This study was performed under approval from the University Research Review Board and complied with University regulations. In 2009, there were 2,712 nursing facilities in South Korea; however, participation in this survey was limited to facilities over a year in age and with more than 10 beds. The final sample frame included 1,642 nursing homes.

The researchers employed mail survey method. The survey consisted of a packet (including a self-administered questionnaire, a letter for participants, and a return envelope) was sent via regular mail to 360 nursing homes from four regions selected by a proportionate random-stratified sample. For this survey, the country was divided into four regions: Seoul metropolitan area, Jungbu, Honam, and Youngnam. Nursing homes located in each region were selected by random sampling with a uniform proportion of cases, in which about 25% of the nursing homes were drawn from each homogeneous group. In order to reduce design effects, the nursing homes were chosen randomly from all of the nursing homes in the area.

A total of 243 top- or mid-level staff of nursing homes completed and returned questionnaires, for an overall response rate of 67.5%. However, 20 cases were excluded due to discrepancies between self-reported and officially confirmed number of beds after checking against information from Korea's Ministry of Health and Welfare or due to other incomplete or inaccurate responses on questionnaires. That is, information from 223 nursing homes (61.9% of the sample frame) was used to address culture change issues for the study.

Measures

All of the measurements requested in the questionnaire were originally designed in English. A process of translation and back-translation was used to maintain the reliability and validity of translated scales (Mui, 1996). The researchers translated the questionnaire, and a bilingual professor in the social sciences translated the Korean version of the questionnaire back to English. Five bilingual professors in the social sciences reviewed the English version of the questionnaire and the translated form. Items with significant discrepancies were revised according to their suggestions. Using the revised survey, the researchers interviewed five directors and seven managers in nursing facilities and modified some words that were not acceptable for cultural or linguistic reasons.

Facility Characteristics.—Facility characteristics were measured by several items, including form of ownership (for-profit or nonprofit nursing homes), facility type (nursing home—only or multilevel care), neighborhood (urban, suburban, or rural), number of residents, number of beds, number of employees, and staffing ratio (residents per full-time–equivalent [FTE] staff).

Culture Change Implementation.—On the basis of a comprehensive literature review of culture change in nursing facilities, White et al. (2008) developed a measurement system for PDC and empirically verified the reliability and validity of the scale with a sample of nursing home staff (*n* = 430) in the United States. Principal axis factoring with direct oblimin rotation was conducted to identify the underlying structure of the five PDC domains and the three physical and organizational environment domains; the Cronbach's alpha values for all eight factors were greater than 0.85.

The scale includes 50 items in eight domains. It is divided into two dimensions: PDC and physical and organizational environment. The first dimension (PDC) consists of five constructs: personhood (seven items: e.g., see the experience of living here through their eyes), autonomy/choice (six items: e.g., decide where they want to eat), knowing the person (six items: e.g., know their fears and worries), comfort care (eight items: e.g., quickly help them to the toilet when they request or need help), and nurturing relationships (six items: e.g., keep them connected to their families; White et al., 2008). The second dimension (physical and organizational environment) consists of three constructs:

support for work with residents (five items: e.g., do you have the information you need to support new client/resident choices?), personal environment for residents (four items: e.g., do you have places to walk or wheel for pleasure?), and management/structural support (six items: e.g., do you have time to provide care the way it should be provided?; White et al., 2008).

Participants rated scores on a 5-point scale: 1 = *very few or none*, 2 = *some*, 3 = *about half*, 4 = *most*, and 5 = *all or almost all*. In the current study, the Cronbach's alpha was 0.90 for the total scale and Cronbach's alpha coefficients for the eight subscales were 0.86 for personhood, 0.86 for autonomy/choice, 0.91 for knowing the person, 0.88 for comfort care, 0.91 for nurturing relationships, 0.84 for support for work with residents, 0.64 for personal environment for residents, and 0.83 for management/structural support.

Organizational Commitment.—Organizational commitment was assessed using a measure developed by Jaworski and Kohil (1993). The items for measuring organizational commitment considered "the extent to which a business unit's employees were fond of the organization, saw their future tied to that of the organization, and were willing to make personal sacrifice for the organization" (Jaworski & Kohil, 1993, p. 60). In this study, the respondents evaluated the staff's overall level for each item of the scale. The tool included seven items, and all items were scored on a 5-point scale, ranging from 1 = *strongly disagree* to 5 = *strongly agree*. High scores indicated greater organizational commitment of all employees in the nursing home. The estimated alpha was 0.81 for the current sample.

Occupancy Rate.—Occupancy rate in the nursing facilities was calculated by the ratio of "number of residents that currently live at the facility" to "total number of beds in the facility." The respondents were asked to provide self-reported information about the numbers of beds and residents in their facilities. A higher percentage indicated a higher occupancy rate.

Analytic Plan

To investigate the relationship of staff-reported culture change implementation with occupancy rate and organizational commitment, this article employed a three-stage analytical approach. First, descriptive statistics were produced to better represent respondents' information on organizational

characteristics, culture change, occupancy rate, and organizational commitment. Second, a *t* test and one-way analysis of variance were conducted to investigate the relationship between facility characteristics and the three major variables (culture change, occupancy rate, and organizational commitment). Third, two multiple-regression analyses were carried out testing occupancy rate and organizational commitment in relation to culture change.

Results

Respondents' Information

Of the respondents, 39.9% were men and 60.1% were women. The mean age was 40.83-years old (*SD* = 9.96), ranging from 23 to 69 years. The average number of years of working experience in current nursing facilities was 3.10 (*SD* = 2.85), ranging from 0.6 to 18 years. More than 95% of the employees of the 223 nursing organizations had at least a university-level degree. Directors made up 54.4% of the respondents, and care mangers and administrative service managers comprised 45.6%.

Facility Characteristics

Table 2 summarizes the characteristics of the facilities. Among the 223 sampled facilities in the study, 41.5% were run for profit and 58.5% were nonprofit. Facility type was defined as nursing home–only or multilevel care (including those offering day care, home care, respite care, or adaptive equipment). Nursing home–only care

accounted for 58.7% of the sample, whereas the other 41.3% provided other care services as well. Regarding location, 23.1% of the sample facilities were located in metropolitan areas, 27.8% were in suburban areas or small or midsized cities, and 49.1% were located in rural areas such as agricultural or fishing villages. The mean number of beds in a facility was 52.33 (*SD* = 35.23), ranging from 10 to 296. The mean number of residents in a facility was 45.56 (*SD* = 33.17), ranging from 3 to 296 (<30 = 38.2%, 31–60 = 35.3%, and >60 = 26.6%). In addition, the average number of employees was 24.43 (*SD* = 15.02), ranging from 3 to 82 (<10 = 19.7%, 11–20 = 26.0%, >20 = 47.5%).

Each of the facility characteristics gathered by the sample was compared with information provided by the Korean Ministry of Health and Welfare (2011). According to the national records, the mean number of beds in 1,642 nursing homes was 50.1. The results of a one-sample test showed that the mean number of beds ($t = .290$, $p = .329$) was not significantly different from that of the general population of nursing homes. Finally, the staffing ratio was calculated as the number of residents per FTE staff member, and the mean was 1.97 (*SD* = 0.71), ranging from 0.35 to 6.67.

Culture Change, Occupancy Rate, and Organizational Commitment

Descriptive statistics for the three key variables and mean differences in facility characteristics are presented in Table 3. The overall mean for level of

Table 2. Facility Characteristics (*N* = 223)

Variable		Number (%)	Mean (*SD*)
Ownership form	Profit	90 (41.5%)	
	Nonprofit	127 (58.5%)	
Facility type	NH only	131 (58.7%)	
	Multilevel care	92 (41.3%)	
Neighborhood area	Urban	49 (23.1%)	
	Suburban	59 (27.8%)	
	Rural	104 (49.1%)	
Number of beds	10–30	70 (33.2%)	52.33 (35.23)
	31–60	78 (37.0%)	
	Over 61	63 (29.8%)	
Number of residents	1–30	79 (38.2%)	45.56 (33.17)
	31–60	73 (35.3%)	
	Over 61	55 (26.6%)	
Number of employees	1–10	43 (19.7%)	24.43 (15.02)
	11–20	58 (26.0%)	
	Over 21	105 (47.5%)	
Staffing ratio	Less 1.80	95 (47.7%)	1.97 (.71)
	Over 1.81	104 (52.3%)	

Table 3. Descriptive Statistics of the Three Major Variables With Mean Differences (*n* = 223)

Variables	Group	Culture change (Mean [*SD*])	Occupancy rate (Mean [*SD*])	Organizational commitment (Mean [*SD*])
	Total	3.94 (.37)	88.17 (16.06)	3.78 (.51)
Ownership form	Profit	3.92 (.34)	88.90 (17.41)	3.82 (.47)
	Nonprofit	3.95 (.39)	87.68 (15.10)	3.76 (.53)
Facility type	NH only	3.91 (.35)	88.75 (12.88)	3.76 (.50)
	Multilevel care	3.97 (.39)	87.37 (19.65)	3.82 (.53)
Neighborhood area	Urban	4.05 (.40)	88.91 (13.58)	3.91 (.47)*
	Suburban	3.89 (.33)	87.85 (16.87)	3.67 (.53)*
	Rural	3.92 (.35)	87.85 (16.76)	3.80 (.49)
Number of residents	1–30	3.92 (.40)	85.65 (21.07)	3.80 (.45)
	31–60	3.90 (.31)	88.56 (13.01)	3.69 (.52)
	Over 61	4.00 (.36)	91.21 (10.07)	3.87 (.50)
Number of beds	10–30	3.99 (.40)	90.98 (16.06)	3.89 (.46)*
	31–60	3.84 (.32)	86.00 (17.21)	3.66 (.49)*
	Over 61	4.00 (.35)	87.61 (14.35)	3.84 (.52)*
Number of employees	1–10	3.88 (.33)	85.33 (23.91)	3.85 (.43)
	11–20	3.94 (.41)	86.15 (16.80)	3.82 (.53)
	Over 21	3.97 (.34)	90.04 (11.59)	3.76 (.51)
Staffing ratio	Less 1.80	3.96 (.38)	85.86 (19.64)***	3.79 (.51)
	Over 1.81	3.91 (.34)	90.01 (12.24)***	3.80 (.48)

Notes. *$p < .05$ and ***$p < .001$.

Table 4. Descriptive Statistics for the Eight Constructs of the Culture Change Implementation (*n* = 223)

Variable	Mean	SD
Personhood	4.04	.46
Autonomy/choice	3.41	.57
Knowing the person	4.05	.39
Comfort care	4.15	.46
Nurturing relationships	3.85	.48
Support for work with residents	4.22	.47
Personal environment for residents	3.78	.57
Management/structural support	4.00	.52

culture change implementation as measured on our 5-point scale was 3.94 (*SD* = 0.37). The mean and standard deviation (*SD*) of the eight constructs of culture change are shown in Table 4. The facilities had a mean 88.17% occupancy rate (*SD* = 16.06) with a minimum of 8.82% and maximum of 133.33%. The mean score for organizational commitment was 3.78 (*SD* =.51). In analyzing the three variables within the sample, differences emerged in the organizational-commitment item by neighborhood and number of beds. A post hoc comparison using the Tukey H*SD* tests was conducted, through which it was found that the mean score of organizational commitment in nursing homes located in urban areas was significantly higher than that of homes in suburban areas (*p* < .05) and that facilities with a small number of beds (10–30) or a large

number of beds (61–290) reported significantly higher organizational commitment than those with a medium number of beds (31–60). Finally, the mean occupancy rate in the group for which the staffing ratio was over 1.81 was significantly higher than that for the rest of the sample (staffing ratio < 1.80; *p* < .001).

Effect of Culture Change on Occupancy Rate and Organizational Commitment

Table 5 presents the results of multiple-regression analyses identifying the significant factors affecting occupancy rate and organizational commitment in the sample. Facility characteristics such as form of ownership, facility type, neighborhood, number of residents, number of employees, and staffing ratio (number of residents per FTE staff member) were used as control variables. However, the number of beds was not included in the multiple-regression analyses because the correlation between the number of beds and the number of residents was greater than 0.90. Collinearity diagnostics provided evidence that the explanatory variables were not collinear: the variance inflation factor (VIF) values observed were less than 5.0 (VIF values under 10 are considered linearly independent). Table 5 presents the results of the multiple analyses for Model 1 and Model 2. After controlling for facility characteristics, Model 1 analyzes the relationship between

Table 5. Estimates of Coefficients from the Multiple-Regression Models Relating Culture Change Variables to Occupancy Rate and Organizational Commitment ($n = 223$)

Variables	Occupancy rate		Organizational commitment	
	Model 1β	Model 2β	Model 3β	Model 4β
Ownership form	−.080	−.030	−.101	−.085
Facility type	.003	.014	.016	.062
Neighborhood area	−.002	−.057	.054	.049
Number of residents	−.069	−.236	.245	.023
Number of employees	.241	.295	−.125	.080
Staffing ratio	.263**	.300**	−.076	−.004
Culture change (Total scores)	.240**		.443***	.014
Personhood		−.113		
Autonomy/choice		−.319***		−.008
Knowing the person		.026		.028
Comfort care		−.145		.026
Nurturing relationships		.157		−.026
Work with residents		.104		.085
Personal environment for residents		.320**		−.022
Management structure		.280**		.466***
F	4.419***	4.910***	7.557***	5.929***
R square	.139	.275	.220	.318
Adjusted R square	.108	.219	.191	.264

Notes. Dummy variables codes: ownership form (profit = 0, nonprofit = 1), facility type (NH only = 0, multilevel care = 1), and neighborhood area (urban and suburban = 0, rural = 1).
**$p < .01$, and ***$p < .001$.

culture change and occupancy rate ($F = 4.419$, $p < .001$) and Model 2 analyzes the relationship between the eight constructs of culture change and occupancy rate ($F = 4.910$, $p < .001$).

Model 1 explains 13.9% of the variance in occupancy rate. It was found that occupancy rate was likely to increase with the staffing ratio per resident ($\beta = .263$, $p < .01$) and the level of culture change ($\beta = .240$, $p < .01$). Model 2 explains 27.5% of the dependent variable. Among the eight constructs of culture change, only autonomy ($\beta = −.319$, $p < .01$), personal environment for residents ($\beta = .320$, $p < .01$), and management structure ($\beta = .280$, $p < .01$) significantly predicted occupancy rate. In addition, however, the score of autonomy was negatively correlated with rate of occupancy.

As summarized in Table 5, Model 3 tested the effect of culture change on organizational commitment ($F = 7.557$, $p <. 001$) and Model 4 analyzed the effects of the eight constructs on organizational commitment ($F = 5.929$, $p < .001$). Model 3 explained 22.0% of the variance and Model 4 explained 31.8%. As the level of staff-reported culture change ($\beta = .443$, $p < .001$) in a nursing home increased, so did organizational commitment. Interestingly, only management structure ($\beta = .466$, $p < .001$) was statistically associated with the dependent variable. As the score for management structure increased, the degree of organizational commitment increased as well.

Discussion

Previous literature on formal caregiving in Western countries has frequently suggested that culture change efforts in nursing facilities bring positive outcomes to nursing home residents and organizations. This study first tried to describe the current status of culture change in nursing homes and test the relationship of staff-reported culture change implementation with occupancy rate and organizational commitment for nursing facilities in South Korea.

The results revealed that the overall mean of level of culture change implementation was 3.94 out of 5, showing that administrators of nursing facilities in Korea attempt to provide PDC and person-directed environments for their older residents (Choi, 2008). Specifically, the respondents in this study reported relatively high levels of culture change in the categories of personhood (mean = 4.04), knowing the person (mean = 4.05), comfort care (mean = 4.15), support for work with residents (mean = 4.22), and management or structure support (mean = 4.00). However, culture change levels for autonomy (mean = 3.41), nurturing relationships (mean = 3.85), and

personal environment for residents (mean = 3.78) were comparatively low.

Consistent with previous research, this study provided evidence supporting the potential positive outcomes of culture change for nursing homes in South Korea. After controlling for the effects of facility characteristics using the multiple-regression models, staff-reported culture change implementation was shown to be a significant factor affecting occupancy rate and organizational commitment. It was found that the rate of occupancy was positively related with the level of culture change in the nursing homes (β = .240, p < .01). Furthermore, as the staff-reported level of culture change (β = .443, p < .001) increased, so did organizational commitment. Analysis of the relationships of these aspects of facility culture on occupancy rate and organizational commitment showed that the staffing ratio per resident was positively associated with occupancy rate, as a byproduct of culture change efforts (Elliot, 2010; Hyer et al., 2011).

Among the eight constructs of culture change, personal environment for residents (β = .320, p < .01) and management structure (β = .280, p < .01) had significant affect on occupancy rate, whereas only management structure (β = .466, p < .01) had a significant statistical affect on organizational commitment. However, autonomy (β = −.319, p < .001) was negatively correlated with rate of occupancy. The subdimension of autonomy indicated that staff in nursing homes were encouraged to empower older residents to make their own decisions on their care, schedules, and activities (White et al., 2008). One possible explanation for this unexpected result might come from the tendency of elderly Korean adults with disabilities to accept the opinions of their families or related professionals rather than making their own decisions about their lives. That is, cognitively or physically impaired elderly people and their family members might still feel comfortable with nursing facilities where the staff make decisions on the residents' behalf.

On the basis of the findings of this study, several implications for gerontological practice, policy, and research can be gleaned and a number of policy implementations recommended, particularly for institutional caregiving in South Korea. First, the responses show that that the levels of autonomy and nurturing relationships and the quality of personal environment provided to residents in nursing homes were lower than those of the other subdimensions of culture change. Therefore, staff at nursing facilities in South Korea should focus more on improvements in these areas, which would result in increased quality of service and organizational commitment (Farrell & Elliot, 2008).

Given that the self-reported culture change variables were significantly related to occupancy rate and organizational commitment, the findings of this study provide a persuasive argument that policies and programs to support culture change in nursing homes should be enhanced. Although culture change began as a grassroots movement in the 1990s, culture change efforts have now shifted from the grassroots to the state and national levels in North America (Elliot, 2010). South Korea can learn from the American experience in improving culture change efforts, as represented by nursing homes and organizations such as the Eden Alternative, Pioneer Network, Green House Project, Live Oak Regenerative Community, and Wellspring.

Administrators of nursing homes in South Korea should be aware that culture change implementation in nursing homes was positively correlated with higher occupancy rate and organizational commitment. Management-level workers in the facilities should have the skills and knowledge to improve immediate nursing home environments to create more PDC and a more person-directed environment. These culture change efforts in nursing homes have the potential to be an effective intervention for improving quality of life for older adults who live in institutionalized settings. For their part, American care organizations may learn from Korea's experience, which shows that restructuring nursing homes to provide more individualized care and homelike environments increases resident and staff satisfaction and quality of life. In particular, the results provide some evidence that culture change efforts in nursing facilities may be effective for Korean–American residents. The findings of this study also revealed that management/structural support was the most significant of the eight constructs in increasing not only the occupancy rate but also the organizational commitment. Therefore, managers of nursing homes should respond to direct caregivers' concerns about residents and provide adequate ongoing training opportunities. It is also important for direct care workers to feel that they have time to provide care the way it should be provided, because front-line workers often feel that such time is lacking.

Although the results of this study suggest a number of important implications, there are several limitations that should be acknowledged.

First, only top- or mid-level employees of nursing facilities were asked to provide their overall perceptions of culture change in their workplaces. In other words, the measurement drew only from management-level worker experience. There is a risk that people in these positions may provide only socially acceptable answers to sensitive questions regarding their facilities. Therefore, direct caregivers in nursing homes should also be asked for their thoughts on implementation of culture change as well as their perceptions of organizational commitment. Accordingly, culture change in nursing homes should also be evaluated by older residents and their family members in order to emphasize residents' experiences and choices and accurately reflect the quality of services rendered. Second, the measurement of culture change implementation in this study was originally developed for nursing homes in Western countries. Although the scale and subfactors showed high levels of reliability, the measurements of the Korean samples were not tested using logical validity procedures. Third, the data did not provide an opportunity to identify changes in culture change implementation over time, because the study employed a cross-sectional design. Finally, this study did not consider some important predicators of occupancy rate and organizational commitment. Previous studies on nursing homes have suggested that poor working conditions, such as low pay and long hours, correlate directly with organizational commitment. In addition, occupancy rate can be affected by characteristics of the local market (e.g., demand, competing supply).

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