

Does Empowering Resident Families or Nursing Home Employees in Decision Making Improve Service Quality?

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Abstract

This research examines how the empowerment of residents' family members and nursing home employees in managerial decision making is related to service quality. The study was conducted using data from 33 nursing homes in the United States. Surveys were administered to more than 1,000 employees on-site and mailed to the primary-contact family member of each resident. The resulting multilevel data were analyzed using hierarchical linear modeling. The empowerment of families in decision making was positively associated with their perceptions of service quality. The empowerment of nursing staff in decision making was more strongly related to service quality than the empowerment of nonnursing staff. Among nursing staff, the empowerment of nursing assistants improved service quality more than the empowerment of nurses.

Keywords

employee empowerment, family councils, customer empowerment, nursing home, long-term care, service quality, decision making

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Introduction

Service quality is very important in the health care industry. Studies have shown that high-quality (customer-friendly) services enhance patient utilization of preventive care (Xiao, Savage, & Zhuang, 2010), increase patient satisfaction (Andaleeb, 2001; Chahal & Kumari, 2012), and increase patient loyalty (Chahal & Kumari, 2012). Studies have shown that some types of patient empowerment (e.g., patient involvement in clinical care decisions; Ouschan, Sweeney, & Johnson, 2006) and employee empowerment or involvement (e.g., Armstrong, Laschinger, & Wong, 2009; Scotti, Harmon, & Behson, 2007) have resulted in improved patient outcomes, though the literature regarding the former is not conclusive (Guadagnoli & Ward, 1998; Joosten et al., 2008; Mead & Bower, 2002). Little research occurs in nursing homes, so it is not clear whether customer empowerment or employee empowerment impacts patient outcomes in this industry. This study considers how one type of empowerment, the empowerment of employees and customers in managerial decisions, impacts service quality. It examines the extent to which the empowerment of families and employees in managerial decision making changes the behavior of employees in ways that improve service quality.

In this study, service quality is defined as “the myriad characteristics that shape the experience of care for patients and their loved ones other than the technical quality of diagnostic and therapeutic procedures” (Kenagy, Berwick, & Shore, 1999, p. 661). In nursing homes, these factors include the interactions between employees and residents and their families, and the speed with which resident and family concerns are addressed. To define empowerment, I use Parker and Price’s (1994) conceptualization of empowerment as the “belief that one has control over decision making.” In other words, this article focuses on a specific type of empowerment—the level of influence families and employees perceive that they have over strategic and operational decisions made by managers, ranging from decisions regarding staffing to menu planning. The impact of the empowerment of the families of residents on service quality has not been previously studied.

Some research attention has focused on the impact of the empowerment of nursing home employees on resident outcomes. For example, Armstrong et al. (2009) found that empowered registered nurses (RNs) provided safer environments for residents. Ashill, Carruthers, and Krisjanous (2005) found that nurses empowered to handle decisions regarding patient complaints autonomously also rate their service recovery more highly. In contrast, Bishop et al. (2008) found that when nursing assistants (NAs) were empowered through job enlargement, this did not impact resident-reported quality of

life. However, Yeatts and Cready (2007) and Upenieks (2003) found that RNs reported that NAs who were empowered in meetings to handle day-to-day decision making performed better. This study considers whether the empowerment of nurses or NAs results in better service quality, in the opinion of families rather than the opinion of employees.

How the Empowerment of Family Members Improves Service Quality

The empowerment of the families of nursing home residents in decisions made by executives and managers is expected to positively impact service quality because families are expected to use their influence to impact decisions that will increase their satisfaction (Ben-Ner & Ren, 2010). As the empowered family members participate in managerial decisions, they will provide valuable information to managers about their preferences and needs. This information enables the managers to make better decisions regarding how to improve service quality. Managers are also able to make better decisions overall, because they will be less likely to waste resources on initiatives residents and their families do not value.

Family-member empowerment in decision making may also enhance their perceptions of fairness in the organization, which studies in other industries suggest should enhance their service experience. Lind and Tyler (1988) showed that people who were given a voice in decisions were more accepting of decisions and had a better view of the decision maker; that is, voice in decision making lead to perceptions of procedural justice. Procedural justice was positively related to satisfaction in studies of employees (Colquitt, Conlon, Wesson, Porter, & Ng, 2001), and Hosmer and Kiewitz (2005) argued that this theory of procedural justice could be applied to other stakeholders.

While previous research on how residents' families influence decisions in nursing homes is lacking, there are studies in other industries of the constructs similar to the empowerment of customers. As family members are often advocates for their relatives who live in nursing homes, their role can parallel the role of customers (or customer advocates) in other service industries. Some theoretical insights can be obtained from the customer involvement and customer participation literatures, which examine situations where the customer assists the provider in service delivery. This can occur in the treatment of the elderly, for at times family members assist nursing staff with care (Ejaz, Noelker, Schur, Whitlatch, & Looman, 2002; Nayeri, Gholizadeh, Mohammadi, & Yazdi, 2013).

The literature on the relationship between the impact of customer participation in coproduction and service quality is mixed. Evidence suggesting a negative relationship was found in Bendapudi and Leone's (2003) argument that customers who participated in coproduction had a self-serving bias. Customers blamed the firm more when outcomes were negative but took more credit when outcomes were positive (Bendapudi & Leone, 2003). This self-serving bias could be present in instances where families influence managerial decisions—empowered families may be more likely to blame the nursing home managers when negative outcomes occur because the managers knowingly went against their preferences. Families may be hesitant to give the nursing home managers' credit when the outcome is positive, instead crediting themselves with the idea. Indeed, Goodman, Fichman, Ferch, and Snyder (1995) found that customer involvement was associated with greater dissatisfaction when disappointing results occurred because customers believed that they received inadequate return on their time investments. In addition, Sierra and McQuitty (2005) found that the more customers sensed they shared responsibility for the outcome with the organization, the greater their negative emotions when the outcome was negative.

However, contrary to the self-serving bias hypothesis, Sierra and McQuitty (2005) also found that positive outcomes lead to greater positive affect and loyalty when customers sensed shared responsibility for the outcomes. File, Judd, and Prince (1992) found that customers who participated in coproduction referred the organization to others more frequently than other customers. Ramani and Kumar (2008) found that organizations that used an interaction orientation with customers, which included customer empowerment, had higher levels of service quality. Lawler (2001) theorized that the extent to which customers were involved in service delivery enhanced their emotional experience.

In nursing homes, the research on family councils, which are a mechanism by which families can influence nursing home decision making, has also found positive outcomes when families influence decisions (Curry, Walker, Hogstel, & Walker, 2007). Furthermore, the family members benefited emotionally from participation in the family council (Curry et al., 2007), but the study did not address how service quality was impacted. After weighing the evidence, I posit the following hypothesis:

Hypothesis 1: The extent to which a resident's family member is empowered in managerial decision making is positively associated with their perceptions of service quality.

How the Empowerment of Employees Improves Service Quality

Two previous studies, both at the organizational level of analysis, considered how empowering some nursing home employees with decision-making control impacted residents' well-being. Ben-Ner and Ren (2010) tested how the strategic decision making of nursing employees, as reported by nursing home administrators, impacted administrator-reported and regulator-reported quality of care measures. Anderson and McDaniel (1999) tested the relationship between changes in the decision-making empowerment of RNs (as reported by either Directors of Nursing or Administrators) and changes in nursing home quality ratings collected by state regulators. Ben-Ner and Ren hypothesized that employees may prioritize their own concerns above resident concerns, so that offering strategic control to them may undermine the well-being of the residents, although they added that a professional ethic may guide employees to use their power to advocate for residents' well-being. They found a positive relationship between the empowerment of employees and resident quality of life. Anderson and McDaniel also found a positive relationship between increases in the empowerment of nurses and improvements in the quality of care. They argued that empowering nurses in decision making can yield improved results due to the enhanced fluidity of information flows. Both studies suggest that empowering employees in managerial decision making improves resident outcomes because employees use either their professional ethic or their superior information to improve the residents' quality of care.

Both of the previous studies used key-informant data for employee decision-making empowerment and used data collected by state governments to measure quality. It is not clear that their results would hold if employee reports of decision-making empowerment were used, or if family reports of service quality, rather than regulator quality reports, were used. However, the mechanisms they describe, the professional ethic and the informational advantages of staff, certainly can contribute to service quality. In addition, employee empowerment may impact service quality because research from other industries shows that empowerment improves job satisfaction (e.g., Laschinger, Finegan, Shamian, & Wilk, 2004; Miller & Monge, 1986; Spector, 1986; Wagner & Gooding, 1997), and satisfied employees display more positive affectivity (Kaplan, Bradley, Luchman, & Hayes, 2009), which elevates customers' mood (Tsai & Huang, 2002). In nursing homes, episodes of emotionally laden communication between staff and family members are positively associated with family assessments of service quality (Ejaz et al., 2002; Hertzberg, Ekman, & Axelsson, 2001). As employee empowerment in

managerial decision making improves employee satisfaction in nursing homes (Paulson, 2009), it is likely that employee empowerment will be positively related to service quality.

Hypothesis 2: Employee empowerment in managerial decision making is positively related to family-member perceptions of service quality.

The Empowerment of Nurses and NAs

Scully, Kirkpatrick, and Locke (1995) suggested that the locus of information in the organization impacts whether employee empowerment enhances performance. Whether the employees or managers possess better information on which to make the decisions depends on the task environment (Ben-Ner & Jones, 1995). When task complexity is high, as is the case with nursing jobs, employees have specific knowledge that their managers may not share. When task complexity is low, as is the case with NA jobs, managers may possess the information held by the employees in addition to broader information about the nursing home and its environment. However, employees in customer-contact positions have information about customer preferences derived through personal relationships that managers lack (Aldrich & Herker, 1977). In nursing homes, NAs have the most contact with residents and their families (Beck, Ortigara, Mercer, & Shue, 1999). Their ability to respond quickly to changing customer needs and to influence managerial decisions in light of current circumstances may impact service quality more than the empowerment of employees with less customer contact. It is not clear whether the information gleaned from the enhanced education and skill levels of nurses, or the knowledge obtained by NAs during the provision of care, is more important for improving nursing home managerial decision making. It should also be noted that even if empowered employees do not initially have more information than managerial staff, they gain information through the process of empowerment, and this may improve their service performance as well (Ford & Angermeier, 2008).

Method

Data

About 121 Minnesota nursing homes, who had responded to an earlier survey,¹ were contacted by mail and asked to partner in a study of employee and customer satisfaction. Partner organizations were offered personalized reports of survey results in exchange for participation in the study. All partner

organizations signed consent forms allowing the researcher to visit the nursing home on a specific day and survey employees and family members. All nursing home administrators who did not respond to the mailing were telephoned. Ultimately, 36 nursing homes agreed to allow the research team to survey employees and family members. The study was approved by the University of Minnesota's Institutional Review Board.

The surveys were pilot-tested in March 2006. The pilot-testing process included more than 60 employees who filled out the survey, some of whom made comments about survey items. An interview was also conducted with the nursing home administrator for feedback on the surveys. After the pilot, significant changes were made to the survey, so the nursing home where the pilot was conducted was excluded from the final analysis.

For the remaining 35 nursing homes, a member of the research team traveled to the nursing home during 2006-2007, and remained at each nursing home for approximately 6 hours, usually in a conference room or employee lounge. Signs announcing the researcher's presence were hung by time clocks, on bulletin boards, and at the nurses' stations. Employees were allowed to fill out the paper survey on company time and were given a candy bar for participating. Participation in the study was voluntary, employees were allowed to skip questions they were uncomfortable answering, and all participants signed the consent forms. All employees except the administrator were given the opportunity to participate in the study, but independent contractors were not allowed to participate in the study. Only one employee who volunteered to take the survey failed to complete it. An accurate response rate was not available because it was not possible to know how many employees were at the facility that day, either working a shift or visiting, as many nursing homes did not track this information. Of the nursing homes that provided records of the numbers of employees at the facility, the participation rate was 85%.

While at the nursing home, the researcher gave administrative staff survey packets that included a letter of introduction, consent form, survey, and postage-paid return envelope. Per agreement with the Institutional Review Board, administrative staff at the nursing home addressed the envelopes so that family members remained anonymous. The survey packets were mailed to the primary-contact family member for each of the residents. Two nursing homes that allowed us to survey employees did not send the survey packets to the family members. In summary, of the original 36 nursing homes that agreed to participate, 3 were excluded (the pilot and 2 nursing homes that did not send the surveys) for a final participation rate of 28% (33 out of the 120 contacted nursing homes). Chi-square tests indicate that there were no significant differences among participant and nonparticipant nursing homes in chain status

or hospital affiliation. Tests of differences in means and nonparametric Mann–Whitney tests indicate no significant differences between participant and nonparticipant nursing homes regarding the percentages of Medicare and Medicaid populations served. Participating organizations were significantly smaller than nonparticipating organizations in differences in means tests; however, Mann–Whitney tests failed to detect significant size differences. For-profit organizations were underrepresented among participating organizations. The survey data were merged with data from the Online Survey, Certification, and Reporting (OSCAR) database of the federal Centers for Medicare and Medicaid Services, which included the information about nursing home characteristics that was used for conducting the data representativeness tests. Of the survey packets left at the nursing homes, 29% were returned to the researchers.²

Measures

Dependent variables. Service quality was measured by nine items on a survey of family members adapted from Mostyn, Race, Seibert, and Johnson (2000). Each item was measured by a 5-point Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (5). Internal consistency reliability (α) was .93.³ Example items are “Staff treat my family member with respect” and “I receive satisfactory answers to questions from staff.”

Key explanatory variables. The key independent variables in this study were employee and family empowerment. Employees and family members were asked about the degree of influence that they had, and that they would like to have, over decisions in seven categories. These categories were (a) the hiring of nursing staff, (b) the hiring of a new administrator, (c) the expansion of facilities, (d) changes in the services offered, (e) menu planning, (f) choosing activities for residents, and (g) determining of standards of care for residents. Employees were also asked about their decision-making influence in determining how their work was done and setting their work schedules ($\alpha = .79$ for family members; $\alpha = .86$ for employees). Empowerment variables were measured on 5-point scales ranging from *none at all* (1) to *extreme* (5), and three items were dropped from the family empowerment scale due to inadequate factor loadings.⁴

The data on service quality and family-member empowerment were measured at the individual level of analysis. The nursing homes had family councils that met to discuss issues and influence management, but not all families participated (Friedemann, Montgomery, Maiberger, & Smith, 1997).⁵ Many family members talked informally to board members, administrators,

managers, or employees, yielding different levels of empowerment among the same nursing home's families. Employee empowerment was measured at the organizational level of analysis because there was not a one-to-one mapping of employees to families. Multiple employees were responsible for each resident, and each employee was responsible in part for many residents. Employees typically work in different shifts and may be assigned to any group of residents based on the needs of the nursing home during that shift. I therefore used the mean level of empowerment reported by the employees in each nursing home. It is important to note that decision-making influence was not granted uniformly in the home—some employees receive more while others receive less. Therefore, I am also including a measure of the dispersion of influence granted in the nursing home, which provides insight about whether it is important to give all employees similar levels of influence or whether some other method of allocating influence is more desirable.

Control variables. It is important to note that not all family members or employees value empowerment. They may be busy, making the time investment associated with learning about decisions costly. They may dislike effort or be risk adverse, and influencing decisions takes effort and can be risky. Some family members or employees may not value empowerment because they are satisfied with current circumstances or have low expectancy of improvement if they become involved. In addition, empowered family members and employees are probably not empowered at random—family members or employees are more likely to seek empowerment when they want to change something (often due to dissatisfaction). The level of empowerment desired by families and employees is therefore an important factor to control when analyzing the relationship between employee empowerment and service quality.

Other variables related to the employees', families', or managers' decisions to seek or grant influence that are also related to service quality were added as control variables. These variables include ownership, the number of beds, family and employee education, and resident and employee tenure at the nursing home. Also controlled were the family member's age, gender, and level of influence in the resident's decisions.

Empirical Estimation

Hierarchical linear modeling (HLM), also called random coefficient modeling, is the appropriate method to use when the dependent variable occurs at the individual level of analysis, and when the independent variables occur at the individual and organizational levels of analysis (Otani et al., 2012;

Rabe-Hesketh & Skrondal, 2008; Raudenbush & Bryk, 2002). HLM controls for the nonindependence of error terms within an organization (Raudenbush & Bryk, 2002). The reported regressions were conducted using random intercept regressions (the addition of random slopes did not change the results), and robust standard errors were used to correct for the violation of a model assumption of second-level error-term normality (Rabe-Hesketh & Skrondal, 2008). All continuous and scaled variables were grand mean centered, as recommended by Raudenbush and Bryk (2002).

Results

Table 1 reports the descriptive statistics and correlations for the variables included in the study. Families did not report much empowerment in managerial decision making, but they did report wanting higher levels of empowerment. They also reported high levels of service quality. Family empowerment in decision making was positively correlated to service quality ($r = .13, p < .01$), providing some initial evidence that their empowerment could improve their ratings of service performance. My suspicion that family members who were disappointed with service quality were more likely to want empowerment was confirmed ($r = -.26, p < .01$), affirming the importance of controlling for this variable in analysis. Overall, it appears that nursing home managers do not consider input from family members very much in decision making, which corroborates Ben-Ner and Ren's (2010) finding that executives maintained control of most strategic decisions in nursing homes.

Table 2 shows the HLM results for the relationship between family and employee empowerment and service quality. Family perceptions of service quality, rather than the employee perceptions used by previous studies of service quality, were used in this study. Employee reports of resident quality of life are systematically related to their own attitudes and training (Winzelberg, Williams, Preisser, Zimmerman, & Sloane, 2005), which could result in measurement error. In this study, family empowerment significantly predicted service quality, offering support for Hypothesis 1. A one-point increase in the level of a family member's empowerment corresponded to a 0.16-point increase in his or her rating of service quality.

Employee empowerment was also low in the nursing homes sampled (see Table 1). Employees desired more decision-making empowerment than they had, which is similar to the findings of other studies of RNs (Leurer, Donnelly, & Domm, 2007; Mangold et al., 2006), though it should be noted that our study included all nursing home employees, not just nurses. The existence of a significant discrepancy between the amount of decision-making empowerment employees' had and the amount they desired suggests that additional

Table 1. Means, Standard Deviations, and Pairwise Correlations Between Variables at the Individual Level and Organizational Level of Analyses.

	M	SD	1	2	3	4	5	6	7	8
Individual level—Family survey responses										
1. Service quality (1-5)	4.428	0.638	1.000							
2. Family empowerment (1-5)	1.714	0.924	.134 (.001)	1.000						
3. Family desired empowerment (1-5)	2.676	1.068	-.256 (.000)	.387 (.000)	1.000					
4. Resident tenure (months)	139.4	190.4	-.021 (.613)	-.041 (.336)	-.068 (.124)	1.000				
5. Influence in choosing nursing home (1-4)	3.432	0.922	.125 (.002)	.093 (.027)	.016 (.715)	-.008 (.860)	1.000			
6. Education (1 = bachelor's degree)	0.349	0.477	.033 (.424)	.001 (.988)	.063 (.144)	-.041 (.338)	.040 (.336)	1.000		
7. Age (years)	62.8	11.4	.104 (.012)	.005 (.906)	-.174 (.000)	.116 (.006)	-.075 (.076)	-.177 (.000)	1.000	
8. Gender (1 = female)	0.681	0.466	-.034 (.403)	.031 (.463)	.099 (.021)	.032 (.448)	.060 (.144)	-.105 (.010)	-.074 (.076)	1.000
Individual level—Employee survey responses										
1. Employee empowerment (1-5)	1.893	0.639	1.000							
2. Employee desired empowerment (1-5)	2.615	0.794	.515 (.000)	1.000						
3. Employee average tenure (months)	94.9	110.9	.069 (.026)	.079 (.015)	1.000					
4. Job satisfaction (1-5)	3.936	0.615	.227 (.000)	-.012 (.694)	-.002 (.954)	1.000				
Organizational level										
1. Employee empowerment—All employees (1-5)	1.919	0.163	1.000							
2. Employee empowerment—Nurses (1-5)	2.019	0.32	.565 (.000)	1.000						
3. Employee empowerment—Nursing assistants (1-5)	1.765	0.242	.712 (.000)	.396 (.017)	1.000					
4. Standard deviation of employee empowerment	0.665	0.145	.228 (.181)	.233 (.171)	.206 (.229)	1.000				
5. Ownership (for profit = 1)	0.206	0.41	.001 (.998)	-.119 (.511)	.168 (.352)	.210 (.242)	1.000			
6. Nursing home size (number of residents)	66.1	29	-.202 (.268)	.126 (.493)	-.087 (.637)	-.296 (.100)	-.227 (.205)	1.000		

Note. *p* values are in parentheses. Service quality, customer empowerment, customer-desired empowerment, employee empowerment, and employee-desired empowerment were measured on a scale of 1 to 5, with a larger number indicating more of the characteristic. Influence in choosing nursing home was measured on a scale of 1 to 4, with a larger number indicating greater influence. Employee-survey variables are calculated from 1,040 employees; sample size may be slightly less for some items due to missing data. Family survey correlations were calculated from 522 surveys; sample size may be slightly less for some items due to missing data. Nursing home sample size is 33.

Table 2. The Effect of Family and Employee Empowerment on Family Ratings of Service Quality.

	1	2	3
Individual level—Family survey responses			
Family empowerment	0.160*** [0.038]	0.157*** [0.038]	0.161*** [0.037]
Family desired empowerment	-0.213*** [0.035]	-0.219*** [0.035]	-0.217*** [0.035]
Resident tenure (in months)	0.000 [0.000]	0.000 [0.000]	0.000 [0.000]
Family influence in choosing nursing home (1-4 scale)	0.089*** [0.037]	0.082** [0.037]	0.088** [0.037]
Family respondent education level (1 = bachelor's degree or higher)	0.076 [0.057]	0.073 [0.058]	0.072 [0.058]
Family respondent age (in years)	-0.001 [0.003]	-0.001 [0.003]	-0.002 [0.003]
Family respondent gender (female)	0.012 [0.059]	0.02 [0.059]	0.016 [0.059]
Aggregated employee survey responses (nursing home level of analysis)			
Employee empowerment	0.562** [0.243]		
Employee empowerment standard deviation	-0.073 [0.363]		
Employee desired empowerment	-0.163 [0.134]		
Employee average tenure	0.001 [0.001]	0.001 [0.001]	0.001 [0.001]
Employee empowerment—nursing staff		0.431* [0.235]	
Employee empowerment—nonnursing staff		0.088 [0.196]	
Employee empowerment—nursing assistants			0.379** [0.187]
Employee empowerment—nurses (RN and LPN)			0.043 [0.112]
Nursing home facility information			
For-profit ownership	-0.062 [0.081]	-0.032 [0.082]	-0.052 [0.081]
Nursing home size	0.001 [0.001]	0.000 [0.001]	0.000 [0.001]

(continued)

Table 2. (continued)

	1	2	3
Constant	8.117 [5.016]	7.858 [5.210]	7.886 [5.027]
<i>n</i> (family level)	454	446	454
<i>n</i> (organization level)	31	31	31
<i>R</i> ² (family level)	.138	.138	.138
<i>R</i> ² (organization level)	.252	.275	.250

Note. Random Intercepts HLM model with robust standard errors is in brackets. The use of random slopes does not impact results. Nonnursing staff included dietary, housekeeping, administrative, and all other employees who were not a nurse or nursing assistant. Sample sizes at both the individual (family member) and nursing home level of analysis were smaller due to missing data. RN = registered nurse; LPN = Licensed Practical Nurse HLM = hierarchical linear modeling.

p* < .10. *p* < .05. ****p* < .01 (two-tailed tests).

empowerment would improve employee satisfaction. In addition, there is a positive correlation between empowerment and job satisfaction⁶ at the individual employee level of analysis ($r = .23, p < .01$).

Employee empowerment was positively associated with the family member's report of service quality (see Table 2, Model 1). The size of the effect was rather large; a one-point increase in the average level of employee decision-making empowerment increased service quality by 0.56 points, more than twice the size of the effect of increasing the family member's level of empowerment. The standard deviation of employee empowerment had a coefficient that was very small and insignificant, suggesting that it did not matter whether employees were given similar levels of decision-making empowerment. Employee desired empowerment had a negative sign, as expected, but this was insignificant. This positive result is the first time employee empowerment or involvement in managerial decision making was linked to a customer report of service quality in health care, and it corroborates an earlier finding that employee reports of empowerment were related to employee reports of resident outcomes in nursing homes (Anderson & McDaniel, 1999).

During hypotheses development, two ways that the empowerment of employees could positively impact service quality were discussed. One way was through the positive emotions associated with job satisfaction, which was found to positively correlate to employee empowerment. I added job satisfaction to the model in an unreported regression; it was not significant, nor did it change the relationship between employee empowerment and service quality.

Model 2 of Table 2 considers the empowerment of nursing and nonnursing staff. None of the previous studies of employee empowerment or involvement in decision making on resident outcomes (e.g., Anderson & McDaniel, 1999; Ben-Ner & Ren, 2010) study nonnursing employees. Model 2's results suggest that the empowerment of nursing staff is more important than the empowerment of other staff to attain higher service quality. The empowerment of nonnursing staff, such as administrative, housekeeping, or food service staff, does not relate to service quality. This is not unexpected; the measure of service quality was adapted from Mostyn et al. (2000), which references primarily the behaviors of nursing employees. Future research should determine whether creating measures of the service quality of food service staff, relating entirely to the dining experience, or activities staff, relating entirely to activities, is associated with the empowerment of these staff.

The third model in Table 2 breaks down the empowerment of nursing staff into nurses and NAs. I did not break down the nursing staff into RNs and Licensed Practical Nurses (LPNs) due to insufficient power in our data. Although RNs and LPNs may have some differences in tasks, both groups of

nurses had specialized skills and experience, and supervised the NAs. The NAs provided the majority of the direct care.

Model 3 shows that empowering NAs was relatively more important than empowering nurses for improving service quality. NAs, who provide about 80% of the resident's direct care, often overlook the interpersonal dimensions of care and focus their attention on meeting regulatory guidelines (Chung, 2012). Perhaps this is at the directive of management, who, in their concern to meet regulatory requirements, reward NAs based on their ability to produce observable results. When NAs are allowed to influence decisions, they may advocate for decisions that allow for more consideration of the interpersonal dimensions of care. The finding that the empowerment of nurses is less important than the empowerment of NAs in predicting service quality is at odds with the expectation that empowering skilled staff reaps better service performance than empowering less skilled staff. Rather, it appears that the information gleaned from constant contact with the residents and their families by NAs may better inform managerial decisions than the information held by the skilled nurses. Alternatively, this result could be attributed to the fact that lower level staff empowerment increases their self-efficacy or job knowledge relatively more than the empowerment of higher level staff. Supporting this contention, Leach, Wall, and Jackson (2003) found that the job knowledge improvements that resulted from empowerment were most notable among less experienced staff. An alternative explanation is that the interests of the NAs were more aligned with those of the families and the residents, possibly due to the relationships that they form with each other.

Managerial Implications

This study has several practical suggestions for improving service quality in long-term care. It suggests that the empowerment of families in managerial decision making will improve their assessments of service quality. Few executives in nursing homes are including the residents' families in decision making, so making such efforts could result in a comparative advantage for those who seek out greater input from families. Mechanisms to seek input from families already exist in most nursing homes in the form of family councils. Nursing home executives are encouraged to share information with these councils and find other ways to seek the opinions of families when making decisions that will impact them. In addition, long-term care managers who are interested in improving service quality are advised to empower their staff in decision making, especially the NAs. It is likely that the information that they have regarding resident and family preferences can improve service quality.

Conclusion

An examination of a multilevel data set from nursing homes in a Midwestern state found that the empowerment of family members in managerial decision making was positively related to service quality. In addition, the empowerment of employees in managerial decision making was also related to service quality.

This study is the first to consider the empowerment of health care customers in managerial decision making, something that is becoming increasingly common due to the rise of web 2.0 technology and social networking (Li, 2011). It is also the first to explore the consequences of empowering a broad range of nursing home employees; previous studies have considered only the empowerment of RNs. This study considered the empowerment of nursing employees who have two different kinds of informational advantages—skill-based information and information from customer contact. Empowering the NAs, who spent more time with the residents and their families, was more effective for improving service quality than empowering other types of employees.

Like most studies, this study has several limitations. First, this study considers the service quality as perceived by the families of the residents. It remains important for future research to determine whether the residents believe that service quality is improved when certain employee groups or the residents' families are empowered. Second, our sample of families may not be representative of all nursing home primary-contact relatives. We limited our study to one state, which controlled for regulatory environment and many cultural factors, but limits the generalizability of the study. Furthermore, after the initial survey mailing, we were unable to follow-up with families, because part of our privacy agreement with the nursing homes stipulated that we did not have access to family names or addresses, which contributed to a lower than ideal response rate. This is less of a concern with the employee data, which although anonymous, had a higher response rate because the surveys were conducted in person. We suggest future research to study the empowerment of families and employees in other nursing home samples to examine the robustness of these findings.

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Notes

1. The administrator survey is explained in Paulson (2009). It had a response rate of 30% and was generally representative of nursing homes in Minnesota.
2. About 2,343 survey packets were left at the nursing homes, representing their total number of beds, but 190 surveys were not mailed due to open beds, 12 surveys were returned for bad addresses, and 6 surveys were unusable because information that identified the home was missing. About 613 usable customer surveys were returned, for a response rate of 29%.
3. Factor analysis was conducted on 22 items adapted from Mostyn, Race, Seibert, and Johnson (2000), using the iterative principal factors method in STATA. Oblique rotation was used to relax the assumption of zero correlation among factors. The results, however, do not differ from factor analysis with varimax rotation. Two factors were retained by patterns by examining the scree plot and eigenvalues. The first factor considered items that were strongly related to nursing employee behavior, and a scale of these items was created and labeled "service quality." The other factor was not used in this study.
4. The factor analysis of the nine employee empowerment items was conducted at the employee level of analysis on 1,040 employees and an oblique rotation was used. There was only a single factor with an eigenvalue over one, and inspection of the scree plot also suggested a one-factor solution was plausible. This factor explained 60% of the variance in the employee empowerment items. The seven family empowerment items were factor analyzed at the family level of analysis on 522 surveys. Two factors were retained upon inspection of the scree plot. The first factor, containing four items, involved decisions regarding changes in the services offered, menu planning, choosing activities, and determining the standards of care, had an eigenvalue over one. The retained factor contained 76% of the variance in customer empowerment. The other factor had an eigenvalue close to one but very low means and little variance. Family members did not have any influence over these types of managerial decisions, and so these items were dropped from analysis.
5. Nursing homes are legally required to allow family-run autonomous councils to meet at the nursing home in a private space. It is up to the families whether to create such a council, how often to meet, and how they wish to communicate with nursing home staff. Nursing home administrators are required to address the concerns of the council. For more information on family councils, please see the Centers for Medicare and Medicaid Services' guidelines for statute §483.15(c), available at https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltcf.pdf
6. Job satisfaction is measured using a five-item scale created by Brayfield and Rothe (1951), with higher numbers indicating greater job satisfaction. Internal consistency reliability (α) for the scale was .76.

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