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Regulation and Mindful Resident Care in Nursing Homes

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Abstract

Regulatory oversight is intended to improve the health outcomes of nursing home residents, yet evidence suggests that regulations can inhibit mindful staff behaviors that are associated with effective care. We explored the influence of regulations on mindful staff behavior as it relates to resident health outcomes, and offer a theoretical explanation of why regulations sometimes enhance mindfulness and other times inhibit it. We analyzed data from an in-depth, multiple-case study including field notes, interviews, and documents collected in eight nursing homes. We completed a conceptual/thematic description using the concept of mindfulness to reframe the observations. Shared facility mission strongly impacted staff perceptions of the purpose and utility of regulations. In facilities with a resident-centered culture, regulations increased mindful behavior, whereas in facilities with a cost-focused culture, regulations reduced mindful care practices. When managers emphasized the punitive aspects of regulation we observed a decrease in mindful practices in all facilities.

Keywords

case studies; nursing administration; nursing homes; older people

In response to widespread concerns about the safety and health outcomes for nursing home residents (Institute of Medicine, 1986), the Omnibus Budget Regulation Act (OBRA) of 1987 began a system of state and federal oversight that has resulted in nursing homes becoming the most highly regulated health care system in the United States. For example, clinical staff conduct extensive resident assessments that are submitted for each resident to the State Regulatory Board and to the Centers for Medicare and Medicaid Services (CMS) at least quarterly. Regulators use these data to determine reimbursement and to calculate quality indicators (QIs). The QIs are publicly reported to consumers (Health and Human Services, 2008a). In addition to annual surveys, state and federal surveyors make unannounced audits of facilities in response to complaints, sentinel resident health care events, or when QIs meet certain thresholds (Harrington, Mullan, & Carrillo, 2004; Moseley, 1996). Survey "deficiencies" can result in damaged community reputation, steep fines and, in severe cases, loss of Medicare and Medicaid reimbursement (Health and Human Services, 2008b). Thus, nursing home staff have strong incentives to comply with the many state and federal regulations which are intended to ensure safe care and high quality health outcomes for residents.

Evidence suggests that these regulations have resulted in some improvements in the health of nursing home residents. Increases in some, but not all QIs have been observed following implementation of the OBRA 1987 reforms (Hawes et al., 1997). For example, restraint use, psychotropic drug prescriptions, and urinary catheter rates have all declined following regulations aimed at reducing these practices (Graber & Sloane, 1995; Moseley, 1996; Rogers et al., 2008; Rovner, Edelman, Cox, & Shmuely, 1992; Shorr, Fought, & Ray, 1994). Regulations mandating an expanded role for nursing home medical directors have resulted in perceived improvements in physician performance, infection control, and time spent in the facility (Boyce, Bob, & Levenson, 2003). Regulations have played a role in nursing homes' adoption of

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routine quality improvement processes (Colon-Emeric et al., 2006; Lucas et al., 2005).

Despite these advances, unintended negative consequences of regulation have also occurred. Following new rehabilitation regulations, documentation improved but the actual delivery of occupational therapy services declined (Thomesen, 1996). Nurses and nurse aides report a negative impact of regulatory oversight on their work environment and job satisfaction; this is a concern given high industry turnover and nursing shortages (Cherry, Ashcraft, & Owen, 2007; Pfefferle & Weinberg, 2008). Nursing home staff also report that misaligned incentives resulting from regulations create barriers to implementing clinical practice guidelines (Colon-Emeric et al., 2005; Colon-Emeric et al., 2007) or undertaking culture change initiatives (Commonwealth Fund, 2007). Researchers and policy makers have questioned the effectiveness of the regulatory survey process (Harrington et al., 2004; Lapane, Hughes, & Quilliam, 2007). Others have noted the poor correlation between facility regulatory sanctions (Bravo et al., 2002) or number of deficiencies (Spector & Drugovich, 1989) with independently measured resident health outcomes.

One way to explore these disparate findings is to examine the impact of regulation on the mindfulness of staff as they carry out their work. Mindfulness refers to the ability of individuals to process information in nonautomatic ways, to achieve a "state of active awareness characterized by the continual creation and refinement of categories, an openness to new information, and a willingness to view contexts from multiple perspectives" (Levinthal & Rerup, 2006). High levels of mindfulness characterize high-reliability organizations in which safety is a primary concern, such as the airline industry (Weick & Sutcliffe, 1999). Previous studies of high-reliability organizations have identified mindfulness strategies that were associated with lower error rates and enhanced organizational learning. In these high-reliability organizations, staff anticipate the unexpected by remaining preoccupied with failure, reluctant to simplify processes, and sensitive to operations "at the front line." They limit the consequences resulting from unexpected events by their commitment to resilience, and their deference to expertise (Issel & Narasimha, 2007; Weick & Sutcliffe, 1999; Weiss & Ilgen, 1985). For example, airlines and their crews have contingency plans and drills for many hypothetical events (preoccupation with failure), require completion of complex checklists prior to each flight (reluctance to simplify), and allow any employee at the front line to initiate a flight delay if they detect a potential problem (sensitivity to operations). When unexpected events occur they carefully analyze and change their processes (commitment to resilience), and in an emergency situation, have a clear chain of command led by the staff member with the most expertise in dealing with the particular problem (deference to expertise).

The concept of mindfulness has also been explored in health care organizations, where unexpected events have the potential to result in adverse consequences for both patients and communities (Issel & Narasimha, 2007; Vogus & Sutcliffe, 2007a, 2007b). Issel and colleagues have used the concept of mindfulness in evaluating complex health improvement programs. In their analysis of Healthy Start, a federally funded program to reduce disparities in infant mortality, they identified examples of "mindlessness" in governmental oversight where lack of preoccupation with failure, reluctance to simplify, and sensitivity to operations at the front line resulted in overall lack of programmatic benefit (Issel & Narasimha, 2007). Other investigators have examined mindfulness at the unit level; for example, higher levels of mindfulness on nursing units are associated with improved medication error reporting rates (Vogus & Sutcliffe, 2007a).

Although the concept of mindfulness has been largely unexplored in nursing homes, prior organizational research findings suggest that high levels of mindfulness should enable early detection of change in resident health, optimal information gathering, and flexibility in care planning to address unexpected changes in resident status. A culture that encourages mindful behaviors should enable the nursing home staff to continuously improve systems and subsequent resident outcomes. However, there are costs to sustaining mindfulness, and staff members must balance their attention between situations that truly require active engagement and situations that can be managed with less mindful, routine behaviors (Anderson et al., 2005; Levinthal & Rerup, 2006). Because nursing homes are highly regulated, it seems likely that attention to rules might lead to automated thinking and less mindful behaviors by staff members. For example, regulations require that nurses routinely lock the medication cart, or wash their hands after each resident encounter. However, some regulations attempt to encourage more mindful behavior. For example, regulations require that a resident-specific care plan (resident assessment protocol) be developed for residents whose regulatory data indicate high risk for conditions such as falls or dehydration.

The goal of this analysis was to explore the influence of regulations on the balance of more- and less-mindful behavior in nursing homes as they relate to resident health outcomes. Does adherence to regulations lead to mindful practices or does it lead to behavioral routines that discourage mindfulness? We used qualitative analysis of case study data to develop insights about the consequences of regulations that might be of value to nursing home staff, managers, and policy makers.

Table 1. Nursing Home Characteristics, Staff Sample, and Data Used in the Analysis

	Nursing Homes[a]								
	Golden Village	Guardian Square	Ivy Vines	Mountain Roads	Safe Harbor	Shady Grove[b]	Sweet Dell[b]	Windy Lane	Totals
Facility Characteristics									
Profit Status	Nonprofit	For-Profit	For-Profit	For-Profit	For-Profit	For-Profit	Nonprofit	For-Profit	
Type	Religious Affiliation	Chain	Chain	Private	Chain	Chain	Religious Affiliation	Chain	
Location	Suburban	Urban	Suburban	Rural	Urban	Suburban	Suburban	Suburban	
# of beds	90-120	150-180	100-130	60-90	180-210	120-150	100-130	100-130	
% Medicaid	Lower	Higher	Higher	Lower	Higher	Higher	Lower	Moderate	
Participants									
Administrators	1	1	1	1	1	1	1	3	10
Nurse Managers[c]	4	7	4	5	6	6	6	9	47
Floor Nurses	14	17	15	12	20	23	17	21	139
Nurses Aids, Medical Techs	21	38	21	33	37	20	36	26	232
Nonnursing Staff	46	52	41	33	55	41	44	38	350
Total Staff	86	115	82	84	119	91	104	97	778
Data Type									
Direct Observation	86	115	81	84	114	91	98	97	766
In-Depth Interviews	17	18	31	14	39	17	32	24	192
Shadowing Encounters	5	4	14	5	26	4	14	18	90
Facility Documents	42	11	44	12	39	22	42	10	198

[a]All facility names are pseudonyms.
[b]Exemplar home in this article.
[c]Nurse managers include: directors of nursing, assistant directors of nursing, nurse supervisors, MDS nurses, and quality assurance nurses.

Methods

This study was part of a larger, comparative, multiple-case study of the impact of relationship patterns and management practices on resident health outcomes (Anderson, Crabtree, Steele, & McDaniel, 2005). We collected data in eight nursing homes over the course of 4 years, spending between 3 and 6 months in each nursing home. We selected eligible facilities located within 150 miles of the study center, using a random number generator. Administrators agreed to enroll the nursing homes, and staff provided informed consent prior to all interviews. The university institutional review board approved all study procedures.

Sample and Procedures

Staff members from all departments served as informants in the study. Members of our research team directly observed 766 staff members during field observations, "shadowed" 90 (followed them throughout all their activities in a given day), and interviewed 192. Participants were chosen to intentionally include representatives from all units, departments, job descriptions, and shifts, or because they held a formal or informal leadership position in the facility. Forty-seven percent of the staff were White, and 75% were women. Details of the participants, facility characteristics, and data collected are shown in Table 1.

Data Collection

Two master's-degree- or PhD-prepared field researchers collected data in each facility over a period of 3 to 6 months by observing daily routines and meetings, and by shadowing staff during a typical day. In-depth interviews included probes on the perceived quality of nursing home care and the barriers and facilitators to providing good

care. The interviewers did not specifically seek perceptions about regulations, but when comments about regulations were spontaneously made by an informant, the interviewers used probes to elicit specific examples. The research team interviewed managers, clinical staff (e.g., social workers; rehabilitation, activities, and dietary staff), floor nurses (registered nurses or licensed practical nurses), nurse assistants (NAs), administrators, and support staff to obtain diverse perspectives. Detailed field notes were transcribed after each field observation and all interviews were audiotaped and transcribed verbatim. Archival data (n = 198), such as staff manuals or policies and procedures manuals, provided additional sources of data.

To ensure reliability and validity the researchers conducted interviews with a wide range of staff until no new themes emerged (theme saturation). Data triangulation included data collected from observation, interviews, and documents (Crabtree & Miller, 1999). At the end of each case study, the research team presented a summary of our findings to the participants as both an individual and organizational member check (Utley-Smith et al., 2006).

Analysis

All members of the interdisciplinary research team read all of the case study data and were familiar with the details of each case. At least two of the team members coded each of the study documents. The data were coded initially using an open coding technique; codes were reviewed at weekly team meetings to achieve consensus on a code book, which was continuously revised throughout the coding process. The theme *regulation* emerged during the coding of the first case and was then used to code data from all cases. The regulation code was used to capture chunks of text that mentioned regulation and included staff members' descriptions of it, anticipation of and/or responses to it, or consequences of it for staff and resident care.

For the present analysis we used the technique of meaning condensation. Our ultimate goal was to condense the coded data into an individual "conceptual/thematic description" for each of the eight cases (Sandelowski & Barroso, 2003), using imported concepts or themes (mindfulness) to reframe a phenomenon (the impact of regulatory oversight). The dataset for this analysis included all 1,373 segments of text coded as "regulation" in the data from the eight case studies. We first reread the text with attention to identifying examples of mindfulness. We recoded the segments of text relating to regulation using a code book based on the mindfulness concept. We defined *mindful behavior* operationally as an observed interaction, behavior, or quote that used one or more of the five mindfulness strategies identified by Weick and Sutcliffe (1999): preoccupation with failure, reluctance to simplify, sensitivity to operations, commitment to resilience, and deference to expertise. Because mindfulness that focused staff attention on specific resident issues or care processes was most likely to result in improved resident outcomes, we also determined whether or not the coded unit was an example of mindfulness that either did or did not focus on residents. For example, we considered a mindful staff behavior as resident focused if its intent was to improve an individual resident's health state, took into account resident-specific information for decision making, sought out diverse perspectives to improve care, or demonstrated flexibility and adaptability to unique resident situations. We considered mindful staff behavior as nonresident focused if it focused on cost or compliance rather than resident health outcomes. Finally, we coded staff behavior as less mindful if it was described as an invariable routine, did not consider individual resident information, or was not flexible and adaptable to unique resident situations.

In the third stage of analysis, we wrote conceptual thematic descriptions for each of the eight nursing homes, describing the impact of regulation on the use of mindfulness strategies. Team members independently reviewed the eight case study summaries in an effort to identify missing themes and themes not adequately supported by the data. We used tables to complete cross-case comparisons and identify new insights. Throughout the analytic process we reread the original transcripts to clarify the context and meaning.

Results

In the course of our data collection, we heard stories of how regulations at times seemed to enhance mindful care practices and at other times seemed to inhibit mindful practices. We observed two patterns that help to explain this observation. First, organizational mission and culture affected how staff understood the purpose of the regulations, which in turn affected their mindfulness in carrying out the regulations. Second, when managers emphasized the purpose behind the regulations, more mindful practices occurred, but when managers emphasized the consequences of not complying with the regulations, the practices that were observed were less mindful. Below, we present two case summaries to illustrate these findings. We chose the two nursing homes, with the pseudonyms "Sweet Dell" and "Shady Grove," as exemplars for this report because they represented the extremes of positive and negative impact of regulation on mindful staff behavior. No additional themes were identified in the other six cases that were not also observed in one of the two exemplar homes.

Sweet Dell: A Common Commitment to Care

Sweet Dell was a 100-bed, independent, not-for-profit, religiously affiliated nursing home in a suburban setting. Most residents were elderly, White, from higher socioeconomic status, and required long-term care. Staff turnover was relatively low, and many staff members had worked at Sweet Dell for more than 10 years.

Facility mission and regulations. A prominent feature of Sweet Dell, voiced by staff at all levels, was a shared vision of resident-centered care based on Judeo-Christian moral values. Staff reported that this mission was the primary driver of care processes; regulations were of secondary concern. For example, the human resources director told us,

> We make sure that things are done ethically; everybody's treated fairly and consistently. We are certainly acting within the legal boundaries that we have; following legislation, government regulations. . . . But that we're also doing the right thing, and we're using Christian moral standards to do that. Certainly here at Sweet Dell that's very important.

Although staff in direct patient care positions complained about the additional burden imposed by regulations, they perceived the overall impact of regulation to be consistent with their mission of providing high-quality, resident-centered care. In response to the question, "What makes it harder to provide good care?" one floor nurse told us,

> Maybe the demands that [regulations] put on us. . . . But when you really think about it they probably really have the heart of the patient in their thoughts and they really want that patient to get the best care they can get. So the demand is on us.

The facility's mission seemed to provide a perceptual filter through which regulations were understood. Rather than seeing the regulations as a burden, many staff perceived the regulations as supporting the facility's mission and culture.

Impact of regulations on mindfulness. This shared understanding appeared to impact how staff approached the completion of regulatory activities in Sweet Dell. When staff interpreted regulation as congruent with the mission, the regulations seemed to enhance mindfulness. For example, the minimum data set (MDS) nurses and activities director described regulatory tasks such as the MDS reporting as a positive influence in improving staff mindfulness in resident care planning. The activities director told us,

> Well, we have a lot of documentation, with our MDS' and things. To me, the residents are first—making sure their needs are taken care of and tryin' to individualize activities. When we do the MDS it's a total assessment of the resident.

One MDS nurse reported that the process of completing the regulatory documents helped her to identify issues or solutions that she otherwise might have missed:

> We do RAPs [resident assessment protocols], which are a synopsis of all their problems. You know, and if [the resident has] a nutritional problem, I'll go through that and we'll see if I missed anything. Or their psychological needs or their nursing needs.

Another MDS nurse also noted that the regulatory required documentation facilitated communication, and therefore opportunities for mindfulness, within the facility. The following quotation is from a field note describing a conversation between the MDS nurse and the researcher:

> [MDS nurse] says that her role is to gather information, "to give it to who needs to have it." That includes [the state regulatory agency], the director of nursing and others. . . . I [researcher] asked if there is a quality assurance component to her role. She said, "Yes," . . . her job is to "alert the front line."

In addition, the MDS nurses used regulation as a motivator to help change staff mental models around suboptimal practices that had become habitual in the facility:

> When I came here, 70 percent of the people . . . are restrained. And, I'm like, "Why do we have all these people restrained?" [The staff told me], "Oh, those are for positioning." "Hmm," I said. "How does it help positioning?" I mean, some of them I could see, but not every one. Until the quality indicators started coming, they thought that they could restrain everybody. And I said, "No, you're not going to be able to restrain everybody. Things have changed now. The information goes [to the state regulators], so eventually it's going to come back to us." And they [did not] believe in the beginning, but now they realize. . . . [laughs] So there is improvement in that area.

The data provided examples of regulatory oversight prompting staff to identify specific interventions tailored to individual resident's needs. For example, the following exchange occurred at a meeting:

Nurse supervisor: Now this resident has fallen next to his bed before and I think his floor is too slick. The state [surveyor] interviewed him about his fall and he told them that the reason he fell was because we kept things so clean around here.
MDS nurse: Maybe we could put down some rough tape so that he won't slip.

Thus, in Sweet Dell, regulatory-required data collection appeared to enhance staff mindfulness around improving processes and individual resident care planning. When staff focused on the purpose of the regulation, mindful practice seemed to follow.

Although staff at Sweet Dell generally used regulation to promote mindful practices, there were also times when regulations seemed to inhibit mindfulness. These incidents largely occurred when there was a shift in the focus from the mission-congruent (resident-focused) aspects of regulation to the punitive aspects of regulation. For example, several staff members complained about the cumbersome admission process, which had originated 7 years prior, after Sweet Dell got a survey deficiency related to resident education about their rights. We also observed examples of staff making the care plans less specific to individual resident needs to avoid regulatory trouble if they failed to exactly meet the written goal. For example, in one care plan meeting we heard the following exchanges:

Director of nursing: We also are going to get killed by [physical therapist's management plan]. It is too detailed.
Nurse supervisor: Yeah, and there is stuff in there like, "Do this for 15 repetitions and then rest 15 seconds," and if we do not do that in detail, we will get it. It needs to be general.
Quality assurance nurse: Yes, we need to change that and make it general as soon as possible.
Nurse supervisor: If we spell it out in this detail, we are really at risk for the state [regulatory agency] coming in.

Dietary director: I am worried because of the state [regulatory agency]. Remember what happened last time they came? They came down hard on us because people were dehydrated but we did not have a specific plan.
Director of nursing: And we cannot be too specific because if we do not follow a specific plan, we will also get it.
Dietary director: Well, I guess we should put down to continue to encourage fluids.
Director of nursing: Why don't you call in the dietician on this one? . . . That sounds good, right? I'll put down, "Will consult with dietician." That is something concrete but not too concrete.

We heard stories of information being withheld or "made up" for regulators, to avoid sanctions. Such blocks to information flow could result in decreased capacity for mindful behavior in the facility (field note from a nurses' meeting):

MDS nurse: Do we put this [wound monitoring] form in the chart?
Nurse supervisor: No. It is only a tool for us. It should not be in the chart because the state [surveyors] will get us. You do not have to do skin assessments by the state [regulations], and they do not need too much information.

In summary, Sweet Dell staff believed that the purpose of regulation was congruent with their facility's mission, and when they enacted regulations with this focus, mindful, resident-focused care was enhanced. However, when the focus shifted to the consequences of noncompliance, the institution engaged in less-mindful processes (e.g., complex admission process, redundant documentation forms) and less-individualized resident care plans.

Shady Grove: A Common Commitment to Corporate Goals

Shady grove was a 130-bed, for-profit, corporate-affiliated facility located in a small city. Residents were predominantly middle class with a mixed ethnic composition. Staff turnover in all positions was quite frequent.

Facility mission and regulations. As a subsidiary of a holding corporation, Shady Grove adhered to corporate guidelines and submitted to oversight from a contracted management company. Regulatory compliance and financial success were major values of the corporation, as evidenced in the employee handbook, which described a focus on "cost, compliance, care, and cash." Staff at Shady Grove clearly articulated these corporate values. At an administrative meeting the nursing home administrator made the following comments:

If you talk with anyone in this room, they will say that [corporate's] number 1 focus is money; number 2 focus is census; number 3 focus is money; and number 4 focus is census. [general laughter] . . . Every once in a while we hear something clinical from the company. For example, the other day, they

> authorized some low beds. But that was in reaction to something that happened. . . . [For the company, clinical stuff is a] knee-jerk reaction to a [regulatory] problem.

Corporate managers implemented additional layers of oversight intended to help facilities maintain "survey readiness." A corporate memo outlined seven mandatory meetings and data submission requirements designed to improve survey outcomes:

> It is imperative that you increase your focus on improving everyday readiness for survey visits and show improvement in care measure outcomes. . . . The goal is for each facility to be survey ready each day of operation and have a consistent plan to improve care measures each day and each week. The following structure of meetings is meant to assist you in creating the results oriented environment that you deserve.

The corporate values and policies of Shady Grove clearly impacted staff approaches to their roles, particularly those staff in the positions of director of nursing and MDS coordinator. These nurses viewed many of their tasks as fulfilling "billing" purposes, and not as having an impact on actual resident care. For example, the MDS nurse described her role as that of "the reimbursement nurse, really." The corporation also created extra documentation tasks in response to regulatory problems that occurred in other corporate-owned facilities. Shady Grove staff expressed concern that the paperwork was duplicative and failed to achieve resident care goals. A field note from a corporate teleconference included the following:

> The corporate consultant went through [a] page of the packet. . . . She said that it is important to revise the existing interventions for residents post-fall. "That's where we get dinged for survey." . . . She talked about how the "procedures" section of the old form was confusing for the surveyors, so . . . they had merged some sections to suit the surveyors better and still meet our needs. . . . The administrator asked, "Now we have four protocols we follow for each fall? We report it on the intranet, we do an incident report, we do an investigation, and we have this Falls Action Team?" The corporate consultant said . . . she would have to look into the issue of duplication. . . . She and the administrator had a little back and forth about the labor consequences of all these "multiple systems of documentation."

Impact of regulations on mindfulness. The data suggest that at Shady Grove, regulations seemed to encourage less-mindful behavior than at Sweet Dell, largely because managers emphasized compliance with little concern about the intent of the regulations. Regulations meant additional paperwork, which resulted in less attention to residents. The additional paperwork burden at Shady Grove, resulting from the corporation's response to regulation, had become a major issue for all levels of staff. During a shadowing encounter several weeks after the new falls tool (mentioned in the previous quote) was initiated, the director of nursing worried that the additional documentation further reduced opportunities for mindful resident care:

> Well, we've implemented [the new falls form], but I don't—we'll wait and see. I think often what tends to happen is that the forms and everything are driven by, "Oh, CMS said this . . . ." Some of it is a knee-jerk reaction; there's a problem in, I don't know, New Mexico, so let's change it. . . . No one is going to pay any attention to it. It's not going to mean anything. It is there. So, we're doing the checklist. . . . You're spending more time actually doing the paperwork, but you don't have time to go and implement some of the good things that maybe you might be able to implement.

The theme of paperwork burden pervaded Shady Grove. The administrator noted that it required more than 80 pages in the admission packet to communicate all the relevant policies to families. The MDS nurse described the nursing staff documentation burden as "impossible." At a nurses' meeting the MDS nurse reviewed all the current documentation problems at Shady Grove, emphasizing the cost and compliance consequences:

> The problems that we see right now are that not everything gets documented on everything related to a patient. If you miss a piece, it costs so much money it is unbelievable. . . . We were cited this last survey.

The MDS nurse then reviewed all the various things that require the nurses' initials during every shift. She then referred the other nurses in the meeting to the matrix in their packet: "You have to do everything in this. I know it's asking the impossible."

Throughout the interviews at Shady Grove we repeatedly heard that efforts to comply with regulations hampered mindful resident care practices. For example, when we asked about what kinds of things hinder the delivery of high-quality care, the director of nursing told us,

> You end up spending more time shuffling papers, doing one report after another, when you could spend more time out there making sure that particular case is going as well as it should. . . . If you're driven by wanting to be compliant; if you're driven by wanting to satisfy this rule, that rule, this F tag [a severe survey deficiency], I think that gets in the way of care. Because I think if you . . . do what you're supposed to do for the patient, compliance will come after that. But, if you're putting compliance first and then you're putting patient care next, then I think that gets in the way.

Similarly, care planning was perceived by the director of nursing and MDS nurse as an exercise in paper compliance rather than a forum for mindful, resident-specific problem solving. This shift to less-mindful care planning impacted the job satisfaction of these key employees. As the MDS nurse told us, "I used to enjoy this, now it's a burden and paper compliance." The director of nursing said,

> Well, the way we're supposed to do care planning, as far as what CMS expects us to do, it is so redundant. It really is just about compliance, to be very honest with you. I've never seen an NA read a care plan. I don't think nurses actually go and root through the care plan. Nobody reads it. It's truly because we're expected to do it . . . It's just paper compliance. . . . Where it really happens is—truly, it's just out here—what the NAs and what the nurses do for that patient. . . . But, those things do not end up in the actual care plan, because that is not what CMS expects.

Staff members at all levels noted that mindful behavior around patient care improved dramatically during state surveys, but was lacking during the day-to-day care of residents. The medical records clerk told us that staff pitch in and help only

> when the state [surveyor] comes in. . . . [Ordinarily] they go by lights that are ringing. I see them all the time. So we have a meeting and I say, "Well, how come we can't answer call lights? What's wrong with answering the call light? You answer when the state [surveyor] comes."

Echoing this theme, the food director said,

> The only times that I would see [people pitching in] are during survey time, maybe, when we know all eyes and ears are on everything you do. You know, if I see something—if I see a room that has a spill in it—somebody's maybe gonna slip. I may run and get the mop and get it up.

Staff also reported that the emphasis on compliance had negative effects on professional satisfaction and turnover. Our field notes reflected this when the MDS nurse talked about how the regulations gave nurses no reason to use clinical judgment. "There are lots of rules and there's no nursing judgment," she said. She talked about taking an RN

> out of acute care, where they are used to critical thinking and making decisions, and they come to long-term care and they are stifled and they don't get the opportunity to exercise that knowledge. They don't stay too long. . . . Long-term care is a sad place today, especially with the nursing shortage.

In summary, Shady Grove's management focused on regulations because they perceived them to be related to reimbursement and marketing, adding layers of additional rules and paperwork designed to improve survey results. Staff became overburdened with these less-mindful tasks, leading to decreased opportunities for resident-focused mindfulness, as well as decreased autonomy and professional satisfaction. The corporate concern for "cost, compliance, care, and cash" shaped staff perceptions of regulations as routines that had to be performed to prevent citation or loss of reimbursement, with little attention to the intended purpose of the regulation to improve resident health outcomes. Thus, at Shady Grove the emphasis on adherence to the regulation contributed to less-mindful care practices with residents.

Discussion

This in-depth case study of nursing home management practices offered a unique opportunity to examine the intended and unintended impact of regulations. More than 1,300 segments of text about regulation were found in the data set—a testimony to the pervasiveness and importance of regulation in the nursing home work environment. Using the concept of mindfulness to frame the impact of regulation allowed us to generate propositions about how regulation might influence health outcomes for residents.

We found that the impact of regulation on mindfulness varied both within and between nursing homes. Under certain conditions regulations seemed to enhance mindful practices, whereas under other conditions regulations inhibited mindfulness. When managers emphasized compliance and the punitive implications of noncompliance,

practice in both nursing homes appeared less mindful. Furthermore, we observed that the facility mission and culture appeared to mediate the observed variation in response to regulations. Specifically, when the facility mission enabled staff to frame regulations in terms of their intended purpose instead of the consequences of noncompliance, mindful attention to resident care was more prevalent.

The literature on organizational routines offers a theoretical explanation for these findings. The conventional perspective on routines (in this case, routines imposed by regulations) is that they encourage inertia (Hannan & Freeman, 1983), automated thinking, and nonadaptive responses to unexpected situations (Gersick & Hackman, 1990; Weiss & Ilgen, 1985). Routines enable cognitive efficiency because they connote repetitive actions requiring little thought—the opposite of mindfulness. The downside of routines, however, is the seeming inflexibility that minimizes the ability of individuals and organizations to adapt to unexpected events. Thus, Ashforth and Fried (1988) suggested that adherence to routines leads to "absolute mindlessness."

More recently, some organizational scientists have argued that routines might actually be a source of flexibility and change. Feldman and Pentland (2003) suggested that routines have two dimensions: the ostensive and the performative. The ostensive aspect of a routine or regulation is the ideal envisioned or the normative principle underlying the routine. The performative aspect of a routine consists of the specific actions by specific people in specific places and times. They argued that the ostensive aspect of a routine is by definition improvisational, because people differ in their interpretation of the principle underlying the routine. This argument suggests that people act based on their understanding of the routine's intention, and sometimes the principle encourages innovative behavior. In the case of Sweet Dell, we observed that when people focused on the reason behind the regulation—improving resident care—mindful practice followed; however, in the same nursing home, when the emphasis was more on the performative aspect of the regulation—the specific acts, procedures, or required documentation—practice was less mindful. Thus, we propose:

> Proposition 1: Managerial emphasis on the ostensive aspect of regulations leads to more resident-focused mindful practice in nursing homes than when managerial emphasis is on the performative aspect of regulations.

We also observed that this finding was intensified by the nature of the nursing home mission and its culture. The facility's mission and culture served as a cognitive filter through which regulations were understood. Bettis and Prahalad (2006) and Prahalad and Bettis (1986) introduced a theory of "dominant logic," suggesting that organizations develop a cognitive filter through which management teams see the world and interpret choices. This dominant logic becomes a powerful perceptual frame that shapes collective values, performance expectations, and behaviors. We observed two different dominant logics that shaped how staff understood regulations. In Sweet Dell, the resident-focused mission allowed staff to frame the purpose of regulation to be supportive of mindful care. In contrast, the compliance and cost-centered culture of Shady Grove resulted in a focus on the regulations themselves rather than the care they were intended to improve. The additional corporate layers of rules and paperwork further reduced opportunities for mindful care, particularly in a facility faced with high turnover and low staffing levels.

Not only did we observe that an emphasis on the ostensive aspects of regulations resulted in more mindful behavior, but we also observed that the facility mission and culture seemed to provide a dominant logic, a cognitive filter through which regulations were understood. Thus, we propose:

> Proposition 2: A facility mission and culture that emphasizes, or is congruent with, the ostensive aspect of regulations will be associated with more resident-focused mindful practices than a facility mission and culture that emphasizes, or is congruent with, the performative aspect of regulations.

Evidence from the literature supports this hypothesized interaction between work culture, facility resources, and the impact of regulation. Greater reductions in antipsychotic medications and restraints in response to federal regulations have been observed in facilities with a more resident-centered treatment culture (Graber & Sloane, 1995; Svarstad, Mount, & Bigelow, 2001). A recent analysis suggested that the OBRA 1987 legislation resulted in improved care in high-profit facilities, but a decrease in quality in low-profit facilities (Kumar, Norton, & Encinosa, 2006). Our findings suggest potential mechanisms for these findings; high-profit facilities are more likely to have sufficient staffing to cope with the increased workload required to comply with regulations (De Costa, Johansson, & Diwan, 2008). Furthermore, facilities with a resident-focused treatment culture might be best able to align the data and incentives provided by regulation to facilitate more mindful, high-quality care. These data further imply that regulations might have a lesser, or indeed a negative, impact on quality of care in those facilities with limited

staff resources or that lack a resident-centered care culture (Brorstrom, Hallin, & Kastberg, 2004); in short, those most in need of improvement.

Although the overall impact of regulation on mindfulness is variable, our case studies reveal particular aspects of the regulatory process that are associated with less-mindful behavior. Even in the study home with the most mindful response to regulation, the punitive aspects of the regulatory process promoted less-mindful practices and facility policies. The fear of citation was prominent in all eight case study facilities; the prevalence of this fear is not surprising, because 91% of nursing homes in the United States were cited for deficiencies each year during the period from 2005 to 2008 (Levinson, 2008). Other researchers have noted regional differences in citation frequency (Harrington et al., 2004) and care problems created by the punitive nature of regulations (Grau & Wellin, 1992). For example, nursing homes facing regulatory sanctions for residents with unexplained weight loss or dehydration might place more feeding tubes, despite the overall negative impact of feeding tubes on resident quality of life and cost (Finucane et al., 2007). New models of regulatory oversight that reward or facilitate high-quality care are being developed (Simmons et al., 2007). Our data suggest that moving away from a punitive model would permit more mindful care to occur, while freeing facility resources to focus on resident health outcomes rather than citation prevention.

Our analysis has several limitations. The case studies were originally designed to study the impact of nursing management practices and staff interaction patterns on quality of care, and the question about the impact of regulation on mindfulness emerged during data collection. Nevertheless, this large dataset contained many coded units pertaining to regulation and mindful behavior, and we observed theme saturation in our eight case summaries, suggesting that the dataset was appropriate for this analysis. Second, because the dataset was selected based on the first-level code *regulation*, most of the coded units were quotations about regulations rather than observed actions. Thus, we cannot directly link regulation to more mindful actions from this dataset. However, other analyses from the case studies support a higher level of mindful actions in Sweet Dell than in Shady Grove, consistent with our hypotheses (Anderson, Ammarell, et al., 2005; Anderson, Crabtree, et al., 2005; Colon-Emeric et al., 2006; Colon-Emeric et al., 2007). Finally, because nursing home regulations and oversight vary considerably by country, the generalizability to other national health care systems needs to be confirmed.

Based on our findings and the prior research summarized above, we hypothesize that the observed variance in resident health outcomes following new regulations is mediated in part by the facility's mission and by managers' emphasis on the ostensive or performative aspects of the regulation. This hypothesis has several implications for nursing home staff, managers, and regulators. First, the shared facility mission is critically important to how staff approach new regulations. Emphasizing the congruence between a resident-centered mission and the ostensive purpose of regulation might allow managers to leverage the potential for regulations to enhance staff mindfulness when carrying out required activities. Managers should avoid adding additional layers of meetings and paperwork with a primary goal of increasing compliance (Willging, Waitzkin, & Nicdao, 2008). We found that this widespread practice diverted attention from resident care issues and led to staff frustration and burnout. Finally, regulators should understand that facilities' strong fear of citations might paradoxically decrease care quality. Limiting the number and type of citations to high-priority areas, and exploring less-punitive models of oversight, might make regulators more effective in their role as patient care advocates.

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