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# Professionals' Beliefs About Nursing Home Regulations in Missouri

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*The process of nursing home regulation continues to need improvement to ensure the best possible quality of care. This study uses mixed methods to explore opinions of nursing home professionals and state nursing home regulation inspection team members about the regulation process and ideas for changing it in the State of Missouri. Data come from a survey of nursing home professionals (n = 334) and state regulation inspectors (n = 123) conducted in early 2004. Findings show disagreement about who is responsible for facilitating nursing home compliance; nursing home professionals desire state assistance in interpreting and applying regulations, whereas inspectors do not believe this will improve quality of care. Greater focus on resident needs may provide common ground for bridging this divide and developing interventions to ensure regulatory success.*

**Keywords:** *nursing home; regulation; inspection; quality of care*

With the passage of the Nursing Home Reform Act, contained within the Omnibus Budget Reconciliation Act (OBRA) of 1987, a new era of regulatory scrutiny began for nursing homes accepting Medicare and Medicaid financing. Over the past decade, analyses of regulatory deficiencies suggest that in some areas these regulatory reforms have helped to improve the quality of care adults receive in nursing homes. Specifically, researchers have documented improvements in quality of resident care related to an increase in staffing ratios

(Zhang & Grabowski, 2004) and a reduction of restraint usage (Castle, 2002). However, there are continuing calls for improvement in regulation enforcement and consistency of enforcement (Harrington, Mullan, & Carrillo, 2004), increased funding levels for state regulatory agencies, training for state regulation inspectors and oversight of state inspections by the Centers for Medicare and Medicaid Services (Harrington & Carrillo, 1999; U.S. General Accounting Office, 2003; Walshe & Harrington, 2002), and policy reform to address the subgroup of nursing homes that persistently receive low-quality performance ratings (Grabowski & Castle, 2003).

Critics suggest that the overall impact of the Nursing Home Reform Act should be evaluated, acknowledging that the punitive nature of regulation alone has not improved overall quality of care (Winzelberg, 2003) and has more often than not created adversarial relationships between state regulation inspectors and nursing homes (Wiener, 2003). Walshe (2001) recommends applying lessons learned in regulation from other industries to nursing home regulation, including employing responsive regulation instead of deterrence regulation, reducing regulatory fragmentation, and separating regulatory and funding responsibilities to create a more balanced model of regulatory accountability, including other stakeholder groups (e.g., families, ombudsman, staff) in the evaluation process. Noting that substantial work remains to be done to understand how the nursing home regulatory process can ensure that each resident receives high-quality care, scholars in the field are calling for a much wider range of research in long-term care (Feldman & Kane, 2003; Kemper, 2003) and increased professional activism in public policy (Kane, 2003) as a means to move knowledge forward.

## Missouri as a Case Study

Missouri, like other states, seeks to improve quality of care through the regulatory process. In 2004, the state partnered with the George Warren Brown School of Social Work at Washington University in St. Louis to explore policy and programmatic options to improve quality of care by soliciting opinions of the two stakeholder groups with the most direct experience

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in regulation application—state inspectors and nursing home professionals. Adversarial relations, commonly noted in nursing home industry publications (Burgess, 2003; Gold, 2000), make the outcomes of this study particularly important. If both groups agree an intervention is useful, that option may have a greater likelihood of successful implementation, thereby creating improvement in quality of care. If significant disagreement is present, an intervention may fail in meeting its goals.

The intent of this research is to provide state officials evidence for decision making about future nursing home regulatory policy and procedures. It may inform federal decision making as well; however, it is more likely that results will be important for administrators in other states who face similar challenges in applying both federal and state nursing home regulation policies to achieve quality-of-care outcomes. Specific research questions for this study are as follows: What is the general perception of the regulation system by nursing home professionals and state regulation inspectors? How helpful do they perceive specific changes to the regulation process, such as reforming regulations, implementing education and training programs, and providing regulatory consultation? Do nursing home professionals and state regulation inspectors vary in their perceptions of the regulation system and process by their professional background or training?

## Method

### *Data Source*

Survey data were gathered by mail from March through May 2004. The sample included all licensed nursing homes (NH) in Missouri ( $N = 498$ ) and all state nursing home regulation inspectors of Missouri's Division of Senior Services and Regulation (DSSR) ( $N = 220$ ). Three copies of the survey were sent to each nursing home, addressed to the chief administrator, director of nursing, and director of dietary services ( $N = 1,497$ ) and one to each DSSR inspector ( $N = 220$ ). The NH professional positions were selected for surveying because they usually have direct responsibility for an area of practice that is evaluated by state nursing home surveyors, and they are mandated positions within nursing homes by state regulations. Despite the important contributions social workers make to quality of life in some nursing homes, directors of social work were not targeted as part of the sample of NH professionals because social service is not an area of mandated evaluation by the state inspection team, nor are credentialed social workers required in all facilities. Although social workers and other nursing home staff were not sample subgroups, in some cases they did respond to the surveys.

In total, 1,717 identical surveys were mailed. Total response rate of both sample groups combined ( $N = 1,717$ ) was 27%. Surveys were returned from 222 different NHs, or 45% of the total NH sample. The overall response rate for NH professionals was 22% ( $n = 334$ ), because 71% of NHs returned only 1 survey, 22% returned 2 surveys, and 7% returned all 3 copies of the survey. Nearly 45% of respondents were chief administrators, 33% were directors of nursing, almost 19% were directors of dietary services, and fewer than 4% held other positions. Analysis of NH respondents and nonrespondents indicates that multiple responses were higher among rural nursing homes, but there were no differences in response rates based on federal deficiency violations over the preceding 4-year period (2001-2004) (State of Missouri, Division of Senior Services and Regulation, 2004). Thus, we concluded that the response bias based on outcomes of state regulatory inspections was minimal; however, response bias related to professional position may be present, as there is not equal representation across professional categories. Additionally, we acknowledge that other factors may also influence survey response, such as tenure in current position and in the field. Specifically, there may be a greater likelihood for professionals of higher ranking status, who have greater responsibility for nursing home compliance or who have greater employee loyalty to a specific nursing home, to return the mailed surveys. Professionals who are displeased with their current employment or who have very little experience with the survey process may be less likely to respond. Unfortunately, data were not available to analyze respondent bias in these areas.

The DSSR sample ( $n = 123$ ) had a 56% response rate. Nearly 17% of respondents were state administrators or managers of nursing home inspection regional sections, 19% were survey team supervisors, 50% were team members, and approximately 14% held other inspection positions. Responses are proportional to the professional roles within state inspection units. Although we recognize that the individual response rate for the NH sample is low, we feel the response rate for nursing home facilities is adequate for this exploratory case study.

### *Measures*

The survey consists of 32 closed-ended questions. Fourteen items positioned in 5-point Likert-type scales assess current regulatory policies and processes (*strongly agree* to *strongly disagree*) and ideas for changing the regulation process (*very helpful* to *not at all helpful*). These items were derived from previous documented interviews by DSSR with nursing home professionals and from relevant literature. Three open-ended questions

solicited additional recommendations for change. The remaining are categorical, addressing professional experience and demographics.

### *Analysis*

Analyses are descriptive, inferential, and thematic. Chi-square analyses test differences in assessments of the regulatory process between NH professionals and state regulators. Responses were unevenly distributed across five categories (See Table 1); therefore, we collapsed each 5-point scale item into two categories (i.e., *agree and disagree/helpful and unhelpful*). In each response set, the neutral category was combined with the negative response. Descriptive and bivariate analyses compare professional characteristics between NH professionals and state regulators. Multivariate logistic regressions examine associations between assessment of regulation and professional characteristics. Facility or office location (i.e., urban/suburban and rural areas) and business type of NH (i.e., nonprofit and for profit) were controlled for in relevant models. Open-ended questions were transcribed verbatim from surveys and thematically coded using Nud\*ist 6.0 software using the survey questions as code categories.

## **Results**

Table 1 shows the professional backgrounds of respondents, including current position. State regulation inspectors had more formal education than skilled nursing facility (SNF) professionals and have been in their current position for a longer period of time than SNF staff. There was no significant difference in the number of years worked in the long-term care field. Sixty-six percent of nursing home professionals had worked more than 11 years in the long-term care field (73% of owners or administrators, 63% of directors of nursing, and 59% of directors of dietary services or others had been in the field this long). Sixty-one percent of state inspectors had worked in the field for 11 years or more (64% of state administrators or inspection team managers, 84% of team supervisors, 52% of team members, and 50% of those in other inspection positions). Most respondents, then, had worked for more than a decade in the field.

Very few nursing home professionals had ever worked as part of a state inspection team (1%). More state inspectors had worked for nursing homes, including 18% as a director of nursing, 11% as a social worker, 7% as an administrator, 3% as a dietician, and 1% as a nursing home owner. Thus, in

**Table 1. Professional Backgrounds of Participants in the Sample**

<i>Characteristic</i>	<i>Total (N = 457)</i>	<i>NH (n = 334)</i>	<i>State (n = 123)</i>
Highest degree***			
High school/GED	19.5	22.9	1.08
Associate	34.9	40.3	20.8
Bachelor	33.1	25.7	52.5
Master/PhD	12.4	11.1	15.8
Years in current position***			
0-1	15.9	20.6	3.3
2-5	36.7	35.9	38.8
6-10	17.9	16.9	20.7
11-15	13.8	10.9	21.5
16+	15.7	15.6	15.7
Years in LTC field			
0-1	2.3	1.6	4.3
2-5	12.8	12.1	14.5
6-10	20.0	19.9	20.5
11-15	21.4	19.6	26.5
16+	43.5	46.9	34.2
Current profession			
NH administrator	NA	44.7	
NH dir. of nursing		33.0	
NH dietician		18.6	
Other NH position		3.6	
State administrator/manager			16.8
State inspection team supervisor			19.0
State inspection team member			50.5
Other state inspection position			13.7
Type of business	NA		NA
For profit		59.6	
Not for profit		38.5	
Public entity		1.9	
Locality of facility/office <sup>a</sup>	NA		
Urban		21.0	63.8
Suburban		20.0	6.7
Rural		59.0	29.4
No. inspections as NH staff***			
0-3	18.6	9.4	46.4
4-10	27.9	30.8	19.1
11+	53.5	59.8	34.6
No. inspections as state staff***			
0-10	66.1	91.2	10.2
11-20	3.4	4.2	1.7
21+	30.5	4.6	88.1

NOTE: NH = nursing home; LTC = long-term care; NA = not applicable. Row percentage in chi-square is reported.

a. NH-reported facility location and state-reported office location, respectively.

\*\*\*  $p < .001$ .

terms of experience with regulation site inspection, most nursing home professionals had only participated in site inspection as a nursing home employee, whereas many state regulation inspectors had participated as both an inspector and a nursing home professional.

Table 2 presents agreement on survey items assessing the regulatory process and suggested innovations to it by total sample, and separately for the NH and DSSR groups.

Overall, nursing home professionals were less likely to hold positive opinions about the current regulation process than were state inspectors and more likely to agree that the proposed innovations would improve quality of care. Nursing home professionals agreed more often that improving relations with state inspectors was important for raising quality of care; the same pattern emerged regarding providing state assistance to assist with compliance. Both groups were in almost equal agreement that providing education and training for all levels of NH staff would help ensure regulatory compliance.

Qualitative findings help explain areas of disagreement. Several NH respondents indicated that the current process is unnecessarily punitive, suggesting that state inspectors often do not understand the reality of how a nursing home functions by perhaps taking a "godlike" stance during inspections. Building trust and mutual respect was noted as important by several NH respondents for improving relations. Some comments from state surveyors agreed with this idea, but many indicated that they saw few problems with current relations.

Other comments highlighted different philosophical stances toward the regulation process by nursing home professionals and state inspectors. For example, NH respondents often commented that new and changed regulations as well as employee turnover in state inspection teams meant that continual training was needed for nursing home staff and state inspectors. One NH professional stated, "Offer advice, ideas, etc. to promote better care. We now have an 'us against you' scenario. This could be much better if we worked together." A state inspector presented an opposing opinion, saying, "Facilities that want to do well already have this. It's called a paid consultant."

In another example, NH respondents noted that the current process of self-reporting was problematic in that it led to many small complaints being "hotlined," which resulted in an inspection visit. This was viewed as punishment for what should be a helpful process to improve quality of care. Conversely, a typical statement by a state respondent is reflected in the comment, "Self-reporting is already as easy as it can get."

The next set of analyses examined associations between assessment of the regulatory process and professional characteristics. Table 3 shows results of the multivariate logistic regressions for nursing home professionals. Table 4



**Table 2. Current Assessments of Regulation Process**

<i>Survey item</i>	<i>Agreement (%)</i>			<i>p</i>
	<i>Total</i> ( <i>N</i> = 457)	<i>NH</i> ( <i>n</i> = 334)	<i>State</i> ( <i>n</i> = 123)	
"Please indicate how much you agree or disagree" with this statement				
The current skilled nursing facility regulatory process ensures quality of care of residents.	66.3	65.6	68.3	
The current regulatory process uses a disciplinary approach to ensure quality of care.	76.1	78.1	70.7	
A disciplinary approach to regulation improves the quality of care of skilled nursing facility residents.	53.5	48.2	68.0	***
Relations between state inspection team members and professionals in skilled nursing facilities are usually positive.	61.3	58.7	68.3	
Improving relations between the state and skilled nursing facilities will improve quality of care of residents.	82.3	88.6	65.0	***
"Please indicate how helpful you think each idea is" for improving the regulation process				
Requiring continuing education credits for State Inspection Team members in skilled nursing facility regulations and procedures	86.4	88.3	81.3	*
Providing education and training for all levels of skilled nursing facility staff	96.5	96.1	97.6	
Providing state assistance to help skilled nursing facilities correct violations after a facility has been inspected	74.8	83.8	50.4	***
Revising the process for self-reporting abuse, neglect, and exploitation by skilled nursing facilities	64.3	70.7	47.2	***
Providing a liaison to advise skilled nursing facilities about the regulation process and how to avoid receiving violations.	82.1	89.5	61.8	***
Allowing a neutral party to sit in on the informal dispute resolution process	67.3	74.9	46.7	***
Having one set of skilled nursing facility regulations instead of two (i.e., federal and state)	83.7	89.5	67.5	***
Actively engaging residents' family members in monitoring the regulation process	46.1	46.5	45.1	
Officially recognizing innovative programs that improve residents' quality of care	88.4	90.3	82.9	*

NOTE: NH = nursing home.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**Table 3. Odds Ratios From Logistic Regressions for Nursing Home (NH) Professionals (n = 334)**

		OR (95% CI)				
	Ensure Quality of Care	Use Discipline	Discipline Improves	Positive Relations	Continuing Education	Correct Violation
Current profession						
Director of nursing	1.49 (0.89- 2.64)	1.11 (0.57-2.15)	1.81* (1.04-3.15)	0.61 (0.35-1.06)	1.23 (0.52-2.91)	1.50 (0.73-3.07)
Dietician/social services	6.24*** (2.48-15.76)	2.03 (0.84-4.93)	3.62*** (1.79-7.32)	1.68 (0.83-3.41)	3.06 (0.91-10.23)	2.80* (1.03-7.66)
Education & training						
High school	1.43 (0.66-3.06)	0.64 (0.29-1.38)	1.17 (0.60-2.26)	0.93 (0.48-1.81)	0.53 (0.21-1.36)	1.18 (0.43-3.26)
Employment Tenure						
Years in job	0.74** (0.61-0.91)	0.91 (0.73-1.13)	0.88 (0.72-1.06)	0.81* (0.67-0.98)	0.89 (0.67-1.19)	1.04 (0.78-1.40)
Facility location						
Suburban	1.08 (0.47- 2.47)	2.10 (0.84-5.27)	1.11 (0.50-2.44)	0.63 (0.30-1.36)	0.19* (0.04-0.96)	2.21 (0.62-7.88)
Rural	1.38 (0.71- 2.69)	2.05* (1.02-4.10)	1.62 (0.86-3.06)	1.39 (0.75-2.59)	0.24 (0.05-1.05)	1.34 (0.55-3.29)
Business type						
Profit	1.92* (1.12-3.29)	1.11 (0.61-2.03)	1.34 (0.81-2.22)	0.96 (0.58-1.58)	0.50 (0.21-1.16)	0.94 (0.43-2.08)

NOTE: The reference groups are "administrator and owner" for current profession, "associate's degree and above" for highest educational degree, "urban" for facility location, and "nonprofit and public entity" for business type.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**Table 4. Odds Ratios From Logistic Regressions for State Regulation Inspector (DHHS) (*n* = 123)**

	Ensure Quality of Care	Use Discipline	Discipline Improves	Positive Relations	Improving Relations	Correct Violation	Self-Report	Liaison	IDR	One Set of Regulations	Family Monitor	Innovative Programs
Current profession												
Supervisor	0.85	0.42	0.79	1.07	0.24*	0.77	0.19	1.21	1.16	0.31	1.70	0.57
Team member	1.08	0.85	0.72	1.82	0.88	1.18	2.01	1.18	1.77	0.52	1.00	1.63
Other	1.04	0.51	0.37	0.85	0.65	0.81	3.31	1.23	3.09	0.30	2.69	— <sup>a</sup>
Education & training												
Bachelor	1.47	0.44	0.54	2.05	0.58	0.55	0.81	0.58	0.82	0.78	1.91	0.78
Graduate	5.34*	2.05	1.71	1.91	0.46	0.46	0.62	0.47	0.64	0.57	1.71	1.06
Employment Tenure												
Years in job	0.78	0.91	1.23	0.71	1.19	0.91	0.99	0.97	0.83	1.17	0.80	0.99
Office location												
Rural	1.11	1.44	0.82	0.14	2.32	0.82	0.91	1.13	0.91	1.23	1.35	0.44

NOTE: The reference groups are "administrator and manager" for current profession, "high school and associate's degree" for highest educational degree, and "urban and suburban" for office location. IDR = informal dispute resolution.

a. The group "other" is combined with "members" because of little variation in responses.

\**p* < .05.

reports results for state regulation inspectors. Among NH respondents, nursing directors showed greater support for the current regulatory process than did administrators and were in more support of utilizing a state liaison to advise on compliance issues. Professionals working in their current position longer were less likely to agree that the current regulatory process ensures quality of care. (Years in the long-term care field is correlated with years in current position [.48] and thus is not included in the regressions; years in current position is selected for consistency in understanding variances by current professional position.) Analysis of the DHHS respondent group shows that compared with state administrators and managers, inspection team supervisors were 76% less likely to agree, in terms of odds, that improving relations between the state and NHs would improve quality of care.

Respondents provided qualitative comments on how the regulatory process in Missouri could be improved. General comments about the regulatory process from both NH and DSSR respondents indicated a desire for the state to assist with training nursing home staff in regulation compliance. Additional recommendations focused on state provision of better clarification of regulations and survey procedures, increased objectivity in the inspection process, and for improved communications between inspection teams and state inspectors. One quote from a nursing home professional exemplifies this frustration: "Each team focus is on different things; the survey process should be universal and equal." A substantial number of recommendations were made about holding nursing home owners more responsible for poor facilities. Both NH and state respondents noted staffing shortages and turnover on both sides as problematic for the regulatory process.

## Discussion

Findings from this study suggest that whereas nursing home professionals and state inspectors agree that skilled nursing facility regulations are disciplinary in nature, they disagree as to how well the regulations ensure quality of care. State inspectors have more faith in the regulatory system as it is; nursing home professionals seek changes that streamline regulations and help them interpret and apply the regulations. This may be one explanation as to why significantly more nursing home professionals than state inspectors believe that improving relations between the state and nursing homes will improve residents' quality of care. These differing stances perhaps highlight one of the factors contributing to adversarial relations between these groups—distinct perceptions about the role of the state in facilitating compliance. In sum, findings suggest that although nursing home professionals in general may not support the current regulatory process, they believe it can be improved with state

assistance in interpreting and applying regulations. This may or may not actually improve quality of care overall—which is perhaps reflected in the reduced optimism of tenured nursing home professionals about the ability of the regulatory system to produce high-quality care—but it does provide one area of stakeholder-identified intervention to explore.

Qualitative findings suggest that frustrations about a lack of focus on residents may be a potential area of common ground to underlie the development of such interventions. The almost unanimous agreement by nursing home professionals and state inspectors on the need for more training of nursing home staff on compliance issues may fit under this concern; there is equal agreement on the need for continual training of nursing home inspectors. Our survey results indicate that much of Missouri's nursing home professional staff has substantial professional experience but limited formal education. State regulation inspectors have both extensive field experience and college degrees including graduate training; however, recent state budget cutbacks have reduced funding for continuing education. Nationally, there is growing evidence of a lack of continuing training in regulation compliance for nursing home administrators and other staff (Griffith, Warden, Neighbors, & Shim, 2002; Ross, Carswell, Dalziel, & Aminzadeh, 2001; Singh, Shi, Samuels, & Amidon, 1997) and inspection team members (Harrington & Carrillo, 1999; Harrington et al., 2004). We did not ask about staff turnover rates, although they are nationally noted to be as high as 43% among administrators (Castle, 2002) and as high 53% among nurses (Harrington et al., 2004). Staff turnover may contribute to this need for ongoing education and training.

A potential bias among respondents is disagreement among types of professionals working in nursing homes that education and training are an important issue. Additionally, those who did not respond to this survey may hold different views about the regulation process that are not reflected in the results presented here. In terms of regional response variance, in Missouri, higher response rates in rural areas may result in positive response biases. In many small communities, nursing home residents, their families, and nursing home professionals have prior personal relationships that may influence quality of care provided in facilities. Additionally, affordability and accessibility of professional consultants to assist in interpreting regulations may make some nursing home professionals more amenable to relying on the state for compliance assistance.

### *Limitations*

Caution is advised in interpreting results from this survey. It is important to recognize that the survey method of data collection used in this study

limits its generalizability. The small response rate and unequal representation of nursing home professionals restrict interpretation of the findings outside of this specific respondent group. Had surveys been mailed to professionals by name or individual respondent incentives provided, response rates may have been higher. Due to resource constraints, this study was not able to address these limitations. Additionally, given the sensitive nature of the survey topic, there is potential for surveys to be completed by individuals falsely identifying themselves with a specific professional position to generate more positive or negative results. This cannot be detected in the returned survey. Finally, as these findings report on the particular nature of the relationship between nursing home professional and state inspector in Missouri, they may not reflect conditions in other states where relations are less adversarial or where issues such as continuing education are not noted to be problems. Findings should be evaluated in light of these factors. Although this study has many limitations, it does provide insight on the thoughts of nursing home professionals and state inspectors, which is new.

### Next Steps for Missouri and Other States

Findings from this study suggest that in some ways, nursing home professionals and state inspectors are at an impasse in terms of who is responsible for facilitating nursing home compliance to state and federal regulations. This is not surprising given that they are different stakeholders in this issue; it should be expected they have differing opinions on what steps are needed to reform the regulatory systems. States that decide to become more involved in promoting increased education and training on regulatory compliance for both nursing home staff and state inspectors may see better quality-of-care outcomes. Evaluation of specific intervention outcomes may prove financially challenging but ultimately worthwhile because education and training is one area that nursing home professionals and state regulation inspectors agree is important for improving quality of care.

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