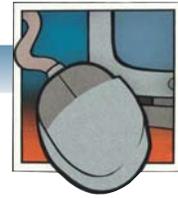


# Innovations in Long-Term Care



## Getting the Basics Right

### Care Delivery in Nursing Homes

*This study reveals the critical processes of care that are essential for staff to consistently achieve good resident outcomes.*

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There is strong commitment in nursing to examine and improve the quality of nursing home care as demonstrated by the increase in research about quality measurement in this setting during the past 10 years (Rantz, Bostick, &

Riggs, 2002). Several Institute of Medicine reviews of nursing home care have continuously pointed to the need for scientific evidence that can guide improvement of not only the outcomes for nursing home residents, but also the processes of care

they receive (Committee on the Adequacy of Nurse Staffing in Hospitals and Nursing Homes, 1996; Committee on Improving Quality in Long-term Care, 2001; Committee on Nursing Home Regulation, 1986). The purpose of this research was to describe and compare the care delivery processes in nursing facilities that achieve a range of resident outcomes and to identify exemplar processes and organizational attributes in facilities achieving the best outcomes.

Outcomes were measured using quality indicators (QIs) derived from the nursing home Minimum Data Set (MDS) resident assessment data. Comparative descriptions of processes of care, organizational attributes, and a theoretical model of nursing facilities achieving good resident outcomes emerged from the qualitative data analysis.

## BACKGROUND

### Quality Indicators and the MDS

Researchers from the Center for Health Systems Research and Analysis (CHSRA) at the University of Wisconsin-Madison and collaborators from the Multistate Nursing Home Case Mix and Quality Demonstration Project (NHCMQ) developed MDS QIs to help focus state survey efforts. Their value for facility use in quality improvement initiatives was quickly recognized, and soon they were valued as outcome measures in research projects (Karon & Zimmerman, 1996; Schnelle, 1997). The MDS QIs have been determined to be reasonably accurate and reliable (Karon, Sainfort, & Zimmerman, 1999; Zimmerman, 2003; Zimmerman et

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*Although results are not conclusive, environment does appear to influence care processes.*

al., 1995) and have been reported to facilities nationwide and used in the survey process since 1999. The MDS QIs that can be calculated from quarterly MDS assessments are displayed in Table 1 and were used in this study as outcome measures for residents. Interpretation of MDS QI scores using expert panel thresholds can be accomplished using the methods established by Rantz, Petroski, et al. (1997). Each QI score has thresholds set so scores can be interpreted in good, average, or poor ranges. These methods have been successfully used in other research (Rantz et al., 2000; 2001) and were used in this study.

#### **Processes of Care and Organizational Attributes**

“Process measures examine actual services or activities provid-

ed to or on behalf of residents,” according to the Committee on the Adequacy of Nurses Staffing in Hospitals and Nursing Homes (1996, p.129). Although process is important to understand, few studies have been performed that examine care processes in nursing homes, except for those from the Teaching Nursing Home Program (TNHP), funded by the Robert Wood Johnson Foundation from 1982 to 1988 (Mezey & Lynaugh, 1991; Shaughnessy, Kramer, Hittle, & Steiner, 1995).

What the nursing home staff does or does not do has had limited description, and the perspective of nursing staff has had little exploration (Bowers & Becker, 1992; Burgio, Engel, Hawkins, McCormick, & Scheve, 1990). Process measures in nursing home

quality and outcome research include (Mosely, 1994; Spector & Takada, 1991):

- Catheter use rates.
- Skin care rates.
- Participation in activities.
- Multiple medication usage.
- Psychotropic drug use.
- Physical restraint use.
- Percentage of residents with skilled care.

The environment is relevant to care processes and has had some evaluation (Kayser-Jones, 1990; 1991; Sheridan, White, & Fairchild, 1992), as has the work environment on the nursing home care worker (Schaefer & Moos, 1996), and on the staff and residents (Kane et al., 1997; Kolanowski, Hurwitz, Taylor, Evans, & Strumpf, 1994). Although results are not conclusive, environment does appear to influence care processes.

Other organizational attributes, such as ownership, for-profit or not-for-profit status, and staffing and their relationship to quality of care also have been explored (Aaronson, Zinn, & Rosko, 1994; Riportella-Muller & Slesinger, 1982). Recently, Harrington, Woolhandler, Mulian, Carrillo, and Himmelstein (2001) concluded that for-profit nursing homes “provide worse care and less nursing care than not-for-profit or public homes” (pg. 9). Higher staffing, particularly for registered nurses, is associated with better quality of care (Harrington, Zimmerman, Karon, Robinson, & Beutel, 2000; Munroe 1990; Spector & Takada, 1991).

This study was designed to fill the gaps in knowledge about the processes of care (i.e., what the staff does for, with, and to nursing home residents) and the context of care delivery. It was envisioned that this study would illuminate the relationships among care processes and link those practices to resident outcomes.

## METHODS

### Study Design and Sample

An exploratory descriptive study design using three groups was used to describe the processes of care delivery in facilities with good resident outcomes, and to describe how these processes differ in facilities with average or poor resident outcomes. This article also describes exemplar care delivery processes associated with good resident outcomes. Statewide MDS data was used, and resident outcomes in all certified Missouri nursing facilities with 30 beds or more ( $N = 443$ ) were measured. This included facilities in both urban and rural locations certified to participate in Medicaid or Medicare and facilities of varying size and ownership.

With statewide MDS data, resident outcomes were analyzed for each facility using the MDS QIs defined by the CHSRA at the University of Wisconsin-Madison (Table 1), which the research team had measured in Missouri and used as outcome measures in other studies (Rantz et al, 1996, 2001; Rantz, Popejoy, et al., 1997). Resident outcomes were interpreted as “good” if the MDS QI scores were within the good threshold range, “average” if the MDS QI scores were within the average threshold range, and “poor” if the MDS QI scores were within the poor threshold range using thresholds established in earlier research (Rantz, Petroski, et al., 1997, 2000). Facilities were classified into the three groups by plotting the numbers of MDS QIs in each of the three threshold ranges.

Random samples of 10 facilities from each group were selected in four phases as the study progressed until 30 were enrolled in each group. This occurred so the time between sample selection based on MDS QI performance and observation would be minimized. The average time from sample selection to observation was 5 months. One hundred and

fourteen facilities were contacted to solicit participation in the study. Refusals to participate were evenly distributed across the three outcome groups, with a total of 22 refusing to participate. Ninety two facility observations were completed, exceeding the target sample of 90.

The processes of care delivery in each of the facilities were observed using participant observation methods by nurse observers blinded to the quality of care outcomes group designation. It was envisioned that differences in care delivery practices would be evident by comparing across groups with good, average, or poor outcomes. Using inductive qualitative analysis methods, care delivery processes were described and compared and exemplar care delivery processes associated with good resident outcomes were identified.

### Instruments and Data Collection

The data collection was guided by a qualitative data collection instrument and a guide to field notes developed in a preliminary study (Rantz, Popejoy, et al., 1997). Information was systematically collected regarding care delivery related to each MDS QI. Data collection for pain was added because the authors were field testing an MDS QI about pain in the state and wanted to include processes of care about pain management. (The QI Observation Instrument and Guide for Field Notes are available from the authors.)

Data collection was completed by four nurses with long-term care experience, most with master’s degree preparation. The data collector needed to be knowledgeable about the needs, care delivery, and research related to residents in a clinical care nursing. Observations were performed of care delivery on the day, evening, and night shifts in each facility. In most facilities, observations were completed in 2 days; larger facilities needed 3 to 4 days. To assure credibility of the data collec-

**TABLE 1**

### MINIMUM DATA SET QUALITY INDICATORS USED AS RESIDENT OUTCOME MEASURES

- 1 New fracture
- 2 Falls
- 3 Behavioral symptoms
- 4 Symptoms of depression
- 5 Depression without antidepressant therapy
- 6 Use of nine or more medications
- 7 Onset cognitive impairment
- 8 Bladder or bowel incontinence
- 9 Incontinence without a toileting plan
- 10 Indwelling catheters
- 11 Fecal impaction
- 12 Urinary tract infection
- 14 Weight loss
- 15 Tube feeding
- 16 Dehydration
- 17 Bedfast
- 18 Decline in late loss activities of daily living
- 21 Antipsychotic use
- 23 Antianxiety, hypnotic use
- 24 Hypnotic use
- 26 Daily physical restraints
- 27 Little or no activity
- 29 Pressure ulcers

*Center for Health Systems Research and Analysis (1997).*

tion, the research nurses were blinded to the group designation of facilities, and were unaware of the facility’s performance on particular MDS QIs. This assured balanced attention to all delivery systems.

### Data Management and Analysis

Qualitative data were managed and coded using N-5 software (Richards, 2000). An advanced practice nurse with qualitative data analysis expertise completed the primary

data coding with guidance and independent confirmation of the codes from a co-investigator and the principal investigator. Data were coded surrounding each MDS QI so processes of care delivery could be identified within and across groups. Each facility's MDS QI scores and resident outcome classification were added to each facility document. The concepts of processes of care and resident outcomes were used as beginning indigenous concepts for initial qualitative coding for the comparison across the groups (Patton, 1990). Then, codes emerged from the data in the terms expressed by the staff and recorded in the field notes. Patterns, themes, and categories emerged from the data analysis and conclusions were reached based on this inductive analysis using qualitative methods described by Patton (1990) and Hutchinson (1993). Comparisons with the literature were made as the analysis progressed.

Descriptions of the care delivery processes were summarized from the facilities with good, average, and poor resident outcomes as measured by their MDS QIs. Comparing the processes of the facilities in the good and poor outcome groups was particularly insightful, and those comparisons are presented in detail in the Results section and in Tables 2 through 4. The written descriptions about the processes of care delivery and other study results were verified with the research nurses and a sample of nursing personnel from the facilities participating in the study.

### **Preliminary Analysis**

A preliminary comparison of all identifiable care delivery processes across the three groups raised a question about stability of the MDS QIs. This led to two additional analyses: calculation of MDS QI scores and classification of the facilities into the good, average, and poor outcome groups using MDS data at the point of observa-

tion of the facility (there was an average of 5 months between sample selection and actual observation of each facility), and a statewide analysis of MDS QI stability comparing 6 months of MDS data with a subsequent 6 months.

Based on the results of these analyses (Rantz et al., 2003) all qualitative data were re-analyzed using a six group approach to the data:

- Group 1A ( $n = 11$ ) (good at selection and observation).
- Group 1B ( $n = 19$ ) (good at selection and average or poor at observation).
- Group 2A ( $n = 16$ ) (average at selection and observation).
- Group 2B ( $n = 16$ ) (average at selection and good or poor at observation).
- Group 3A ( $n = 20$ ) (poor at selection and observation).
- Group 3B ( $n = 10$ ) (poor at selection and average at observation).

The same processes of care delivery coding were used, but the six groups were used to examine for group differences and to answer the research question: What are the exemplar care delivery processes that uniquely characterize nursing facilities with good resident outcomes?

### **RESULTS**

The demographics of the groups reveal some differences and many similarities. The facilities were randomly selected for site visits based on their resident outcome classification, so differences among the groups are indications of organizational attributes characterizing the facilities that are able to achieve the range of resident outcomes from good to poor. The major differences among the groups are bed size, rural designation, and for-profit status. For facilities classified as Group 1A (good resident outcomes at selection and observation times), median number of licensed beds were 60 as compared to 130 for Group 3A (poor resident out-

comes at selection and observation times). These differences were also apparent in the complete Group 1 (i.e., Groups 1A and 1B) facilities (median 73 licensed beds) and Group 3 (i.e., Groups 3A and 3B) facilities (median 120 licensed beds). Slightly more facilities in Group 1A (18%) and Group 1 (17%) were located in rural communities as compared to Group 3A (10%) and Group 3 (7%). Similarly, more facilities in Group 1A (73%) and Group 1 (73%) were for-profit as compared to Group 3A (55%) and Group 3 (57%).

Case-mix scores were slightly, though not statistically, different across the groups. Resource utilization groups (RUGS) III case mix classification scores (Fries et al., 1994) were calculated for each facility at the time of group selection and Group 1A had a lower median score (.73) than Group 3A (.84). This indicates Group 1A facilities had slightly lower resident acuity.

Similar median occupancy rates were noted in facilities classified into all the groups and they all participated in the Medicaid program. Group 1A had slightly more residents funded by Medicaid (76%) than Group 3A (66%).

The qualitative analysis of data about the processes of care related to resident outcomes revealed two core variables: leadership and basics of care. These core variables emerged as comparisons were made in specific care delivery processes across the six groups. Frequency and patterns of occurrence were coded for such things as length of employment of the director of nurses, ambulation, or toileting; and differences were particularly apparent when comparing Group 1A with Group 3A. In most cases, the patterns increased or decreased in relative proportion across the six groups.

### **Leadership Differences**

Four leadership differences were identified and are summarized in

**TABLE 2****DIFFERENCES IN LEADERSHIP IN NURSING FACILITIES WITH GOOD OR POOR RESIDENT OUTCOMES****Leadership in Nursing Facilities Achieving Good Resident Outcomes**

Many directors of nursing with long tenure  
 More administrators with long tenure  
 Frequently uses groups or committees  
 Active quality improvement programs in most facilities

**Leadership in Nursing Facilities Achieving Poor Resident Outcomes**

Many directors of nursing are newly hired  
 More administrators newly hired  
 Very few groups or committees organized  
 Very few facilities with active quality improvement programs

Table 2. Directors of nursing in facilities with good outcomes are much more likely to have been in their jobs for many years (i.e., more than 5) as compared to directors of nursing in facilities with poor resident outcomes who are much more likely to be recently hired (i.e., less than 1 year). Similarly, administrators are more likely to have been in their jobs for more years in facilities with good outcomes or be recently hired in facilities with poor outcomes.

Facilities with good outcomes are more likely to use committee or group processes for decision-making, and most of these facilities have active quality improvement programs. A key finding about quality improvement teams emerged from the data from the facilities in Group 3B (i.e., those poor at selection and improved at observation). This subgroup had a remarkably high percentage of facilities with active quality improvement programs as compared to almost none in Group 3A (those poor at selection and observation). Apparently, these facilities were actively using a quality improvement program to improve their care quality.

**Basics of Care Differences**

As illustrated in Table 3, major differences exist in the basics of care delivery in facilities with good outcomes as compared to those with poor resident outcomes.

*Ambulation.* The basics of care include encouraging and actually performing ambulation with residents. Staff use fall risk and restraint assessments and have review processes before using restraints.

*Nutrition and Hydration.* Residents in facilities with good outcomes have very little weight loss and there are several differences that appear to correct or prevent weight loss. These include:

- Serving good appealing food.
- Serving food with the plate directly on the table in front of the resident (i.e., not on a tray).
- Using restaurant-style serving methods, including choice and presentation.
- Having interactions and conversations among residents and staff during dining.
- Having a quiet (i.e., not noisy) dining environment.
- Using tables and chairs of the correct height so residents can easily reach their food and drinks.
- Using adaptive devices to help residents eat more independently.

A key finding is that facilities with good resident outcomes have adequate staff to help residents needing minimal assistance and those needing to be fed with a ratio of one or two residents per staff. In facilities with poor outcomes, staff are feeding more than two residents at a time, and in many cases, more than five or six at a time. In facilities with good resident outcomes, the registered nurse (RN) follows

up with residents experiencing a weight loss. This is not the case in facilities with poor outcomes.

There are fewer residents with tube feedings in facilities with good outcomes. It may be that the better food, dining processes, and RN follow-up on weight loss results in fewer situations in which families and staff see a need for tube feeding. Field notes also indicate that in facilities with more tube feedings, there are problems with advance directives not being followed or solicited before situations resulting in tube feeding placements occur.

Hydration is emphasized in facilities with good resident outcomes. Residents have fluids readily accessible and are encouraged to drink them. In contrast, in facilities with poor resident outcomes, fluids are available but not readily accessible. For example, water pitchers were in resident rooms but residents were unable to lift and pour a glass of water to drink and staff were not observed pouring fluids and helping residents to drink. At mealtime, fluids were on the table but many residents were observed as unable to reach them or use the type of glass or cup provided.

*Toileting and Bowel Regularity.* Toileting practices reveal a major difference in care processes in the facilities with good resident outcomes. In these facilities, residents are toileted frequently and routinely. Staff not only reported that they toileted residents, they were

**TABLE 3****DIFFERENCES IN BASICS OF CARE IN NURSING FACILITIES WITH GOOD OR POOR RESIDENT OUTCOMES****Basics of Care in Nursing Facilities Achieving Good Resident Outcomes****Basics of Care in Nursing Facilities Achieving Poor Resident Outcomes****Ambulation**

Ambulation is encouraged and done with staff assistance  
 Fall risk assessment is done  
 Restraint assessment or review is done

Ambulation done infrequently with staff assistance  
 Limited use of fall risk assessment  
 Restraint assessment or review seldom done

**Nutrition and Hydration**

Very little weight loss  
 Few problems with dehydration  
 Good, appealing food  
 Serves with plate on table, not on tray  
 Food served restaurant style more often  
 Much interaction and conversation during dining  
 Dining room quiet, not noisy  
 Residents able to easily reach foods  
 Adaptive devices used frequently for eating  
 Staff assist or feed one to two residents at a time  
 RN follow up frequent on weight loss  
 Fewer residents with feeding tubes  
 Residents have fluids readily accessible

Many residents with weight loss  
 Many problems with dehydration  
 Food not appealing  
 Serves plate on tray (sometimes uses paper plates and plastic utensils)  
 Institutional serving methods used more often  
 Little interaction during dining  
 Dining room very noisy  
 Some residents unable to reach food  
 Adaptive devices for eating seldom used  
 Staff feed more than two residents at a time  
 Infrequent RN follow up on weight loss  
 Many more residents with feeding tubes  
 Fluids available but not accessible

**Toileting and Bowel Regularity**

Staff toilet residents (not simply “check and change”)  
 Staff observed actually toileting residents  
 Assessment for causes of incontinence is done  
 Few foley catheters used  
 Very few bowel impactions

Most residents not toileted; most simply use “check and change” approach  
 Toileting not observed in most facilities  
 Very little assessment for causes of incontinence  
 Many foley catheters used  
 Many bowel impactions

**Preventing Skin Breakdown**

Very few pressure ulcers and very few facility acquired pressure ulcers  
 Skin risk assessment done on admission

Many pressure ulcers; many facility acquired pressure ulcers  
 Infrequent skin risk assessment on admission

**Managing Pain**

Pain assessment done

Infrequent assessment of pain done

observed toileting residents. Field notes indicate the staff see toileting as an important part of their job, and if they are doing their job, most, if not all, residents would be continent. Staff also assess residents for causes of incontinence and very few Foley catheters were used. This is in stark contrast to the staff’s view related to toileting in facilities with poor outcomes. In these facilities, the practice is to not toilet, but to “check-and-change” incontinence products. Field notes indicate

there is a belief among the staff that most residents are inevitably incontinent and that nothing can be done about it. There is very little assessment of causes of incontinence and Foley catheters are frequently used in facilities with poor outcomes.

Residents in facilities with good outcomes rarely experienced problems with impactions. Both groups had care processes to monitor bowel function and had routine medications or dietary aids to assist with bowel function. Possible

processes of care that could account for the difference in impactions are the emphasis on hydration, ambulation, better meals, and dining practices found in facilities with good outcomes.

*Preventing Skin Breakdown.* Development of facility acquired pressure ulcers within the facilities with good outcomes is an infrequent event; rate of occurrence of facility acquired pressure ulcers was less than one per facility as recorded by the nurse observer. In facilities with

poor resident outcomes, the facility acquired pressure ulcer rate was nearly six per facility. After accounting for differences of facility size among the groups, facilities with poor outcomes have several times more acquired pressure ulcers than facilities with good outcomes. The differences in acquired pressure ulcer occurrence may be related to the admission skin risk assessment processes used in most facilities with good outcomes. Differences are also likely related to the emphasis on toileting, ambulation, better meals, and fluid access in facilities with good resident outcomes.

*Managing Pain.* Pain assessment is a more common practice in facilities with good resident outcomes. With better pain control, ambulation and other care are likely to be better handled or experienced by residents. Little, if any, assessment of pain was performed in the facilities with poor resident outcomes.

#### Characteristics Shared by Facilities

There are some common dining, weight, and bowel monitoring practices in the facilities regardless of good or poor resident outcomes. Because these are common to both groups, it is likely these care processes are necessary but not sufficient to improve resident outcomes for weight loss and impactions. Those similarities are illustrated in Table 4.

The use of physical restraints with lap-buddies or belts, geri-chairs, and side-rails were common in all facilities in the study. A few facilities claimed to be “restraint free” but nurse observers noted lap-buddies or belts, geri-chairs, or side-rails in those facilities, too. Staff reported the devices were “enablers,” but residents did not appear to be able to release the devices on their own. Haloperidol (Haldol), a psychotropic drug often used as a chemical restraint was used across all groups in the study.

**TABLE 4**

### SIMILARITIES IN CARE DELIVERY IN NURSING FACILITIES WITH GOOD OR POOR RESIDENT OUTCOMES

#### Dining

- Fluids available on table at mealtime
- Residents cued to eat and drink at mealtime
- Fluids available with activities
- Snacks available

#### Weight and Bowel Monitoring

- Routine weight monitoring
- Registered dietician follow up on weight loss
- Routine bowel function monitoring
- Prunes or other bowel aids offered

#### Restraints

- Some physical restraints used (lap-buddies or belts, geri-chairs, side-rails)
- Some haloperidol (Haldol) used

#### Staffing

- Complaints of staffing problems
- Reports of staff retention problems

Common to all facilities in the study were complaints of staffing problems and reports of staff retention or turnover problems. The severity of the staffing problem varied, but all groups identified this concern.

Similarities across the groups seems to reflect the influence of regulations, minimum standards all facilities are expected to meet. The findings seem to indicate that the although minimum standards may be needed for basic care, in and of themselves, they are not sufficient as clinical practices that achieve good resident outcomes.

#### Theoretical Model Derived from Findings

As a final step in data analysis, the qualitative data and results were carefully reviewed and a theoretical model emerged. The Figure is the Theoretical Model of Organizational Attributes of Nursing Facilities Achieving Good Resident Outcomes.

Foundational in the model is “Getting the Basics of Care Done.” This is key to resident outcomes. Without staff focusing on getting the

basics of care done, efforts to improve resident outcomes are likely to fail. The basics of care are:

- Ambulation.
- Nutrition and hydration.
- Toileting and bowel regularity.
- Preventing skin breakdown.
- Managing pain.

If the four components are successfully implemented in the facility, they result in resident outcomes of regaining, maintaining, or managing walking ability, nutrition and weight, hydration, continence, skin integrity, and pain. As the model illustrates, the resident outcomes are linked with one another—for example, walking ability affects appetite, skin integrity, continence, and others. Within the illustration of these outcomes is the assessment of the basics of care and continual follow-through to see that the basics of care are done and resident outcomes are achieved.

To achieve Getting the Basics of Care Done, other organizational attributes are needed, including consistent nursing leadership, consistent administrative leadership, team and groups process focus, and an active quality improvement program. Consistent nursing leadership

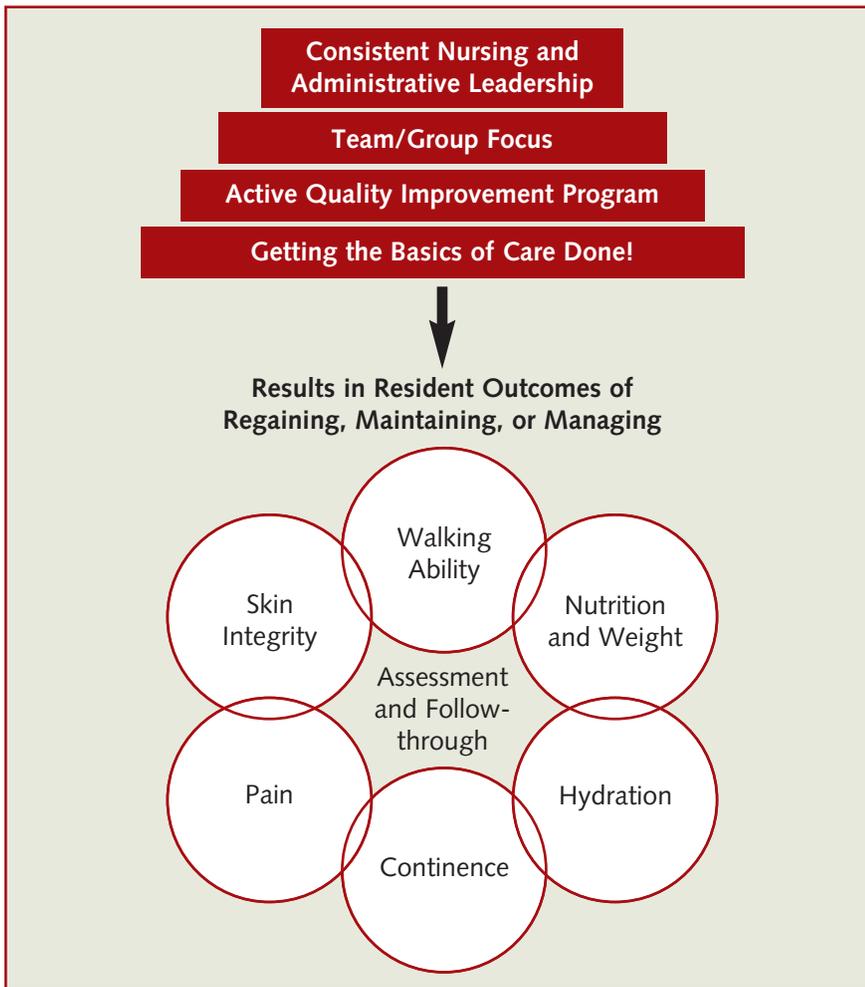


Figure. Theoretical model of organizational attributes of nursing facilities achieving good resident outcomes. © MU MDS and Quality Research Team (2002).

is needed to put all the other components of the model in place and assure that processes of care are really being performed for the residents. Consistent administrative leadership sets the expectations of what will be done for the residents and staff. A commitment to use team and group process is essential for getting decisions made and being sure processes of care are in place to reinforce and assure the basics of care are performed. Group process is also necessary for an active quality improvement program—critical to the success of achieving good resident outcomes.

## DISCUSSION

Facility staff use key processes of care to achieve good resident out-

comes. This qualitative analysis revealed basics of care essential for staff to consistently accomplish: helping residents with ambulation, nutrition and hydration, and toileting and bowel regularity; preventing skin breakdown; and managing pain. There are key processes around each of the basics of care that staff in facilities with good resident outcomes are systematically doing. For example, helping resident with eating and maintaining weight has several processes including:

- Providing good appealing food.
- Serving the food on a plate (i.e., not a tray).
- Minimizing noise in the dining room.
- Encouraging staff and resident social conversation while eating.

- Using adaptive devices to encourage residents to feed themselves if possible.

- Making sure adequate staff are available so no more than one or two residents are fed by a staff member. This is of particular importance for those who must be fed.

Systematic follow-up with weight loss must be performed by an RN to assure needs are addressed. A systematic approach is essential for all residents and families to make advance directives clear, so decisions are not made to introduce tube feeding in inappropriate death delaying situations.

The analysis also revealed that in facilities with poor resident outcomes, residents have much difficulty getting the feeding assistance they need, have unappealing food, rarely have adaptive equipment to help them eat independently if possible, and were simply unable to reach their food or drinks because their chair was the wrong height for the table. These findings are similar to those of Kayser-Jones (1996) and Kayser-Jones and Schell (1997a; 1997b) that described the sights, sounds, smells, staffing, and other features of the mealtime experience in nursing homes environment. Findings are consistent with Kane et al. (1997) who interviewed nursing staff about everyday life of nursing home residents.

One of the central findings of this study is the difference in staff toileting processes for residents. Staff in facilities with good resident outcomes have care systems in place to see that most residents are toileted several times each day. Toileting routines are obvious to the observer. Typically, residents are taken to the bathroom before and after meals, in the evening, at bedtime, and in early morning, so that most residents maintain continence. There is a prevailing view in most facilities with average and poor resident outcomes that all residents are or will soon be incontinent, so they

use incontinent products with a check-and-change routine rather than a toileting routine.

These findings are similar to other studies in nursing homes attempting to change toileting practices (Ouslander et al, 1995; Schnelle et al., 1993). Somehow, this predominant view must be changed. The check-and-change care process sets up a cascade of adverse conditions that affect skin integrity, bowel function, willingness to walk, and the negative effect on a resident's self-esteem. Incontinence is a social standard that few adults willingly accept.

Another central finding is the emphasis on promoting ambulation in the facilities with good resident outcomes. This finding is consistent with other studies about the efficacy of improving walking ability in older adults who are frail (MacRae et al, 1996; Resnick, 2002; Schnelle, MacRae, Ouslander, Simmons, & Nitta, 1995). This care process is foundational to resident outcome improvement. If the ability to walk can be maintained or improved, toileting is possible without major lifting of the resident. The risk of skin breakdown is reduced with ambulation. With ambulation, bowel function and appetite improves, as does the resident's psychosocial outlook. Promotion of strength training and walk-to-dine processes hold promise for improving walking ability, reducing fall risk, reducing fracture risk, and improving other resident outcomes.

An approach for staff to implement the findings of this study would be to have a quality improvement team focus on a walking program to improve walking ability. After successfully implementing a walking program, the team can address the more complex problem of routine and individualized toileting for all residents. The authors suspect, based on the data from this study, most incontinence in nursing facilities is reversible, or at least can

be better managed than the current prevailing view of check-and-change incontinence products.

Another focus for a multidisciplinary quality improvement team is to address the dining experience for residents. If weight loss is a problem in a facility, the processes surrounding dining must be examined. Is the food appealing? What about a buffet for residents to choose what they want to eat at each meal? The food, appeal, and choices must be examined, and then the way it is served must be considered. Old approaches of serving on a tray to facilitate delivery and pick up are not going to improve resident outcomes. Food should be served on a plate residents can see directly on the table, as in a restaurant. The team should examine chair and table height to find out if each resident can reach the food easily. Other questions to address include:

- What is the dining environment like?
- Can kitchen noises be minimized with different doors or sound proofing?
- Can other noises, such as television or overhead paging, be turned off so the dining room is a pleasant, quiet place for a meal?
- Are residents who can be independent with adaptive devices or foods they can handle like sandwiches being fed?
- What ways can all staff be available to assist with feeding so a ratio of one to two residents per staff member can be achieved?
- Do staff break or shift times need to be changed to accommodate having enough staff to help residents eat?
- What systems are being used for routinely monitoring weight?
- Does an RN see that weight loss for each resident has follow-up action?
- Are residents encouraged to drink fluids throughout the day?
- Are appealing drinks, such as sweetened lemonade or others,

available and offered on all shifts between meals and at activities?

A quality improvement team can examine the risk assessments performed routinely for resident conditions to be sure they reflect current standards of practice. There should be risk assessments performed for skin integrity risk, incontinence, falls, restraints, weight loss, and pain. There should be a process to make sure appropriate actions are taken as a result of risk assessment.

The qualitative analysis of this study also revealed there are necessary organizational attributes that must be in place for the basics of care to be accomplished: consistent nursing and administrative leadership, the use of team and group processes, and an active quality improvement program. Consistent nursing leadership is paramount for the systems to be put in place for the basics of care to be accomplished. For leaders to be willing to take risks and implement systems changes and be sure the care practices actually occur, they must have some tenure in the facility and be open to considering that outcomes can be better if processes are done differently.

Effectively using group or team processes emerged in this analysis as a key organizational attribute in facilities with good resident outcomes. Group or team processes are necessary for workers to feel a part of the team and valued for their work and contribution to the organization. In facilities with good resident outcomes, groups were used to systematically review care needs, plan care, and implement quality improvement actions. Achieving good resident outcomes requires an open communication process so workers can come together and make sound decisions about the care residents need and put systems of care in place so residents consistently get that care. This finding mirrors the views of

Ovretveit (1999) who described the value of teams and their role in quality improvement projects in health care organizations and Anderson and McDaniel (1998, 1999) who found that RN participation in organizational decision-making accounted for improvements in resident outcomes.

Another key is consistent direct care staff assignments. Without consistent staff, implementing systems of care such as toileting, bathing, and helping residents eat and drink becomes nearly impossible. Consistent assignment is promoted by other authors who report the importance of staff who know individual resident needs and preferences (Barba, Tesh, & Courts, 2002; Kane et al., 1997; Thomas, 1992). Consistent staff assignment may account for the finding in this study that smaller facilities were more likely to have good resident outcomes. In a small facility, it is possible for all the staff to know residents and families. Facility size may actually facilitate the use of group and team processes to accomplish the work. Large facilities may want to consider ways to create smaller "nursing homes" within their facility—decentralizing their staff by permanently assigning them to these smaller areas so they can get to know their residents well and be able to anticipate their needs.

Developing and using a quality improvement program is another key finding in this study. The value of quality improvement programs has been widely discussed (Johnson, 1996; Sainfort, Ramsay, & Monato, 1995). An intervention study testing the effect of quality improvement programs showed that those implemented in randomly selected nursing facilities with the assistance of an advanced practice nurse consultant and using MDS QI reports improved resident outcomes in facilities that actually embraced the quality improvement process (Rantz et al., 2001).

## SUMMARY

In this study, the key exemplar processes of care in facilities with good resident outcomes were described. It follows that with description of these processes, it is feasible to teach facilities about the basics of care and the ways to systematically approach care so they can adopt these care processes and improve resident outcomes. However, for this to happen key organizational commitments must be in place for staff to consistently provide the basics of care. Nursing leadership must have a consistent presence over time, they must be champions of using team and group processes involving staff throughout the facility, and they must actively guide quality improvement processes. Administrative leadership must be present and express the expectation that high quality care is expected for residents, and that workers are expected to contribute to the quality improvement effort.

If facilities are struggling with achieving average or poor resident outcomes, they must first make an effort to find nursing and administrative leaders who are willing to stay with the organization. These leaders must be skilled with team and group processes for decision-making and how to implement and use a quality improvement program to improve care. These leaders must be skilled at building employee relations and at retention strategies so residents are cared for by consistent staff who know them.

The results of this study illustrate the simplicity of the basics of care that residents in nursing facilities need. The results also illustrate the complexity of the care processes and the organizational systems that must be in place to achieve good outcomes. Achieving these outcomes is the challenge facing those currently working in and leading nursing facilities.

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