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Challenges of Using Quality Improvement Methods in Nursing Homes that "Need Improvement"

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Abstract

A randomized, two-group, repeated-measures design was used to test a two year intervention for improving quality of care and resident outcomes in facilities in "need of improvement". Intervention group (n=29) received an experimental multilevel intervention designed to help them (1) use quality-improvement methods, (2) use team and group process for direct-care decision-making, (3) focus on accomplishing the basics of care, and (4) maintain more consistent nursing and administrative leadership committed to communication and active participation of staff in decision-making. A qualitative analysis revealed a subgroup of homes likely to continue quality improvement activities and readiness indicators of homes likely to improve 1) leadership team (NHA, DON) who are interested in learning to use their federal Quality Indicator/Quality Measure (QI/QM) reports to improve resident care and outcomes; 2) one leader who will be the "change champion" and others make sure that current QI/QM reports are consistently shared on each nursing unit; 3) willingness to involve all staff in educational activities to learn about the QI/QM process and federal reports that compare the home with others in the state and nation; 4) plan and continuously educate new staff about the QI/QM process and how to do quality improvement; 5) continuously involve all staff in quality improvement committee and team activities so they "own" the process and are responsible for change.

Keywords

quality improvement; readiness indicators; nursing homes; randomized clinical trial; qualitative analysis

Quality Improvement in nursing homes has historically been the focus of major public policy initiatives, passionate consumer debates, and professional reports (GOA, 2001, 2002a, 2002b; IOM, 1986, 1996, 2001a, b; Kane, 1998). Our research team has conducted studies in nursing homes that have a range of quality of care ratings and scores (Popejoy et al, 2000; Rantz et al., 1996, 1999, 2001, 2003a, 2003b, 2004a, 2004b, 2006b, 2010); however, none to date have focused on only helping to improve those nursing homes in "need of improvement." This subgroup of facilities represents different challenges; a quality improvement intervention was designed to address these challenges (Rantz et al., 2009, 2010, 2012).

A randomized, two-group, repeated-measures design tested a two year intervention for improving quality of care and subsequently resident outcomes in a sample of Missouri nursing homes. Homes for this study (n=48) were randomly selected from facilities that had resident outcomes in "need of improvement". Those assigned to the intervention group (n=29) received an experimental multilevel intervention designed to help them (1) use quality-improvement methods, (2) use team and group process for direct-care decision-making, (3) focus on accomplishing the basics of care, and (4) maintain more consistent nursing and administrative leadership committed to communication and active participation of staff in decision-making. An attention control group of 29 homes received information about aging and physical assessment of elders. Results of the quantitative analysis are reported elsewhere (Rantz et al., 2012).

One aim was to qualitatively describe the adoption of strategies recommended in the intervention to understand how they influenced care processes and resident outcomes. In this article, we discuss the challenges the intervention group facilities (n=29) experienced. Specifically, how staff use federal Quality Indicator/Quality Measure (QI/QM) scores and reports, quality improvement methods and activities, and how staff supported and sustained the changes recommended by their quality improvement teams or committees.

Sample

The sample of nursing homes for the intervention study was selected from homes that needed to improve quality of care as measured by nursing home Minimum Data Set (MDS) QI/QM scores above the 40th percentile (recall QI/QMs are problem-based scores so low scores are better) on at least three of four selected resident outcome measures. Measures were sufficiently prevalent in nursing homes, amenable to nursing intervention, and sensitive to quality of care (bladder and bowel incontinence, weight loss, decline in ADLs, and pressure ulcers) for two consecutive six-month periods of MDS data (Rantz et al., 2004b). Recruiting facilities with QI/QM scores above the 40th percentile assured that participating homes would have sufficient room for improvement to detect the effect of the intervention. Homes had to be over 30 beds in size, not hospital based, and to maximize state representation be within three hours (one-way driving) of two research nurses located in different regions of the state.

Qualitative Data Collected for Analysis

For two years, 24 site-visits, about one per month, were made to each of the 29 intervention homes by one of two research nurses. Site visits averaged 2 hours (range 1–4 hours). After each site visit, the research nurses recorded extensive field notes of their observations and interactions. Communication by phone and email between site-visits were documented in field notes. Bi-weekly conference calls were documented as the research team (Co-PIs, project coordinator, and research nurses) discussed responses of the nursing home staff to research nurse guidance with challenging situations. Quarterly, the research nurses

documented progress of each nursing home toward the study aims regarding the adoption of the recommended quality improvement intervention strategies. All field notes were recorded by each research nurse in an Access database developed for the research project and were used in the qualitative data analysis.

Initial Qualitative Analysis of Progress in Adopting the Intervention-Three Distinct Groups Emerged

Inductive analyses (Hutchinson, 1993; Patton, 1990) were planned for the qualitative analysis, first using word processing and our project's Access database, then NVIVO-8 software (QSR International, 2008); the research team is experienced in qualitative methods (Rantz, et al., 1999, 2003). Based on our preliminary work (Rantz et al., 2003, 2004a,b), the concepts of processes of care and resident outcomes were used as beginning indigenous concepts (Patton, 1990) for initial qualitative coding for the comparison of adoption of the intervention throughout the study.

Homes were recruited in rolling enrollment; as each neared completion of their 24 monthly site visits, the project coordinator (a PhD prepared nurse researcher experienced in qualitative research) read all the recorded notes and wrote a synopsis of the progress of the home reflecting their work in adopting the recommended quality improvement intervention strategies. The research team, including the research nurses who delivered the intervention to the homes, reviewed each synopsis and discussed the findings with the goal of concurrence about each homes' adoption of the intervention.

During the review of each home's synopsis, the research team became aware of three general adoption responses among the 29 nursing homes. Six homes (Group A) emerged as positive: staff was receptive to guidance from the research nurse; they worked in teams to plan process changes around a focused clinical topic, and used data such as their federal QI/QM scores and QI/QM resident level summary reports, to monitor clinical outcomes for improvements. The research nurses reported these six homes had taken ownership of the clinical improvement process and believed these homes would be able to continue efforts after the research visits ended.

Eight nursing homes (Group B) were observed to make some effort to follow the guidance of the research nurse, teams were used intermittently and some temporary improvements were made in their QI/QM scores. This group of eight homes faced significant barriers during efforts to improve clinical outcomes, such as turnover of the nursing home administrator (NHA) and/or director of nurses (DON), turnover of team members working on the project, or "survey paralysis." Survey paralysis was defined by the research team as the "inability of the nursing home to continue with their team or improvement process effort once the annual state regulatory survey was anticipated and until plans of correction were written and accepted." Often, focus and momentum were lost and homes had trouble starting over after submission of the plan of correction. The research team predicted that this second group of eight homes would not be able to sustain their efforts to improve clinical outcomes once the research nurse stopped visiting the homes.

A third group (Group C), consisting of fifteen homes, was identified as those whose staff members were not receptive to the efforts of the research nurses and the goals of the multilevel intervention. Even though leadership in all homes had volunteered to participate in the research effort, not all leaders informed their staff members of the home's intent to participate in the project nor asked their opinions regarding participation. After the research nurse engaged some staff in care improvements, common behaviors of Group C leaders included resisting or ignoring changes recommended by their staff. This lack of leader

support for recommendations for care improvements was very frustrating for staff. Like the Group B, frequent turnover among the DONs and NHAs occurred. Table 1 summarizes the turnover in each of the 3 groups, labeled A, B, and C. Although all facility owners agreed that their homes would participate and NHAs signed a letter of recruitment outlining the expectations of the research plan, the NHAs and DONs in the Group C consistently avoided working with the research nurses. These leaders offered many excuses why their home was not ready to and could not make and sustain changes necessary to improve care processes and clinical outcomes. Clearly, turnover of the leaders appears to have negatively affected the adoption of the intervention.

Validation of the Three Groups within the Intervention Facilities

After the research team had reviewed and confirmed the synopsis and categories that emerged, a separate analysis was pursued, to validate the accuracy of categorical findings. A second PhD prepared experienced qualitative nurse researcher was hired to review all field notes, the synopsis of each homes activity, and the three groupings of facilities identified by the team. Over a period of 4 months, the second reviewer read all the material and added comments that validated findings. Each month, the project coordinator who led the initial coding and the consultant discussed findings and reached consensus on the multiple reviews. Two homes were moved from one of the categories to another during validation. Definitions of the three categories were refined (Table 2). Characteristics of the 3 groups (Table 3) were checked for significant differences at baseline and study end, none were found (Rantz et al., 2012).

Final Coding of All Qualitative Data

All recorded field notes were electronically moved from the project's Access data base into NVIVO 8 software (QSR International, 2008). The project coordinator re-read all field notes and coded all data to identify themes. As a validation step, a second researcher, who was also using the data set for a secondary analysis (Russell, et al. 2010), confirmed the coding and participated in the team research calls discussing findings that emerged. At the completion of the coding, 96 nodes were identified; the research team reviewed all nodes and determined 10 with the least frequencies could be eliminated from the continuing review or incorporated into others, leaving 86 for further analysis. Next, nodes were sorted based on specific research questions for the study aims. For the analysis in this article, 11 nodes were used (these contained the largest amount of total coded data); all were related to the topic of quality improvement methods used and the ability to sustain changes made as result of the quality improvement teams or committees formed in the homes.

To inform analysis, data were sorted using N-VIVO by node and by the three categories of nursing homes. Using a categorical approach enabled in-depth comparison of findings across A, B, and C homes. This approach provided much insight into the actions of staffs that were likely to continue quality improvement progress, those not so likely, and those unlikely. The following themes emerged from this analysis.

Results

Theme One - Using Facility-Specific Federal Quality Indicator/Quality Measure (QI/QM) Scores

During the intervention, all of the Group A homes (n=6) were receptive to the research nurse and used the federal QI/QM scores and reports derived from the required MDS assessments for quality monitoring and improvement. Five of the six homes consistently used their QI/QM scores and integrated the scores into systems of care and operations of the facilities.

With the assistance of the research nurses, Group B homes (n=8) used the federal QI/QM scores some of the time during the 24 months of the research intervention. Staff at the homes would start to work with the scores, but their efforts were interrupted for a variety of reasons: staff turnover, leadership turnover, staffing shortages, survey paralysis, environmental events in community, corporate interference (corporate mandates that stopped work on facility-chosen improvement projects) and basic lack of understanding of how the federal QI/QMs and the MDS system are related. Barriers to the nursing homes' efforts to learn about and use the federal QI/QM reports continually interrupted efforts.

Regardless of the multiple efforts of the research nurse, Group C homes (n=15) consistently were unable to see the value of using QI/QM scores to monitor their clinical performance. During initial site visits, leadership in the homes would say that they understood and used the federal QM/QI reports; however, they could not explain how the QI scores and reports were actually used on a regular basis. There was also widespread confusion about the difference between the QI reports generated by their MDS software and the actual federal QI/QM reports that provided state and federal home comparisons and percentile ranks for each QI/QM. When asked about use of QI/QMs, leadership would refer to the software reports. Eventually, as the site visits progressed, the NHA or DON, or both of them, would "confess" that they did not understand the federal QI/QM reports nor did they know how to use the information to monitor clinical outcomes. In homes that were part of a chain, DONs relied on their corporate consultants for education and guidance. Unfortunately, often, corporate consultants did not have a clear understanding of how the system worked, and repeatedly gave incorrect advice and directives to DONs. A common misdirection was to manipulate a home's QI/QM report dates to show data at one or three month intervals, instead of the correct 6-month default setting. Using these shorter data intervals alters the comparison with state data and leads to misinformation for tracking QI/QM progress. It also gives the home a different view of the QI/QMs than surveyors use for survey and outcome monitoring. Typically, across Group C, DONs, NHAs and/or nursing home staff were not using the QI/QMs at all, or using them inconsistently. In one home, the NHA actually refused to share them with the DON or other staff.

There were some positive responses observed in the Group C homes. After the quality indicators and their values were explained to a NHA by the research nurse, the NHA replied, "What a tool. Where can I get those?" One nurse replied in a similar vein, after learning about the QI/QM reports and their potential uses, "I can't believe I never even knew these QI/QMs existed. I have been a charge nurse for years in different nursing homes and I never even knew we had these."

Theme 2 - MDS/Quality Indicator Knowledge in the Homes

A basic assumption of the research project was that nursing homes in the state were knowledgeable about the federal Resident Assessment Instrument, of which the Minimum Data Set (MDS) is the foundation assessment piece, and the related QI/QM reports available to the homes (Facility Quality Measure/Quality Indicator Report, Resident Level Summary) that are derived from the MDS. There is a long history of education and use of the MDS in nursing homes. Those homes who receive Medicare and Medicaid funds have completed MDS assessments since 1990; in 1998, all homes began electronically submitting the MDS data. Surveyors began using federal QI/QM scores in 2002 to guide and supplement the annual survey inspection process. Based on our preliminary work (Rantz et al. 2001; 2003a,b; 2004a,b), the multi-level intervention was designed to assist nursing home staff and leadership to use their existing federal QI/QM reports as benchmarks as they work on clinical process improvement. However, a lack of basic federal QI/QM knowledge across all nursing homes in the study (recall these were homes sampled from those needing improvement, not all homes in the state) emerged early in the study.

Nursing home leadership and staff in all three groups and all types of staff (NHA, DON, ADON, RN, LPN, nursing assistants, other direct care staff, staff from other departments), did not know how to obtain their facility federal QI/QM scores and reports; most did not know reports were available to them. There was little awareness of how the MDS system works. Staff poorly understood MDS item definitions in order to correctly code, and no current MDS manuals could be found in the facilities. Nursing staff did not understand the connection between charting and how their documentation would be used by the Minimum Data Set Coordinator(s) (MDSC) to submit answers to the federal government, ultimately to be used in QI/QM reports and public information on the nursinghomecompare.gov website.

Although education about the MDS process was not a formal part of the research design, the research team soon discovered that specific education would need to be provided by the research nurses on the federal QI/QMs to assist the homes in measuring process improvements. Three one hour classes were designed by the research nurses using information from the federal QI/QM manuals. A pre-test also designed by the study nurses, was administered to staff who attended the sessions taught by the research nurses to gauge knowledge levels. The same test was administered at each class to help the nurses identify gaps in learning and help employees see the progress they were making in knowledge retention. The research nurses encouraged all nursing home staff to attend sessions in an effort to spread knowledge of the data gathering process and QI/QM report use among all staff.

A common behavior of the leaders, NHA, DON, or ADON, observed in all three groups was their initial inability to openly admit their level of knowledge and expertise in using federal QI/QM reports. Those who could admit their lack of a working knowledge of the reports, either before or after attending the QI/QM classes, gained skills then asked for more education and how to apply it to evaluate processes of care.

Charge nurses (predominantly LPNs), nurse assistants, and staff from other departments (dietary, housekeeping, activities, etc.) openly admitted they had never seen or heard about the QI/QM process or reports. When the research nurse asked leadership to include the nursing assistants and staff from other departments in the QI/QM classes, they objected. They claimed the QI/QM information would be too “complicated” or “over their heads.” The opposite was observed by the research nurses; both nurse assistants and staff from other departments were able to understand the basic elements taught by the research nurses and asked informed questions about the process. A common question raised by the attendees was why they had not been taught the information sooner. They were shocked to see how high (poor) many of the QI/QM scores were for their homes. Repeatedly, other departments (dietary, activities, etc.) revealed they were completing sections of the MDS forms but had never received education on the process or definitions from the MDS manual explaining sections they were completing. They indicated that they had never known what relationship their answers had to care and outcomes as evidenced by the federal QI/QM scores. Nursing assistants were quick to see why the MDSC asked questions about their residents and were able to make the connection that their charting accuracy was important to the clinical data used for the QI/QM scores. The nursing assistants were also able to detect incorrect information on the reports, which were the result of miscoding by the MDSC.

Subgroup Responses to the MDS Classes in Theme 2

Responses to the research nurse’s offer to educate staff about QI/QMs varied among the 3 subgroups of homes. Group A homes were open and supportive to holding the QI/QM classes and integrated the knowledge gained by staff into work efforts. If the nursing home was able to retain the staff that completed the courses, the staff were asked to be mentors in their departments and asked to help spread the message of the value of using the QI/QM

reports in care planning and quality improvement meetings. After attending the QI/QM classes, Group A homes quickly grasped the value of the using the federal QI/QM reports to address clinical issues and monitor outcomes. One NHA was so excited about the value that she became the QI/QM educator at the home using the template of the QI/QM educational program. Nursing staff, including Certified Nurse Aides, at this home were frequently invited into the NHA's office to review the federal QI/QM reports and discuss scores. Nursing staff were appreciative of the behavior of the NHA, saying they learned a lot from these discussions.

Group B homes were open to learning about federal QI/QM reports and the MDS process but staff turnover interfered with knowledge retention in these homes. Leadership turnover in Group B homes would necessitate that the research nurse convince a new leader to allow QI/QM teaching to take place in the homes. In some cases, new leadership demanded that QI/QM teaching be discontinued by the research nurse stating it was not needed. Demands of this type usually indicated that the new leader also had minimal knowledge about the value of the QI/QM reports. Many nurses in Group B and C homes were resistant to attending QI/QM classes, but a small number did express an understanding of how the knowledge could be used to improve care.

Most Group C homes were not willing to offer QI/QM classes, or if they did, turnover of the staff attending the classes or of the leadership team reduced their ability to use the information in their facilities. NHAs and DONs in Group C were not open to learning about the QI/QM process and how its use could benefit clinical outcomes. They had multiple excuses as to why the QI/QM educational program offered by the research nurse could not be offered. A common claim was that the QI/QM knowledge would be too complicated for the nursing staff to understand. Many of the corporate nursing homes stated their corporately mandated nursing budget was too tight, that paying staff to attend meetings would place them over budget. Some NHAs in this group viewed meetings for staff as unnecessary "down time" and did not believe staff would have time to review and use QI/QM reports anyway.

Theme 3 - Quality Improvement Team/Committee Activity in the Nursing Homes

Quality Improvement teams and committees were frequently used by Group A to change resident care and they included direct care staff in the change process. As staff gained more knowledge (through the classes) about how to use the QI/QM reports, leadership staff used the reports to ask targeted questions about residents' care and nursing staff were able to locate clinical changes that needed to be made or inaccurate coding that was negatively impacting their QI/QM scores.

Group B homes had Quality Improvement teams or Committees, but their meetings were held inconsistently and usually only leadership staff attended. Nursing home staff in this group struggled to use the federal QI/QM reports in the meetings, and leadership turnover interfered with the progress of quality improvement activity. When federal QI/QMs were used it was only for review and not for quality improvement.

Some Group C homes held quality improvement meetings, others did not. A common behavior that emerged from the data revealed staff in Group C "talked about resident issues or incidents at the meetings, but did not come up with plans or recommendations". Group C homes seemed to hold meetings, when they did, in response to the federal standard, Section 1819 (1) (B), requiring that a Quality Assessment and Assurance Committee meet quarterly in nursing homes. These meetings were often used for retrospective review of numbers, such as the number of pressure ulcers or restraints used in the last quarter, but plans were rarely formulated or improvements made that were related to prevention or specific care needs.

DONs in Group C admitted a lack of understanding about how to perform ongoing monitoring or how to do spot checks to watch the quality of care their staff was delivering.

Theme 4 - Obstacles to Quality Improvement in the Nursing Homes

Leadership turnover was a major obstacle for the research nurses as they helped staff implement Quality Improvement activities. Group A homes had the least leadership turnover while Group B and C homes experienced excessive turnover, as evidenced in Table 1. It is important to consider leadership turnover from both the NHA or DON positions. Turnover in one of these two people disrupts the work of the staff, as revealed by the constant challenge of the research nurses to convince a new leader that QI activities are worthwhile for staff to spend time doing.

A common obstacle in Group B and C homes was denial of the seriousness or validity of poor QI/QM scores. They had numerous rationales why their scores were elevated and were 'fatalistic' about their ability to improve the scores. A common claim was their residents were "more frail" or "more old" than those of other nursing homes in their comparison. Another claim was a "lack of motivated staff who are willing to do the job" prevented them from attending meetings or improving nursing care processes. Numerous homes reported they could not hold educational meetings because meetings would put them over corporately mandated nursing hours. One group C home was told by its owner that "meetings were unnecessary" and they should just "stick to doing the required work". Others simply stated they "did not have time to schedule more classes" or that "inadequate staffing did not allow them to send staff to ongoing classes or meetings." Unfortunately, Group B and C homes were unable to consistently provide copies of the monthly QI/QM reports to nursing units. When the research nurse would attempt to locate a federal QI/QM manual on a nursing unit in Group B or C homes, nursing staff were unable to locate it or manuals were not up-to-date.

Theme 5 - Making Systems Changes after Quality Improvement Education/Activities

Staff in Group A included nursing leaders who followed up the QI/QM classes by assuring that federal QI/QM reports were available on all nursing units, and used the reports to discuss resident conditions while on the nursing units. Nurse leaders in Group A homes quickly grasped the value of 1) taking the QI/QM reports to committee meetings and care plan meetings; and, 2) using the federal QI/QM scores as benchmarks to monitor monthly progress. Group A homes usually had a "champion" or "cheerleader" who saw the value of using the federal QI/QM reports and was a vocal supporter of nursing home staff during classes and at committee meetings. The most common person in that role was the NHA or DON. One DON from a Group A home invited nursing assistants into her office daily and would review elements of the QI/QM reports asking for their input on how to manage the care of the residents discussed. The nursing assistants who participated in the ad hoc meetings were impressed that they were consulted and appreciated the interest the DON showed them in sharing the QI/QM information. The same DON created workbooks for the staff who attended the QI/QM classes containing all the handouts used in the class and assumed teaching of the class for all new employees at the completion of the 24 visits to the home.

A common observation by nursing assistants in Group A homes was that "the nurses needed to learn more about the QI/QM reports". Nursing assistants in one Group A home were insightful after the classes, observing how they could be drivers of change in the home after gaining QI/QM knowledge. When asked by the research nurse how the QI/QM information could help them, one nursing assistant responded:

"It showed me that we're pretty much the ones with our butts in the seats of change. It's up to us. We have to be the ones to get change moving."

Discussion

Quality improvement in nursing homes is a multifaceted, fragile process. Working with homes that "have room for improvement" appears to be especially fragile, based on the qualitative analysis of the randomly selected nursing homes participating in this multilevel intervention study. Only a few of the intervention facilities (Group A, n=6) are likely to sustain improvements made during the 24 month intervention, as revealed in this analysis. Many were actually resistive to the intervention and recommendations of the research nurse, as well as their own direct care staff (Group C, n=15).

Even though completion of the MDS by nursing homes has been required since 1990, the intervention homes in the study were consistently unaware of the importance of entering accurate clinical data. There seems to be a disconnect between the staff who enter the data and nursing staff who could use the information to plan care and monitor clinical processes for elevated (poor) QI/QM Scores. Leadership, NHAs, DONs, ADONs, RNs, other direct care staff did not understand the federal QI/QMs. Most participants, regardless of group, did not understand the relationship among the MDS, federal QI/QMs and care. Most did not understand how to use federal QI/QMs to improve care.

The research nurses did conduct extensive formal and informal education about quality improvement, and QI/QMs in all facilities (Rantz et al., 2012) at the beginning of the intervention. However, some facilities were more willing than others to assimilate the information into care processes and only some facilities were willing to have the additional QI/QM classes as the intervention progressed. These findings reinforce the need for continuous teaching about federal QI/QMs, how they are derived from the MDS, and how they can be used to improve care. This is not surprising, given the high rates of turnover in staff. However, since all groups (A, B, C) did get education from the research nurses, with some more receptive than others, education proved insufficient to get them to actually use quality improvement methods, federal QI/QMs, and staff quality improvement teams to help them improve care.

The final theme, "Making Systems Changes after Quality Improvement Education/ Activities" sheds some light on components that are "sufficient" for making and sustaining change with quality improvement in nursing homes. Specifically, a leader steps up to be the "champion," involves direct care staff in making care delivery improvements, then provides continuous reinforcement for improvements, such as making sure the current federal QI/QM reports are printed at least monthly using the federally recommended 6 month default date, are on the units, and staff are actually using them in care discussions, delivery and care planning. Most critically, direct care staff must realize they are the ones ultimately responsible for quality of care and the change process!

Leadership turnover was a major obstacle to the multi-level intervention in this study. The turnover of the NHA or DON or both in some homes, meant that the research nurses had to start over in their efforts to gain trust of the new leader(s) in order to pursue working on clinical topics related to high (poor) QI/QM scores. Turnover in nursing homes has been documented as leading to a decline in the quality of care and life in nursing homes (Bishop, et al., 2008) and stability of the long-term care management team is reported to be a needed element for quality of care to be delivered (Castle & Lin, 2010, Stone & Dawson, 2008). Because all but three Group C homes had more than one DON during the two years of visits and one home experienced 6 DONs, there is little wonder that homes are unable to make

clinical improvements in those unstable situations. In addition, 8 of the 15 Group C homes had multiple NHAs; one home experienced 4 NHAs in the position during the 24 month study time frame.

The role of the expert gerontological nurse in this intervention study cannot be overlooked. The research nurses had graduate nursing education in gerontological nursing. This is a key qualification that was carefully planned based on the substantial research that nurses with graduate education in gerontological nursing are effective in improving quality of care in nursing homes (Bourbonniere, 2009, Rantz et al., 2001, 2003b, 2009; Ryden et al., 2000). It is important to point out that a relatively small amount of time each month (2 hours) on-site was necessary to help homes improve. Wide-spread adoption of this intervention is feasible and could be enabled by nursing home Medical Directors in collaborative practice with Advanced Practice Nurses. Time each month could be built into facility contracts for services so that the expert gerontological nurses currently working with Medical Directors could routinely meet with staff to improve care delivery processes, delivering the intervention we did in this study (Rantz et al., 2012). In other situations, monthly independent nurse consultant visits could be a way to deliver the intervention.

Results of this qualitative analysis can help allocate expert nurse time to facilities who are actually ready to improve. Characteristics of the Group A facilities could be used as “readiness” indicators. Using readiness indicators in nursing homes “needing improvement” would target assistance programs to homes most likely to change with 2 hour monthly site visits, as used in this intervention. For those facilities not ready, other approaches will need to be developed and tested.

Readiness indicators, based on our findings, would likely include 1) a willing leadership team (NHA, DON) interested in learning how to use their federal QI/QM reports as a foundation for improving resident care and outcomes. 2) One or more of the leaders who are willing to be a “change champion” and others make sure that current QI/QM reports are consistently printed (using the recommended 6 month default date) and shared with each nursing unit monthly. 3) Leaders willing to involve all staff in the facility in educational activities to learn about the QI/QM process and the reports that show how their facility compares with others in the state and nation. 4) Plan and continuously educate new staff about the MDS and federal QI/QM reports and how to do quality improvement activities. 5) Continuously involve all staff in quality improvement committee and team activities so they “own” the process and are responsible for change.

As we face a growing elderly population, the demand for good nursing home care will only increase. There are facilities in “need of improvement” and the intervention used in this study was effective in helping some of them improve. With the readiness indicators that the study revealed, a path to targeting expert nurses to help those facilities “ready” to improve is clear. The time to adopt approaches like this is now.

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Table 1

Leadership Turnover during 2 Year Intervention and Annualized Percent Turnover

Groups	# DON	Ave # DON (range)	# NHA	Ave NHA	# Leaders	Ave Leaders DON+NHA	Annual % TO DON	Annual % TO NHA	Annual % TO Leaders
A (n=6)	10	1.7 (1–2)	8	1.3 (1–2)	18	3 (2–4)	83%	67%	150%
B (n=8)	25	3.1 (1–6)	15	1.9 (1–7)	40	5 (2–11)	156%	94%	250%
C (n=15)	36	2.4 (1–6)	27	1.8 (1–4)	63	4.2 (2–8)	120%	90%	210%
Total Intervention A+B+C (n=29)	71	2.4 (1–6)	50	1.7 (1–7)	121	4.2 (2–11)	122%	86%	209%

Table 2

Categories of progress of nursing homes in study (n=29)

Group A (n=6)	Made significant progress and continued progress likely
Group B (n=8)	Some progress but significant barriers to future progress
Group C (n=15)	No progress

Table 3

Facility Characteristics for Intervention Group

	Finished study	Bed range	Member of Chain	For profit	Not for profit	Gov	Metro″	Urban	Rural	Baseline acuity RUGs III
Subgroup A	6	63 – 180	2	3	2	1	1	4	1	0.95
Subgroup B	8	60 – 143	4	4	1	3	1	4	3	0.94
Subgroup C	15	52 – 237	9	12	2	1	12	2	1	0.99
Intervention total group	29	52 – 246	15	19	5	5	14	10	5	0.97