

Title:

Purposeful Rounding for Falls Prevention in the Nursing Home Setting

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### **Abstract**

Falls among nursing home residents is a frequent and recurring issue. Falls are major cause of injuries, hospitalizations, and death among nursing home population, as well as increased healthcare cost. The purpose of this quality improvement project was to evaluate the effectiveness of an evidenced based strategy, purposeful/hourly rounding, on the fall rate in nursing home setting. Purposeful rounding was implemented in a 40- bed capacity long term unit at a nursing home in urban setting. It was identified that strategies to minimize and prevent barriers such as staff adherence were necessary for successful implementation and sustainability. The results showed that the fall rate 3 months pre-implementation was equal to 7.66 and 6.66 post-implementation. The percentage change score was 13.05%. The intervention needs to be evaluated over a longer period of time to see if fall rates continue to decline.

### **Introduction**

Falls among nursing home residents are a frequent and recurring issue. Falls are major cause of injuries, hospitalizations, and death among nursing home population. Fall-related injuries remain a serious concern for nursing home residents, families and staff.

According to the Centers for Disease Control and Prevention (CDC), 1800 nursing home residents die yearly from falls, and those who survive often sustain severe injuries such as hip fractures, head injuries that result in long term disabilities and reduced quality of life (CDC,2012). In addition, treating fall injuries is very costly to the health care system. Costs for falls to Medicare alone totaled over \$31 billion in 2015 (CDC, 2016). As the U.S. population

increases, the number of falls as well as the cost of treatment for fall-related injuries may increase.

Currently over 1.5 million people 65 years of age and older live in nursing homes and the number is expected to grow to about 3 million by 2030 (CDC, 2012). It is estimated that 5% of adults older than 65 live in nursing homes, and they account for 20% of deaths from falls (CDC, 2012). A typical nursing home with one hundred beds reports 100-200 falls yearly, yet not all falls are reported. Nursing home residents who are unable to walk, account for 35% of fall injuries (CDC.gov). About 60% of falls are the result of multiple factors. Therefore, multifactorial risk assessment and intervention strategies are necessary to decrease the rate of falls (CDC.gov).

Older adults living in nursing home are generally frailer, have more chronic conditions and physical impairments than those living in the community. They tend to have cognitive deficits and are completely or partially dependent with activities of daily living. Furthermore, muscle weakness, walking and gait problems account for 24% of falls in nursing home residents. Environmental hazards from sedatives and psychotropic medications as well as poor foot care, improper fitting shoes and walking aides are other causes for possible falls (CDC.gov). Therefore, evidenced based strategies to effectively reduce the rate of falls and promote patient safety need to be implemented.

Purposeful rounding is a proactive, systematic, nurse-driven, evidence-based intervention used in various healthcare settings to anticipate and address patient needs. Purposeful rounding requires nursing staff to check on patients at regular intervals and to address the “5 P’s.” (Studer Group, 2017). Many studies done on purposeful rounding demonstrate its effectiveness on fall

reductions (Fisher et al. 2014; Daniels, J. F. 2016; Mitchell; Robin A. 2017). The 5 Ps consist of purposeful questions to ask patients that meet the following five fundamental needs:

1. pain-address the pain scale
2. potty-ask patient if they need to go to the bathroom
3. position- ask patient if they are comfortable, or perform turning
4. personal needs -make sure bedside table and all belongings are within reach and ensure the call light is with the patient,
5. presence/prevention-let the patient know that you are available, have time if they need something or want to talk and what time you will be back.

### **Material and methods**

The goal of this project was to evaluate the effectiveness of an evidence-based strategy, purposeful rounding, in order to reduce the rate of falls in the nursing home setting. The Plan-Do-Study- Act (PDSA) model was used to guide this quality improvement (QI) project. To implement this, certified nurse assistant (CNA) were educated to conduct hourly round to address and document on the components of purposeful rounding - 5 Ps: pain, positioning, personal items, potty, and prevention.

The project was conducted at a 200-bed skilled nursing facility located in a urban area. in a New York City borough of Queens. Demographics of this community that serves the skilled nursing facility consist of Black 50.1%, White 31%, Hispanic 11.2%, Asian 2% and others 14.3%.

The staff consist of a medical director, two admission personnel, an administrator, an assistant administrator, social workers, psychologists, primary care physicians, specialty doctors, a nurse practitioner, a psychiatrist, dieticians, Minimal Data Set nurse (MDS), a director

of nursing (DON), an assistant director of nursing (ADN), an education nurse, registered nurses (RN), licensed practical nurses (LPN), certified nursing assistants (CNA), rehabilitation and recreational therapists, front desk security guard, clerical staffs, cooks, maintenance and housekeeping employees. The facility consists of 5 units. Each unit has a capacity of 40 beds. The staffing per unit during day shift consists of 4 CNA's, 1 LPN and a RN as unit supervisor. Evening staffing per unit consists of 3 CNA, 1 LPN; 2 RN as supervisor for the building. Night shift staffing is similar to evening with 1 RN as supervisor for the building.

The residents age group range from 30 to 99 years old. The resident's population ethnicity is primarily Black. Most of the residents are over 65 years of age with a mean of 53 and older. A large portion of the population have psychiatric diagnosis which increase the risk of fall due to behavioral disturbances such as wandering, agitation and elopement. About 25 to 50% of the residents are ambulatory on their unit and some 25% around the facility. At least 60% of the residents have one of three psychiatric comorbidities including bipolar disorder, major depression disorder, or schizophrenia. The facility has a rehabilitation gym staffed with speech pathologist, physical therapist, occupational therapist and assistants. Based on a resident's functional level, the rehab therapist provides adapted exercise programs on the unit or at the gym.

### **Implementation Plan and Procedures**

The PDSA framework guided the project. Prior to implementation, permission to institute Purposeful Rounding was requested from the facility administrator. In planning phase, key project members identified a need for QI intervention for fall reduction and potential barriers to implementation. The project approval was obtained from the administration prior to

implementation. Also, in this phase a questionnaire to assess nursing staff knowledge about purposeful rounding prior to the educational intervention was developed. Staff members consisting of RNs, LPNs, and CNAs were invited to a brief session at the nursing station to answer the questionnaire. The sessions were held at three different time, so staff members on different shifts could participate. Baseline data on the fall rate for the last 3 months prior to beginning of the project was collected from Quality Assurance (QA) reports.

In the Do phase, a mandatory educational in-service for the nursing staff to explain how to use and document on the 5P's hourly rounding log was held. CNAs then conducted hourly rounds and documented on the 5P's log for a period of 3 months. The completed logs were returned to designated folders on the nursing unit daily. Completed log were collected weekly by the nurse practitioner (project director). Data on fall rates were extracted weekly from reports generated by the QA team for a period of 3 months. A ten to twenty minutes debriefing session after first week of implementation was held in order to receive staff feedback and answer any questions. Throughout the project, spot checks during rounds were made to observe how the CNA were addressing the 5 P's, to reinforce the implementation and goal of the QI project. Also, department heads reminded staff during morning meeting to help reinforce implementation and proper documentation of the 5 P's.

In the study phase, the data collected was analyzed using SPSS software, and percentage fall rate pre & post implementation calculated. In the Act phase, results on fall rate and survey to assessed staff knowledge were reviewed. Second survey to identify limitations to the project was done. Furthermore, during the Act phase, it was concluded that data collected was small, and late leadership buy in affected the robusticity of the results.

**Measurement Instrument(s)**

To measure the outcomes of this QI project the following instruments were used:

1. A short questionnaire pre-intervention developed to assess CNA knowledge of the 5 P's of purposeful rounding.
2. A hourly rounding log sheet was created displaying the 5 P's was used to document the rounds.
3. Data about the number of falls pre-implementation was extracted from QA reports.
4. Data on number of falls during implementation was extracted from 5P's logs and weekly QA reports.

**Data Collection Procedures**

Specific RN or LPN staff from each shift were chosen to serve as project facilitators and champions, to ensure that the 5 P's logs were completed appropriately and returned to designated binders. PD collected completed 5P's log from designated unit weekly. Data was entered to an Excel spreadsheet weekly.

**Data Management and Analysis Plan**

All data collected during the implementation period was input into Excel spreadsheets, then transferred into SPSS for data analysis. Descriptive statistics were used to calculate percentage of log compliance and the rate of falls; percentage difference was used to calculate change in fall rate before and after implementation of purposeful rounding.

**Ethical Considerations & Institutional Approval**

Approval to implement the QI project was obtained from the nursing home facility administrator. De-identifiable data were collected and maintained confidential. The 5 P's logs were kept in binders on the unit. Unit supervisor or charge nurse from each shift were selected to

serve as project facilitators and champions, to ensure that binders were kept secured. All electronic files containing identifiable information were encrypted with passwords to prevent unauthorized access.

### **Timeline**

Proposal approval for this QI project began April 2018 and continued through data collection, analysis and interpretation of results to February 2019. The implementation of the project started in November 2018 after obtaining approval.

### **Known Facilitators and Barriers**

Falls are a current problem at the project facility and frequent rounds to reduce fall rate is an initiative that was being implemented at the facility to address this. The facility total number of falls from October 2018 to December 2018 was 103 with 91 falls from bed. “Let’s round for a Purpose” was the original plan and each nursing unit lounge had a large poster with this heading displayed. The incentive for attention to this original version of the initiative was that unit with no falls for the month got a free lunch. This initiative was an indication that the facility was actively trying to engage the staff to reduce their fall rate thus facilitate the more formalized approach introduced by this QI project. The nursing home administration and staff were already vested in making falls reduction a priority, therefore would be receptive to the idea of a QI project holding a shared and current goal. It was a winning situation to be able to conduct and complete the project at the facility and collaborate with familiar people.

Administration and nursing staff were referred to the initial project for evidence on how the model had positively helped other healthcare institutions improved their quality of care and reduced falls rate. Furthermore, examples of fall-related injuries, physical decline and mortality that resulted from falling were used to encourage staff collaboration. a reduction in fall rates would also reduce costs allocated to treat falls related injuries. Additionally, staff would save time and be more engaged with the residents during rounding, ultimately. improving patient satisfaction.

Some of the barriers to the project were staff reluctance in using the initial 5 P's tool to document during their rounds. Another barrier was incorrect or inconsistent documentation, and insufficient support by the administrative staff resulting inadequate staffing. There was potential incorrect or incomplete collection of data since the CNA's completing the rounding documentation on hard paper may make mistake while filling out the logs. These barriers were addressed by the project facilitator and leadership. As falls were one of the quality performance metrics measured in the nursing facility, administration and leadership showed interest in this QI.

The nursing care delivery model being a mixed model with 1 RN as supervisor, 1 LPN and CNA's may inhibit staff ability to make rounds as a team. The RN has limited time to make frequent rounds due to mandatory meetings, completing paper and computer work. The LPN is left on the unit to administer treatments, medications and is usually the first contact for the CNA. RN and LPN schedule live the CNA as the main and perhaps the ones performing the round the majority of time. The 5 P's may not be addressed consistently if CNA's are not reporting needs to other staff in a timely manner. For example, CNAs may ask about pain but will not be able to administer pain medication. Consequently, there may be lapse in time reporting of residents'

needs to the LPN or RN as CNA is rounding entire 40 beds unit before submitting the completed report. CNA may have to finish her round on the entire unit of 40 beds, before handing report to LPN or RN and alert of any issues needing immediate attention that would be out of the CNA scope of practice. These concerns were raised during morning report and discussed with administration team. Implementation of Purposeful Rounding may be more effective by including RN's & LPN in making rounds as well.

In addition, the unit was frequently faced with new and temporary staff who may not be well versed in the program and may not carry it out properly. Adopting an hourly round instead of 30 minutes, allowed the staff member time to attend to the resident needs. Furthermore, every shift has different routine and staff dynamic varies with shifts. For example, morning shift must see that residents are ready to get out of bed, set up for 2 meals, and ready to attend diverse activities, such as rehabilitation therapy, whereas night shift is less active. During night shift most residents are in their room, in bed, maybe sleeping. The evening and night shift usual lesser duties may change staff perception on the necessity to diligently continue purposeful rounding during their respective shift. Residents have needs and are at risk of falls around the clock. Therefore, educating staff on importance of Rounding during all shifts is essential to help reduce falls. In fact, residents' risk of fall is greater when they are in their room without direct supervision.

**Results**

Survey #1		
Questions to assess staff knowledge on purposeful rounding	% of Correct answer Pre-test	% of Correct answer Post -test
1.What is purposeful rounding?	N=1(90%)	N=4(90%)
2.True or False; while making round you just check to see that the resident is in bed?	N= 3(80%)	N=4(90%)
3.How often do you make round?	N=0 (0%)	N=5(100%)
4.Asking resident,” are you Ok?” Is a component of	N= 0(0%)	N=0(0%)

purposeful rounding?		
5.What are the 5 components of purposeful rounding?	N=1(10%)	N=5(100%)

Survey #2

Do you think Purposeful Rounding will help to prevent fall?	90% Yes 10% No
How many times I should do Purposeful Rounding on my shift? From scale of 0-10	0-3 0% 4 -10% 5-10% 6-10% 7-0% 8-70%
How valuable do you think Purposeful Rounding is in preventing falls on my unit? From scale of 0-10	100%
I understand how to do Purposeful Rounding (circle one)	100%

<p>How time consuming is it to do Purposeful Rounding on my shift? (circle one) From scale of 0-10</p>	<p>Not very time consuming-0(0%) Very time consuming- 10(100%)</p>
<p>What is major barrier(s) to conduct Purposeful rounding?</p>	<p>Staffing (90%) Resident location (20%)</p>
<p>Do you have any comments about Purposeful Rounding?</p>	<p>Good tool to help reduce fall (90%) Provide ongoing cues and reminders for staff (30%)</p>

**Discussion**

Although no significant change in the fall rate happened on the first 3 months post-implementation, there was an overall improvement in staff knowledge on fall-reduction intervention. The project was discussed with administration and nursing leadership months before it began. Reminder about the educational in service was given on a daily basis during morning meeting and while making unit round several weeks prior to launching. An educational in- service on hourly rounding was held prior to launching the project in November 2018. During the in service, a survey to assess staff knowledge on purposeful rounding was administered. In addition, refreshment was served to all staff who attended. 100% staff on the unit attended. Data on fall rate was collected for 3 months prior to educational intervention (September, October,

November 2018). Data collection using the 5 P's log began in December 2018 where 1 data tool per CNA (n=4) was given at the beginning of the shift. CNA 's expected to round every hour on their assigned resident every day. The amount of completed logs for December 31 days on the 40 beds unit was to total 1240 logs. However, 4 completed logs were collected. A booster session for staff and project champions was offered at the end of December. Still, in January fewer logs were completed. Meeting was held to discuss the issue with new administration, nursing leadership & project champions. A second survey to assess barriers to completion of the 5 P's log was done at end of January. On that survey, staff changes, work load, reassignment were the main barriers identified. Furthermore, there was no actual institutional buy in, due to change in administration. Institutional buy in came in February; new data collection tool was used; charge nurse on the unit was required to sign the tool every day at the end of their shift. Moreover, leadership decided to implement purposeful rounding on all units. The tool was completed 100% of the time. There has been no specific feedback from leadership about the project itself aside from they are implementing purposeful rounding in the building independent from the project. Staff felt the project pushed leadership to be involved.

## **Conclusions**

The implementation of the 5P's of purposeful rounding is a nurse-driven intervention to improve standard of care in regard to fall prevention. In addition, it has the potential to improve patient satisfaction, staff satisfaction, national quality measure, cost/ reimbursement, and overall performance rating and the facility ranking. In fact, the literature acknowledges purposeful rounding as an effective strategy to reduce the percentage of fall in various healthcare settings. Fall rate went down by 50 % with purposeful rounding (Morgan, L. 2016; Daniels, J. F. 2016).

Fisher et al. (2014) reported 5.42/1000 patient days (SD 1.38) compared to post implementation mean fall rate 3.94/1000 patient days (SD 1.22). However, the literature also led to the conclusion that success of purposeful rounding was directly related to the compliance and engagement of staff conducting the rounds (Morgan, L. 2016). Therefore, education about the benefits for patients and staff and the willingness of staff to incorporate purposeful rounding in their daily practice is imperative (Flowers, et al. 2016). Moreover, educating the staff on hourly rounding as an additional tool to advance nursing quality had a positive impact. Staff members whom follows the protocol should be acknowledge and recognize during special events such as employee of the month. Giving badges displaying "I am a Fall Champion" would be another way to give staff recognition for a job well done. Giving shared responsibilities and governance may have positive impact to keep staff motivated and involved. Overall, evidence supports a significant improvement in the falls rate resulting from purposeful rounding. However, staff education and accountability were key to obtain this desired outcome.

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