

University of New Hampshire

University of New Hampshire Scholars' Repository

Master's Theses and Capstones

Student Scholarship

Fall 2023

Using Education to Improve Nurse Perceptions on Rounding to Increase Patient Safety and Efficiency of Care on a Behavioral Health Unit: A Quality Improvement Project

Shannon Alty
shannon.alty@unh.edu

Follow this and additional works at: <https://scholars.unh.edu/thesis>



Part of the [Other Nursing Commons](#)

Recommended Citation

Alty, Shannon, "Using Education to Improve Nurse Perceptions on Rounding to Increase Patient Safety and Efficiency of Care on a Behavioral Health Unit: A Quality Improvement Project" (2023). *Master's Theses and Capstones*. 1673.

<https://scholars.unh.edu/thesis/1673>

This Thesis is brought to you for free and open access by the Student Scholarship at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in Master's Theses and Capstones by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact Scholarly.Communication@unh.edu.

**Using Education to Improve Nurse Perceptions on Rounding to Increase Patient Safety and
Efficiency of Care on a Behavioral Health Unit: A Quality Improvement Project**

Shannon Alty

UNH Nursing

Master's Capstone

Table of Contents

<u>Abstract.....</u>	<u>3</u>
<u>Introduction.....</u>	<u>4</u>
Problem Description.....	4
Available Knowledge.....	5
Rationale.....	13
Global Aim.....	14
Specific Aim.....	14
<u>Methods.....</u>	<u>14</u>
Context.....	14
Cost-Benefit Analysis.....	15
Intervention.....	16
Study of the Intervention.....	18
Measures.....	18
Analysis.....	19
Ethical Considerations.....	20
<u>Results.....</u>	<u>20</u>
Contextual Elements and Observed Associations.....	27
Unintended Consequences.....	28
Missing Data.....	28
<u>Discussion.....</u>	<u>28</u>
Summary.....	28
Interpretation.....	30
Limitations.....	31
<u>Conclusion.....</u>	<u>32</u>
<u>References.....</u>	<u>34</u>

Abstract

Background: Hourly rounding completed by nursing staff are routinely completed on most inpatient hospital units. Evidence suggests that hourly rounding can improve patient outcomes, patient satisfaction rates, communication, minimize patient requests and improve the nurse patient relationship (Halm, 2009). Additional evidence suggests that inpatient psychiatric patients often feel disconnected from their nurse and hourly rounding is recommended to build the nurse-patient relationship (DaSilva, 2017). However, for successful implementation, nurse perceptions of rounding must be obtained.

Local Problem: Hourly rounding is a standard of practice, however, was not being consistently completed. Assessing the nurse perceptions regarding rounding, was imperative understand why and what barriers were.

Methods: Employing the Plan, Do, Study, Act framework, over the course of four weeks, nurses on an inpatient behavioral health unit were surveyed, utilizing the NPPRS tool, regarding their perceptions of hourly rounding.

Interventions: An educational presentation, utilizing the ICARE model, was presented to nurses and disbursed to others who did not attend the presentation. Following, the nurses were surveyed two weeks later to assess for any changes in nurse perceptions.

Results: The results of the project indicated a 10 percent increase in nurse perceptions regarding rounding, following the educational material distributed to all nurses.

Conclusion: The NPPRS is an effective tool at understanding nurse perceptions on hourly rounding. Education utilizing the ICARE model was efficient at improving nurse perceptions on rounding. Further education as well as a pilot program implementing hourly rounds should be implemented to understand usability and outcomes on the inpatient behavioral health unit.

Keywords: Behavioral health, psychiatric nursing, hourly rounding, rounding, intentional rounding, nurse perceptions, quality improvement

Introduction

Problem Description

All point of care nursing strives to provide patient-centered care and continuously improve patient outcomes. On acute care units in the hospital, nurse rounding on patients, including safety rounds are regularly fulfilled. This is done by nursing assistants as well as nurses, however, this does not seem to be as common on inpatient psychiatric units. There are 15-minute safety checks completed by mental health technicians (MHTs) on the unit but are only completed to visualize the person and ensure they are not a danger to themselves or others. Mental health technicians are not checking in on the patient's psychological status, assessing them for any changes or working to build/strengthen their relationship with patients. To accurately assess the patient, rounding, by the registered nurse (RN), at set intervals, i.e., every two hours, becomes important. Current research states, patients in inpatient psychiatric facilities feel disconnected from nurses and other staff. Patients feel that they must seek out their nurse and any other needs (e.g. towels, toiletries, journal) rather than their nurse seeking them out and asking if there is anything they need (DaSilva, 2017). By implementing nurse rounding, the patient feels a greater connection to their RN, the RN can assess the patient more often for any changes and, in turn, better patient outcomes are seen.

Nurse rounding has been identified, by management, as an important duty for all RNs on the Behavioral Health Unit (BHU). Speaking with the nurses on the BHU, they do not see the value in rounding. They do not believe there will be additional information acquired from the patient and feel that they do not need to see their patients as often, as the MHTs are completing 15-minute safety checks. However, the nurses do see the opportunity to develop stronger relationships with patients, meet their needs timelier or to improve the quality of care they are

providing. It was important to begin surveying all staff nurses on the unit on their perceptions of nurse rounding to determine what the barriers to implementation were. This was completed via a Qualtrics survey disbursed electronically, via email and QR code, to staff nurses. There were paper versions of the survey available on the unit to increase the response rate.

The BHU has a whiteboard with all patients first name and nurse's name written next to it for each shift. Typically, the patient comes up to the nurse's stations looking for their nurse when they need medication or have any questions. This leaves much of the nurse – patient relationship in the hands of the patient. The assessments completed, asking pertinent questions regarding suicidal ideations (SI), homicidal ideations (HI) and auditory and visual hallucinations (AVH) are asked at morning medication pass and then only again during physician rounding. By implementing rounds, the RN may be able to assess for any changes in the patient's psychiatric status and build a therapeutic relationship with the patient. Rounding on patients at set intervals allows nurses to have current information regarding the patient's psychological status and any changes that may be pertinent to their care. In addition, this may carry over into a higher accuracy of patient assessment data in the electronic health record (EHR) system.

Available Knowledge

Hourly rounds or rounding is the “intentional checking on patients at regular intervals” and has become standard practice (Halm, 2009). The intentional checking on patients, known as rounding, may improve the care of patients, satisfaction and assist nurses in better providing care and minimize interruptions from patient requests. Rounding on patients is typically completed every hour, every other hour by the nurse and on the off hours, by “support staff” such as licensed nursing assistants (LNA). This allows the nurse to observe the patient regularly for changes in their condition, address needs for the patient and work to proactively attend to needs

of the patient instead of responding to patient requests (Halm, 2009). This may give back more uninterrupted time to nurses, improve patient satisfaction and care of patients. However, the nursing staff may be resistant to complete the rounds without the knowledge of the importance of rounds. A literature review was conducted to understand nurses' perceptions on rounding, barriers to, importance of rounding and outcomes related to rounding. This quality improvement project was on an inpatient psychiatric unit, but due to limited research in this population, research did not include only those completed on psychiatric units. However, existing research may be translated to this population.

Cumulative Index to Nursing and Allied Health Literature (CINAHL), MEDLINE and APA PsychInfo were used to find sources for this literature review. There were 225 articles screened, after removing seven duplicates before reviewing the studies. Of the 225 studied, 204 were excluded, seven were sought for retrieval, through the inter-library loan process, and three that were sought were never received. That left 21 studies to be assessed for eligibility. Of the assessed studies, 14 were excluded as they did not directly relate to the research.

Boolean phrases were utilized to narrow the search down. Boolean phrases used were hourly rounding OR nurse rounds OR intentional rounds OR comfort rounds. The second Boolean phrase used was: perceptions OR attitudes. Boolean phrases "inpatient psychiatric", "behavioral health", "mental health" and were utilized to disseminate studies in the behavioral health setting, but no results were produced – so these phrases were not included in the final review. The research must have been published between 2013 and 2023 and have been peer reviewed. There was minimal inclusion and exclusion criteria as there were minimal research studies that fit the research topic, but for exclusion criteria, nursing rounds must have been the focus. Of the records screened, four were included in the literature review. There was one

exception to this search criteria for studies that were found before conducting the data search. A total of five research studies were included in this literature review. Although none of the studies in the behavioral health setting were available, studies utilizing the inpatient hospital setting were utilized and translated to the behavioral health setting.

The sources used in this literature review had variations in methodology and sample sizes used for the resource. *Intentional rounding in acute adult healthcare settings: A systematic mixed-method review* by Christiansen et al., 2018, was reviewed. This is an immediate strength, as it incorporates many studies to draw conclusions on the topic of rounding. This systematic review and consisted of 21 studies, 13 quantitative studies, four mixed-method studies and four qualitative research designs. This included studies from multiple countries and various acute inpatient settings, with data collected for up to 24 months (Christiansen et al., 2018). The synthesis of research was done via a “textual narrative synthesis” as the studies were not similar enough for a meta-analysis (Christiansen et al., 2018). This detracts from the validity of the research as it does not utilize statistical data as a meta-analysis would. This literature review included studies that looked at nurse satisfaction, attitudes and compliance. It was found that nurses felt rounding improved safety of patients, assisted in decreasing call bell usage and improved the nurse-patient relationship. This study noted that nurses did not see the benefits of rounding to patient care and felt that the addition of rounding was burdensome (Christiansen et al., 2018). Overall, this systematic review had mixed outcomes as there were many study designs included and the relationship between rounding in the United States and other countries may not be perceived or implemented the same way and findings in the review had mixed outcomes. More research would need to be completed to verify the use of intentional rounding; however, it was found that a protocol to evaluate rounding would be necessary. This systematic review

culminated barriers to rounding and highlighted the need for staff engagement to ensure successful implementation (Christiansen et al., 2018).

Perspectives and perceptions of the nursing staff regarding rounds by (Fabry, 2015) utilized a cross-sectional survey given to staff working on inpatient units given to both RNs as well as nursing assistants. The overall response rate of 38% for RNs and 36% for nursing assistants. Fabry (2015), utilized Roger's Diffusion of Innovation Theory to develop the survey, and the validity of the survey was determined by experts in the field of research and does not state whether psychometric testing was completed. Fabry (2015), looked at inpatient hospital units that already implemented hourly rounding. The study results indicated that nurses needed to be included in the process of change, as taking ownership of the rounding made for more successful completion of the rounds, improved support during the implementation would be necessary for a smooth implementation, and nurses did not see the benefit of completing the rounding (Fabry, 2015).

A systematic review investigating the barriers to a successful implementation and continuation of hourly rounds was examined next. This review included 20 studies, mix-method, qualitative descriptive, single descriptive, quantitative, quasi-experimental (containing to randomized control trials), another literature review and expert opinions (Toole, Meluskey and Hall, 2016). There were many low-quality studies reviewed in this literature review, however, many studies focused on this topic are qualitative. After culminating all the data, there were six themes noted: workload, complex rounding logs, lack of staff buy-in, how to sustain the change, challenges in patient population, lack of education for staff. Staff were generally found to understand the importance of rounding but did not know how to incorporate it effectively into practice (Toole, Meluskey and Hall, 2016).

Nurse perceptions of patient rounding is important to gather to gain insight into the barriers to implementation and follow through, as well as opportunities to implement rounding successfully. The study, by Neville et al. (2012), utilized a pilot study to understand the perceptions of nurses in the hospital setting around patient rounding. A convenience sample was used, comprising of nurses on five in-patient medical-surgical units, with all nurses – full-time, part-time and per diem included in the sample. Overall, there was a 33% response rate by nurses. The study was anonymous to reduce response bias. The validity of the survey was reviewed by staff nurses, focus groups, and advanced practice RNs established the content validity. The reliability coefficient for the Nurse Perception of Patient Rounding Scale (NPRSS) was 0.92. This is an above average reliability coefficient, translating to high validity of the scale. (Neville et al., 2012). Following the initial study, further research has been conducted to establish the validity of this scale (Neville, 2018). The study found that nurses believed that the idea of rounding was important, however wanted more autonomy to decide how often each patient needed to be rounded on and the formal rounding procedure minimized autonomy of the job (Neville et al., 2012). In addition, the nurses wanted the nursing assistants to be rounding as well, so the nurse can focus on nursing tasks and the nursing assistants can be assisting patients with all other needs. Lastly, some suggests coming from the surveys were formal education and flexibility in managing patient assignments.

Hourly Rounding to Improve Nursing Responsiveness: A Systematic Review, by Mitchell et al., (2015), was a systematic review. Mitchell et al (2015), aimed to synthesize evidence related to the effect of hourly rounding specifically related to patient satisfaction and care by the nurses. The authors utilized the priori protocol to determine which studies for review and the GRADE system as a ranking for the quality of the data – this was a major strength. Of

the 16 studies included systematic review, all were rated as “low”, as the studies were pre-post studies, with the final rankings of the evidence being “low” to “moderate” (Mitchell et al., 2015). Besides the low graded evidence, some weaknesses of this systematic review were the low-quality research designs of the studies included in the review and inconsistencies in size and reporting levels of the data and the difference in personnel carrying out the rounds (nursing assistants versus RNs) (Mitchell et al., 2015).

In all research, there are limitations that may include study design, time of the study, number of participants and reporting biases. All studies in this literature review noted reporting bias. All the studies included surveys to participants, of which data was gathered. In the research by Fabry (2015), it was noted that when using a Likert scale survey, as used in this study and the study conducted by Neville et al. (2012), participants may have avoided choosing the most extreme responses – resulting in central tendency bias. In the studies by Mitchell et al. (2015) and Christiansen et al. (2018), publication bias was reported as the authors of studies may have omitted results not contributing to their intervention or emphasized only the results that proved their thesis. Another limitation reported by both Fabry (2015) and Neville et al. (2012), was the low response rate of the surveys, as well as limited sample size.

The systematic reviews by Mitchell et al. (2015), and Toole, Meluskey and Hall (2016), a limitation was the overall quality of the data. The studies included in both literature reviews included varied sample sizes, varying patient population and low-quality study designs. This is not an exhaustive list of the limitations of the studies but includes the main limitations as reported by the authors.

Rounding, hourly rounds, intentional rounds, are all terms that may be heard when referring to specific times to see each patient and address their needs and assess for comfort and

safety. This is something implemented in many hospitals across the country, however, it is unclear on the benefits of rounding on patient outcomes and the successful continuation of said rounds. Fabry (2015), and Neville et al. (2012), both looked at perceptions of rounding and what the perspectives of front-line staff was regarding rounding. In the research by Fabry (2015), nurses believed that rounding was already being completed informally. The added documentation was not already completed as it was deemed unnecessary and did not add value to the process. Similarly, Neville et al. (2012), found the nursing staff saw value in rounding, for the patients, but did not believe it was beneficial to their job. It was also reported, the nursing staff did not see value in the documentation – as it was time consuming to keep up with. Overall, rounding was perceived as important and valued, but took away some of the participants autonomy as a nurse.

All the research studies noted there needs to be more research completed to determine the full scope of rounding and the impact rounding has on patient outcomes as well as nurse benefits. Mitchell et al. (2015) noted that a process for completing rounds is necessary to determining the effectiveness of rounding. The research by Toole, Meluskey and Hall (2016), did not draw strong conclusions and more research on long-term outcomes when rounding, but the short-term studies of rounding have shown positive effects on nursing and patient outcomes. Christiansen et al (2018), noted mixed results as improved patient outcomes, was concurrently noted with low quality studies. Similarly, to research by Mitchell et al. (2015), the authors of this study reported a need for standardized reporting tool so that conclusions can be drawn more effectively in future research (Christiansen et al., 2018). Lastly, staff and leadership engagement and education are necessary for successful implementation and sustainment of rounding (Christiansen et al., 2018).

It is imperative to think about how to translate research to clinical practice. Translating research on rounding to clinical practice, first understanding the unit staffs' perceptions and identifying barriers is essential (Toole, Meluskey and Hall, 2016). Staff (end-users) should be engaged in the planning process and have continuing education related to nurse benefits and improved outcomes (Neville et al., 2012). As a leader, flexibility with the staff is imperative to successful implementation of a change. One way flexibility may be shown is offering various education sessions, during all shifts, to meet the various schedules of staff. The purpose of rounding should be focused on – not the frequency – as individualized patient care is necessary (Fabry, 2015). As a leader, it is important to garner staff buy-in, engage them in the planning process, reinforce the importance through education that fits the staff schedule, and create a flexible rounding model that fits the needs of the unit (Mitchell et al. 2015, Neville et al. 2012, Christiansen et al. 2018).

Adjustments must be made when translating the research to a behavioral health setting. The evidence does support the use of hourly rounds in inpatient acute care settings, which applies to the unit this quality improvement project was conducted on. However, there was no available research related to nurse perceptions, barriers to or effectiveness of rounding on an inpatient behavioral health unit. All information needs to be applied to this setting, while omitting some results as it does not apply to this unit. Translating the research from inpatient medical-surgical units to an inpatient behavioral health unit may be difficult as the patient needs may vary. However, an example of this translation would be that call lights can be connected to direct patient requests at the nursing station on the BHU. The purpose of this quality improvement project was to address the nursing staff perceptions regarding rounding, as it is a process not consistently being completed. The staff perceptions and barriers to rounding must be

addressed to develop and implement rounding on the BHU, which is comparable to nursing staff on other inpatient units – as was looked at in this literature review.

Some fundamental aspects of the BHU are that patients must be medically cleared to be admitted to the unit, ambulatory and (for the most part) able to complete activities of daily living independently. However, there are still patients that may be fall risks due to preexisting health conditions, or patients that must be monitored more closely when taking certain medications such as mood stabilizers, benzodiazepines, narcotics or atypical antipsychotics. The idea of rounding to intermittently assess patients, including reduce their risk for falls is applicable. Rounding on patients in this setting would not always entail meeting the patient in their rooms, but instead out in the milieu and may not always mean speaking to the patient – sometimes just observing them. The “hourly” rounding would be completed by the RN every two hours, in addition to the 15-minute safety checks the MHTs complete. Although this is a different setting than that in the literature review, but was still applicable and the hesitations and beliefs of nurses on the BHU may be the same as those of nurses in the studies.

Rounding has been implemented on many inpatient hospital units but sustaining the completion of rounding has been difficult. The evidence suggests that rounding by nursing staff does improve patient outcomes, decrease risk of falls and decrease call light use to name a few. However, there needs to be additional research done to confirm. Without a standardized rounding tool, it may be difficult to measure the effect rounding has on patient outcomes.

Rationale

According to the Institute for Healthcare Improvement (IHI), the Plan-Do-Study-Act (PDSA) is a way to test change and has been used countless times in health care organizations (Institute for Healthcare Improvement, 2023). The PDSA framework was used in this project. In

the planning stage, the population and problem were defined with specific aims, a review of the literature and a description of the plan methods including the intervention, study of the intervention and analysis techniques used. This proposal was submitted to the University of New Hampshire Department of Nursing Quality Review Committee. In the *Do* stage a change idea was tested and analysis of data commences (Institute for Healthcare Improvement, 2023). In the *Study* phase, the data was analyzed, summarized and reflected upon (Institute for Healthcare Improvement, 2023). The complete the cycle, the *Act* phase was utilized to determine if the change should be implemented or if modifications need to be made and returns to the *Plan* stage to complete another cycle (Institute for Healthcare Improvement, 2023).

Global Aim

The global aim of this quality improvement project was to educate staff nurses to improve perceptions of rounding on the Behavioral Health Unit (BHU).

Specific Aim

The specific aim of this quality improvement project was to improve staff nurse perceptions and understanding of rounding by 15% by educating staff nurses on the BHU by July 14, 2023. Following the pre-test, post-test and education, the results were analyzed.

Methods

Context

An assessment of the behavioral health unit (BHU) at Wildcat Hospital was conducted to determine the five Ps of the unit: purpose, patients, professionals, processes and patterns. After reviewing the processes on the unit, there was an expectation that each nurse should be visualizing each patient every two hours, but this is not done in practice. This gap was confirmed by speaking with the nurse manager and the expectation for practice of rounding was discussed.

As part of the assessment, it was noted that MHTs conduct safety rounds every 15 minutes, around the clock on the unit. On the check sheet, where the MHT signs off that they visualized each patient on the unit there is a section blocked off every two hours for the registered nurse (RN) to sign that they also saw on all assigned patients. These were not consistently being signed off on and the nurse manager noted that the RN's are not completing these rounds at all. The nurse manager directly stated that this was a problem and underscored the need for RNs to see their patients at least once every two hours to assess for changes in condition.

Optimal daily staffing ratios are four RNs and three MHTs per shift. However, the unit often works with three nurses instead of four. As the unit is often short-staffed, the RNs on the unit may be overwhelmed and with a generally high acuity of patients, the RNs may feel they have competing priorities. The RNs are aware of the sign-off on the check sheets but have stated they do not see the value in rounding as the MHTs are visualizing each patient every 15 minutes.

Cost-Benefit Analysis

When evaluating the cost-benefit for rounding on the unit, there are no financial implications, as rounding is completed during the shift and has no additional costs as there are no additional materials required. However, there are opportunity costs. Requiring RNs to round every two hours on the unit may take away some of their autonomy in making clinical decisions about the patient, specifically regarding how often they need to be checked on by the nurse. It is also important to address any costs for the RNs to attend the educational presentation. If the RNs were currently on shift, attending the staff meeting would require them to restructure their day to accommodate time spent in the meeting. However, attending the meeting would allow the RNs to gain an understanding of rounding and the importance of it. There was an opportunity for

there to be increased patient safety, additional time spent with patients, less interruptions due to patient requests and a stronger comradery amongst staff.

By rounding on patients every two hours in addition to 15-minute safety rounds, would allow additional safety checks. If patients harm themselves or others on the unit, there would be a potential for a lawsuit to be brought against the BHU. There have been multiple lawsuits brought against behavioral health units across the country, seeking at minimum of \$75,000 in damages (Adcock, 2017). By conducting nurse rounds on the BHU, there may be additional safety of patients and lessen the potential for a lawsuit to be brought against the BHU.

Intervention

Rounding is an important part of a nurse's job duties, that is imperative to keeping patients safe. This has been implemented in many inpatient settings but is not always done. To ensure rounding is successfully completed in the future, it is imperative to understand the perceptions of nurses. To assess the nurses' perception on rounding the Nurse's Perceptions of Patient Rounding scale (NPPRS), copyrighted by Kathleen Neville, was utilized to survey the nurses on the unit (Neville, 2010). The survey was disbursed to staff nurses via print and electronically via Qualtrics™. The staff were notified via email and in-person of the survey disbursement and the author of this quality improvement project was present on the unit during shift change to remind staff and collect completed surveys. The surveys were anonymous and ask no demographic information. All registered nurses on the unit, full-time, part-time and per diem were included. Surveys were available on the unit for completion for two weeks.

After assessing the nurses baseline perceptions of patient rounding, there was an educational session regarding the importance of rounding and the potential benefits of rounding for nurses and patients. The education was provided at a staff meeting, as a 10–15-minute

presentation. This presentation was provided in person but available for staff to attend online via Webex and was recorded and distributed for staff not in attendance. Based on the survey scores and nurse responses, the education was presented to staff to improve staff perceptions and promote positive effects of rounding.

The educational session included information on the ICARE model for rounding on an inpatient psychiatric unit (DaSilva, 2017). This model utilizes Roach's Theory of Caring as the basis of the rounding initiative. The model created by DaSilva (2017), was utilized as a basis for explaining the goal of rounding and provides steps by step instructions on how to properly complete hourly rounds. The ICARE model includes the following steps: introduce, caring attributes of Roach's theory, assessment, reassure and environment. The first step in this model is introduce, nursing staff should introduce themselves to their patients at the first interaction and on first rounds depending on patient condition. The next step is Roach's six Cs of caring (compassion, competence, confidence, conscience, commitment and comportment). When the nursing staff is completing rounds and engaging with patients, aspects of the six Cs of caring are utilized to answer questions and comfort patients. Assessment is the next step and should be done on all rounds. Assessing the patient presentation may be done, observing any changes in patient, or asking questions regarding suicidal ideations, homicidal ideations and hallucinations. Reassurance of patients on rounds may be used to calm anxiety and should be done on rounds when interacting with patients. The last piece of the ICARE model is the environment. The nurse should be observing the environment in which the patient is in and constantly be assessing the milieu for the highest level of patient safety (DaSilva, 2017).

The nurse manager was imperative to garnering staff support and interest in completing the surveys. The nurse manager also schedules staff meetings and implements new processes and

changes on the unit, so engagement from this manager was necessary to move forward. In addition, there are three clinical coordinators, who act as charge nurses, that were engaged to provide additional support and champion this project. Two clinical coordinators were day shift charge nurses and the other on nights. This allowed staff on both shifts to have information regarding the survey and education and inform staff and engage nurses to participate in this quality improvement project.

Study of Intervention

The intervention was assessed by completing a post-test following the educational session. This determined if the nurse's perceptions of rounding changed after the educational session. The pre-test was the NPPRS tool that was completed prior to the intervention and then the post-intervention survey was an abbreviated version of the same survey to determine if the nurses' perceptions changed and staff had an increased understanding of the importance and the benefits of rounding. To assess the impact of the educational session, the scores from the NPPRS before the teaching and following the teaching were compared. The same questions were provided to nurses to track the data without variances.

Measures

The perception of rounding is what was being evaluated. While there are many terms used to describe rounding such as intentional rounding, hourly rounding, rounding, nurse rounding and purposeful rounding. The term being utilized in this quality improvement project was "rounding" and the operational definition is an intentional checking in on patients at regular intervals of time (every two hours for this quality improvement project) (Neville et al., 2012).

The NPPRS, by Neville et al. (2012), is a 42-item scale that employs a five-point Likert scale format and three open ended questions. The scale is further divided into three subscales:

communication, nurse benefits and patient benefits. The subscales easily categorize the survey questions and denote the nurse's perceptions on the benefits to their own practice (as noted in the nurse benefits subscale), benefits to the patients and improved communication between nurses and patients. An example of a communication question: "Rounding does not facilitate improved communication" (Neville, 2010). Patient benefits question: "Patients benefit from my visible presence every two hours" and nurse benefits example: "Rounding is a constructive use of a nurses time" (Neville, 2010). The open-ended questions were asked to gain more qualitative information and solicit suggestions and recommendations (Neville et al., 2012). The surveys can be scored between 40-200, as there are two questions that cannot be scored (per creators note) with the higher scores translating to more positive perceptions on rounding (Neville et al., 2012). The validity of this tool was evaluated by staff nurses, focus groups, with content validity being established by advanced practice nurses. The validity of the scale was also verified utilizing Cronbach's Alpha Reliability Coefficient. Overall, Cronbach's Alpha Reliability Coefficient for the NPPRS scale was 0.92 (Neville, 2010).

The NPPRS scale was chosen as this quality improvement project aims to improve the nurses' perceptions of rounding on the BHU. The NPPRS has been utilized in a pilot study and then retested in a replication study published the following year (Neville et al., 2016).

Psychometric testing has been completed, and the validity of the tool has been verified along with acceptable reliability coefficients.

Analysis

Statistical analysis was conducted on the results of the NPPRS. This was continuous data, so descriptive statistical analysis was conducted including the mean, range and standard deviation. The same pre- and post-intervention questions were given to identify differences in the

same data and determine changes utilizing descriptive analysis. For the scoring of the surveys, each question was scored based on the number selected on the Likert scale. For example, strongly disagree was one point and strongly agree is five points. The open-ended questions were reviewed to identify patterns and themes for future considerations and recommendations following the intervention.

Ethical Considerations

This quality improvement project was reviewed by the UNH Department of Nursing Quality Review Committee to determine if it met the criteria for a quality improvement project. Participants in the project were provided information regarding the project and their participation in the project. Informed consent was provided, and all participants were able to withdraw prior to providing data.

Results

This quality improvement project took place over the course of six months. There was one PDSA cycle completed. In the Plan phase, the objective was to address rounding. Based on the objectives, in the Do phase, a survey was then utilized and distributed to unit RNs to gather data information related to their perceptions of rounding. Based on the initial survey results, educational material was disbursed to staff and another survey was utilized to determine the efficacy of the education on rounding. The project preserved its overall structure, with no changes in the pre-intervention survey, and a five-question post-intervention after the intervention was completed. There was a three-week delay in distributing surveys due to the nurse manager being out of the office. In turn, the staff meeting to distribute the pre-intervention survey was cancelled and all materials needed to be distributed online as opposed to in-person. The NPPRS surveys were distributed to all RNs via a flyer with a QR code to *Qualtrics*TM and

paper surveys were available on the unit. However, all responses were received via *Qualtrics*TM and the data was disseminated utilizing the *Qualtrics*TM software. The pre-intervention survey was utilized to understand the RNs perceptions of rounding on the BHU.

Over the course of two weeks, seven participants (58% response rate) completed the pre-intervention survey. After the two weeks, an educational session was held at a staff meeting. Due to limited Largparticipation at the staff meeting, the educational presentation was disbursed to all RNs via email. The participants were then given two additional weeks to complete the post-intervention survey, after attending the presentation at the staff meeting, or reviewing the presentation at another time. In total, eight participants completed the post-intervention survey (67% response rate). Some of the participants that took the pre-intervention survey, did not take the post-intervention survey and some participants took the post-intervention survey and not the pre-intervention survey, due to limited time and availability during distribution. All survey participants consented to participating in the survey and answered all questions.

The overall pre-intervention survey data can be seen below (Figure 1). The overall survey was scored on a scale of 40-200 and each subscale was scored individually. The scoring measures were predetermined by the creator of the survey. This was to determine where there may be a decreased perception of rounding from the RN, or oppositely, where there may be an increased RN perception of rounding. Overall, the RNs on the BHU had a positive perception of hourly rounds after the initial survey. The mean, range and standard deviation for each subscale and the overall pre-intervention survey were found. There was a total possible range for each section set by the creator. For the communication subscale, there was a potential score of 15 to 85 points. The mean score for the section was 50.1, as the mean between the total potential points would have been 50. This indicates overall, there was a neutral perception of rounding as

related to communication benefits. The patient benefits subscale had a total possible score ranging from seven to 35. The average of the total possible score was 24. This number was below the staff average of 25.1. Translating the mean score, the RNs had a slightly positive perception of rounding related to patient benefits. In terms of nurse benefits, there was a total possible range of 10-50 points, with the mean being 30. The mean of the pre-intervention survey, was 32.9, understood that there was a generally positive view of rounding in relation to nurse benefits. For the overall score, there was a total possible score ranging from 40 to 200, with the mean of the total possible score being 120. Since the mean of the staff score was above the average, at 137.4, there was an overall positive perception of hourly rounding amongst staff on the BHU. Overall, RNs would have selected “agreed” on the survey for the questions. However, it is important to mention the standard deviation for the overall score was large, meaning that there was a large range of answers across the entire survey.

Figure 1 Pre-Intervention Survey Results

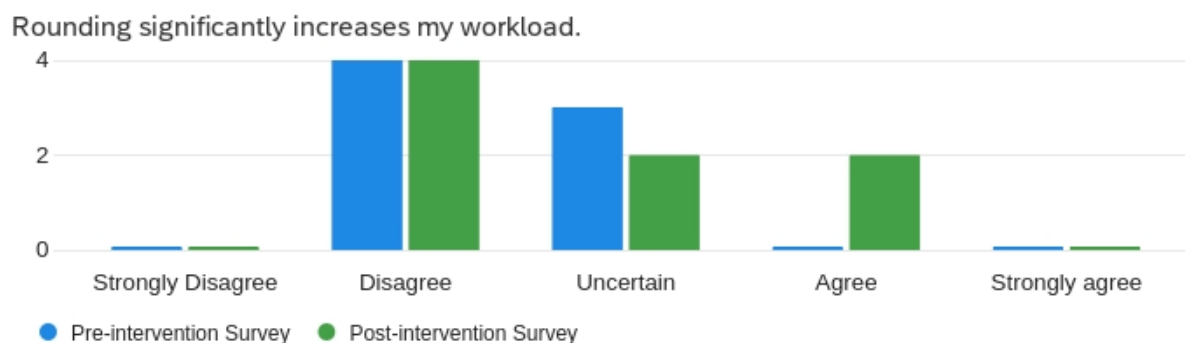
Category	Mean Staff Score	Standard Deviation	Range
Communication	50.1	3.1	9
Patient Benefits	24	3.3	11
Nurse Benefits	32.9	6.5	19
Overall Score	137.4	11.4	36

Likert scales were utilized for all questions on the pre-intervention survey and post-intervention. The graphs in compare questions from the pre-intervention survey and the post-intervention survey, utilizing raw data (Figure 2). Five questions from the pre-intervention survey were chosen to serve as the post-intervention survey. From the initial results, the nurse

benefits subscale was the lowest rated as compared to the other two subscales, so three questions were chosen from the nurse benefits subscale and one question was chosen from each of the other subscales – patient benefits and communication. All survey questions, pre and post intervention surveys, included Likert style questions ranging from one to five, with a score of one given for strongly disagree, a score of two for disagree, three was uncertain, a score of four was given to agree and five for strongly agree. The exception to this scoring was for questions that had a negative connotation, such as “rounding increases my workload” (Figure 2). In this case, the scoring system would be reversed with a score of one being assigned to strongly agree, two to agree, three to uncertain, score of four to disagree and a score of five assigned to strongly disagree.

Comparing the raw data from the pre-intervention survey to the post-intervention survey, there were still RNs that “disagreed”, however there were additional “strongly agree” and “agree” options chosen in the post-intervention. For each question, the mean, standard deviation and range was found in both the pre- and post-intervention surveys.

Figure 2 Pre-intervention and post-intervention survey results comparison, question: “rounding significantly increases my workload”



For the question, “rounding significantly increases my workload”, with a mean score of 2.43 pre and 2.75 post-intervention, it is noted that this is a negatively worded question – so more RNs on

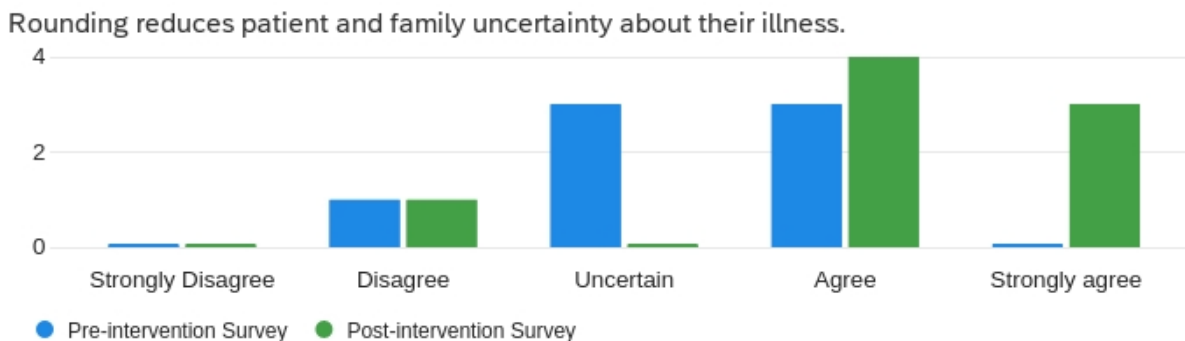
the BHU perceived rounding as an increase to their workload after attending or reviewing the educational session.

Figure 3 Pre-intervention and post-intervention survey results comparison, question: “rounding reduces my stress levels”



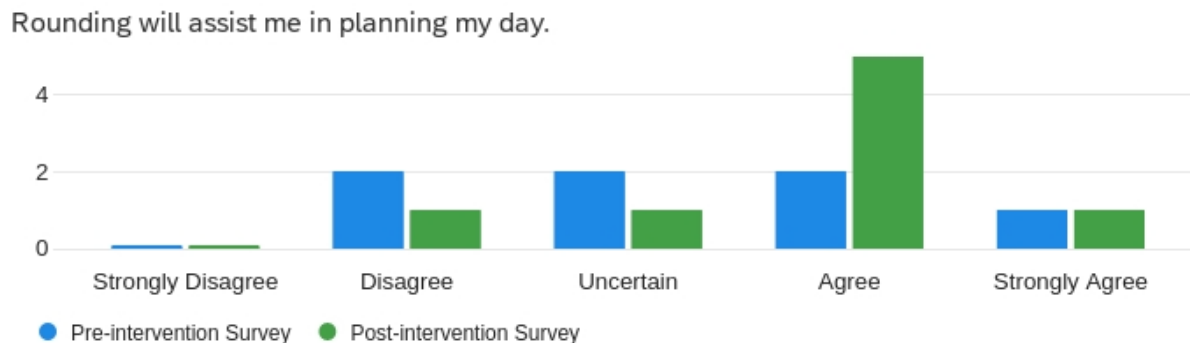
For question 11, “two-hour rounding reduces my stress levels,” there was a mean score of 3.38 in the post-intervention survey, which increased from that of the pre-intervention survey mean of 3.14.

Figure 4 Pre-intervention and post-intervention survey results comparison, question: “rounding reduces patient and family uncertainty about their illness”



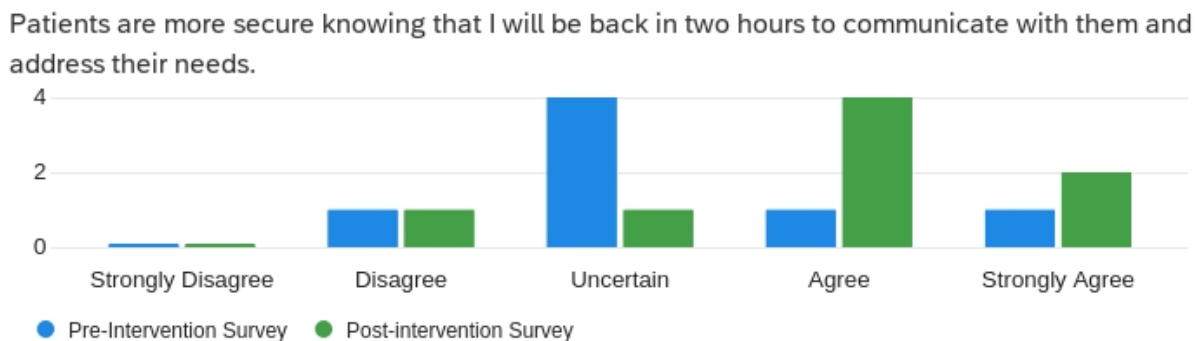
For question 22, “rounding reduces patient and family uncertainty about their illness,” there was a significant increase in the mean from 3.29 in the pre-intervention survey to 4.13 in the post-intervention survey.

Figure 5 Pre-intervention and post-intervention survey results comparison, question: “rounding will assist me in planning my day”



Question 34, “rounding will assist me in planning my day,” had a mild increase in mean from 3.29 in the pre-intervention survey and 3.75 in the post-intervention survey.

Figure 6 Pre-intervention and post-intervention survey results comparison, question: “patients are more secure knowing that I will be back in two hours to communicate with them and address their needs”



Lastly, the mean for the pre-intervention survey for question 39, “patients are more secure knowing that I will be back in two hours to communicate with them and address their needs,” was 3.29 and increased to 3.88 in the post-intervention data.

Figure 7 Pre-intervention survey and post-intervention survey comparison

Question	Pre-intervention Survey			Post-intervention Survey		
	Mean	Standard Deviation	Range	Mean	Standard Deviation	Range
Q8: Rounding Significantly increases my workload.	2.43	0.49	1	2.75	0.83	2
Q11: Two-hour rounding reduces my stress levels.	3.14	0.83	2	3.38	0.99	3
Q22: Rounding reduces patient and family uncertainty about their illness.	3.29	0.7	2	4.13	0.93	3
Q34: Rounding will assist me in planning my day.	3.29	1.03	3	3.75	0.83	3
Q39: Patients are more secure knowing that I will be back in two hours to communicate with them and address their needs.	3.29	0.88	3	3.88	0.93	3

Contextual Elements and Observed Association

The pre and post intervention surveys were collected over the course of four weeks, with two weeks given for each survey to be completed. The pre-intervention survey was distributed to staff via a QR code on a paper flyer hung in the nurses' station on the unit. This meant in order to retrieve the survey, the RNs must have been on the unit and acknowledged the flyer, amongst a plethora of additional paperwork posted in the same vicinity. The initial survey was approximated to take seven minutes to complete and was comprised of 42 Likert style questions. Having to answer 42 questions may have been overwhelming for some RNs and they may have decided not to complete the survey based on the length alone. The post-survey data was linked utilizing a QR code but was sent to staff via email. This required the RNs to check their email, review the educational presentation material and then complete the survey from the QR code embedded into the presentation, however staff could complete the post-intervention survey on their own time. One nurse leader engaged with the creator of this project to encourage staff to complete the surveys. This may have contributed to the slight increase in responses from the pre- to post-intervention surveys.

This project required staff to complete both the pre- and post-intervention survey. The pre-intervention survey was delayed from the initial distribution and the staff meeting where the survey was supposed to be presented to staff was canceled, which may have led to increased confusion and a breakdown of communication regarding the purpose of the survey and number of surveys needing to be completed. The post-intervention survey was an abbreviated version of the pre-intervention survey, so some RNs mentioned they had already completed the survey and may not have realized there were two separate surveys.

Unintended Consequences

There are always unintended consequences in to quality improvement projects. This quality improvement required RNs to complete two separate surveys, which may have removed time from actual patient care. In addition, the survey only focused only on the RN perceptions and did not address patients views on hourly rounding. There were no unintended costs in this project. Establishing the RNs perceptions of hourly rounding allows barriers to be addressed so that implementation of rounding may be completed in another PDSA cycle.

Missing Data

As discussed above, the response rate of the surveys was 58% for the pre-intervention survey and 67% response rate for the post-intervention survey. Since neither survey was completed by all RNs, the results disseminated may not be inclusive of all RNs. Due to the shortened timeframe the surveys were posted and the initial delay in distributing surveys, some RNs may not have had the opportunity to complete the surveys.

Additionally, there was no demographic data collected from any of the participants. This made it impossible to discern a difference that may have occurred between the day and night shift staff or how years of service may have impacted responses.

Discussion

Summary

Key Findings

This quality improvement project suggests that RNs perceptions of hourly rounding was increased by providing education material to staff via a PowerPoint presentation. The educational material was presented by the leader of this quality improvement project at a staff meeting. Due to low attendance at the staff meeting, the presentation was sent out electronically

to all RNs on the unit, for their review. The data gathered from the use of pre- and post-interventions surveys validated this. Before the education was provided to RNs, 29% of RNs agreed that rounding assisted in planning their day, but after the education, 63% of RNs believed it assisted them in planning their day. In addition, 43% of RNs agreed or strongly agreed that rounding assists to decrease patient and family uncertainty about their illness, but after the education provided, 88% of RNs agreed or strongly agreed with this statement. By educating staff on the benefits of rounding and providing the ICARE model for rounding, there was additional information gained regarding the purpose of rounding and possible benefits for communication, RNs and the patient. Although the results generally showed an increase in RN perceptions of hourly rounding, one question had the opposite effect after providing staff education. Before the education was disbursed, 0% of RNs agreed or strongly agreed that rounding increases their workload, and after the educational session, 25% of RNs believed that rounding did increase their workload.

Relevance to the Rationale

Utilizing the PDSA model is a well understood model to test change and has long been utilized in health care organizations. This model employed the planning stage to provide background data, include key stakeholders as well as leadership, and elicit initial perceptions on hourly rounding. After completing the do phase of this quality improvement project (disbursing surveys and providing education) the act phase sets up future PDSA cycles to further improve RN perceptions on rounding and the successful completion of rounding on the BHU.

Relevance to the Global and Specific aim

The global aim of this quality improvement project was met, the perceptions of RNs on the unit was increased following disbursement of educational materials. Percent change was

utilized to calculate if the specific aim was met or not. The mean of the post-intervention survey subtracted by the mean of the pre-intervention survey, divided by the mean of the pre-intervention survey and then multiplied by 100 to get a percentage was how percent change was calculated. This was completed for each question and then the overall percent change was found after averaging all percent changes for each question and was 10.4%. This did not meet the specific aim of increasing RN perceptions of 15%. From the pre- to the post-intervention survey, the perceptions improved, except for question eight, “rounding significantly increases my workload”, which the perceptions declined, insinuating RNs believed rounding would increase their workload, after the education was provided.

Project Strengths

Some strengths of this quality improvement project were the stakeholder buy-in from management as well as the NPPRS survey utilized and minimal costs. BHU management had consistently received poor marks on two-hour rounding checks and felt strongly that this project could assist in encouraging RN compliance with rounding. In addition, the NPPRS survey has clear questions and a standard scoring metric to easily identify changes in data through the survey. This quality improvement project required no financial costs, as *Qualtrics*TM was available at no cost to the writer of this paper and to the project participants.

Interpretation

The survey data gathered through this quality improvement project discovered RNs on the BHU had generally positive perceptions on hourly rounding. Anecdotally, RNs on the unit mentioned not signing off on completing patient rounds and that rounding was not beneficial. After completing the initial survey, however, the perceptions seemed much more positive. Following the educational session, there was another general improvement in RN perceptions on

the BHU. This quality improvement project may be utilized as the first PDSA cycle to eventually test out formal rounding on the unit and achieve RN compliance in completing the rounding sign-off forms already employed on the unit.

According to Toole, Meluskey and Hall (2016), staff understood the importance of rounding, but did not understand how to translate it to practice. In addition, the pilot study utilizing the NPPRS by Neville et al., (2012), reiterated the known importance of rounding, but also concluded that RNs wanted more formal education and autonomy in deciding how to conduct rounds based on their own assessment. RNs on the BHU, understood the importance of rounding, the concepts and the potential benefits to communication. However, did not see that that there were as many benefits to their own practice, which was a barrier noted by Neville et al., (2012) as well.

Limitations

Limitations of this quality improvement project were time, low RN engagement and survey design. The implementation phase of this quality improvement project planned to include three weeks for the initial survey distribution and three weeks following the education disbursement to collect post-intervention surveys, however, there were delays related to distribution. If there was additional time during implementation, there may have been additional RN participation in completing both the pre- and post-intervention surveys, increasing the response rate. The NPPRS survey was lengthy and may have detracted from overall RN participation. The since the survey was copyrighted, there were no changes that could be made to it. The post-test however was a shortened version of the initial NPPRS survey. It was shortened to encourage RN participation. However, since this was shortened, the conclusions drawn during the project as only certain questions could be compared pre- and post-intervention. In addition, it

is unknown if there were additional discrepancies created by only providing the shortened post-intervention survey.

Conclusion

Usefulness of the Work

This quality improvement project was completed to improve RN perceptions of hourly rounding on the BHU. Overall, this project met the desired outcome and provided expanded knowledge and understanding of hourly rounding, as well as potential benefits to both the RN and patient. This project increased awareness of the importance of rounding and simple steps to incorporate it rounding into daily practice. As specified in previous studies, rounding provides benefits to patient care, increasing the importance of completing rounds on the BHU.

Sustainability

Sustaining a change requires stakeholder buy-in and adequate participation and belief in the change. Increasing the perceptions of rounding is the first step in implementing hourly rounding on the unit and ensuring they are completed consistently. Thus far, the RNs have only been informed of the importance of rounding and been provided with suggestions how to incorporate this into practice. It would be important to track if the current method of rounding is functional or if additional changes need to be made to successfully complete hourly rounds.

Potential for Spread to Other Contexts

There has been research conducted regarding the use of hourly rounds in inpatient units. Expanding the initial NPPRS survey to other inpatient units, that also have poor compliance with hourly rounding would first assist in identifying nurse perceptions on hourly rounding and potential barriers to achieving compliance in completing hourly rounds. The NPPRS tool is a

validated survey utilized to understand nurses' perceptions on hourly rounding. This tool may be utilized in additional clinical settings to better understand barriers to rounding.

Implications for Practice and for Further Study in the Field

Hourly rounding has become standard practice on many inpatient hospital units. Evidence suggests that hourly rounding may improve patient care, patient satisfaction and minimize patient interruptions. However, there is limited research on how hourly rounding impacts patients on inpatient psychiatric units, as the patient population is vastly different from that of typical medical-surgical units. Further research would need to be conducted on various inpatient psychiatric units, studying the impact on communication, patient care, satisfaction and outcomes.

Suggested Next Steps

Next steps include completing another PDSA cycle with the implementation of rounding utilizing the education provided in this quality improvement project. Piloting rounding utilizing the ICARE model on the BHU would be imperative to determining the efficacy of the model into practice. RN feedback regarding this model should be obtained as well as patient perception on rounding, to better understand the impact on patients.

References

- Adcock, C. (2017). At least five lawsuits target Tulsa psychiatric facility after allegations draw national attention. *The Frontier*. Retrieved May 14, 2023, from <https://www.readfrontier.org/stories/former-employee-patients-sue-tulsa-psychiatric-facility-allegations-draw-national-attention/>
- Christiansen, A., Coventry, L., Graham, R., Jacob, E., Twigg, D., & Whitehead, L. (2018). Intentional rounding in acute adult healthcare settings: A systematic mixed-method review. *Journal of Clinical Nursing*, 27(9–10), 1759–1792. <https://doi.org/10.1111/jocn.14370>
- DaSilva, M. (2017). A Model for Rounding With Patients in a Psychiatric Hospital. *Perspectives in Psychiatric Care*, 53(4), 313–320. <https://doi.org/10.1111/ppc.12182>
- Fabry, D. (2015). Hourly rounding: Perspectives and perceptions of the frontline nursing staff. *Journal of Nursing Management*, 23(2). <https://onlinelibrary.wiley.com/doi/abs/10.1111/jonm.12114>
- Halm, M. (2009). Hourly rounds: What does the evidence indicate? *American Journal of Critical Care*. 18-6. <https://pubmed.ncbi.nlm.nih.gov/19880960/>
- Mitchell, M. D., Lavenberg, J. G., Trotta, R., & Umscheid, C. A. (2014). Hourly Rounding to Improve Nursing Responsiveness: A Systematic Review. *The Journal of Nursing Administration*, 44(9), 462-472. <https://doi.org/10.1097/NNA.0000000000000101>
- Moran, J., Harris, B., Ward-Miller, S., Radosta, M., Dorfman, L., & Espinosa, L. (2011). Improving care on mental health wards with hourly nurse rounds. *Nursing management Improving Nurse Perceptions on Rounding* 19 (Harrow, London, England : 1994), 18(1), 22–26. <https://doi.org/10.7748/nm2011.04.18.1.22.c8412>

Neville, K. (2010). Re-Examination of the Psychometric Properties of the Nurses' Perception of Patient Rounding Scale (NPPRS).

<https://pdfs.semanticscholar.org/57f9/32be9328884b72c4f06cf5b28a9a6517424d.pdf>

Neville, K., DiBona, C., & Mahler, M. (2016). Validation of the Nurses' Perception of Patient Rounding Scale: An Exploratory Study of the Influence of Shift Work on Nurses' Perception of Patient Rounding. *Orthopaedic Nursing*, 35(2), 84.

<https://doi.org/10.1097/NOR.0000000000000223>

Neville, K., Lake, K., LeMunyon, D., Paul, D., & Whitmore, K. (2012). Nurses' perceptions of patient rounding. *The Journal of Nursing Administration*, 42(2), 83–88.

<https://doi.org/10.1097/NNA.0b013e318243365e>

Science of Improvement: Testing Changes | IHI - Institute for Healthcare Improvement. (2023).

Retrieved April 30, 2023, from

<https://www.ihl.org:443/resources/Pages/HowtoImprove/ScienceofImprovementTestingChanges.aspx>

Toole, N., Meluskey, T., & Hall, N. (2016). A systematic review: Barriers to hourly rounding. *Journal of Nursing Management*, 24(3), 283–290. <https://doi.org/10.1111/jonm.12332>