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# Exploring the Barriers and Facilitators of Nurse Engagement in Comfort Rounds

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UNIVERSITY OF CALGARY

Exploring the Barriers and Facilitators of Nurse Engagement in Comfort Rounds

by

Navjot Virk

A THESIS

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## Abstract

**Background.** Nurses have an opportunity to improve services and enhance patient care. The purpose of this research is to highlight the missing voice of the frontline nurses and their experience in implementing a quality improvement (QI) initiative called comfort rounds. Comfort rounds are an Elder-Friendly QI initiative that involves purposive rounding conducted at regular intervals on patient care units. **Objectives.** 1) To understand the experiences of nurses that participated in comfort rounds. 2) To describe the facilitators and barriers to the participation of nurses in the introduction of comfort rounds. **Methods.** A single case study design, using multiple data sources, was used to explore and collect detailed descriptions of comfort round implementation on an acute medical unit. **Findings.** Frontline staff can help identify barriers and facilitators for comfort rounds. Engaging frontline nurses throughout the entire QI initiative process (i.e. from planning stages to sustainability) is essential for implementing practice change.

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And to my family, I would like to express my sincere gratitude for your unwavering support, patience and encouragement. Thanks for always believing in me.

## **Dedication**

This thesis is dedicated to my family—Jagdeep, Jasvinder, Amr and Vik. Thank you for your support, love and encouragement. I could not have done it without you all.

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## Glossary

**Comfort Rounds:** Comfort rounds represent a quality improvement initiative, which involves purposive rounding every two hours. The rounds consist of repositioning and orientating patients, assessing for pain, helping patients to the washroom, scanning the environment for safety concerns and otherwise providing general assistance to the patient at the time of the round.

**Engagement:** Engagement describes a process to gain the active participation of the nursing team during a quality improvement initiative (Harmon, Sey, Hiner, Faron, & McAdam, 2010).

**Nursing team:** The nursing team includes registered nurses (RNs), licensed practical nurses (LPNs) and nursing aides (NAs), integral to the comfort round quality improvement initiative. RNs and LPNs are regulated care providers, whereas NAs are unregulated care providers.

**Quality Improvement Initiative:** A quality improvement initiative is an intervention that aims through assessment and measurement to improve the process, outcomes, and efficiency in the health care system (Casarett, Karlawish, & Sugarman, 2000).



## **Chapter One: Introduction**

Quality improvement (QI) initiatives hold the promise of reducing some of the 70,000 adverse medical events that annually occur in Canada (Baker et al., 2004). In this regard, nurses are in the unique position, as the largest number of health professionals, to influence changes in practice, improve services and enhance patient care (Price, Fitzgerald, & Kinsman, 2007). In addition to reducing adverse medical events, improvements in patient safety and quality care have resulted in other positive outcomes such as reduction in hospital stay of patients (Gawliniski, 2008). QI can improve care processes through identifying a gap, implementing a change and monitoring the impact of the change. Everyone from senior nursing administrators to frontline clinicians (Sullivan et al., 2011) plays a critical role. QI is the responsibility of everyone on the nursing team.

Members of the nursing team not only observe patient interactions on a unit, but they ultimately determine the success of QI initiatives (Albanese et al., 2010). They can identify practices that contribute to improved patient outcomes (Gawliniski, 2008). However, there is limited published research that describes the barriers and facilitators that influence nurse engagement in the success and/or lack of success in a QI. This study addresses this gap by examining the barriers and facilitators of nurses' engagement in one recent QI initiative.

This research focuses on a QI initiative called comfort rounds, undertaken as a pilot in 2013 by Alberta Health Services (AHS) Calgary Zone. Comfort rounds are an Elder-Friendly initiative. This analysis is derived from multiple data sources, including interviews, observations, and documents.

## **Study Context**

Comfort rounds refer to the purposive rounding by the nursing team at regular intervals on patient care units. The intent of the rounds is to reduce falls and manage delirium, functional decline, incontinence, pain, dehydration and malnutrition. The rounds consist of visiting patients every two hours, repositioning and orientating them, assessing for pain, meeting their toilet needs, addressing any unmet care needs, assessing the environment for safety concerns and inquiring about any other concerns (Older Patient Working Group, 2012). At the conclusion of the rounds, members of the nursing team explain when they will return for the next round and document on a checklist the duties performed. The rounds are performed throughout the day, evening, and during the night if the patient is awake (Older Patient Working Group, 2012). Responsibility for conducting the rounds depends on the unit staffing, including registered nurses (RNs), licensed practical nurses (LPNs) and nursing assistants (NAs).

Comfort rounds represent one of three selected QI strategies chosen by AHS, both to enhance the care that older patients receive and to foster the presence of elder friendly hospitals in Calgary (Older Patient Working Group, 2012). Already implemented on two medical/surgical units, there are plans to implement comfort rounds on other units. At this time, a zone advisory committee and site various working groups assist in educating staff about the implementation of comfort rounds across the zone.

The zone advisory committee has representation from the field of gerontology (physicians/nurses), hospitalist physicians, physician residents, transition services, emergency care, clinical quality support, Seniors' Health Strategic Clinical Network, rural/primary care, integrated supported and facility living and home care. The zone advisory committee is responsible for discussing, developing and guiding initiatives related to seniors (personal

communication, Clinical Nurse Specialist, December 16, 2014). The site committees include representatives from site administration, Seniors' Health, protective services, volunteer services, safety, pharmacy, mental health, allied health, emergency/critical care, transition services/units and geriatrics. There is also one physician representative. The site committees are responsible for reviewing and identifying Elder Friendly Care initiatives and implementing these initiatives on site (personal communication, Clinical Nurse Specialist, December 16, 2014).

My decision to undertake this study began during a graduate clinical practicum, when I had the opportunity to observe members of the nursing team perform comfort rounds. This led me to interview them about their perceptions of the QI. I asked: What constitutes comfort rounds? Who does them? What are the barriers and facilitators of the rounds—what is working and not working?

These preliminary observations revealed that nurses incorporated comfort rounds in different ways and times. In general, I determined a lack of clarity as to the purpose of comfort rounds, specifically in applying all components of the rounds. Some staff focused on helping patients to the washroom and re-orientating them every two hours. Others believed that comfort differed with the type of patient (i.e., mobile patients that could indicate whether they had pain symptoms, required different support). Given the intended scope of the implementation of this initiative and the impact of this practice on the day-to-day work of nurses and aides, I concluded that I should conduct a more in-depth and systematic analysis of this QI initiative, including its implementation, the staff required for its implementation and the barriers and facilitators associated with its implementation.

## **Purpose**

### **Research Objectives**

- 1) To understand the experiences of nurses that participated in the introduction of comfort rounds on a selected unit.
- 2) To describe the facilitators and barriers to the participation of nurses in the introduction of comfort rounds on a selected unit.

### **Research Question**

For the purpose of this research study, the primary research question is: How do nurses describe their experiences with a comfort rounds QI initiative?

### **Secondary Research Questions**

- 1) How do nurses describe the engagement process prior to, during, and after the comfort rounds QI initiative is implemented?
- 2) How do the practices of the nursing team differ after the initiation of the comfort rounds QI initiative?

## **Nature of the Study**

In this descriptive single case study approach, the experiences of nurses that participated in a QI initiative called comfort rounds are described in detail. The study occurs in an acute medical unit in a level two hospital. Typical of a case study approach the questions address the “how” and “why” of events (Yin, 2009). Such an approach is especially useful when using multiple data sources and a theoretical framework (Yin, 2009). The sample includes RNs, LPNs and NAs as they conduct comfort rounds. The data sources include interviews (nine), observations (five), and a review of unit and QI related documents.

NVIVO 10 software was used to code the qualitative data. First level coding was based on pre-determined codes (Miles & Huberman, 1994) that reflect the knowledge translation cycle (Graham et al., 2006), Michie's behavioural domains (Michie et al., 2005) as well as a taxonomy of barriers and facilitators (Gravel, Légaré, & Graham, 2006). The second phase of coding involved re-coding all data and revisions to the previously chosen pre-determined codes. All data were then triangulated and further analyzed for key themes and codes in order to provide a detailed description of nursing engagement in comfort rounds on the selected unit (Miles & Huberman, 1994). Finally, the third phase involved linking to the theoretical propositions, pattern matching, and interim case summary analysis, which included the process of triangulating data (Miles & Huberman, 1994). Analysis involved examining each of the data sources and then comparing them for overall patterns.

### **Theoretical Framework**

This study employs an action framework or knowledge to action (KTA) cycle (Graham et al., 2006) because it allows for the examination of the comfort rounds implementation process and the nurses' engagement in different phases of the cycle. The KTA cycle consists of a knowledge creation funnel, which can involve three phases of: knowledge inquiry, synthesis, and production of tools/products. Other key elements of the KTA cycle include identifying a gap, adapting knowledge to local context, assessing barriers to knowledge use, selecting, tailoring and implementing interventions, monitoring knowledge use, evaluating outcomes, and sustaining knowledge use (Graham et al., 2006).

### **Significance and Relevance**

This study endeavours to examine how barriers and facilitators affect the engagement of frontline nurses in the roll-out of comfort rounds. Increasing our understanding of their reactions

should assist in the development of better strategies for engaging nurses in current and future QI initiatives—such initiatives have the potential to improve the quality of care and patient and system outcomes. Additionally, this research could improve our understanding about the barriers and facilitators embedded within the cognitive practice, often referred to as the knowledge to action cycle (Straus et al., 2013). This allows for an opportunity to map these barriers and design strategies to mitigate these barriers.

The number of Canadian seniors will double in 22 years when compared to 2009, and in 2061, seniors ( $\geq 65$  years of age) will account for one in four Canadians (Statistics Canada, 2010). Consequently, one can expect that nursing will have responsibility for providing care to more seniors. Finding ways to engage nurses in initiatives such as comfort rounds or future QI initiatives will become more important in designing systems of care that may enhance the health of seniors.

### **Overview**

In summary, this chapter provided an overview of the study, by identifying the study context, purpose, theoretical framework, research questions and objectives, as well as the significance relevance of the study. The remainder of the thesis is organized into four additional chapters. Chapter two provides a systematic search of the literature regarding the topic of engagement and frontline nursing. Chapter three describes the method and plan for analysis. Chapter four analyzes the findings. Finally, in Chapter five discusses of the findings, conclusions, and recommendations.

## Chapter 2: Literature Review

In this chapter, a systematic search of the literature about engagement of nurses in QI initiatives was completed. A detailed explanation of the methods, results, and discussion of the review follows.

### Literature Review

#### Search strategy

The search comprised Medline, CINAHL, EMBASE, PsycINFO, SocINDEX, and Cochrane Database of Systematic Reviews, for the period June 1976 to May, 2013. Keywords and criteria for the search are provided in Appendix A. The search terms included different variations of “nurse”, “engagement”, and “QI initiatives”. Since May, 2013, the researcher also arranged to receive updates along the same search parameters.

#### Selection criteria

The criteria for inclusion of studies in this review are: i) Published in English; ii) Nurse participants; iii) A QI project or initiative; iv) Reference to engagement (work engagement was excluded). All study designs were included.

#### Study retrieval

The process involved four steps as outlined by Preferred Reporting Items for Systematic Reviews and Meta Analysis (PRISMA): identification, screening, eligibility, and included (Moher, Loberati, Tetzlaff & Altman, 2009). **Identification:** In the initial literature search, 3797 citations were identified. **Screening:** After 1031 duplicate articles were removed, the remaining 2766 titles and abstracts were examined to determine if they related to the main research topic of this proposal. Excluded referred to patient, consumer, family, student, pharmacy or lab technician engagement and community involvement. **Eligibility:** Full text articles were obtained

for all abstracts that met the inclusion criteria and required further inspection. At this point, the full texts of 324 articles were retrieved electronically, and the same inclusion criteria were re-applied. **Included:** Based on review of full text articles, 13 were included in this review. See Appendix B for the PRISMA flowchart (Moher, Loberati, Tetzlaff & Altman, 2009).

### **Included studies**

Among the 13 included articles, two were qualitative studies (Andrews, McInerney, & Robinson, 2009; Barrett et al., 2005), and five were quantitative studies (Bick, Rose, Weavers, Wray, & Beake, 2011; Johnson et al., 2011; Kaferle & Wimsatt, 2012; Klee, Latta, Davis-Kirsch, & Pecchia, 2012; Oman et al., 2012). One study was mixed-method, utilizing a quasi-experimental design with an action research framework (Gibbon & Little, 1995). The remainder of the articles (n=5) used descriptive methods, in which the experiences of selected nursing units (Bingham, Lyndon, Lagrew, & Main, 2011; Bonuel, Manjos, & Gray-Becknell, 2011; Catanguui & Slark, 2012; Goeschel et al., 2006; Weckman & Janzen, 2009) were analyzed. A detailed description of the articles can be found in Appendix C.

### **Study characteristics**

Where specified, the number of nurses involved in the study ranged from 2 to 13. Studies took place in the United States (Bingham et al., 2011; Bonuel et al., 2011; Goeschel et al., 2006; Johnson et al., 2011; Kaferle & Wimsatt, 2012; Klee et al., 2012; Oman et al., 2012; Weckman & Janzen, 2009), Australia (Andrews et al., 2009; Barrett et al., 2005), and the United Kingdom (Bick et al., 2011; Catanguui & Slark, 2012; Gibbon & Little, 1995). The studies were published between 1995-2012.

The reviewed studies reported on a wide range of QI initiatives. They included a practice development program to enhance patient centered care (Barrett et al., 2005), an initiative to



reduce maternal hemorrhage in labour and delivery (Bingham et al., 2011), an initiative to reduce catheter-related blood stream infections, and ventilator-associated pneumonia in intensive care units (Goeschel et al., 2006) and an initiative to reduce urinary tract infections associated with catheterization (Oman et al., 2012). Other initiatives included standardized nursing handoff (Klee et al., 2012), changes to in-patient care and care at the time of discharge (Bick et al., 2011), asthma action plans (Kaferle & Wimsatt, 2012), and development of information packages about dementia to the families of nursing-home residents (Andrews et al., 2009). A fall prevention strategy (Bonuel et al., 2011), and a fall prevention program (Johnson et al., 2011) were examples of other initiatives. Finally, two separate studies implemented a medication administration system technology (Weckman & Janzen, 2009), and ward rounds on a stroke unit (Catangui & Slark, 2012).

Discussed below are the main results and themes of the literature review including, the importance of nurses in QI initiatives, nurse engagement, engaging nurses through the implementation process, methods to engage nurses, and barriers and facilitators.

**Importance of nurses in quality improvement initiatives.** Nurses were identified by the authors as critical to implementation (Goeschel et al., 2006; Weckman & Janzen, 2009), as leaders and “primary drivers” (p. 302) for all stages of the QI initiative (Bingham et al., 2011). They proved essential for implementing change (Goeschel et al., 2006) and the success of the overall project (Bick et al., 2011). In another study about a new bar code medication administration system, the researchers noted that engaging nurses early in an initiative reduced barriers. This was accomplished by including nurses in the planning phases, recognizing equipment design flaws, creating a contingency plan and having unit champions (Weckman & Janzen, 2009). In fact, Weckman & Janzen reported that involving nurses in piloting the new

medication administration equipment could have prevented some equipment design flaws that appeared later. One author specifically reported that involving nurses in evaluation of the QI initiative assisted in facilitating the ownership of findings by nurses and helped them to understand their current work processes in different ways (Barrett et al., 2005). Johnson and colleagues (2011) attributed their success to nurses acting as coaches and leaders in the initiative.

**Nurse engagement.** Bick et al. (2011), using Likert scales, yes/no, and open-ended questions, studied the engagement of midwives in an initiative to improve inpatient postnatal services. Questions in the survey focused on midwives' perceptions about receiving adequate information about the project, meeting the needs of the patients, making a difference, creating more appropriate use of their time and skills, satisfaction with the changes made and support in planning care. Nurses supported the initiative when they believed that the changes met patients' needs (Bick et al., 2011). The researchers did not look at the perceptions of other healthcare providers as midwives represented the largest group in the initiative (Bick et al., 2011).

Andrews et al. (2009) investigated how to support a palliative care approach in practice by identifying facilitators for the initiative. Participants identified gaps, made changes, reviewed data, and saw changes in practice following implementation of practice changes. Although the findings included the participants' reflections, the researchers did not include the perspectives of individual nurses. The small action research group, which involved three nurses and two unregulated workers, made it difficult to generalize to other settings (Andrews et al., 2009).

Johnson and colleagues (2011) described the implementation of the Helping Hands Program, a hospital-wide fall prevention initiative implemented that involved a high level of nursing engagement. "Fall champions" (p. 540) or advocates for the fall prevention program led safety huddles on the unit. Project outcomes included a 16.6% annual decrease in falls per year,

as well as a 9.4% decrease in injuries. The authors concluded that engaging nursing leadership had an important effect.

Kaferle et al. (2011) used reminders through a clinical quality management system and nurse engagement to increase the number of asthma action plans filed by family physicians. The asthma plans were meant to support asthma management. Results demonstrated that physicians responded 78-90% of the time. The researchers concluded that nurse engagement and the reminder system led to improved asthma action plan completion rates. However, outside of mentioning a two-hour educational program for RNs in the study, the article did not describe the process or extent of nurse engagement.

**Engaging nurses through QI implementation process.** Although the following articles primarily described engagement through the implementation process, understanding this process helps to uncover how staff members first became engaged as well as the respective outcomes from this engagement (Bingham et al., 2011; Goeschel et al., 2006; Weckman & Janzen, 2009).

Weckman and colleagues (2009) outlined the implementation process of a bar code medication initiative in a 569 bed hospital that aimed to reduce adverse events. The researchers described several implementation problems including lack of equipment, computer network errors, and equipment design flaws. The equipment design flaws were attributable to a lack of nurse involvement in the design stages of the initiative. Nurses engaged in this initiative by email groups, flexible training workshops, presence of unit champions to communicate with staff, training materials placed on a website, training DVD, monthly meetings, focus groups and focused surveys (Weckman & Janzen, 2009). After the pilot, nurses identified other barriers and strategies to mitigate these barriers. As nursing concerns and barriers were addressed, compliance in using the new technology increased by 50% over a 6 month period. Successes

were celebrated, and nurses were further involved in the evaluation phases of the new technology (Weckman & Janzen, 2009).

In another example, Goeschel and colleagues (2006) described the implementation process of a project in 127 intensive care units in over 77 US hospitals. The project aimed to improve patient safety and specific outcomes associated with catheter related blood-stream infections and ventilator-associated pneumonia rates. The project resulted in a substantial improvement of patient outcomes that included "...over 1500 lives saved, 80,000 patient days saved, and \$165 million dollars saved" (p. 491). Goeschel et al. (2006) attribute this success to the nurses, who had an integral role during the implementation and change process, who performed as leaders, advocates, collaborators with other disciplines and coordinators of safe care patient care. Specifically, nursing leaders continually shared evidence, results and feedback at team meetings and shift changes. Project champions shared information among members of the staff at workshops, conferences, and presentations. RNs were encouraged to own the implementation of interventions and share information with other disciplines (Goeschel et al., 2006)

It seems that the primary differences between the implementation processes of Goeschel et al. (2006) compared to Weckman et al. (2009) pertain to the level of nurse engagement and information sharing that occurred from the beginning of the initiative. Goeschel et al. (2006) described various engagement techniques, including attending conferences biannually, monthly conference calls, creating daily goals, and toolkits about how to implement and evaluate the initiative. That is, nurses were provided with data collection tools and evidence for interventions that were posted in visible areas and at staff meetings. A support system was fostered with other staff and peers, and individuals were encouraged through sharing stories and celebrating success.

Lessons learned were exchanged among each of the ICUs on an ongoing basis. Unit staff was encouraged to call and email each other, use the website as a means of communication, and to take day trips to see what the initiative looked like on other units. Overall, staff was engaged through various methods, which may have contributed to why 95% of the hospitals in the project sustained the project post funding (Goeschel et al., 2006). The increased engagement may have contributed to sustainability over the long term.

In another study (Bingham et al., 2011), 30 hospitals participated in a QI initiative to address obstetric hemorrhage. Consistent with Goeschel et al. (2006), the hospitals endeavoured to improve readiness, recognition, response and reporting of obstetric hemorrhage by the sharing of stories among members of the staff at the hospitals. Strategies included toolkits that provided information about implementing and evaluating the initiative as well as various methods to engage staff, disseminate information, as well as encourage more active participation (Bingham et al., 2011).

Although nurses' voices were not highlighted, each of these studies includes multiple strategies to engage nurses. Initiatives encounter fewer barriers when nurses are engaged from the beginning of the initiative than those that engage nurses' midway through the process. Implementing an initiative in more than one hospital represents another advantage. That is, from the descriptions provided by the researchers, it appears beneficial for hospitals to share lessons.

**Methods to engage nurses.** Researchers used various methods to engage nurses in QI initiatives. The strategies included education in the form of sessions (Kaferle & Wimsatt, 2012; Oman et al., 2012), workshops (Barrett et al., 2005; Bick et al., 2011), web-based tutorial programs (Gibbon & Little, 1995), videos (Bonuel et al., 2011), modular fliers, training programs, journal club discussions, and assigning continuing education credit (Oman et al.,

2012). Other methods include focus groups, process mapping (Bick et al., 2011), meetings (Andrews et al., 2009; Gibbon & Little, 1995), posters (Johnson et al., 2011), and holding a skills fair (Bonuel et al., 2011). Finally, the presence of nurse champions, nurse committees/mini teams (Bonuel et al., 2011) and nurse led rounds with a senior nursing team (Catangui & Slark, 2012) are other methods that have been used and noted to be effective.

Klee et al. (2012) used rapid process improvement workshops (RPIW) or weeklong workshops to improve handoff practices. In the workshops, standardized handoff tools were examined. Those that participated in the workshop later became coaches that assisted in training staff about the new processes. Audits were conducted utilizing a self-reported questionnaire by the oncoming shift nurse to evaluate the intervention. However over the long term, the self-reported questionnaire failed as an effective audit method due to the lack of compliance by the staff. As a result, a second RPIW was initiated; it allowed the staff to practice new handoff processes that included the family and used a standardized bedside safety process—it helped to sustain change and decrease nurse overtime (Klee et al., 2012).

Two of the above studies (Andrews et al., 2009; Barrett et al., 2005) and one mixed method study (Gibbon & Little, 1995) utilized an action research approach, which served a dual function of acting as an engagement method. Using this approach, participants assisted with the identification of problems, reflected on their practices and had the opportunity to make changes by identifying solutions (Andrews et al., 2009). This participatory approach in all phases of the initiative was described as assisting with the change process (Gibbon & Little, 1995) and empowering participants to making changes in their practice (Barrett et al., 2005).

Bick et al. (2011) in a survey of United Kingdom midwives captured engagement in the preparatory phase of the QI process that endeavoured to improve inpatient care and transfers on a

postnatal ward. The results indicated that two thirds of the participants felt revisions of postnatal care were appropriate and met patients' needs; and one-third felt satisfied with the changes resulting from workshops and unit meetings (Bick et al., 2011).

In another study (Gibbon & Little, 1995), nurses' knowledge and attitudes about involvement towards stroke care and rehabilitation were measured using a quasi-experimental design. The interventions for stroke care and rehabilitation involved integrating a tutorial programme, revising documentation, integrating an information package on rehabilitation, and introducing the Barthel Index for functional evaluation. The results showed that nurses held more positive attitudes toward rehabilitation if they had more understanding about its aims (Gibbon & Little, 1995).

Weckman et al. (2009) surveyed nurses about the challenges of implementing new technology in medication administration. Findings indicate that providing feedback to the staff increased compliance by 50% over six months. Overall, the survey was a means to receive feedback regarding concerns encountered using the new technology. Feedback, it seems, is a definite asset in creating a culture for adoption and engagement in various practices.

**Barriers and facilitators.** One researcher reported on a QI initiative aimed to improve maternal care. Providers identified the barriers before undertaking the initiative to reduce obstetric hemorrhage (Bingham et al., 2011). The quality improvement panel asked nurses and physicians to identify barriers by means of a baseline survey. The barriers included "...inadequate assessments, lack of accurate and consistent estimation of blood loss, and problems with communication and team work" (Bingham et al., 2011, p. 301). These preliminary findings, in turn, led to implementing standardized protocols for hemorrhage, performing objective measuring of blood loss, conducting on site hemorrhage drills, and

reporting of hemorrhage. Toolkits had information about how to implement the initiative, mitigate barriers, measure, and evaluate results. Other engagement methods focused on a website: announcements, meetings, conferences and webinars available for staff (Bingham et al., 2011).

Barriers identified in the literature reviewed included: lack of resources (Andrews et al., 2009; Klee et al., 2012; Weckman & Janzen, 2009), limited time when trying to educate, remind, plan and evaluate initiatives (Goeschel et al., 2006), human resources (Andrews et al., 2009; Bingham et al., 2011), financial constraints (Bingham et al., 2011), and additional workload (Andrews et al., 2009; Bick et al., 2011).

Facilitators in the reviewed studies included: conducting audit and feedback by unit leaders (Klee et al., 2012), initiating support tools for staff (Bick et al., 2011), having accurate data (Bingham et al., 2011) and having passionate unit champions (Bonuel et al., 2011; Weckman & Janzen, 2009)

**Quality of research.** Overall the strength of research about engaging frontline nurses in quality improvement initiatives is not robust. The majority (n=5) of studies were descriptive—three employed a pre/post design. Additionally, because the pre/post designs were purposive, they have serious limitations. Small sample sizes (Andrews et al., 2009; Barrett et al., 2005), low response rates (Bick et al., 2011) and lack of rigor in preparing the questionnaires (Gibbon & Little, 1995; Klee et al., 2012) used in some studies further limit their value.

**Gaps.** Davies, Powell & Rushmer (2007) conducted an extensive narrative literature review of published papers, grey literature, and policy reports. They concluded that the literature does not examine health care professionals' perceptions about facilitators to the same extent as it includes views about perceived barriers (Davies, Powell, & Rushmer, 2007, p. 33). Additionally,



while many studies cite time and resources as barriers, the lack of specificity or details does little to advance our knowledge about how to implement QI initiatives successfully. An additional gap is the lack of Canadian literature in this area—all of the aforementioned studies took place in the United States, United Kingdom and/or Australia.

**Conclusion.** Future research focused on the role of nurses as participants in QI projects requires more study about the barriers and facilitators to such involvement. Such research would fill a gap in the literature. Furthermore, the research would enhance discussions about how to enhance the facilitators and address the barriers that impede nurse engagement so important to the success of any QI initiative. This research study aims to address these gaps. It intends to capture multiple perspectives. That is, inasmuch as RNs, LPNs and NAs all deliver care, scientific standards demand that any QI initiative examine the perceptions of the entire nursing team.

**Theoretical framework.** The theoretical framework identified in this study is the knowledge to action cycle (Graham et al., 2006). Several barriers and facilitators were identified in this literature review that support many of the concepts identified in the cycle. Mapping barriers and facilitators to different interventions, otherwise known as knowledge translation interventions is essential as they assist in the uptake of research (Straus et al., 2013). Overlap between knowledge translation interventions and those interventions identified in the literature include educational interventions and audit and feedback interventions (Straus et al., 2013). For example it is known that with educational knowledge translation intervention, passive education alone is not effective to change behaviour (Straus et al., 2013). Another key claim in the literature review was that it is essential to use multiple strategies when engaging nurses. As per Straus et al. (2013), further research is required regarding the effectiveness of single versus

multiple interventions. Finally, it was identified within the literature review that nurses were engaged at the beginning of the initiative, specifically when they identified gaps or the changes met patient and practice needs. One of the key steps in the knowledge to action cycle involves identifying an knowledge to action gap and involving as many stakeholders and perspectives as possible (Straus et al., 2013).

### **Comfort Rounds and Engagement**

Of the studies reviewed, two studies examined rounds. One initiative utilized hourly comfort rounds as one of many safety initiatives (Bonuel et al., 2011). The other study utilized ward rounds on an acute stroke unit (Catangui & Slark, 2012). However, in this latter study, the rounds were conducted by a clinical nurse specialist, manager, and charge nurse, who evaluated nursing care (bowel and bladder management, skin integrity, oral care), reviewed drug chart and stroke outcome measures, including mobility, weight, mood, infection, and patient satisfaction (Catangui & Slark, 2012).

Research about comfort rounds has addressed the effectiveness of comfort rounds on different units such as the emergency department (Baker, 2012), surgical ward (Cann & Gardner, 2012) and orthopaedic unit (Tea, Ellison, & Feghali, 2008). Elements, such as the frequency of rounds, what constitutes the rounds, and who conducted the rounds, varied among the research studies. Whatever their differences, the studies overall showed improvements with regards to patient safety and quality (Baker, 2012), reduction in call bell use (Cann & Gardner, 2012; Culley, 2008; Meade, Bursell, & Ketelsen, 2006), patient satisfaction (Cann & Gardner, 2012; Culley, 2008; McCartney, 2009; Meade et al., 2006; Tea et al., 2008) and reduction in falls (Meade et al., 2006)

The aforementioned rounds differ from comfort rounds in this study insofar as the rounds are conducted by RNs, LPNs and NAs on an acute medical unit every two hours. Additionally, this study specifically aims to highlight nurses' voice and perspectives about comfort rounds.

Other research has provides important lessons about the implementation of comfort rounds. The findings indicate the importance of having leaders available for assessment of the initiative (Meade et al., 2006), training the staff, outlining expectations clearly, validating and recognizing staff when rounds are conducted (Baker, 2012). Additional facilitators included having unit champions (Culley, 2008), sharing data (Shepard, 2013), and clearly defining measures for evaluations (Deitrick, Baker, Paxton, Flores, & Swavely, 2012).

From other research, we know that engaging staff prior to the implementation of rounds is important (Baker, 2012). In one study (Deitrick et al., 2012), the majority of the staff perceived rounds as more work and wanted proof that the rounds would benefit patients. Explanations about the context and process of the rounds are important steps (Deitrick et al., 2012). To address these points, it is important that nurses consciously think about the benefits and outcomes of the rounds to patients and their work life (Rondinelli, Ecker, Crawford, Seelinger, & Omery, 2012)

Although the literature describes the structures, processes, and outcomes of comfort rounds, nurses' voice receives little attention. These oversights notwithstanding, frontline nurses are seen as important stakeholders in making rounds, and therefore giving voice to their opinions can help to translate evidence and interventions into practice. The methods depicted in the articles do not involve case study research, which is a method that could also further provide information about the implementation and engagement of comfort rounds.

## **Chapter Three: Methods**

This chapter provides details of the research questions and methods. The research aims: i) to understand the experiences of nurses that participated in the introduction of comfort rounds on a selected unit, ii) to describe the facilitators and barriers to the participation of nurses in the introduction of comfort rounds on a selected unit. To these ends, the research design, data sources, participants, setting, data analysis, and ethical considerations are discussed.

### **Methodology**

This study is a case study approach as outlined by Yin (2009). It explores “a single phenomenon within its real-life context” (p. 1211), using both qualitative and quantitative data (Yin, 1999). Case study design is appropriate to examine the intricacies of a process (Gay, Mills, & Airasian, 2006) so as to depict real life events accurately. In this study, the process of engagement is examined within the context of a QI initiative called comfort rounds.

**Case study.** Yin (2009) contends that both “how” and “why” questions are more often associated with case study research. This study is a descriptive single case study design, in which multiple data sources explore and obtain a detailed description of implementation of comfort rounds on an acute medical unit in a large urban level two hospital. The broad research question is: how do nurses describe their experiences with the comfort rounds initiative?

**Single case study.** Yin (2009) suggests that a single case study is appropriate to describe the experiences of individuals in a typical situation. This case study explores the experiences of nurses engaged in comfort rounds, in their everyday working environment. The scope of this research project precludes a multiple case study design because, “the conduct of multiple-case study can require extensive resources and time beyond the means of a single student or independent research investigator” (Yin, 2009, p. 53).

## **Research Design**

There are five important components to consider in research design, including “i) study question, ii) study propositions, iii) the unit(s) of analysis, iv) the logic linking the data to the propositions, and v) the criteria for interpreting the findings” (Yin, 2009, p. 27).

**Study question.** “How” and “why” questions are associated with case study research (Yin, 2009). The broad research question to be explored is: how do nurses describe their experiences with a comfort rounds QI initiative? The secondary questions include: i) how do nurses describe the engagement process prior to, during and after the initiative?; and ii) how do nursing unit practices change after the QI initiative of comfort rounds?

**Study propositions.** Propositions help case study research to stay within feasible limits or scope of the study (Yin, p.29). As described by Baxter and Jack (2008), propositions “may come from the literature, personal/professional experience, theories, and/or generalizations based on empirical data” (p.551). The propositions in this study include: i) the engagement of frontline nurses throughout the QI process (i.e. from planning stages to sustainability) is critical to its long-term success; and ii) frontline staff can identify barriers and facilitators to a QI initiative. As described by Baxter and Jack (2008), propositions have a distinct purpose and focus. These propositions derive from the literature review conducted prior to the study.

**Unit of analysis.** The unit of analysis is the experiences of nurses in comfort rounds. Binding the case allows the researcher to outline what the case excludes and helps to keep the research study within scope (Baxter & Jack, 2008). The case is bound by place (acute medicine unit) and by activity (comfort rounds) (Creswell 2012). Baxter and Jack (2008) discuss the importance of asking questions about whether it is the individual, program or process being

analyzed to help identify the case under examination. This study primarily focuses on comfort rounds and the individual nurses.

**Linking data to the propositions.** The researcher will link the data to the aforementioned propositions throughout the study. This study will include an interim analysis summary for each of the interviews and codes, as described below (Miles & Huberman, 1994).

**The criteria for interpreting the findings.** The software that was used for analysis is NVIVO 10. It allows for organizing and coding data according to different categories. Interim analysis summaries, described below, provided multiple opportunities to connect the data to the study's propositions (Miles & Huberman, 1994).

### **Setting**

The study takes place in a 26-32 bed acute medical unit that has additional overcapacity beds. The unit represents one of the pilot units selected for this QI initiative, which was first introduced on the unit in January 30, 2013. Including casual, part time, and full time staff lines there are a total of 85 nursing team members on the unit.

### **Sample and Recruitment**

Nursing team members (RNs, LPNs, NAs), who participated in comfort rounds were sampled using convenience sampling. No specific exclusion criterion was applied. It is very common on units to have nurses with different full time equivalent (FTE), clinical backgrounds, and experiences. Methods of recruitment included: email, posters, and in person meetings. The unit manager sent an email to nursing team members with a message from the student researcher, along with contact information and a letter of initial contact. The unit manager sent a reminder email at the end of the second week, reattaching the letter of contact.

Recruitment posters described the study background, objectives, and a description of the study, along with contact information for those interested in participating. Four posters were placed around the unit in visible areas, two in the charting room, one in the staff room, and one on the washroom bulletin board as recommended by the unit manager. Posters remained on the unit for a total of six weeks. Half sized paper posters were also left in the charting room.

During a “staff huddle” meeting, the researcher presented an overview of the project. The researcher also stayed on the unit during various shifts to provide the staff with an opportunity to ask questions or volunteer for the study.

### **Participants**

The main sample in the study included RNs, LPNs and NAs for the primary set of interviews. Although the major focus of the study is to gain frontline nurses’ perspectives, information collected from the primary interviews assisted in determining if other healthcare professionals, including patient care managers, physicians, and other allied health professionals, should participate. It was expected that interviewing six to nine participants and five observation sessions would provide a good mix of nurses with different professional designations to answer the research questions. Prospective participants were given the opportunity to review the consent form, and to ask questions prior to deciding whether to participate. If they agreed, they also provided demographic details.

### **Data Sources and Data Collection**

The study employs interviews, participant observations, and documents. One of the advantages of case study research, compared to other methods is the use of multiple sources (Yin, 2009). Having multiple sources can make the case study more accurate (Yin, 2009, p. 116).

**Semi-structured interviews.** Semi-structured interviews with participants allowed for the exploration of barriers and facilitators that respectively hinder and support the implementation of comfort rounds. More specifically, the question sought to gain a deeper understanding of nurse engagement, including aspects of implementation, evaluation and the sustainability of comfort rounds. The recorded interviews took 30-45 minutes, utilizing a digital recorder, which the researcher transcribed verbatim. All transcripts were verified for accuracy three times after transcription. Sampling continued until data saturation was reached. It was estimated that six to nine interviews with nurses would produce saturation. All interviews took place on site, with permission from the unit manager.

Interviews were coupled with other data sources such as observations. The researcher so decided because interviews “are subject to the common problems of bias, poor recall, and poor or inaccurate articulation” (Yin, 2009, pp. 108-109).

**Observations.** Participant observations took place during an eight-hour shift, by shadowing individual nurses. Comfort rounds are supposed to take place every two hours; hence, it was important to observe an entire eight-hour shift to observe the integration of the comfort rounds in practice. It was estimated that approximately five observation sessions would be required. The intent was to capture different types of nurse experiences (RNs, LPNs, and NAs). Observations were planned for day, evening, and night shifts (including a weekend) in order to provide a detailed description of the context and flow of comfort rounds on the unit. The researcher took field notes, which included a unique participant code, time, patient assignment and descriptions of the events that occurred during the shift. Note taking documented conversations as close as possible to the time of occurrence. Field notes were structured using time stamps written beside the description to get a sense of what occurred during each hour. The



researcher kept the field notes in her possession at all times when on the unit. Field notes were transcribed to a word document and uploaded to NVIVO 10 for coding and analysis. Taking memos also took place directly after the observations to capture any reflections, thoughts, and/or questions about the observations. Note-taking in private also would ensure that comfort rounds occurred as naturally as possible.

**Document review.** Documents, including relevant education materials, posters, implementation guides, pocket guides, tools, and email correspondence, were obtained from the unit manager, clinical nurse specialist, other members involved in the QI initiative, and the public Seniors Health Strategic Clinical Network website. Additional documents developed by members of Calgary-zone Elder Friendly Advisory Committee and posted on the Alberta Health Services internal website were also collected. These documents helped to describe the engagement process during the planning and implementation of comfort rounds. It is important to remember that the intent or original purpose of the documents was to meet objectives that are different than the case study objectives (Yin, 2009).

A document matrix of all documents in Microsoft excel was created to act a database to help facilitate storage and retrieval of all documents (Yin, 2009, p. 120). This document matrix includes the document file name, description, type, number of pages, date/version, date the file was obtained, and if the document had been coded (Miles & Huberman, 1994). The document matrix was sent to a member of the Elder Friendly Advisory committee for confirmation that no documents were missed. All documents were uploaded to NVIVO 10 and a document memo was created for each document. This memo included the significance of the document, overall impressions and reflections as to how it links to the research questions and objectives.

### **Case Study Database and Chain of Evidence**

Yin (2009) describes the importance of creating a case study database, which organizes all data sources and documents. This database, using NVIVO 10 software, provides data with which to draw conclusions in the final case study report, track all referenced material and increase reliability (Yin, 2009). Any case study notes, memos, or field notes written by hand were scanned into the database as separate documents, thereby ensuring that no data or evidence is lost. Each document included a document name as per the document naming conventions outlined in the protocol and was uploaded to NVIVO in portable document format (PDF) or Microsoft word format.

To increase reliability and construct validity, the researcher maintained during the study a chain of evidence that outlines how final conclusions in the case study report were drawn (Yin, 2009). The chain of evidence begins with the case study report and proceeds to case study database to case study protocol to case study questions. A case study protocol outlining procedures, research questions, and objectives was also created.

### **Data Analysis**

Data analysis occurred in three different phases. The first phase involved first level coding, based upon pre-determined codes (Miles & Huberman, 1994). These codes were based upon creating a coding framework, which reflects the knowledge translation cycle (Graham et al., 2006), Michie's behavioural domains (Michie et al., 2005), and a taxonomy of barriers and facilitators (Gravel et al., 2006). This coding was conducted with each of the documents and interview transcripts. Changes to the coding framework were made based on the first phase of coding (Miles & Huberman, 1994). NVIVO 10 software was used to code the qualitative data obtained from the data sources (semi-structured interviews, observations, and document review).

The second phase involved second level coding and revisions to the coding framework. The second round of coding occurred after a minimum of two weeks. Once the coding framework was finalized and the second round of coding was complete, a random selection of documents and interviews were compared within NVIVO 10 (Miles & Huberman, 1994). Intra-rater reliability was checked by running a percentage calculation and kappa coefficient within NVIVO. The definitions and codes in the coding framework were revised and well defined until a 90% kappa was achieved (Miles & Huberman, 1994).

The third phase involved linking theoretical propositions to determine if the case supports or rejects those propositions (Miles & Huberman, 1994). Pattern matching and main themes were delineated, through the use of interim case summaries. On these case summaries, main themes, links to the main research questions and theoretical propositions, as well as alternative interpretations (rival building), next steps, revisions to coding, and possible links were described (Miles & Huberman, 1994). The interim case summary analysis reports were done for each node or code in the coding framework during the document review, as well as for each of the transcripts. Primary themes from each of these reports were triangulated to determine where data converge and differ.

Memos were created throughout each of these phases. The researcher carried a journal to record these memos. Each of the memos were transcribed and transferred into NVIVO in order to have all memos in one database. Memos for each of the documents were also created within NVIVO to explain the significance and importance of each of the documents. Finally, information from all three phases was triangulated using constant comparative analysis to see the similarities and differences between the observations, interviews, and document review. Themes were discussed with another person as a method to review analysis.

### **Ethical Considerations**

The study received approval from University of Calgary Conjoint Research Ethics Board, and informed consent was obtained from all participants. The proposal takes into consideration the ethical principles as outlined in the Tri-Council Policy Statement 2 (TCPS 2). An initial letter of contact approved by the ethics board was sent to participants through an intermediary, *viz* the patient care manager. All interested participants contacted the researcher in person, phone, or via email to volunteer for the study. Written consent was filled out by participants prior to the observations and/or the interviews. Participants were made aware that participation in the study was voluntary. Verbal consent was obtained from patients prior to each observation session, and they were made aware that they could discontinue the observation at any time. Transcriptions of interviews were kept secure on a password-protected computer. Consent forms remain in a locked cabinet behind a locked door. Participants were not identified by name—a pseudonym was used in transcripts and audio files.

## **Chapter Four: Results**

This chapter presents the findings and main themes from each of the data collection sources, collected from members of the nursing team, on an acute medicine unit, in a level two hospital. This chapter also includes a description of the participants, the case context and setting characteristics, the main themes and sub-themes that emerged after triangulating the data, and the corresponding to the research questions. Direct statements that serve to highlight the voices of RNs, LPNs, and NAs regarding the implementation of comfort rounds are also presented.

### **Interviews**

A total of nine participants were interviewed, including five RNs, one LPN and three NAs. Interviews ranged from 24 minutes to 45 minutes in length. The researcher transcribed interviews verbatim, without any attempt to correct English usage, from digital audio files.

### **Document Review**

Different informants including the clinical nurse specialist, unit manager, members of the Elder Friendly Advisory committee, and online sources, provided a total of 42 documents. Four documents were excluded as they did not directly relate to comfort rounds, or include information about comfort rounds within the document. The types of documents included emails from the unit manager regarding comfort rounds education, announcements about implementation of the initiative, educational PowerPoint presentations that described an overview of comfort rounds, posters that highlight the components of comfort rounds, pocket cards which corresponded to the content of the posters, an educational module regarding the bedside care record documentation forms, checklists for documentation of comfort rounds, audit forms for call bell use and comfort rounds, generic unit workflow maps, bulletins and newsletters

from the Seniors Health Strategic Clinical Network. Additional details are available in Appendix D.

### **Observations**

The researcher observed five different health care providers over five eight-hour shifts. Observation occurred during three-day shifts, one evening and one night shift, including one weekend. The observations allowed the researcher to gain an understanding of the context of the unit and how comfort rounds fit into usual practices. Although these observations involved shadowing one person throughout the shift, other health care providers were inevitably seen as part of this interaction. During these observations, individuals other than the individual participants would discuss comfort rounds with the researcher. These conversations were also captured in field notes.

Although nine participants were recruited for the study, only five observations were conducted as four participants agreed to do only the interviews. The researcher was also present on the unit during meetings with management to introduce the study, during recruitment, and while waiting to interview staff. During these times, notes relating to informal conversations with staff and overall perceptions of comfort rounds on the unit were compiled in a journal. Site visits and observations took place over the duration of five weeks.

### **Setting Characteristics**

The unit is divided into three sections (front, middle, and back), with a centrally located main nursing desk. During observations, staff described the middle section as having more complex patients, including those with dementia. There are 26-32 beds on the unit. Most rooms have two patients, along with various medical supplies and equipment, television, a single washroom with a shower, and space for personal belongings. Each of the rooms has one

communication board per patient. The communication boards are newly introduced onto the unit and contain information such as the patient's preferred name, weight, names of care team members, a section for the day's plan, any appointments, mobility and diet information, and anticipated date of discharge. These boards were updated at the start of the shift by the NAs. In terms of comfort rounds, the comfort rounds documentation sheets were clipped to the outside of the room doors. In cases where the patient was on isolation, the documentation sheet was left on the isolation cart directly outside of the patient room. Isolation rooms had isolation precautions clearly marked on the door. Several computers on wheels (COWs) were distributed around the unit, primarily located in front of patient rooms.

There is a patient lounge where overcapacity beds are placed as required. The lounge also contains a television and couches for patients. During observations it was noted that some patients were brought to the lounge for meals.

On this general medicine unit, there is a mix of RNs, LPNs and NAs. Additionally, there is a nurse clinician, who works days only, Monday to Friday. Baseline staffing includes eight nurses on days. On evenings, there are seven nurses (RNs and LPNs) and four nurses on nights (RNs and LPNs). Four NAs work on day shift, three on evening shift and two on nights.

Other professionals, including physiotherapists, occupational therapists, physicians, and pharmacists, also practice on the unit. Nursing students, from different colleges and universities, were paired with one or more of the unit nurses. Nurses on the unit receive their patient assignment via a list posted on a bulletin board in the charting room.

The unit had busy periods, especially at the start of shift and during shift change. At the start of any shift, RNs and LPNs would receive their patient assignments, check orders, conduct assessments and vital signs, administer medication, and assist patients to prepare for meals. NAs

supplied water to all patients, assisted with daily care, took daily weights, and then entered them into the computer. Comfort rounds were often coupled with these tasks. Prior to the end of the shift, RNs and LPNs gave report to the charge nurse and finished any outstanding tasks, including charting. NAs administered to the needs of patients one more time prior to leaving for the day.

### **Participant Characteristics**

Participant demographic information is summarized in the table below. Participants P1, P3, P4, P5 and P6 were observed and interviewed whereas participants P2, P7, P8 and P9 were interviewed but not observed. The participants have varied different backgrounds, professional designation and years on the unit (Table 1).

Table 1 includes participant demographic information regarding professional designation, education, years on unit, total years of experience and terms of employment (full time/part time/casual). RNs comprised the majority of the sample and NAs about a third—in addition, there was only one LPN. Years on the unit and years of experience ranged from 3 months to 7 years and 1 year to 45 years respectively. Their employment status included full time, part time and casual staff. All team members that volunteered were included in the study.



Table 1: Participant demographics including participants identifier, professional designation, education, years on unit, total years experience and full time/part time status

Participants Identifier	Professional Designation	Professional Education	Year on unit	Total years of experience	Full Time/Part Time/Casual
P1	RN	Diploma Nursing	7	7	Full time
P2	RN	Bachelor of nursing	1	1	Casual
P3	RN	Bachelor of nursing	3	3	Part time
P4	NA	Nursing Aide Certificate	4	18	Part time
P5	NA	Nursing aide certificate	14	45	Full time
P6	RN	Nursing diploma	8	10	Full time
P7	LPN	Diploma LPN	10	10	Full time
P8	NA	Nursing aide certificate	3 months	2	Casual
P9	RN	Bachelor of nursing	3 years	26	Full Time

### Case context

**Comfort rounds.** Comfort rounds are purposive rounding conducted at regular intervals on patient care units. The rounds represent a proactive approach to reducing falls, delirium, functional decline, incontinence, pain, dehydration and malnutrition (Older Patient Working Group, 2012). The individual rounds consist of providing patients with care every two hours, orientating them, assessing for pain, helping them to the washroom, addressing unmet care needs, scanning the environment for safety concerns and assisting with any other concerns. At the end of rounds, nurses explain to the patients when they will return, documenting as required the rounds, and communicating changes in patients' status to other staff. The respective rounds

are carried out throughout the day and evening, and during the night when the patient is awake. Additionally, during the evening rounds, nurses focus on helping the patient to fall asleep. Depending on availability, individuals responsible for conducting the rounds can include RNs, LPNs and NAs (Older Patient Working Group, 2012).

The nursing staff (RNs, LPNs and NAs) is responsible for conducting the rounds. All interview participants specified that comfort rounds did not involve physiotherapists, physicians, allied health, security, or any other member of the health care team, including students. In fact, when asked, interview participants stated that these individuals were most likely unaware of comfort rounds. In contrast, documents indicate that other health care professionals, specifically physicians, should be involved. However, these documents neither specify how to engage these other health care professionals nor who is responsible and accountable to engage them.

Most participants stated that comfort rounds were conducted more often than every two hours. Nurses were seen consistently rounding on patients, specifically at the start of the shift, prior to and after breaks. On nights, rounding was conducted when the patient was awake. Additionally, nurses were seen going to patients' rooms and checking on them no less than every two hours. Most nurses coupled the rounds when providing patient care and other tasks such as administering medications. Some nursing team members would do the comfort rounds together, especially when it came to repositioning patients, who required special assistance. Although rounding was done at frequent intervals and conducted more than every two hours, nurses were not seen formally following the comfort round script and conducting all components of comfort rounds at each round. For example, they would go into the room and help to reposition the patient, provide a drink and take vitals, but not take the individual to the washroom or address pain management.

**Education.** An in-service session about comfort rounds was conducted on the unit in December, 2012; however implementation of the comfort rounds was delayed due to a norovirus outbreak on the unit. One of the participants reported that the outbreak led to the postponing of the initiative for about 3-4 weeks, as they did not want to roll out an initiative during a time with so many other new demands. The program included a discussion of what comprises a comfort round, how to carry out a comfort round, and documentation of the rounds. Conducted by a member of the Elder Friendly Advisory committee (a RN), the session took place over fifteen minutes at a time most convenient to the staff, usually when additional nurses became available to release staff. According to one participant, this method was consistent with previous initiatives.

Nurses could also attend a 30-minute non-mandatory educational session on geriatrics, scheduled on Friday, as part of a series entitled “Elder Friendly Fridays”. The presentations took place on site, and were conducted by a RN member of Elder Friendly Advisory committee. Sessions began at different times throughout the day, and all staff at the hospital could attend. On March 7, 2014, the session focused on comfort rounds. Specifically, the committee member focused on reviewing the process of comfort rounds, and why and how they are conducted.

**Reminders.** A total of seven posters, placed around the unit, summarized the comfort rounds process (see Appendix E). Some staff also had pocket card versions of posters on their badges. In addition, one screen saver at the nursing desk had different slides pertaining to the introduction of the initiative. One of the slides described comfort rounds and stated the importance of doing comfort rounds every two hours in order to prevent falls. Posters, badges and the screensaver served as reminders for the staff, as well as a form of accountability (i.e. staff could reasonably expect patients and families to inquire about them).

This study did not examine whether the aforementioned strategies affected the delivery of comfort rounds. However, some comments seem in order. During interviews and observations, the researcher did not observe any of the staff reference the screensaver, posters, or pocket cards. Nor were patients or families seen discussing or asking about comfort rounds—whether they were aware of their existence cannot be ascertained.

**Documentation.** Documentation represents an important element of the rounds. When comfort rounds were first introduced, staff voted anonymously and selected from a number of different forms of documentation. The chosen form was used by staff on the unit over the next year (see Appendix F). This initial form was not part of the official medical record. This preliminary form, later replaced, corresponds to each of the components of comfort rounds. It provides a checklist whereby the nurse could indicate the completion of each component during the specific comfort rounds, every two hours.

Recently, the original chosen documentation form (see Appendix F) was changed to a bedside care record (Appendix G), which is now a legal document and requires staff to fill out each time they attend to mobility/positioning, elimination, personal care and safety. The bedside care record, used by all units, does not have a heading for pain, although it is one of the components of comfort rounds. This legal bedside care record (Appendix G) was the form used during this study.

Prior to the introduction of the new bedside care record, staff received an education module via email. The module included questions, with an answer key, about documentation. Completion of the module was mandatory, and the initiative was not implemented until 75-80% of staff submitted a completed educational module to their manager. The reason for changing to the new bedside documentation form was not identified in the email sent to staff, except to

describe it as “a communication tool between staff as a documentation of what you have done for/with the patient” (Document 32). One participant revealed that the form was changed because the checklist format used in the original documentation form failed to supply enough information. The same participant also stated that the bedside care record documentation had the added advantage of serving as a legal or formal document and would remain a part of the chart.

Unit clerks stamped each of the bedside care record sheets with the respective patients’ addressograph and room number. The NA on duty during night shift then placed these bedside record sheets on the patients’ room doors. The night NA then removed the completed bedside care records, which the unit clerks entered onto the patients’ charts every day. Once patients are discharged, the bedside care records are sent to health records along with the rest of the patient’s medical charts. Whether the bedside care records have a larger purpose is not known. None of the staff indicated that they referred to the bedside care records in designing patient care or communicating their activities to others on staff. Indeed, it seemed to this researcher that the bedside care records were rarely examined.

**Future implementation.** In the future, information regarding comfort rounds would receive prominence in a brochure given to all patients on arrival to the unit. In addition, orientation packages for new staff would contain information regarding comfort rounds. In terms of monitoring and evaluation, an audit of comfort rounds was planned to take place after the timeframe of the present study. Furthermore, a study is underway to assess and evaluate Elder Friendly initiatives that include comfort rounds (Alberta Health Services, 2014).

### **Themes**

This study primarily asks about nurses’ experiences regarding the introduction of comfort rounds. The main themes that emerged with respect to this question included: i) defining comfort

rounds, ii) attitudes regarding comfort rounds, iii) part of everyday practice, iv) patient dependant, v) barriers and facilitators, vi) factors influencing the lack of engagement. Each of these themes is presented with their respective subthemes.

### **Defining Comfort Rounds**

Many of the participants described comfort rounds as a way to provide comfort to patients [P2, P4, P5, P6, P7, P8], including “assess my patients and try to meet their needs” [P1], “preventative care” [P3], and a mechanism to “make their [patients] stay a bit more pleasant” [P7]. These remarks differ somewhat from the definition of comfort rounds in an educational PowerPoint (Document 12) which states: “comfort rounds is a planned intervention where staff regularly go to each patient at least every two hours during the day and evening and provide care that helps keep the patient safe and comfortable” (Comfort Rounds, n.d., p. 6).

One problem in the introduction of comfort rounds centered around the use of the term. Some nurses referred to comfort rounds as “rounding” or “checking on patients”— these represent typical nursing activities. Indeed, one could infer that document 10 (Appendix D) supports such thinking. The notion of a checklist would indicate the performance of typical nursing activities, which raises questions as to whether comfort rounds represent a quality improvement.

Another problem with the notion of comfort rounds is the term itself. Comfort rounds, it seems, closely resembles more traditional terms, like “rounding”. This lack of distinction blurred the lines between rounding and comfort rounds. This could become problematic and contribute to nurses not buying into the initiative. As described by one participant:

*“I find the term comfort [rounds] off putting...I do my rounds every hour, and with that is comfort care... making sure they [patients] are all right and if I can do anything to facilitate that. [P2].*

### **Attitudes Regarding Comfort Rounds**

The participants’ attitudes about comfort rounds were described in two distinct ways. One description focused on the act of rounding itself. The other description entailed documentation on the bedside care record. That is, participants differentiated between comfort rounds and comfort rounds documentation. Many of the negative attitudes involved the documentation and not the actual rounds. Some nurses primarily perceived documentation as adding to their workload; and this perception perpetuated negative attitudes about having to complete the documentation. These negative attitudes are illustrated by the below quotes.

*“I will do the rounds gladly, but to do the paper work on top of the rounds, it’s like do we not have enough work to do?” [P2]*

*“The physical comfort rounds are fine, none of us have a problem doing them, but it is the paper work. We will do our comfort rounds until we die, but we just won’t fill out the paperwork” [P2]*

*“Okay...I don’t encounter barriers with comfort rounds. I don’t find them...a problem. I feel like they are actually really... integral in my work and they are...an important parcel in terms of our job” [P3]*

*“I find that is what I have a hard time with; it is not the comfort round itself; it is just filling out the sheets. “ [P4]*

*“I do like them, doing them physically going and asking patient needs, that is what I believe, but I really don’t believe in the piece of paper” [P1]*

The bedside care record documentation form was emphasized by many during the interviews. All nine participants discussed the documentation forms in a negative manner, mainly in reference to the new bedside care record.

Participants utilized several different words to portray the documentation of comfort rounds including “demeaning” [P2], “annoying”[P7], “not appropriate” [P3] “elementary”[P2], “a nuisance”[P4], “a chore” [P4], and “a unit joke” [P2]. With the introduction of the new method of documentation, more negative reactions were observed. Partly, these negative attitudes can be attributed to different barriers, such as inconvenience in completing additional paper work, and a perception that this document was not an appropriate method of gauging patient care. Two RNs, with baccalaureate degrees, summarized the attitude of the staff about the launching of comfort rounds.

*“...Actually [the] term of... the comfort rounds and the legal sheet I find almost to be... [sigh] I'm not sure, almost demeaning when they ask us what did you do this hour, and what did you this hour. Like did you make sure, like for me, that is part of my practice. And, umm, why do you need to create more paper work? “ [P2]*

*“You are not going to get a picture of my care from a quick signature on a piece of paper, saying I have changed someone's attends. Like it is totally not an appropriate way of gauging someone's care” [P3]*

### **Part of Everyday Practice**

Many participants describe the rounds as something they have always done irrespective of the new requirements. During a conversation, one participant explained how the rounds were always conducted—only now rounds have a “title” and require “documentation”. One staff member stated that she did rounds due to “habit” [P2]—participants referenced learning about them in nursing school. One could infer that nursing staff understood comfort rounds as a part of nursing practice and care that they deliver. On this point, participants 2 and 3 stated:

*“Comfort rounds are necessary. The documentation of it is not because... I do them religiously because that is how...I was taught and I have been doing it...ever since my first practicum, so since I was 18. “ [P2]*



*“So they [comfort rounds] are an integral part of my shift. I don’t even know where I don’t provide comfort rounds because it is pretty much just always popping in and making sure everything is going well” [P3]*

*“But I know that a lot of nurses do that anyways as a part of their care, and it was found that the term and the implementation of the comfort rounds was [sigh]—it was elementary almost. It is like we are doing this, you know we are doing this. What more do you want?” [P2]*

## **Patient Dependent**

Comfort rounds take different lengths of time, depending on the patient and on the patient’s needs. Many participants discussed how certain patients would require more or less attention depending on their different needs. One nurse spoke of a patient, often bored with not much to do, who walked around the halls and stayed at the nursing desk. She identified such behaviour as a “social need”. To address it, the staff would encourage the family to visit or alternatively would find other things for the patient to do. She advocated individual care plans versus having generic forms and checklists that comprise the same information for each patient. As one nurse said: “[It’s] [d]ifferent with every patient. Not every patient will be hungry; not every patient will be cold; not every patient will be warm or too hot.” [P2]. Many participants referenced the rounds being different depending on patient needs. Independent patients would go to the washroom, provide their own care and reposition themselves. More dependent patients, some with pain, would require different kinds of nursing support.

## **Barriers**

According to participants, the main barriers to implementation of comfort rounds were documentation and complexity of patients and patient assignment.

### *Subtheme 1: Documentation*

All participants repeatedly stated that a prominent barrier to the implementation of this initiative was the required documentation or paper work. Participants identified the bedside record documentation form as a “waste of paper”, “double charting”, “not convenient”, and “taking up time”. The form requires staff to record interventions done each time they go into patients’ rooms. According to one participant, given her patient load, this requirement is not practical or convenient. Some participants, specifically the RNs and LPNs, described the bedside care record documentation of rounds as contributing to double or triple charting. RNs and LPNs often documented several items depending on the shift. RNs and LPNs also charted similar activities on different documentation forms. For example, RNs and LPNs filled out a flow sheet every shift in Sunrise Clinical Manager (SCM). Within SCM are physicians’ orders and where the nurses enter patient intake and output, daily weight, vitals as well as patient report. On night shift RNs and LPNs also fill out additional paper work for each patient including met/unmet needs, assessment form and activity, plus inpatient classification. Both forms of documentation contain elements included in the comfort rounds documentation such as reporting on pain, safety, and positioning.

All RNs and LPNs complete a daily flow sheet on every shift—the form requires a head to toe assessment of all patients, safety checks, and comments on repositioning. Below is an array of quotes illustrating how the staff perceived the documentation form as a barrier.

*“So I think in a lot of ways there is a lot of documentation required that is double charting. So if I sign off a PRN med, it is assumed that I’m signing it off because it is needed. I can put a little note in there under additional information saying patient complains of 9 out of 10 pain to right leg...But I’m required to then go and type up an MPR and document on it. And that is double charting. And that it is unnecessary, but it is required...I’m still not fully available to my patient when I’m spending time on double charting that is pointless. “ [P3]*

*“So they [NAs] have to...go to the room and chart on 11 patients. So you can imagine how many times we went into just one room...and physically have to chart for...all those patients. So I don’t know....I don’t think it is convenient, and [there] should be some better way” [P1]*

*“...Everyone says “Oh yeah, forget it. I go into the room ten times, I don’t have time to chart.” Right, you really can’t argue with that because, yeah, that is true. Right?” [P1]*

*“Maybe a positive would be that they [leaders] are seeing that, and that they are realizing that we are too busy providing comfort rounds to document on comfort rounds [be]cause that is my problem...I want them to see like that....I’m so busy with stuff; I don’t have time to fill in another form.” [P3]*

### *Subtheme 2: Complexity of patients and patient assignment*

Some participants remarked that the complexity of their patients impacts their ability to do comfort rounds. In conversations, during observations, the participants pointed out that certain areas on the unit as having more complex patients (i.e., dementia patients). When nurses received assignments in those sections, participants reported that it could impact or interfere with comfort rounds. It was also reported that the number of patients varies at different times, which often results in “stretching out staff”. On one occasion, when a NA called in sick, this researcher observed that the remaining two NAs had 13 patients each, nearly fifty percent more than usual. This continued until another NA arrived.

One NA spoke to some of the problems and her solutions to the introduction of comfort rounds.

*“...I have the easier load today, but we rotate....so that is why... I have time to do all the comfort rounds....It depends on the section you are in, and it also depends on who working with, who your nurse [RN or LPN] is” [P4]*

*“Like if you have five people, who are flight risk and [can] escape....then you don’t have the time to do the comfort round.” [P4]*

### *Subtheme 3: Team roles and responsibilities*

In several interviews, it became clear that the NAs, RNs, and LPNs differed in their perceptions as to who had responsibility to complete rounds. Although most staff believed that all nurses have responsibility for comfort rounds, some of the NAs indicated RNs and LPNs should do more. In contrast, the RNs and LPNs believed that the NAs should do more. These opposing viewpoints are illustrated by the respective comments of two RNs and one NA.

*“You know some people are lazy....I did three of them [bedside care documentation sheets], and I know that my NAs [are] not doing it. I [may] talk to her once, maybe twice, [but] I’m not going to talk to her again. I [would] rather just do it. Just for the sake of the patient...I did it. I know I did it. Why do I have to wait for the NA to sign it?” [P1]*

*“...Our NAs make it a bit easier...Some NAs are really fantastic. I’d say that 1/3 of them are fantastic, and 2/3 are not fantastic. We just [kind] of need to remind them....They are like okay. I guess I will get to this once I have done my emails, and checked my schedule, you know and that kind of can be frustrating, but that is more of an... staff issue” [P3]*

*“Everybody is supposed to do it [comfort rounds], not just the NAs, but the nurses don’t follow. Some do. There are a few, but...less than half of the nurses do it.” [P4,]*

RNs and LPNs reported that NAs should perform the paperwork and the RNs and LPNs should enter information in the computers. The NAs continually expressed how only they completed the paperwork. It became apparent that the confusion about associated documentation tasks was associated with a lack of differentiation as to who had responsibility for comfort rounds.

*“We felt that it was everybody’s responsibility.... but we are finding that...left it up in the air, and so everybody is responsible. So no one does it” [P9]*

The confusion over roles and responsibilities seemingly represents a significant barrier to the implementation of comfort rounds. The idea that the staff as a whole has to intercede seems

overlooked. Yet, there is no indication that the barrier has received the appropriate attention by those responsible for its elimination.

### **Facilitators**

Over half of the participants could not identify any facilitators for conducting comfort rounds [P1, P4, P5, P6, P8]. Two participants described how some NAs helped with completing the rounds. Participant 3 stated “Oh, umm, our NAs make it a bit easier. Um, some NAs are really fantastic”. Participant 7 believed that the unit required more NAs to implement comfort rounds.

### **Engagement Process Prior to, During and After the Comfort Round QI Initiative**

The secondary research question was how do nurses describe the engagement process prior to, during and after the comfort round QI initiative is implemented. The main themes that emerged with respect to this question included i) lack of knowledge about the full cycle of the initiative, ii) factors influencing the lack of engagement, and iii) methods to engage. Each of the themes, with their respective subthemes, is described in detail below.

#### **Lack of Knowledge of Full Cycle of the Initiative**

##### *Subtheme 1: Understanding the purpose of comfort rounds*

When asked about how comfort rounds were introduced to the unit, many participants seemed unsure, and linked the initiative to the documentation forms brought onto the unit [P3, P5, P6]. One participant stated that the rounds were introduced from “higher [up]... a quality control committee” [P1].

Many participants referenced knowing the importance of comfort rounds; however, they could not specify the types of evidence regarding any clinical outcomes as a result of

implementation of rounds. Participants often linked the importance of comfort rounds to meeting patient comfort and needs.

*“If their needs are there, [sic] they won’t call you.” [P1]*

*“I know that... an elimination schedule decrease[s] UTIs, [which] leads to decreased incidence of UTI-based delirium... when there is a schedule for their care patients seem to have [a] less tense [sic] hospital stay. And so it does help. Don’t ask me the exact articles.” [P2]*

### *Subtheme 2: Monitoring and Evaluation*

No participants could describe what outcomes were measured or evaluated as a result of comfort rounds. One participant reported uncertainty as to whether any outcomes were monitored or collected, although there was the commonly held belief that audits would take place in the coming months. One document (Document 42) included a description of a new learning collaborative that will measure outcomes to evaluate Elder Friendly Care initiatives, including comfort rounds (Alberta Health Services, 2014). Other possible outcomes included tracking call bells, falls, and delirium rates. Such beliefs notwithstanding, at least one participant denied knowledge of any such plans.

*“I’m not sure. I don’t know if they even did any kind of study, or search, or like what’s their statistics, about what. What like about if there is more complaints, less complaints or I really don’t know” [P1]*

### *Subtheme 3: Sustainability*

Overall, some questioned the sustainability of comfort rounds. Questions persisted about providing better justification.

*“I think...we can sustain them...It is not clear who should be doing it....Right? So as... nurses, LPNs and RNs think we are doing enough in the computer. So we don’t have to chart anything, [and the NAs] are not charting anything in the computer. [So] they should chart it on the piece of paper” [P1]*

*“Uhh, to be honest, we don’t want to keep it because like I say it is a waste of time. So, yeah” [P4]*

Most other participants when asked about sustainability would often respond that they did not know. They suggested that perhaps putting the documentation form into SCM and providing more training would contribute to sustainability. Another suggested that more education about comfort rounds would improve its implementation.

### **Factors Influencing the Lack of Engagement**

Factors contributing to the lack of engagement revolved around documentation, and voices not being heard. Each of these will be discussed below.

#### *Subtheme 1: Documentation of rounds*

Most nurses did not appear engaged with the documentation of the rounds. Staff did it because it was required, and not because they were engaged in the process or decision to conduct documentation. All participants, including RNs, LPNs and NAs agreed that the documentation of the rounds added to their work.

*“I don’t feel I was involved in that process of...integrating the paper work aspect....Like these documents that we need to be signing and filling out throughout the shift.... I don’t feel like we have been engaged at all on that. I feel like it would be nice to be engaged with that.” [P3]*

*“No. It was expected that we were supposed to [do] them. I did them for about a week and half before I said enough of this. Because some days you don’t have time. I’m lucky if I get my lunch. And when you’re that busy I can’t afford to worry about [whether] did I write down at 12 o’clock [or] whether I fed and watered my patient. Like I understood the purpose of them, and I do them, but it’s the paperwork that is repetitive. It is so repetitive.” [P2]*

*“I don’t... To be honest nobody is really engaged...I think we do it because we have to do it.” [P4]*

When asked, most participants complained about the lack of feedback in regards to the rounds or documentation. It appeared in observations and interviews that some of the nurses were offended that they were required to document everything they do on the bedside care record. Staff members perceived the documentation as a method that was implemented to ensure they were doing their job.

*“So, I think people are like buckling down on the style of...how we get evidence of how people [complete] comfort rounds. And I think that comfort rounds have never been a problem. It is more an issue of, umm, do you trust your staff?” [P3]*

*“So that is...the only negative... is just frustration because I feel like... it is required.... [but] do they even look at it? And if they do look at it, do they get any realistic picture at all of anything besides the fact that they are making sure that I’m doing my job?....So I think that might be the only negative impact is just that more frustration for me and less understanding... of the reality [sic] is for our job” [P3]*

### *Subtheme 2: Voices not being heard*

Some participants mentioned that they had an opportunity in staff meetings [P2] or in private [P1] to discuss comfort rounds. Despite these opportunities, some participants still felt that feedback was not fully incorporated in administering the initiative.

*“Uh, do I feel engaged in the comfort rounds initiative? No...in that when I have been asked about my opinions, the response about my opinions around comfort rounds has usually resulted in ‘uh huh, okay, we will take it into consideration’. So I just keep my mouth shut.” [P2]*

*“Don’t say, ‘I want your feedback’, and [then] don’t do anything about it. Because we make our voices known and the nurses don’t want to do these sheets on the unit, but we still have to do them because we have been ignored. This is how I feel and the general group sometimes” [P2]*

### *Subtheme 3: Disengaged Behavior*

Participants overall agreed that the formalized bedside care record documentation is not needed. Some staff declined to complete the documentation. Illustrative of this disengaged



behaviour, this researcher observed that only one participant filled the documentation form at the end of the shift. From surveying the documentation sheets on the unit over the several weeks of this research, this researcher observed that the majority of the forms were not filled out. One NA commented that they have stopped filling out the forms to express their dislike towards the documentation form. Two RNs went so far as to describe their actions as rebellious.

*“I don’t know. I feel like I have no ideas about those...That’s why the last week or two I decided that when I don’t have time to sign those, I’m not [laughs]....I don’t know. I [kind] of feel it is an act of rebellion. [laughs] I haven’t done this before” [P3]*

*“We are just told to [do] them [bedside care record documentation]. So we are silently rebelling.” [P2]*

## **Methods of Engagement**

Despite the participants’ viewpoint about the lack of engagement in introducing the initiative, participants complimented AHS on some of its efforts. These efforts included allowing the staff to choose among different documentation forms and the training associated with the introduction of comfort rounds in the initial introduction of comfort rounds.

### *Subtheme 1: Choice of documentation*

Prior to the implementation of comfort rounds, participants had the opportunity to choose the documentation sheet they preferred. There were seven choices. Six documentation sheets used checklist format, the other used a charting format, which the unit staff preferred. Only two participants raised matters for discussion, with one complaining that the process seemed less consultative than demanding or “forced” [P6]. Although staff had chosen the documentation form (Appendix F), it was not apparent to any of the participants as to why the new form (Appendix G) was adopted. Two nurses commented as much.

*“They just changed it. We did not know what’s coming” [P1]*

*“God, I don’t know. I’m just the grunt; they pay me to work. I don’t ask questions very often” [P2]*

### *Subtheme 2: Education regarding comfort rounds*

As described earlier, the AHS introduced comfort rounds by using four different approaches: 1) a mandatory 15-minute in-services staff huddles on the unit 2) a 30-minute non-mandatory Elder Friendly Friday meeting that focused on comfort rounds; 3) an education module regarding the new bedside care record form; and 4) a video link about comfort rounds on the internal website of the Elder Friendly Committee. When asked about their preparation regarding the initiative, one RN and two NAs explained that they received no education at all [P3, P4, P5]; whereas one RN remembered the mandatory in-services huddle [P1], and another recalled the non-mandatory Elder Friendly Friday meeting [P1].

*“We were showed what to do....like what to do and how to do it, but that is it. We didn’t get any education. I never did. I don’t know about any other people, but I never did” [P4]*

### **Nursing Team Practices After the Initiation of the Comfort Rounds QI Initiative**

The final research question was how do the practices of the nursing team differ after the initiation of the comfort rounds QI initiative? Many of the participants revealed that comfort rounds have not changed practice. One participant described how the rounds are an intuitive part of the care they regularly provide.

*“Mine [my practice] is still the same, and it will remain the same, and it does not matter if there is comfort rounds or not.” [P1]*

*“I feel, like intuitively, it is part of my care anyways, and it’s kinda what I learned in nursing school.... So prior to those pieces of paper on the door, comfort rounds were just part of my role anyhow. “ [P3]*

*“I don’t think... [anything has] changed. We still get the chronic callers. We still get people who try to escape, and I don’t think it made a difference” [P4]*

With the exception of one participant, nurses could not indicate any positive changes that have resulted after the introduction of comfort rounds [P1, P2, P4, P5, P6, P7, P8]. The one participant who did indicate a positive change explained that perhaps introducing the rounds may have resulted in more accountability from staff to check on patients; however, at the end of her response, she concluded by saying “I don’t know what the positives would be” [P3].

On the other hand, when asked about any negative consequences, the majority of the staff pointed out several. They included increased negative attitudes specifically about documentation [P2, P5, P7], increased frustration with workload [P3], increased time it takes to fill in documentation sheet [P6], and additional paperwork [P7].

As described above, participants often explained that providing comfort is what nurses do. Consequently, they did not associate the introduction of comfort rounds as new to nursing practice. Nevertheless, they had some recommendations on how the AHS could better introduce the initiative. Two specific recommendations involved audit and feedback, and education.

### **Recommendation 1: Audit and Feedback**

Participants recommended audits and feedback, similar to hand hygiene practices. One participant explained that auditing staff and monitoring care is more accurate than a signature on a piece of paper. It was also implied that auditing staff could encourage more individuals to conduct the rounds if they are aware that someone is monitoring them. Staff expressed the importance of receiving feedback from leaders. Participants stated that they wanted a two-way dialogue and for feedback to result in improvements.

*“They should either audit them or monitor them, or..., maybe even talking to the families if there is [sic] complain[ts]. Ask the family, ‘okay what happened?’.” [P1]*

*“Uhh, when you get feedback, use it and take into account, but then come back to those that have given you the feedback and have that two way dialogue....We make our voices known, and the nurses don’t want to do these sheets on the unit, but we still have to do them because we have been ignored. This is how I feel and the general group sometimes” [P2]*

## **Recommendation 2: Education**

One participant also recommended having mandatory education for all staff on problems or unmet needs of patients, including information regarding dementia and marginalized populations. She noted that the majority of long-term patients elderly. This participant also wished to have more patient centered care and specifically wanted more information on how to provide the best care possible for this population.

*“Like training on dementia,..... [and] on marginalized populations....[Training] can be mini in-services, but they need to be [mandatory] cause I think that way everyone is on the same page...” [P3]*

## **Summary**

In summary, each of the three main research questions were discussed within the main themes and subthemes found in the data from documents, interviews and observations. The case context, participant and setting characteristics were also outlined. Nurses described their experiences and their voices were highlighted in regards to all components of the rounds. This included their engagement with the rounds, barriers and facilitators encountered, attitudes towards the rounds, documentation of the rounds, and recommendations of how to improve the rounds. In Chapter 5 the results are contextualized within the knowledge to action cycle and literature

## **Chapter Five: Discussion**

Chapter 4 discusses results in the context of the knowledge to action cycle (Graham et al., 2006). It presumes that i) frontline staff can help identify barriers and facilitators; and ii) engaging frontline nurses throughout the entire QI initiative process (i.e. from planning stages to sustainability) is essential for implementing practice change. In addition, the strengths, limitations, recommendations, and conclusions of the study will be presented.

### **Defining Components of the Rounds and Being Clear About Expectations**

Research suggests that defining components and expectations is important to the implementation of hourly rounds (Baker, 2012). Nevertheless, the present study indicates most participants had different perceptions regarding comfort rounds, why they were implemented and how they were to be conducted. There was a lack of clarity about comfort rounds, specifically that purposive rounds included a proactive approach. Many participants understood comfort rounds as a part of their practice and not a highly scripted, proactive QI initiative. Indeed, when they discussed the rounds, participants described them as a way to provide comfort for their patients without elaborating on the elements or specific outcomes of the rounds. Yet, it would seem that if nurses are unable to describe the purpose of the rounds and if their beliefs and values are incongruent with the implementation of the quality improvement initiative, it hinders their engagement.

In a quasi experimental study of rounds, Culley (2008) found that nurses often reported that rounds were conducted prior to the formal implementation of comfort rounds. In this study, these findings were considered areas important to address when educating staff (Culley, 2008). Educating nurses about the purpose of the rounds and the intended impact they make would seem essential.

It is also important to consider the language used in describing comfort rounds, namely, whether they involve a proactive approach versus a preventative approach to care. There is a difference. A proactive approach involves “acting in anticipation of future problems, needs or changes” (Proactive, n.d.), whereas a preventative approach attempts “to stop (something) from happening or existing” (Prevent, n.d.). Comfort rounds were initiated with the intent to prevent falls, delirium, functional decline, incontinence, pain, dehydration, and malnutrition (Older Patient Working Group, 2012). If comfort rounds focus on problems and deficiencies then they bespeak of prevention. For example, to prevent pain and to create protocols and procedures to reduce pain is emblematic of downstream thinking. By reframing this thinking to a proactive approach, and positioning comfort rounds in terms of upstream positive thinking, comfort rounds can be reconstructed in a different way. For example, emphasis on a proactive approach would involve measures to ensure comfort which would, in turn, include pain reduction. A shift in the description of the context and purpose of comfort rounds to ensuring comfort would accentuate the positive contribution of nurses. This potentially could alter the way nurses think about comfort rounds. Furthermore, it would exemplify a less medical or more of a nursing approach to health care services.

Many of the nurses in this study described comfort rounds as part of their practice. Six of the nurses described their personal definitions of comfort rounds as a way to provide comfort to patients. Empowering nurses and reframing thinking that comfort rounds is what nursing ultimately does could impact the way nurses perceive and fully engage in comfort rounds.

## **Part of Everyday Practice**

An incongruence was seen between the nurses describing that rounding was part of everyday practice and the observations that took place on the unit. Many of the nurses discuss how comfort rounds is something that they have always done since nursing school and is part of everyday care that they deliver. The observations that took place do not validate this practice. It was noted during observations that rounding was done frequently, however nurses were not seen formally conducting all components of the rounds and following the comfort rounds script. Therefore, the observations do not support the nurses' claims that this initiative is indeed part of their everyday practice. This could be influenced by nurses not understanding the purpose and expectations of the quality improvement initiative as described earlier. Instead, they may see the "rounds" or "checking on patients" as individual nursing care tasks (i.e. assessing for pain, repositioning patients) that have been engrained as a part of their practice.

A potential problem that arises in relation to nurses seeing comfort rounds as everyday practice, but not implementing all components of the rounds, is assessing the effectiveness of the rounds. Evaluating whether comfort rounds is effective would rely on nurses implementing the rounds as outlined. This may also explain why nurses did not see a positive change on the unit as a result of the initiative. Clarifying the confusion between "rounding" and comfort rounds would be essential moving forward. Engaging and listening to nurses, specifically from the beginning of the initiative may also present as a way to mitigate this barrier.

## **Monitoring and Evaluation**

In this study the nurses could not identify outcomes related to comfort rounds and were not involved in the monitoring and evaluation of the rounds. If staff cannot identify any tangible clinical outcomes, they cannot understand the significance of comfort rounds to the care and

welfare of their patients. This was evident as many of the nurses indicated that unit practices of nurses did not change after the initiation of the comfort rounds. However, there are other measureable outcomes that nurses would find useful (Appendix H). It would be important for nurses and their leadership to choose relevant and defined outcome measures that are shared with all unit staff. Sharing evidence or other data regarding outcomes and how they were achieved would demonstrate that unit practices can potentially influence outcomes. The source, timelines of data and ongoing data feedback is essential to sustain the quality improvement initiative (Bradley, Holmboe, Mattera, Roumanis, Radford, & Krumholz, 2004).

Selecting appropriate and clearly defined outcome measures and sharing results with staff has important value to everyday practice (Baker, 2012). Currently, as described by document 42, there is a funded study to monitor and evaluate Elder Friendly initiatives, including comfort rounds on the unit (Alberta Health Services, 2014). Key performance indicators using a balanced score card will track impact of the rounds (Alberta Health Services, 2014). Quality indicators can help to monitor and evaluate outcomes within the organization (Straus et al., 2013). Moreover, in terms of engagement, frontline staff will have the opportunity to choose the key performance indicators. It should not only help the teams become aware about outcomes, but also assist them to take ownership of the results (Alberta Health Services, 2014).

Some outcomes, like call bell use, can provide contradictory results. For example, there are the “chronic callers”, who will use the call bell even when a nurse is present in the room. Other times, patients, after indicating that all their needs are met, would call with a question or make a request five minutes later. This could indicate that the use of the call bell does not represent a comfort round need. As described by Harrington et al., (2013), “ringing the bell was not indicative of urgent needs, but rather was because of a deterioration of patients’ cognitive



status with an underlying emotional or psychological component” (Harrington et al., 2013, p. 526). The selection of outcomes, then, can prove highly problematic.

Several authors have commented on the quality of research about comfort rounds and documented impact on outcomes. Halm et al. (2009) conducted a literature review, specifically identifying the level of evidence. The authors found that “available evidence represents class IIa/b, indicating rounds is appropriate safe and useful for practice” (Halm, 2009). Yet, Forde-Johnston (2014) after conducting their literature review suggest that rigorous study designs, specifically in the United Kingdom, could determine the effectiveness of comfort rounds (Forde-Johnston, 2014). Moreover, Mitchel, Lavenberg, Trotta & Umscheid (2014) reported that the degree of variability in rounding protocols and outcomes makes it difficult to compare effectiveness among studies. Nevertheless, Mitchell, Lavenberg, Trotta, & Umscheid, (2014) determined that there is moderate evidence available that supports the value of rounding in reducing patient falls and call bell use. In general, although more research is needed, and despite the varying claims, researchers did conclude that there is some evidence available that demonstrates the positive impact of comfort rounds.

### **Sustainability**

Lastly, when assessing comfort rounds, participants seemed unaware of any long-term plans to ensure their sustainability. That is, they could not articulate any strategies to ensure nurses appreciated their usefulness and practicality. Lack of knowledge about the purpose of the initiative, the absence of monitoring and evaluating tangible outcomes and lack of awareness regarding sustainability of the initiative collectively influenced the lack of full engagement of the nurses. These are all important and essential steps of the knowledge to action cycle (Graham et al., 2006), which seemingly had little place in the implementation of this initiative. The

knowledge to action cycle describes sustainability after evaluating outcomes, however, planning for sustainability early in the cycle as possible is critical (Straus et al., 2013).

In one study, researchers conducted a six-year study to determine the impact of hourly rounds and described strategies to sustain the rounds (Kessler, Claude-Gutekunst, Donchez, Dries, & Snyder, 2012). Ten strategies for sustainability identified were to:

1) Define qualitative and quantitative metrics associated with hourly rounding. 2) Include hourly rounding within unit orientation. Identify the concept as an orientation competency. 3) Include hourly rounding as an annual competency. 4) Address the rounding process with individual staff members during patient rounds by the unit manager. 5) Include rounding as a regular staff meeting agenda item. 6) Utilize rounding logs. 7) Employ scripting. 8) Reward and recognize staff for their efforts. 9) Utilize the unit's decisional involvement processes (e.g., shared governance councils) to assure continuous evaluation and enhancements. 10) Continuously monitor predetermined metrics and, as necessary review and refine processes. (Kessler et al., 2012, p. 244).

Many of these strategies were not employed on the unit and could assist in improving their sustainability. Sustainability is an essential step in the knowledge to action cycle and is a continual process that requires constant assessment (Straus et al., 2013). Two essential factors required for monitoring sustainability in an initiative include monitoring systems and data feedback mechanisms (Straus et al., 2013). Many of the above ten listed strategies can assist in monitoring and assessing sustainability throughout the initiative.

## **Documentation**

Nurses seem most disgruntled by the introduction of additional documentation that they found burdensome and a distraction from other important nursing work. Many of the participants

found it required extra time and did not reflect the care provided. Additionally, several participants did not believe that the documentation sheets received assessment or evaluation. Indeed, they displayed a lack of understanding of what nurses do. Many of the participants liked conducting the rounds but not the documentation because it added to their workload and resulted in double charting. Documentation of the rounds, it seemed to them, was “demeaning” and not an accurate depiction of the care provided.

In this study, lack of engagement was partially due to changes in the selected documentation form that the staff had chosen. Additionally, the amount of paperwork already required on the unit was a concern of many of the nurses and may have contributed to an overall burden with documentation as a whole. For this reason, AHS should engage nurses and ask their feedback prior to implementing any future changes with documentation. Factors important for effective teams include regularly communicating, and sharing information and ideas with team members (Mickan & Rodger, 2005). Additionally, framing what work is done on the unit with documentation could provide a sense of where overlap exists among the different forms.

Anecdotally, nurses reported that an electronic form could facilitate documentation, especially if it was added to existing forms such as the daily flow sheet on SCM. As noted by Neville et al., (2012) “[d]ocumentation of hourly rounds warrants the creative use of computer technology and automation to reduce the nurse perceived time constraints and inflexible processes of traditional paper documentation” (Neville, Lake, LeMunyon, Paul, & Whitmore, 2012, p. 87).

Nurses have articulated that additional documentation associated with comfort rounds generally became a barrier to nursing practice (Neville et al., 2012; Tucker, Bieber, Attlesey-Pries, Olson, & Dierkhising, 2012). In a similar study, Lowe et al. (2012) found that nurses

described that rounding was already a part of their practice and the implementation of a checklist (or rounding documentation form) “[was] patronising to nurses because.... [it implies] that if there is no checklist then essential care is not carried out” (Lowe & Hodgson, 2012, p. 39). Study participants in a second study reported that having a rounding protocol “minimized the sense of professional autonomy and self directed practice” (Neville et al., 2012, p. 86). Educating staff about the purpose of the documentation forms and its relevance to both recording the initiative and examining the effectiveness of the initiative in terms of outcomes would improve implementation. Another strategy to reverse disengaged behaviour would provide staff with information as to how these activities improve outcomes (Shepard, 2013). If staff can see the results, this could affect their attitudes and intentions to both conduct and document the rounds.

Through both observations and interviews, refused to document the rounds and defined it as an “act of rebellion”, despite knowing that it is a legal document. One nurse specifically described the act of rebellion as a way to be heard by management. As described earlier, it has been noted in both the literature and this study that documentation was seen to be a burdensome barrier to practice. Brooks (1998) has identified barriers to documentation to including workload demands, staffing, format of documentation, and redundancy. Similar accounts of the documentation of comfort rounds were heard in this study. Engaging nurses to discuss these barriers and ways to mitigate these barriers to documentation is critical.

In their article, Pawson et al. (2014) discuss opportunities for change in health systems, not unlike comfort rounds. The researchers divide change into two parts. Procedural change is “task orientated, involving redesign in work routines and procedures” (Pawson et al., 2014, p. 131), and motivational change which “concentrates on individual members of organisations and seeks to improve their motivation morale” (Pawson et al., 2014, p. 131). Pawson et al. (2014)

explain how procedural changes and motivational changes do not work in isolation, but are interconnected. With regards to the implementation of comfort rounds in this study, I believe, a change in everyday practice of including a new behaviour (procedural change) was implemented without the corresponding motivational change. This coupled with nurses not understanding the purpose of the rounds likely contributed to negative attitudes expressed by participants in the study.

### **Methods of Engagement**

In the present study, other factors influenced a lack of nurse engagement. One, the nurses felt that their voices were ignored and that feedback was not incorporated, which in turn made them feel as though there were not engaged.

In this study, AHS did attempt to engage the nurses. Initially the staff was asked to choose the form of documentation, although this later changed. However, the multi method approach to engagement was not apparent. There are a variety of methods of engagement that are found in the literature. They consist of asking staff to complete a pre-implementation survey (Kessler et al., 2012), “[signing] a statement indicating their commitment and pledge to adhere to the rounding protocol” (Kessler et al., 2012, p. 241), asking for staff input, holding staff meetings to discuss patient rounds (Kessler et al., 2012; Tea et al., 2008), providing hourly rounding videos that elaborate on components of comfort rounds (Bourgault, King, Hart, Campbell, & Swartz, 2008), distributing information pamphlets (Dewing & O'Meara, 2013), assigning ward coaches to help with the rounding process by including “teaching, promoting, and working alongside frontline ward staff” (Hutchings, Ward, & Bloodworth, 2013, p. 29), identifying unit champions (Kessler et al., 2012), coaching and mentoring all staff for three months (Krepper et al., 2014), and lastly, ensuring manager feedback (Tea et al., 2008).

The International Association for Public Participation (2007) Spectrum of Public Participation (SPP) model depicts engagement along a spectrum, according to five different levels of participation (or engagement): inform, consult, involve, collaborate, and empower. Each plays a role in the decision making process. The model's core values emphasize the importance of individuals in any decision-making process that affects their interest. Reflecting on the results of the study, the nurses would appear to be in the beginning of the spectrum, the inform category, which includes the promise "we will keep you informed" (International Association for Public Participation, 2007, p.1). Categories later in the spectrum further include descriptors such as listening to, acknowledging, incorporating advice and implement what the participants decide (International Association for Public Participation, 2007). In the future, it would be essential for those implementing the initiative to define their target of engagement on the spectrum, and implement the appropriate methods to engage participants respectively.

Recognition is another important means to engage staff and ensure sustainability of any initiative. One study described various kinds of rewards, such as "certificates presented to compliant staff members at unit meetings, free cafeteria meals, gift certificates from area merchants or additional paid days off" as methods to reinforce rounding behaviours (Generals & Tipton, 2008, p. 12). Other authors discussed displaying patient and senior leadership feedback on staff recognition boards (Hutchings et al., 2013), unit staff receiving awards as a result of the initiative (Kessler et al., 2012), and a weekly award for the best rounder as voted by patients (Moran et al., 1994).

Patients were also engaged in the process of implementing comfort rounds by the unit staff. Methods included administering a welcome letter, which includes a description of the rounds, for every patient, and the rounding logs, strategically placed beside these welcome

letters. (Kessler et al., 2012), creating an information leaflet for patients (Ciccu-Moore et al., 2014; Dewing & O'Meara, 2013), and having posters around the unit with information, regarding the purpose and frequency of the rounds (Krepper et al., 2014).

### **Team Roles and Responsibilities**

Delineating team roles and responsibilities for all staff members is critical to the implementation of comfort rounds. In the present study, comfort rounds were the responsibility of all team members, however all staff did not necessarily perceive it this way. In order to ensure accountability, roles and responsibilities need explicit definition. The team leader would, as a facilitator, define the roles and responsibilities of each team member, share team objectives, and monitor behaviours (Salas, Sims, & Burke, 2005). In order for nurses to understand their roles and responsibilities, it is essential for all members to comprehend each other's respective roles (Salas et al., 2005). As described by Salas et al. (2005), "effective teams are comprised of members who maintain an awareness of team functioning by monitoring fellow members' work in an effort to catch mistakes, slips, or lapses prior to or shortly after they have occurred" (p.575). If team roles and responsibilities are not clearly defined it would be difficult to achieve appropriate implementation of comfort rounds.

Lowe et al. (2012) also reported that complex patients have untoward affect on hourly rounding because they require more nursing care. It is important that in these circumstances nurses can rely on other team members to assist with the rounding process. Specifically, having RNs, LPNs, and NAs take alternate turns in conducting rounds and communicating changes within the care team (Halm, 2009). Failure in communication can contribute to adverse events; therefore, processes and structures that foster effective communication are essential (Leonard, Graham, & Bonacum, 2004). One strategy to enhance communication is to conduct a briefing at

the start of every shift so that everyone is on the same page (Leonard et al., 2004). For comfort rounds, this could involve nursing team members caring for a certain section of patients. Information such as to how nurses would respond to any changes in completing assignments would be important points of discussion at the start of the shift.

Re-examining and redefining current roles would be an essential opportunity to look at the current structure and facilitators that exist on the unit. For example, the role of the middle manager has been identified as being critical to healthcare implementation (Birken, Lee & Weiner, 2012). They are an effective conduit between top managers and frontline staff to disseminate and synthesize information. Additionally, they play an essential role to both implementing and encouraging the initiative (Birken, Lee & Weiner, 2012). Reassessing the role of the middle manager and ensuring that the above mentioned responsibilities are fulfilled could present as an important opportunity for leadership (i.e. top managers) to potentially impact the effectiveness of implementation of the innovation (Birken, Lee & Weiner, 2012). Supplying middle managers with information, resources, support, and training could present as important facilitators when re-examining the role on the unit (Birken, Lee & Weiner, 2012).

Another role to consider when delineating roles and responsibilities on the unit includes the role of the clinical champion, or champions at the unit level. From the findings, it was evident that there was not an individual who took on the role of clinical champion for comfort rounds on the unit level. The role of champion can involve disseminating information, serving as a valuable resource and facilitator, and being a persuasive leader (Ploeg et al., 2010). Further research about characteristics needed to select and identify champions on a unit is required (Ploeg et al., 2010).



## **Lessons Learned**

Participants did not describe any lessons they learned as a result of working on the comfort rounds. That is, they generally believe that patient care and welfare represent core elements in all nursing activities, irrespective of the purpose of comfort rounds. Two recommendations suggested by participants included i) audit and feedback and ii) education.

### **Recommendation 1: Audit and feedback**

Audit and feedback was recommended by one of the participants. Audit and feedback is an important knowledge translation (KT) intervention and an essential process for “demonstrating the gap between actual and desired performance [which] will motivate clinicians or health care systems to address that gap” (Straus et al., 2013, p. 128). Jamtvedt, Young, Kristoffersen, O’Brien & Oxman (2006) conducted a Cochrane review of randomized trials, and found that audit and feedback is an effective method to improve professional practice, especially if health care professionals are involved in the change process.

In the present study, nurses indicated that they preferred in person audits from nursing leaders. They believe that auditing the documentation forms does not provide an accurate depiction of the rounds and care they provide. Other authors have also described using nursing leadership in the audit and feedback process as one strategy to remain in communication with the staff, provide feedback and ensure that the rounds are being conducted (Baker, 2012; Hutchings et al., 2013; Kessler et al., 2012; Olrich, Kalman, & Nigolian, 2012). An alternative strategy that can be used in the audit and feedback process is by engaging patients. This can be conducted by personally speaking with patients (Baker, 2012), and by interviewing patients on the unit (Moran et al., 1994).

## **Recommendation 2: Education**

Another participant described the importance of additional education. It would clarify the purpose of comfort rounds, documentation, and the impact on the quality of care. The abbreviated and unsystematic introduction of comfort rounds likely contributed to the staff's lack of-or mis-understanding about the significance and clinical importance of the initiative. Large group sessions, although common, are not effective means to enhance performance (Straus et al., 2013). Using multiple education intervention methods, such as interactive small group or self-directed learning, represent more effective strategies (Straus et al., 2013).

Other studies that implemented comfort rounds used a variety of different forms of education, including one hour workshops and lectures (Kessler et al., 2012), presentations (Bourgault et al., 2008; Dewing & O'Meara, 2013; Moran et al., 1994; Sobaski, Abraham, Fillmore, McFall, & Davidhizar, 2008), modules (Bourgault et al., 2008; Hutchings et al., 2013), monthly education (Culley, 2008), providing literature regarding rounds (Dewing & O'Meara, 2013), workshops (Dewing & O'Meara, 2013; Hutchings et al., 2013), site visits (Dewing & O'Meara, 2013), four hour workshops (Krepper et al., 2014), videos (Krepper et al., 2014), role playing (Krepper et al., 2014; Tea et al., 2008), intensive training of champions to educate other staff members about an initiative (Krepper et al., 2014), and training videos (Meade, Kennedy, & Kaplan, 2010). Some organizations also perform assessments to measure the effectiveness of any training: they include written assessments (Baker, 2012; Meade et al., 2010) or even competency assessments (Baker, 2012).

Although it can be argued that ample education was provided to participants such as 15 minute in-services on the unit, 30 minute non-mandatory meetings, education module regarding the new bedside care record form and a video link on the internal website, it is important to

determine the effectiveness of these strategies. Pathman, Konrad, Freed, Freeman and Koch (1996) used physician survey responses to test an awareness-to-adherence model that proposes four steps of learning when adopting new clinical guidelines. These four sequential steps include awareness, agreement, adoption and adherence (Pathman, Konrad, Freed, Freeman & Koch, 1996). Nurses' were unaware of the purpose and significance of the comfort rounds initiative. Additionally, many of them expressed throughout the study that they did not agree with the implementation of the initiative, specifically the documentation. This may in turn hindered their adoption and adherence of the initiative. As described by Straus et al. (2013), pairing educational interventions to each of the four steps described by Pathman et al (1996) could serve as a useful strategy for future education. Another important strategy would be to have different forms of needs assessments to determine the educational needs of the group (Straus et al., 2013)

### **Theoretical Propositions**

The research findings support the theoretical thinking that underlies this study. That is engaging frontline nurses throughout a QI initiative process (i.e. from planning stages to sustainability) is essential for implementing practice change. And two, frontline staff can help identify barriers and facilitators so important in the design of any QI initiative. The “lack of buy in” from the nursing team could be overcome by empowering the nurses to voice their concerns and come up with processes to mitigate these barriers.

Based on the findings of this study, several recommendations are suggested for consideration as discussed earlier. To assure consistency and understanding of purposive rounds another review of the components using multiple educational and other KT interventions such as audit and feedback would provide useful information. In so doing, it is important that the comfort rounds have clearly defined outcomes. Additionally, sharing data regarding these

outcomes would benefit staff; that is, the staff would understand how comfort rounds impact practice.

Engaging nurses would be critical. Engaging team members from the beginning of the initiative would be essential. Facilitation could include nurse champions at the unit level (LPNs, RNs, and NAs) so they invest actively in the comfort rounds. Providing ongoing feedback on how comfort rounds are progressing (reaching goals) would be important— it could involve leadership rounds. Finally, after consulting nurses, alter the format of documentation to make it more practical, such as adding a section about comfort rounds to existing forms of documentation or making the format electronic.

It is important to note that comfort rounds was first implemented a grass root initiative that started with little funding. From an organizational perspective, recommendations, such as providing additional education or conducting audit and feedback, may require time, resources and dedicated individuals who may not be available on units. As stated by Straus et al. (2013), “you will almost always encounter limitations of time, finances and resistance” (p.268). Strategies suggested by Straus et al. (2013), include addressing all phases of the knowledge to action cycle, having a simple and pragmatic plan, having clearly defined outcomes, engage stakeholders and tailoring strategies to the setting where the initiative is being implemented.

### **Study Limitations and Strengths**

This study used convenience sampling on one acute medicine unit. In future studies, to determine any contextual differences, other different areas/sites where comfort rounds are implemented should be explored. A cross comparative study would likely increase our understanding as to how different contextual elements affect success. Additionally, although the sample included RNs, NAs, and LPNs, only one LPN was interviewed. A more equitable

distribution of participants would likely be beneficial. Finally, the coding and analysis was conducted by one researcher, which could lead to bias. Due to the feasibility of the study a second coder was not used, however themes and quotes to substantiate the themes were shared with another person after analysis. Additionally, a kappa coefficient was integrated as an important part of the coding process to increase accuracy during the analysis process.

The strengths of this study include the rigour in data collection and analysis. The researcher used many of the procedures outlined by Yin (2009) including: creating a case study database and maintaining a chain of evidence. Additionally by listening to what nurses' report about the initiation of comfort rounds, this study fills an important gap when making such improvements. For the first time, we have information about the viewpoints and perspectives of those ultimately responsible for their implementation.

### **Future Research**

Nurses' experiences in comfort rounds and recommendations for consideration have been described in this research. Future research is required to further explore nurses' experiences and engagement on other units. Comparing experiences from different units and sites would be essential in determining the different barriers and facilitators in areas other than acute care. Measuring and evaluating outcomes associated with comfort rounds are other areas for future research. As importantly, if less directly associated with the research question, future research should examine how the engagement of other health care professionals in such initiatives affect selected outcomes.

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## APPENDIX A: LITERATURE REVIEW SEARCH TERMS

Date search conducted: for the period June 1976 to May 27, 2013 (with monthly alerts until present)

Search terms/strategy:

- 1) [Nurse\* OR clinician\* OR professional\* OR personnel\* OR provider\*] AND [Health OR health care OR healthcare OR delivery of health care]  
AND
- 2) [quality OR quality improvement OR safety OR patient safety] AND [improvement or initiative OR innovation OR project OR collaborative OR network OR team OR nursing OR patient care team]  
AND
- 3) [engagement OR involvement OR nurse engagement OR clinical engagement OR clinician\* engagement OR provider engagement]

Databases searched:

- ❖ MEDLINE (OVID) 1160 (1246 before English limitation)
- ❖ CINAHL (EBSCO) 589 (617 before English limitation)
- ❖ EMBASE EXCERPTA MEDICA (OVID) 1714 (1839 before English limitation)
- ❖ PsycINFO (OVID) 260 (260 before English limitation)
- ❖ SocINDEX (EBSCO) 74 (160 before English limitation)

Total articles from databases: 3797 articles

Duplicates from databases: 1031 articles

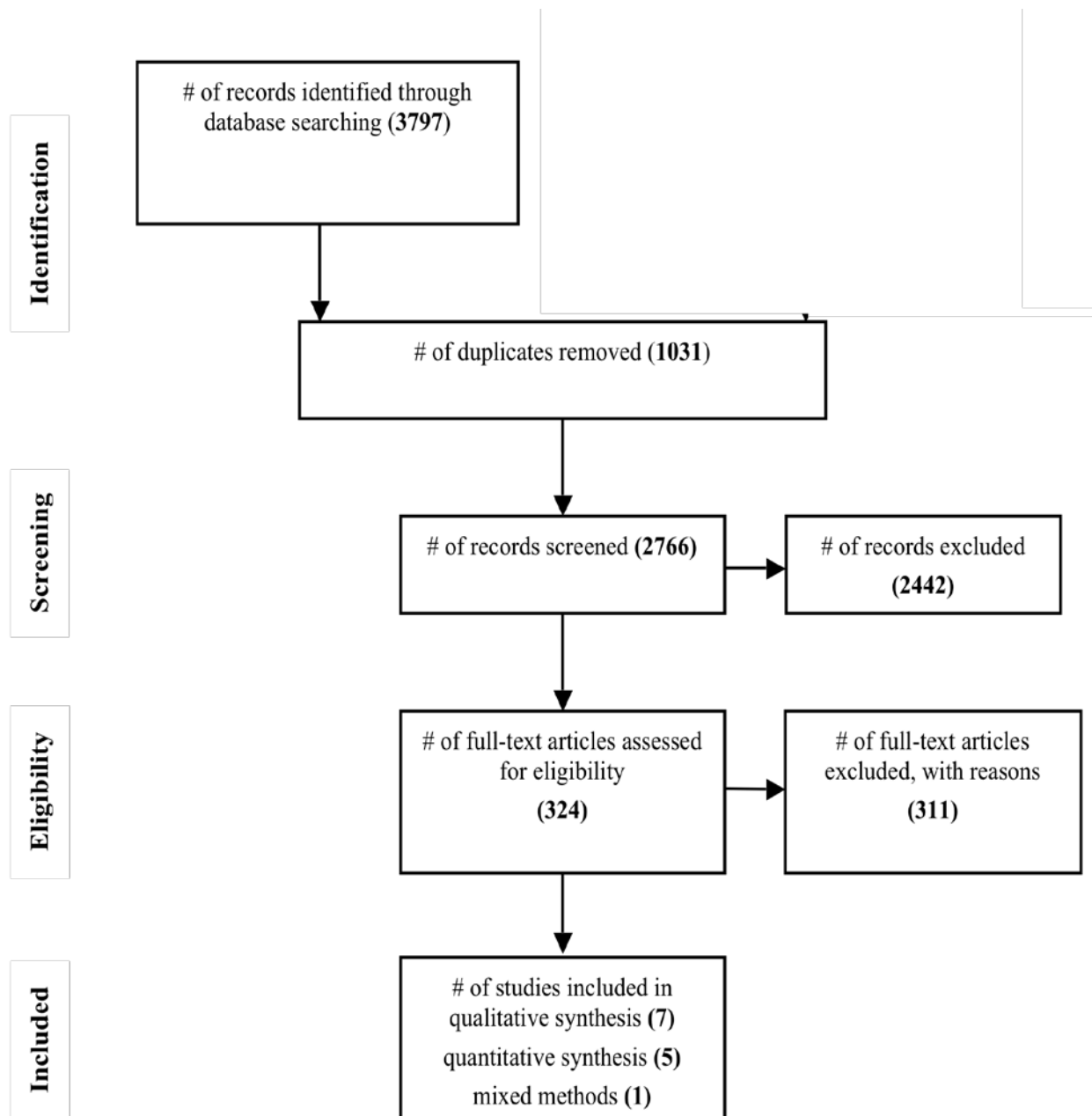
Total articles after removal of duplicates: 2766 articles

INCLUSION CRITERIA: 1) Study written in the English Language 2) Participants included nurses 3) Study involved a quality improvement project or initiative 4) spoke to engagement within the study

EXCLUDED: Patient engagement, Consumer engagement, Family engagement, Student engagement, Pharmacy engagement, Community involvement, Lab technician engagement, and conference proceedings



**APPENDIX B: PRISMA FLOWCHART FOR LITERATURE REVIEW**



### APPENDIX C: DETAILED LITTERATURE REVIEW FINDINGS

Reference	Aims	Participants	Locations	Methods	Results	Strengths/ Limitations	Key Findings	Conclusions
(Andrews et al., 2009)	To determine the different processes that help facilitate staff to engage in evidence based practice of “Guidelines for a Palliative Approach in Residential Aged Care”	Two registered nurses (one enrolled nurse and two unregulated workers) were part of the action research groups. 10 family members were part of the first action cycle, and relatives of 25 residents were part of the second action cycle	Australia- Residential dementia special care unit	Action Research- Two action cycles were undertaken to: 1) Gain understanding of family members knowledge of dementia. Conducted interviews 2) Support family members- <i>i.e.</i> create information package with evidence based resources	Cycle 1- interviews demonstrate that family members had limited knowledge about dementia Cycle 2- resources were evaluated by families in a positive matter, and useful in understanding dementia	Limitation: Small sample size not generalizable	Barrier to change included heavy workloads, short staff and limited resources  Engaging staff in action cycles helped during the change process on the unit, and further led to positive family outcomes  Staff members believed that they made a difference	Reflecting upon current practices, staff used evidence to improve care to families and patients
(Barrett et al., 2005)	Describing the benefits	Five participants-	Royal Melbourne	Action research	Clinicians had to allow	Limitation: Only 9	Engagement of clinicians led	Clinicians participating in

	of a practice development program that involved clinicians conducting interviews with patients about the care provided.	four nurses and one social worker were clinician evaluators. Nine patients were selected for interviews	hospital, a tertiary hospital in Melbourne, Australia, on an surgical unit	method. Three action cycles which involved baseline evaluation of care and teamwork, practice change and repeating the evaluation respectively. Interviewed patients, used the empowerment evaluation approach	for negative feedback given by patients and listen to their stories. Increased ownership by clinician evaluators	participants, and social desirability was observed by participants	to ownership and desire on part of the clinicians to improve care  Important for clinicians to hear a patient's story	evaluation increased the awareness of a patient's story, and ownership and helped to change practice.
(Bick et al., 2011)	Improve in-patient postnatal care and continuity of care after discharge. This paper speaks to midwives perspective	68 out of the 149 eligible midwives responded to a questionnaire. Questionnaire was piloted with six midwives.	South England-large maternity unit	Continuous quality improvement approach-model. Focus groups and interviews, process mapping, and questionnaires administered over 10-month period. The	Nurses were aware of the changes that were made due to quality improvement work. Participants (2/3) believed that revisions to	Limitation: low response rate (46%)	Involving midwives from the beginning is important in an initiative	Involvement of stakeholders is important. Midwives helped identify barriers, provide feedback, and were critical for the initiative

				initiatives that were implemented involved new handheld records, discharge routines were revised	care were appropriate to meet patient needs. Over half of the midwives were satisfied with revisions to care. One barrier was that some saw revisions as increasing their workload			
(Bingham et al., 2011)	Reduce preventable deaths from maternal haemorrhages through a state-wide quality improvement initiative	Different nurses and physicians in various groups. Clinicians were involved in drills.	California-California Maternal Quality Care Collaborative. Includes 30 hospitals	The method uses the Measure, Assess, Plan, Implement and Track (MAP-IT) model. Involved identifying concerns, assessing baseline data,	Results from survey showed 3 barriers to treating women, including lack of assessment, lack of estimation of blood	Limitation: American study	Nurses play an important leadership role in quality improvement projects  Nurses helped engage others, played an important role in helping to	The initiative helped in the domains of improving, readiness, improving recognition, improving response, and improving reporting. Ongoing tracking of the initiative continues.

				implementing initiatives of having standardized protocols for hemorrhage, quantifying actual blood loss, conducting hemorrhage drills, and improve reporting.	loss, and lack of teamwork and communication. The deficiencies became targets for improvement		solved problems, helped collect data, use toolkits to implement change	Teamwork and communication is important
(Bonuel et al., 2011)	Reduce number of falls on nursing units	Described a collaborative effort by nurse-led. The teams included social worker, physical therapy, physician, nurse practitioner, quality management staff and staff nurses.	Medical Center in Texas	Describing the CATCH (Collaborative interdisciplinary practice, Active leadership engagement, Technology support for processes, community strategy, house wide culture change)	“Measurable improvements in fall scores were noted for most units”	Limitation: Staff perspectives are not highlighted. Only speaks to leadership engagement	A variety of different fall champions from different disciplines are used  Supportive nurse leaders are important  Collaborating with health care partners is also seen as contributory to success.	Scores for falls improved and outperformed other organizations with similar bed sizes in a national database
(Catangui &	Nurse led	Clinical Nurse	Stroke unit	Describes	Identified	Limitation:	Nurse rounds	Nurse led rounds help

Slark, 2012)	ward rounds done weekly to look at nursing care	specialist, a ward manager, charge nurse	in UK	ward rounds- similar to physician rounds, but specific to nursing care	different complications such as depression, constipation, UTI, genital thrush & pressure sores. The rounds helped with medication issues, and identified signs of infection in peripheral lines	The experiences of patients and nurses is not voiced in this article  Limitation: This innovation took place in only one unit	have helped to improve patient care by preventing stroke complications	with communication, improving patient care
(Gibbon & Little, 1995)	Improve stroke care through increasing nurses' knowledge, interdisciplinary collaboration, measuring progress and revise documenta-	13 qualified nurses	General medical ward- UK	Action research- quasi-experimental design using action research framework- data collected using questionnaire pre/post. 12 month period	Issues identified included theory practice gap, interdisciplinary nature of rehabilitation, 'poor relation' or in other	Limitation: small amount of nurses	Nurses play an important role in stroke care  Action research helps with the change process and sustainability  Barthel tool good for	Stroke care and rehabilitation were improved using action research processes.  Greater collaboration between health care groups was achieved

					words acute patients received more time to meet needs than non-acute, unhelpful admission assessment, generalized goal setting and planning, lack of objective measures to determine progress, as well as the patient's day. Pre-/post- test showed correlation between knowledge and attitude.		patient engagement and reporting	
(Goeschel et al., 2006)	Implemented the Comprehensive Unit	Nurses at all levels were involved-many	Michigan Health Hospital Associatio	Describing experience of the implementa-	After funding ended, more than 95% of	Limitations: Did not collect specific nurse	Findings were shared among all the hospitals	Keystone project was noted to be a success at multiple levels. Showed the power and

	Based Safety Program. Targeted to reduce catheter blood stream infections (CR-BSI) rates and ventilator-associated pneumonia (VAP) rates	hospitals throughout the US- small, rural, non-teaching and community based hospitals as well as large urban, teaching and academic hospitals. In total 127 ICUs	n ICU	tion process, which involved patient safety interventions that proved successful at John Hopkins Hospital.	hospitals continue the funding High level engagement achieved, using multiple methods Antibiotics ordered/discontinued sooner Weaned off ventilators sooner Moved to 50 <sup>th</sup> percentile in the country in CR-BSI and VAP to 10 <sup>th</sup> percentile	perspectives	A transformational model to guide teams was created and included engaging, educating, executing, evaluating- Used when teams encountered difficulties Strategies of implementation were specific to the different institutions Engaging frontline staff is key Ownership was achieved by celebrating success	importance of nursing leaders “Keystone ICU improvement represented over 1500 lives saved, 80,000 patient-days saved, and \$165 million dollars saved” (p.491)
(Johnson et	Helping	Nurses led the	Robert	Quantitative,	Falls per	Limitation:	Engagement	Nurses play an



al., 2011)	hands fall prevention program- implemented to reduce falls	helping hands program	Wood Johnson University Hospital, United States	pre- post-design. Nursing assessment of fall risk, falls were reviewed. Communication and reporting processes created	year decreased by 16.6% from 2008-2011, number of injuries caused by falls decreased by 9.4%	Pre- post-design is a weaker quantitative design	strategies included safety huddles to communicate information, a fall champion was a new role integrated onto units	important role in reducing falls Helping hands falls prevention program is a promising initiative to reduce falls
(Kaferle & Wimsatt, 2012)	Registered nurses completed asthma action plans to improve patient outcomes	14 RNs were provided training	Michigan-Medicine department	Pre-post design: Used team based approach for the delivery of care	The number of patients with asthma action plans increased	Limitation: Data from one medical department  Limitation: States that those who engaged nurses had more success, however methods of engagement were not expanded upon. Impact on patients not reported	Engagement strategy included 2 hour education session	Number of asthma action plans increased along with increased involvement of nurses
(Klee et al.,	Standardize	Nurses were	Magnet	Continuous	After 30	Limitation:	Rapid Process	Increased family

2012)	shift handoff over four-year period.	involved-number was not identified	designated facility- Seattle Children's hospital	performance improvement method- questionnaire, observations	days, 48% of nurses agreed they received the right content at shift report. At 60 days it increased to 98% and 90% at 90 days  Safety concerns were identified  After a year-practice drift and inconsistency of information was occurring	Use of self report as tracking method	improvement workshops-map current process and create improved process. Implementation happened after weeklong workshop. Then the participants became coaches  Audit and feedback is required to sustain changes  Self report surveys were noted to be unreliable as return rates were low	involvement, increased identification of safety concerns, improved exchange of information were evident after standardizing nursing handoff communication
(Oman et al., 2012)	To implement nurse driven	Champions of change (nurses who	United States- 2 medical	Pre/post intervention design was	Number of catheter days	Limitation: Uncontrolled - pre/post	Re-educating staff impacted patient	Together, nurse driven intervention, system product changes and

	interventions to improve urine elimination management in order to prevent dwell time and catheter associated urinary tract infections	reviewed evidence), clinical nursing staff and certified nursing assistants, patients and families	surgical units- University of Colorado hospital- quaternary care, academic medical center	used to test the impact	decreased, cost savings for \$52,000/year	intervention study- cannot exclude other factors that could influence the observed change	outcomes	patient/family involvement can help reduce catheter associated urinary tract infections
(Weckman & Janzen, 2009)	Bar Code Medication administration was implemented and described in this article	Registered nurses, licensed practical nurses, and respiratory therapists all used the bar code medication administration system	James A. Haley Veterans Hospital- Magnet Hospital- First implemented as a pilot on a medical surgical unit and then integrated to all inpatient units	Descriptive- focus surveys	Bar code administration system was implemented successfully through troubleshooting and receiving constant feedback from nurses	Limitation: Solely descriptive nature of the method	Champions or super nurses were on each unit to help with reluctance  Success was celebrated  Involving nurses in the design process could have reduced some of the problems encountered with the equipment	Nurses help identify issues with the technology and ways to mitigate barriers.  It is important to involve nurses in all phases of the process

## APPENDIX D: DOCUMENT REVIEW INVENTORY

Document Number	Description
Document 1	Two pager describing the components and importance of comfort rounds
Document 2	Pocket card used for comfort rounds. This document also includes confusion assessment method (CAM) pocket card
Document 3	Announcement that informs staff about the introduction of comfort rounds
Document 4	Sample Checklist 1 of 7 for documenting comfort rounds
Document 5	Sample Checklist 2 of 7 for documenting comfort rounds
Document 6	Sample Checklist 3 of 7 for documenting comfort rounds. Note that this is the one unit used when comfort rounds was first introduced. This was not a legal document
Document 7	Sample Checklist 4 of 7 for documenting comfort rounds
Document 8	Sample Checklist 5 of 7 for documenting comfort rounds
Document 9	Sample Checklist 6 of 7 for documenting comfort rounds
Document 10	Sample Checklist 7 of 7 for documenting comfort rounds. This is a bedside care record that is now a legal document that is used on the unit
Document 11	A list of 8 key behaviours involved with comfort rounds
Document 12	PowerPoint presentation used to educate staff about comfort rounds on a unit in another hospital

Document 13	A copy of comfort rounds poster that is put up around the unit
Document 14	An audit form to track call bells on the unit. The form is organized as a checklist for every hour during the day and reasons for call bell across the top
Document 15	A workflow map that outlines the daily tasks of different healthcare professionals by hour for a medical unit
Document 16	A workflow map that outlines the daily tasks of different healthcare professionals by hour for a surgical unit
Document 17	Instructions for sample checklists documenting comfort rounds
Document 18	Audit tool for observing 10 staff interactions with patients during provision of comfort rounds.
Document 19	Instructions of how to conduct a workflow map on unit
Document 20	Instructions of how to order elder friendly care resources (i.e. pocket card and posters)
Document 21	A list of steps and strategies from units where comfort rounds was successfully implemented
Document 22	A list of tips for elder friendly care initiatives. Tips are broken into the three categories of Unit Philosophy, Manager's Aspect, Educator's Aspect
Document 23	An email to staff describing their "To do list". Includes a module for new bedside care record
Document 24	Refresher PowerPoint presentation about comfort rounds
Document 25	Learning module for bedside care record
Document 26	Examples of filled out bedside care record
Document 27	Answer key that corresponds to the bedside care record module
Document 28	Answer key that corresponds to bedside care record examples highlighting mistakes
Document 29	An email to staff to review PowerPoint on comfort rounds and delirium
Document 30	PowerPoint presentation on comfort rounds sent as a refresher.
Document 31	PowerPoint presentation on delirium

Document 32	Email about education modules to be completed
Document 33	A document outlining recommendations of the older patient working group which includes comfort rounds
Document 34	A transformational roadmap 2014-2017 found on the seniors health strategic clinical network website
Document 35	Seniors Health Newsletter September 2013 from SCN website
Document 36	Seniors Health Newsletter March 2013 from SCN website
Document 37	Seniors Health Bulletin April 2014 from SCN website
Document 38	Seniors Health Bulletin December 2013 from SCN website
Document 39	Seniors Health Bulletin September 2013 from SCN website
Document 40	Seniors Health Newsletter January 2014 from U of A website
Document 41	Completed Checklists from patients discharged from January to April, 2014
Document 42	Improvement charter and appendix outlining a new funded study looking at scorecards to help evaluate elder friendly care initiative.

## APPENDIX E: COMFORT ROUNDS POSTER



# COMFORT ROUNDS

**Please follow the information below for all patients**  
(Particularly if the patient is having difficulties with 1 or more activity of daily living or has sensory impairment)

### AT LEAST EVERY 2 HOURS during the Day and Evening:

- Approach patient calmly
- Introduce yourself and your role
- Orient patient to time/place as needed
- Make sure patient is wearing their aids (e.g. glasses, hearing aids)
- Offer drink unless fluid restricted
- Offer snacks or meal set-up as appropriate
- Ask about and address pain
- Assist patient (as independently as possible) with:
  - Getting out of bed/chair
  - Toileting
  - Repositioning
- Keep bed in a low position
- Use bedrails as little as possible
- Make sure the call bell and personal items are within reach
- Ask patient if they need anything else
- Remind patient to call for help if needed
- Inform patient when the next rounds will be
- Inform other health care team members of relevant changes in patient's condition

### EACH EVENING: Try to promote sleep at night

- Warm milk
- Warm blanket
- Back or hand massage
- Reduce noise
- Low light
- Talk quietly

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## APPENDIX F: COMFORT ROUNDS CHOSEN DOCUMENTATION FORM

**PATIENT COMFORT ROUNDS:** Checks to be completed at **LEAST 2 Hourly** on all adult pts



Version 1 (March 11, 2013)

<b>Date:</b>	<b>Room Number:</b>
<b>TIME:</b> Initial Task when completed	Write 'A' if asleep
Complete 2 hrly overnight for patients needing assistance with ADL	1PA = 1 person assist 2PA = 2 person assist

Questions	0600	0800	1000	1200	1400	1600	1800	2000	2200	0000	0200	0400	Comments
<i>Approach patient calmly; Introduce yourself and indicate what you are going to do. Orient patient to time/place as needed. Ensure patient's glasses/hearing aides are worn.</i>													
<b>1. Can I get you a drink/snack?</b> Offer fluid with every interaction unless fluid restricted. Assist with meal tray. <b>ALERT RN IF PATIENT HAS NOT TAKEN A DRINK FOR 4 HOURS OR MORE AND DOCUMENT ACTION IN NURSING NOTES.</b>													
<b>2. Do you want to use the toilet?</b> Check that the bed linen is dry for patients restricted to bed and for patients unable to communicate their needs and write 'dry' or 'unchanged' in box.													
<b>3. Are you comfortable? Can I help you change your position?</b> Pt to have position changed at least 2 hourly if on bed rest, or if unable to communicate their needs. <b>Write old &amp; new position in box.</b>													
<b>4. Assess and address pain.</b> For patients who are unable to communicate their needs, use <u>Pain Assessment Tool</u>													
<b>5. Additional comfort needs:</b> bed in low position; appropriate bed rail use; personal items within reach (tissue, phone, water, glasses etc.). <b>Ensure Patient's Call Bell is within reach.</b>													
<b>6. Is there anything else I can get you while I'm here?</b> (write in box or in more detail in comments section).													
<b>7. Tell the patient when you will be back. Inform team members of any relevant changes in patient's condition. Document the round</b>													
<b>Print Name</b>	<b>Initial</b>	<b>RN/LPN/NA</b>	<b>Print Name</b>	<b>Initial</b>	<b>RN/LPN/NA</b>	<b>Print Name</b>	<b>Initial</b>	<b>RN/LPN/NA</b>	<b>Print Name</b>	<b>Initial</b>	<b>RN/LPN/NA</b>		
1.		1.				1.							
2.		2.				2.							
3.		3.				3.							

Version 1.0

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## APPENDIX G: NEW BEDSIDE CARE RECORD DOCUMENTATION



### Bedside Care Record

Replace document daily and place in health records as this is a legal document. Document according to Care Needs Orders listed in Sunrise Clinical Management.

Affix patient label within this box

Time <small>(hh:mm)</small>	Mobility/Positioning <small>(up in chair for meals, ambulated for 10 minutes, turned on left/right side)</small>	Elimination <small>(toilet, attends, type)</small>	Personal Care <small>(sips of water, mouthcare, grooming comfort)</small>	Safety <small>(bed low, call bell in reach, bed alarm, tidy area)</small>	Initials
Proof #1					
Name/Designation		Initials	Name/Designation		Initials

18649/Rev2013-02

Page 1 of 1 (Side A)

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## APPENDIX H: COMFORT ROUNDS LITERATURE AND OUTCOMES MEASURED

Comfort rounds outcomes and methods to measure outcomes in studies reviewed

Outcomes measured	Methods used to measure outcome
<p><b>A) Call bell usage</b> (Berg, Sailors, Reimer, O'Brien, &amp; Ward-Smith, 2011; Ciccu-Moore et al., 2014; Culley, 2008; Emerson, Chmura, &amp; Walker, 2014; Ford, 2010; Harrington et al., 2013; Meade et al., 2006; Meade et al., 2010; Olrich et al., 2012; Petras, Dudjak, &amp; Bender, 2013; Saleh, Nusair, Al Zubadi, Al Shloul, &amp; Saleh, 2011; Woodward, 2009)</p>	<p><b>1) Examining call bells before and after the implementation of comfort rounds</b> (Berg et al., 2011; Ciccu-Moore et al., 2014; Culley, 2008; Emerson et al., 2014; Harrington et al., 2013; Krepper et al., 2014; Meade et al., 2006; Olrich et al., 2012; Petras et al., 2013)</p>
<p><b>B) Patient Satisfaction</b> (Berg et al., 2011; Blakley, Kroth, &amp; Gregson, 2011; Bourgault et al., 2008; Emerson et al., 2014; Gardner, Woollett, Daly, &amp; Richardson, 2009; Harrington et al., 2013; Kessler et al., 2012; Krepper et al., 2014; Meade et al., 2006; Meade et al., 2010; Moran et al., 1994; Olrich et al., 2012; Petras et al., 2013; Saleh et al., 2011; Tea et al., 2008; Woodward, 2009)</p>	<p><b>1) Patient satisfaction surveys</b> (Berg et al., 2011; Blakley et al., 2011; Bourgault et al., 2008; Emerson et al., 2014; Gardner et al., 2009; Harrington et al., 2013; Kessler et al., 2012; Krepper et al., 2014; Olrich et al., 2012)</p> <p><b>2) Patient interviews</b> (Blakley et al., 2011; Tea et al., 2008)</p> <p><b>3) Discharge phone calls</b> (Kessler et al., 2012; Krepper et al., 2014)</p> <p><b>4) Patient satisfaction data from vendors</b> (Meade et al., 2006; Meade et al., 2010)</p> <p><b>5) Complaints made by patients</b> (Moran et al., 1994; Petras et al., 2013)</p> <p><b>6) Patient requests made</b> (Moran et al., 1994)</p>
<p><b>C) Falls</b> (Ciccu-Moore et al., 2014; Lowe &amp; Hodgson, 2012; Meade et al., 2006; Meade et al., 2010; Olrich et al., 2012; Petras et al., 2013; Saleh et al., 2011; Tucker et al., 2012; Woodward, 2009)</p>	<p><b>1) Looking at fall rates from pre-existing data collected by units in relation to falls</b> (Bourgault et al., 2008; Ciccu-Moore et al., 2014; Krepper et al., 2014; Meade et al., 2006; Tucker et al., 2012)</p>
<p><b>D) Staff experience/satisfaction</b></p>	<p><b>1) Nursing questionnaires/surveys</b></p>

(Dewing & O'Meara, 2013; Harrington et al., 2013; Kessler et al., 2012)	(Blakley et al., 2011; Harrington et al., 2013; Kessler et al., 2012) 2) <b>Staff evaluation questionnaire</b> (Dewing & O'Meara, 2013; Lowe & Hodgson, 2012; Meade et al., 2010) 2) <b>Practice environment scale</b> (Gardner et al., 2009)
<b>E) Family Satisfaction</b> (Emerson et al., 2014)	1) <b>Family discharge survey</b> (Emerson et al., 2014)
<b>F) Efficient Delivery of Care</b> (Krepper et al., 2014)	2) <b>Nursing steps on a pedometer</b> (Krepper et al., 2014) 1) <b>Readmission rates</b> (Krepper et al., 2014)
<b>G) Urinary Tract Infections</b> (Lowe & Hodgson, 2012)	2) <b>Tool to measure CAUTI on the unit</b> (Lowe & Hodgson, 2012)
<b>H) Pressure ulcers</b> (Lowe & Hodgson, 2012; Saleh et al., 2011)	1) <b>Tool to measure pressure ulcers on the unit</b> (Lowe & Hodgson, 2012)
<b>I) Venous thromboembolism</b> (Lowe & Hodgson, 2012)	1) <b>Tool to measure VTE on the unit</b> (Lowe & Hodgson, 2012)
<b>J) Reduced leave without being seen (LWBS)</b> (Meade et al., 2010)	1) <b>Data collection forms to track leaving without being seen</b> (Meade et al., 2010)
<b>K) Reduced occurrence of leaving against medical advice</b> (Meade et al., 2010)	1) <b>Data collection forms to track leaving against medical advice</b> (Meade et al., 2010)