Clinical Nurse Specialist-Driven Communication Bundle to Improve Patient Satisfaction

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Abstract

Background: Patient satisfaction provides valuable insight on how to improve the patient experience. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey is a method that measures patient satisfaction which includes nursing and provider communication. Ineffective communication is detrimental to patient satisfaction as it can lead to medical errors and sentinel events. Additionally, acute care hospitals are required to collect and publicly report HCAHPS data to receive their full Inpatient Prospective Payment System (IPPS) annual payment. Therefore, it is imperative for hospitals to have initiatives in place to ensure there is effective communication between the nurse and patient. Methods: Based on a midwestern hospital's HCAHPS data in 2021, all inpatient units were found to have an average of 16 points below the national benchmark of patient and nursing communication. During this 12-week quality improvement project, a communication bundle was implemented on a unit within this midwestern hospital. Components of the bundle included: unit rounding, and informative sessions, a modified SMART communication tool, and patient handouts. The Change Theory and Jean Watson's Theory of Caring were used to guide this project. Patient satisfaction was obtained through patient verbal feedback at the bedside by the CNS. The Nurse Quality of Communication with Patient Questionnaire (NQCPQ) was used to measure the quality of patient-nurse communication. **Results:** Patient feedback was positive overall regarding the modified SMART communication tool. Based on the nursing staff perspective, there was an improvement in the quality of communication between the nurse and patient. **Conclusion:** Further research is necessary to determine the best interventions to improve patient satisfaction.

Keywords: patient satisfaction, communication, plan of care, healthcare, bundle

Improving Patient Satisfaction through Nurse and Patient Communication

Effective communication between the patient and the healthcare provider is critical to delivering high quality patient centered care. Improved communication within the healthcare team is linked to better patient outcomes, a safer work environment, decreased adverse events, decreased transfer delays, and shortened length of stays (Disch, 2021). The dynamics of the healthcare setting creates communication challenges such as multiple specialists presenting to the patient's bedside at different times throughout the day, various communication styles, and a lack of teamwork or communication skills (Dingley et al., 2008). The purpose of the paper is to explore techniques and tools to improve patient satisfaction through communication between the patient and nurse at a 530-bed midwestern hospital.

Background

According to Jun, Stern, & Djukic (2020), patient satisfaction provides a valuable insight into how healthcare systems can improve patient's experience. A positive patient experience results in positive outcomes, therefore, patients are more likely to maintain long-term relationships with their health care team. Subsequently, the patients are more committed to treatment plans and inclined to endorse the hospital (Jun, Stern, & Djukic, 2020)

One way of measuring patient experience is with the Centers for Medicare and Medicaid Services' Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. A random sample of adult patients are selected to receive the HCAHPS survey within 48 hours to six weeks after discharge. The survey consists of 29 questions pertaining to their recent hospital stay (CMS, 2021). Of these 29 questions, seven questions are related to the patient's experience with nurses and physicians. To provide an incentive to acute care hospitals participating in HCAHPS, acute care hospitals are required to collect and submit their HCAHPS data to receive their full Inpatient Prospective Payment System (IPPS) annual payment (CMS, 2021). IPPS is also known as a Medicare payment for acute care hospital inpatient stays which are based upon set rates (American College of Surgeons, n.d.). This is significant as IPPS hospitals are subject to reduction in their annual payment update if they fail to publicly report required quality measures, including HCAHP surveys.

Public reporting of hospitals HCAHPS results is noteworthy to the patient, healthcare providers, and community. The data provides an objective and meaningful comparison between hospitals, creates an incentive to implement quality improvement measures, and improves accountability of patient care through transparency (CMS, 2021). For these reasons, it is imperative that hospitals refocus their approach to healthcare from volume-based to value-based.

Significance of Problem

Ineffective communication between healthcare providers and patients can be detrimental to patient care as it can lead to medical errors and sentinel events. A sentinel event is defined by the Joint Commission as "a patient safety event that reaches a patient and results in death, permanent harm, or severe temporary harm and intervention required to sustain life" (The Joint Commission, n.d., para 3). Based upon review of the Joint Commission reports, over 70% of sentinel events were related to communication failures (Dingley et al., 2008). The financial costs of medical errors are staggering as medical errors cost approximately \$20 billion a year (Rodziewicz, Houseman, & Hipskind, 2022). Ineffective communication can also lead to increased length of stay, increased resource use, caregiver dissatisfaction, and higher turnover of medical staff (Dingley et al., 2008). Increased length of stay can lead to increased hospital costs.

In 2016, there were 35.7 million hospitals stays with the cost per stay averaging about \$11,700. (Freeman, Weiss & Heslin, 2018).

The causes of communication failures between patient and provider are multifactorial as the healthcare setting is a complex environment. Miscommunication may occur due to the hierarchical structure such as differences in power between physicians and other healthcare professionals. A hierarchal structure can lead to restraints in communication, differences in education and training of healthcare providers, lack of teamwork and communication skills, and multiple disciplines with different priorities of patient needs (Dingley et al., 2008). Human factors can also contribute to ineffective communication. This includes cognitive overload, stress, multiple interruptions throughout the day, poor decision making, and fatigue (Dingley et al., 2008).

Based upon this midwestern hospital's HCAHPS scores in 2021, the hospital has not met national benchmarks related to patient satisfaction and patient-nurse communication across all units. The questions below the national benchmark were, "How often did nurses treat you with courtesy and respect?"," How often did nurses listen carefully to you?", and "How often did nurses explain things in a way you could understand?" All inpatient units within this midwestern hospital were found to have an average of 16 points below the national benchmark of all other hospitals.

Problem Statement

Effective communication in the healthcare setting is critical to reducing medical errors and providing quality patient care. This midwestern hospital's HCAHP scores related to nurse communication are below the national benchmark, the administration has deemed improving communication between the patient and nurse as a priority. With this considered, what evidencebased strategies would improve communication between the patient and the nurses?

Review of the Literature

Search Strategy

A search strategy was conducted using two databases, Cumulative Index to Nursing and Allied Health Literature (CINAHL) and PubMed of the U.S. National Library of Medicine National Institutes of Health on April 30, 2022. The search was limited to peer reviewed articles only in the English-language within the last five years, 2017 to 2022. Keyword terms used for both databases [communicat* AND nurse AND patient AND inpatient OR hospitaliz* OR "acute care" AND HCAHP OR "Hospital Consumer Assessment of Healthcare Provider"]. A total of 32 articles were identified from CINAHL and 37 identified from PubMed. Of the articles obtained, 67 were reviewed based on title and abstract. After removing two duplicates, 65 articles were reviewed based on title and abstract. Exclusion criteria included interventions related to pediatric patients, pain management, preoperative setting, emergency setting, and discharge follow ups/phone calls. After exclusion criteria were applied, 10 articles were retrieved and reviewed. In addition, one article was selected suggested by CINAHL when reviewing a previously selected article. From there, eight articles were then selected through inclusion. The exclusion and inclusion criteria is depicted in a modified PRISMA diagram (see Appendix A). Inclusion criteria consisted of adult population, acute care setting, patient-nurse communication, and use of HCAHP scores to assess outcomes. The level of evidence and quality of articles were based on the John Hopkins Evidence Level and Quality (see Appendix B).

Literature Synthesis

The aim of this literature review is to identify interventions implemented to improve communication between the nurse and the patient, and patient satisfaction within the acute care setting. Application of exclusion and inclusion criteria yielded seven articles for review. The seven reported studies were all quantitative studies published between 2017 and 2022 and undertaken within the United States of America. The sample sizes were not identified in three studies (Austin et al., 2021; Prosser, Andrews, & Wheatley, 2020; McAllen et al., 2018) Two studies had sample sizes that ranged from 100-115 participants (Allenbaugh et al., 2019; McMillan et al., 2017). One study had a sample size of less than 60 (Davis, 2017) and one study had a sample size between 60-80 (Lemire, 2017). The duration of the interventions for all studies ranged from three to seven months. All studies considered both patients and registered nurses as participants and within an inpatient setting. In addition, medical residents were included as participants in one study (Allenbaugh et al., 2019). Data was described in an evidence critique table according to Author Citation, Design/Purpose, Sample/Setting, Measurement/Instruments, Results, Level of Evidence and Quality, and Relevance of Problem (see Appendix C). Based on review of the literature, three themes were identified which include communication tools, rounding, and education (see Appendix D).

Communication Tools

Checklists and tools used to improve communication included paper form, bedside communication board, and tool to assess health literacy (Prosser, Andrews, & Wheatley, 2020; Lemire, 2017; Davis, 2017). Whether or not nurses had been using the written communication tools, there was improvement in nurses verbalizing the plan of care with their patients routinely (Prosser, Andrews, & Wheatley, 2020; Davis, 2017). Increase in verbal communication of the patient's plan of care can improve patient satisfaction scores (Prosser, Andrews, & Wheatley, 2020). Similarly, a health literacy protocol for patient assessment and engagement provided a verbal approach to nurse and patient communication (Davis, 2017). This is significant as assessing a patient's health literacy increases the perception of satisfaction regarding communication between the nurse and the patient (Davis, 2017; Austin et al., 2021). Based on the literature, all different forms of communication tools showed a significant improvement to nurse-related patient satisfaction scores (Prosser, Andrews, & Wheatley, 2020; Lemire, 2017; Davis, 2017).

Rounding

Various versions of rounding have shown to improve patient satisfaction (Austin et al., 2021; McAllen et al., 2018). Based on the literature, there is better engagement and communication between the patient and the nurse with rounding as nurses can spend more time with the patient (Austin et al., 2021; McAllen et al., 2018). Not only does rounding improve patient satisfaction but can also improve quality of care. Nurses can identify potential errors and perform safety checks at the bedside in real time (Austin et al., 2021; McAllen et al., 2021; McAllen et al., 2021; McAllen et al., 2018). Rounding provides better communication between the patients' healthcare team. The literature shows that providers and nurses that participate in rounding are better at interprofessional collaboration (Austin et al., 2021; McAllen et al., 2018; Maloy, 2021). In all cases, patient satisfaction improves when nurses are involved and perform bedside rounding (Austin et al., 2021; McAllen et al., 2018).

Education

Education related to patient communication and communication skills provided to nurses has also been shown to improve patient satisfaction (Austin et al., 2021; Davis 2017; Allenbaugh et al., 2019; McMillan, 2017). When educating nurses on how to clearly communicate and health literacy techniques there is also improvement with the nurse's knowledge, attitude, and communication skills at the bedside (McMillan, 2017; Allenbaugh et al., 2019; Austin et al., 2021; Davis, 2017). Communication skills that are mentioned in the literature include but are not limited to making eye contact with the patient, assessing what the patient understands about their diagnosis or what they want to know about their diagnosis, and avoiding medical jargon. Through this education, nurse related patient satisfaction scores improve significantly (McMillan, 2017; Allenbaugh et al., 2019; Austin et al., 2021; Davis, 2017).

Summary

Interventions range from a formal education tool, formal education, to interdisciplinary rounding, all of which showed improvements in nurse related HCAHPS scores. Since there is a lack of a formal communication tool used for rounding within the inpatient units, a combination of these interventions may provide improvement in nurse communication with patients. Implementing a nurse driven standardized tool that is used to assess patient's knowledge and engagement at the beginning of each shift may lead to a better understanding of the patient's level of knowledge. This will also allow the nurses to assess patient's health literacy which has shown to improve patient's perception of satisfaction in communicating with nurses (Davis, 2017). Therefore, nurses may be able to address patient concerns in real-time, making the patient feel heard. Providing a brief education session to nurses about communication skills, along with a communication tool, may enhance the nursing staff's communication skills with patients and in turn patient satisfaction.

Theoretical Framework

Jean Watson's Theory of Caring

Jean Watson's Theory of Caring was utilized for this quality improvement project.

Theory of Caring addresses how nurses express care to their patients with an emphasis on a holistic approach to nursing practice (Nursing Theory, n.d.). The theory considers four major concepts which include human beings, health, environment/society, and nursing. In this case, the patient is the focus of practice (Nursing Theory, n.d.). Caring is based upon 10 factors which include "forming humanistic-altruistic value systems, instilling faith-hope, cultivating a sensitivity to self and others, developing a helping-trust relationship, promoting an expression of feelings, using problem-solving for decision-making, promoting teaching-learning, promoting a supportive environment, assisting with gratification of human needs, and allowing for existential-phenological forces" (Nursing Theory, n.d., para 10). These factors provide a nurturing, trusting relationship between the nurse and the patient which can allow for better communication for both parties. For these reasons, the Caring Theory aligns with the goals of this project, to improve nurses effectively communicating with their patients.

Change Theory

Phases of Change was utilized as a guide for this quality improvement project as a key component to the theory is knowledge building (Udod & Wagner, 2018. para 14). The theory is modified from Lewin's Model of Change which consists of six phases: building a relationship, diagnosing the problem, acquires resources for change, selecting a pathway for the solution, establish and accept change, and maintenance and separation, respectively (Udod & Wagner, 2018, para 14). These components parallel with providing education to nursing staff about communication skills and importance of health literacy assessment.

The first phase is described as "precontemplation" where there is a determination of a need for change within an organization (Udod & Wagner, 2018, para 15). The second phase,

diagnosing the problem where there is contemplation to determine if the change is desired or needed (Udod & Wagner, 2018, para 15). "Contemplation" is done in the second phase, diagnosing the problem where the change agent determines if the change is needed (Udod & Wagner, 2018, para 15). The need for change was identified through the organization's nurse related HCAHP scores below the national average. After determining a need, further information was gathered to develop solutions to the problem. This is described as the third phase "acquires need for change" which is to understand the need for change (Udod & Wagner, 2018). Through gathering information an intervention was selected based upon the literature review and unit specific needs. The fifth phase, establish and accept change considers strategies to combat resistance from individuals and organization to new change (Udod & Wagner, 2018) These strategies include effective communication, staff response, and education (Udod & Wagner, 2018). Through providing education on goals for intervention and speaking with staff this is achieved.

In the last phase the change agent is to monitor the intervention to ensure success and stabilization of the project (Udod & Wagner, 2018). Monitoring was completed through observational surveys by the DNP CNS student and through feedback obtained from nursing staff and patients. The goal at this point is to establish an intervention where the change agent can then separate from the project (Udod & Wagner, 2018).

Root Cause Analysis

A Fishbone Diagram (see Appendix E) was developed to depict the root causes of miscommunication in the pilot unit. Categories identified through observation, rounding at beginning of shifts and through informal conversation with bedside nurses. As a result, four categories were identified: environment, patient, nurse, and physician. The current state within

the unit is that no universal rounding tool related to the patient's plan of care in place. The only formal communication tool within the unit is a white board within each patient's room which include their name, diet, level of activity, names of the nurse and nurse aid for the shift, and a small area labeled as "important" for free writing. During observation and informal discussion, nurses do not assess for health literacy prior to discussing the patient's plan of care. This can hinder the patient's comprehension about their plan of care. Another concern identified was the lack of communication between the physician and nurses about the patients plan of care. In addition, there are delays with physicians signing their note within the patient's chart, creating a barrier for nurses to communicate updates to the patient regarding their plan of care. Environmental related factors are higher acuity patients which prevents nurses from taking time to discuss the plan of care and answer questions the patient may have.

Strengths, Weaknesses, Opportunities, and Threats

A tool used for strategic analysis is called SWOT analysis which stands for Strengths, Weaknesses, Opportunities, and Threats. This tool considers external developments and internal capabilities of an organization (van Wijngaarden, Scholten & van Wijk, 2010). External developments are opportunities and threats to the organization and internal capabilities are identified as strong and weak components of the organization. Through analysis, alternative strategies to combat these factors are identified (van Wijngaarden, Scholten & van Wijk, 2010). A SWOT analysis for implementation of a brief educational session and communication tool is depicted in Appendix F.

Strengths and Opportunities. Strengths identified within the organization that contribute to the success of this evidence-based practice (EBP) project. Bedside staff, unit secretaries, and managers maintain a positive attitude which creates a healthy work environment.

In addition, the bedside staff are adaptable and open to change within the unit. Their adaptability is reflected in their participation with past EBP projects. Managers are also supportive for improving patient satisfaction within the workplace. Bedside nurses willing to participate and are open to change are opportunities for this organization.

Weaknesses and Threats. Weaknesses within the organization include absent standardized communication tool related to patient plan of care and lack of a formal health literacy assessment. These weaknesses may present threats to the nurse's adherence of utilizing the communication tool and patient's willingness to participate due to lack of time, higher acuity of patients, and inadequate staffing.

Methods

Ethical Considerations/Protection of Human Subjects

The project was deemed non-human research by the Michigan State University's and the organization's Internal Review Board (IRB) prior to implementation of this project. No personal health information was collected and will be optional and anonymous for patients. The survey completed by hospital staff was optional and anonymous. All data is protected within a password secured laptop or stored within a locked cabinet within a locked office.

Project Site and Population

The quality improvement project was implemented within a 530-bed midwestern hospital on a clinical decision unit with patients ranging from young adult to geriatric population. The unit has 24 beds consisting of medical surgical to progressive care patients and is part of the emergency services for the hospital. There is a high turnover of patients within this area as the concept of the unit is to temporarily hold patients while they wait for an inpatient bed assignment. However, due to the recent high census of admissions, patients are remaining in this unit for longer periods of time or are discharged prior to being transferred to an inpatient room.

The population within the unit included the patients and nursing staff on the unit. The patient- related exclusion criteria will be patients with severe dementia or altered mental status. The assistant nurse manager (ANM) and nurse manager along with the nursing staff were significant to implementing this intervention as they were the sole proprietors facilitating adherence and utilization of the intervention. With managerial support, there was encouragement for nursing staff to participate in the intervention.

Facilitators

The stakeholders for this project included the clinical nurse specialist (CNS), patients admitted to the clinical decision unit, and the bedside nurses. Departmental leadership for nursing within the unit contributed to disseminate the information regarding the EBP project and encouraged participation of the bedside nurses. The CNS established a collaborative relationship with the unit staff and leadership to facilitate project interventions.

Barriers

Barriers to this intervention includes collecting patient feedback. The outcomes related to patient satisfaction of this project were initially to be evaluated through a modified HCAHPs survey that would be provided to patients. This was due in part to the pilot unit being under emergency services which does not collect HCAHPs data. Moreover, the DNP student was unable to utilize the modified survey as there were specific requirements the DNP student would need to meet for approval by the organization. These requirements could not be met due to time restraints. Patient satisfaction was then determined by the DNP student and the organization's

Evidence Based Research Committee that the DNP student would obtain patient satisfaction through verbal feedback about the modified SMART tool from patients on at the bedside. Action

The intervention of this quality improvement project is a CNS-driven communication bundle. The bundle includes informative sessions for the bedside nurses provided by the DNP student, a communication tool, and the DNP student rounding on the unit. The goal of this project was to improve patient satisfaction and communication between the nurse and the patient.

Preintervention. Two weeks prior to implementation, an email comprised by the DNP student was sent out by the nurse manager to nursing staff about the quality improvement project. The email included goals of the project, how it will be implemented, expected timeline and expectations of nurses prior to, during, and after implementation. The DNP student collaborated with the community partner and developed online pre and post surveys. The survey consisted of the six-item Nurse Quality of Communication with Patient Questionnaire (NQCPQ), see Appendix G. In addition, the DNP student created a handout with a QR code linked to the questionnaire. The handout was placed throughout the unit where it would be easily visible and accessible for nurses. The handout prompted nurses to scan the QR code to access the online questionnaire. If nurses did not have the ability to scan QR code, the link for the questionnaire was sent to the nurses' work email by the manager. The DNP student visited the unit two to three times within the two weeks prior to implementation to encourage nurses to participate in survey. At the end of the two weeks, the online questionnaire was closed prior to the start of the implementation phase and handouts distributed around the unit were removed by the DNP student.

Intervention. The CNS-driven communication bundle was centered around a mnemonic called SMART. The mnemonic used in the intervention was modified and based on a SMART rounding checklist created by Maloy (2021) and implemented within a pediatric medical surgical unit. The rounding mnemonic was presented as a checklist to address patient related between nurses and multiple disciplines. The SMART mnemonic created by Maloy which stands for: Situational Awareness, Medications, Access, Routine, and Transition. The checklist addressed discontinuation of drains and lines, discharge criteria, review for medication adjustment, and labs/imaging results (2021). To address the patient plan of care, the DNP student created a modified version of SMART: Specialties, Medications, Assess, Routine, Transition (see Appendix H). This includes review of the patient's medical team, new medications that are ordered during their admission labs and testing that are pending or to be completed, addressing health literacy by asking what they patient would like to know about their diagnosis, and goals for their discharge. Copies of the SMART tool were printed and laminated then placed in each patient room near or around the whiteboard that is utilized by the nursing staff.

For the first two weeks, the DNP student provided two to three informative sessions regarding the intervention each week to bedside nurses on the unit. Two of the three sessions was presented to night shift and four sessions were presented to the day shift. The informative sessions were each approximately five minutes long and presented 10 to 15 minutes prior to the start of nursing staff shift. During the informative sessions, the DNP student verbalized the importance of assessing a patient's health literacy, evidence-based communication skills such as active listening, a description of the modified SMART tool, how to utilize the modified SMART tool during the their shift, and patient handouts developed by the DNP student that nurses could provide. The handouts were created in correspondence to the modified SMART tool with a goal

for patients use during their admission (Appendix I). The DNP student emphasized to nurses that they could provide these handouts to their patients at their discretion. Patient feedback was gathered through the DNP student speaking with patients on the unit in real time at the bedside.

Further, the DNP student created a flyer with a QR code (Appendix J) that was linked to an informative PDF that was placed within the unit. For nurses to access the PDF the QR code would be scanned with the smart phone camera. Once scanned, a PDF opens which describes the SMART tool (see Appendix K). Additionally, the flyers were provided via email which were also sent to the nurses' work email by the unit nurse manager. A modified SMART folder put together by the DNP student was placed at the charge nurse desk. The folder was provided for nurses to utilize the printed version of the PDF and the additional patient handouts.

After the two weeks of providing informational sessions, the DNP student rounded for about two to three hours on the unit to observe communication between the bedside nurses and patients. In addition, the DNP student obtained verbal feedback from patients after the nurse had discussed the plan of care with their patient.

Post Intervention. After the implementation phase, the post survey was distributed for nursing staff to complete. An email including a link to the post-survey from the DNP student was sent out to the nursing staff by the unit manager. A handout with a QR code linked to the post-survey was also distributed throughout the unit for nursing staff.

Timeline

The pre-survey was distributed to nursing staff from December 29th to January 8th. The implementation phase began on January 9th and concluded on March 6th. During the implementation phase, the DNP student obtained patient feedback and completed rounding. The

post-survey was distributed nursing staff from March 7th to March 22nd. Data analysis took place at the end of March. The timeline of this project is depicted in a GANTT chart (see Appendix L).

Measurement Instruments/Tools

The Nurse Quality of Communication with Patient Questionnaire (NQCPQ) was selected to measure the quality of communication from the nursing perspective (Appendix G). The NOCPQ is a 6-item questionnaire that uses a rating grade of 1 through 6, like a Likert scale (Vuković, Gvozdenović, Stamatović-Gajić, Ilić, & Gajić, 2010). A Likert scale is a five-point scale that measures different aspects such as attitudes or frequency of an event (McLeod, 2019). Each item of the questionnaire is categorized into kinds of communication. The classifications include verbal communication, non-verbal communication, communication in general. The reliability of NOCPQ was evaluated in a 130-subject study with an alpha of 0.81 (Marhamati, Amini, Mousavinezhad, & Nabeiei, 2016). The validity of NCQPC was also evaluated in the previous study which was determined as high (Marhamati, Amini, Mousavinezhad, & Nabeiei, 2016). The questionnaire will not include any demographic data to ensure survey responses remain anonymous. The anonymity of the nursing surveys and use of the Likert scale results in a reduction of social disability bias (McLeod, 2019). A pre and post survey format was used to compare the quality of communication prior to and after implementation of intervention. Regarding patient feedback, there was no formal instrument or tool utilized. The DNP student collected feedback through informal conversation with patients at the bedside prompting if the patient found the SMART tool helpful regarding their plan of care.

Cost-Benefit Analysis

The evaluation and implementation of the communication bundle did not have additional costs to the organization. Resources for this project included laminated posters, flyers, and

patient handouts. There were no additional costs to the organization as rounding and informative sessions were provided by the DNP student. The CNS within this organization does not have billing privileges and reports the average wage of an experienced CNS is estimated to be about \$50 per hour. Further, the informative sessions provided to nursing staff were approximately five minutes and unit of time rounding by the CNS ranged from 2 to 3 hours. The cost analysis of unit rounding, informative sessions, and resources used is depicted in Appendix M.

Interventions related to improving patient-nurse communication have the potential to indirectly decrease costs through reduction in length of stay. Freeman, Weiss & Heslin (2016) reports that the average cost per stay is about \$11,700 (Freeman, Weiss, & Heslin, 2018). Therefore, improving patient satisfaction can also provide value to Medicare funding for organizations. According to Centers for Medicare and Medicaid Services, the total of available value-based incentive payments was projected to be approximately \$1.5 billion in the fiscal year of 2016 (Centers for Medicaid and Medicare, 2015).

Analysis

After implementation of a communication bundle, there was an improvement in quality of communication between the patient and nurse. The results of the pre and post surveys are depicted in Appendix N. Of the nursing staff, the sample size for the surveys were 19 and 14, respectively. The question "how helpful did you find the communication tool?" was also included within the NQPCQ post-survey question. The nursing staff were asked to rate the tool with five stars being very helpful and one star being not helpful at all. The average rating of the communication tool was 4.6 out of 5 stars. When looking specifically at the pre and post results of item six there is a slight improvement in quality of communication. The item describes the level of communication the nurse has with the patient as they monitor the patient's

pharmacotherapy. The modified SMART tool can have played a factor into the difference in the pre and post results as majority of the nurses were observed utilizing the modified SMART tool during medication passing during rounding.

In addition, informal feedback from nursing staff was obtained during rounding by the DNP student. Nursing staff verbalized that the tool provided a formal, standardized approach to addressing the plan of care. They also voiced that the tool addressed questions commonly asked by patients throughout their shift. Through observation, the nurses tended to utilize the communication tool more often during new admissions to the unit which provided a "better flow" for the nursing staff. However, other nurses stated they were using the communication tool at the beginning of their shift and revisiting the tool if there were changes to the patient's plan of care throughout the day. The patient handouts that were developed by the DNP student were not utilized by the nursing staff. Nurses did not utilize the handouts due to time restraints during their shift.

The consensus of patient feedback on the communication tool was an overall positive response. Patients found the tool useful specifically related to what specialists were consulted and tests that were ordered. The tool was not only noted as valuable by the patient but also family members at the bedside. After observing a bedside nurse utilize the tool while admitting a patient, the patient's daughter at the bedside stated, "I appreciated that because no one had told us what would happen once she was admitted." While there was no quantitative data gathered for patient satisfaction, this depicts that the tool provide value to patients regarding their plan of care.

Recommendations and Sustainability Plan

The outcomes of this project are to be disseminated to stakeholders i.e., director of education and evidence-based research committee within this midwestern organization. The sustainability of this project will depend on the buy-in and prioritization of the stakeholders. Another clinical nurse specialist or qualified personnel would be needed to reimplement intervention and collect feedback. This intervention could be used for future DNP students to implement as their DNP project. For future studies, it is recommended to select a unit that is already collecting unit specific HCAHPS data.

Discussion/Implications for Nursing

The outcomes of this quality improvement project provide an insight into the unique role the Clinical Nurse Specialist can have in improving patient experience. Through participating in HCAHPS, healthcare organizations are incentivized to improve patient satisfaction. Therefore, it is imperative for the Clinical Nurse Specialist to identify gaps between the literature and nursing at the bedside. Based on the literature, communication related interventions that have shown to improve patient satisfaction include rounding, various tools or checklists, and education (Austin et al., 2021; Davis 2017; Allenbaugh et al., 2019; McMillan, 2017; Prosser, Andrews, & Wheatley, 2020; Lemire, 2017; Davis, 2017; McAllen et al., 2018). These interventions and this quality improvement project should be considered by the Clinical Nurse Specialist should consider when implementing initiatives to improve patient satisfaction.

Conclusion

In summary, there is a continuous need to improve patient satisfaction within a healthcare organization. The results of this project depict potential interventions to create a positive experience for the patient. A communication tool like the modified SMART tool in combination with collaboration of the Clinical Nurse Specialist can enhance communication between the nurse and patient. However, the dynamics of a healthcare organization should be considered when developing solutions related to patient communication (Disch, 2021). Additionally, further research is necessary to determine if utilizing a communication bundle such as this project can directly improve patient satisfaction.

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Appendix A



Appendix B

Johns Hopkins Nursing Evidence-Based Practice Appendix C: Evidence Level and Quality Guide

Evidence Levels	Quality Guides
Level I Experimental study, randomized controlled trial (RCT) Systematic review of RCTs, with or without meta-analysis	A <u>High quality:</u> Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence
Level II Quasi-experimental study Systematic review of a combination of RCTs and quasi- experimental, or quasi-experimental studies only, with or without meta-analysis	B <u>Good quality:</u> Reasonably consistent results; sufficient sample size for the study design; some control, fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence
Level III Non-experimental study Systematic review of a combination of RCTs, quasi-experimental and non-experimental studies, or non-experimental studies only, with or without meta-analysis Qualitative study or systematic review with or without a meta- synthesis	C <u>Low quarry or major flaws</u> : Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn

Appendix C

Author	Design/Purpose	Sample/Setting	Measurement Results		LOE and	Relevance of Problem
Citation			and Instruments		Quality	
Allenbaugh et al (2019)	Quasi-experimental, Pre/Post study design Improve knowledge and attitudes towards health literacy, bedside communication skills with patients, and inpatient communication- specific patient satisfaction through a curriculum	112 internal medicine residents medical service 120 nurses General medicine ward	Knowledge, attitudes, confidence was measure through pre and post surveys using Wilcoxon signed rank test Knowledge- related was measured with a 7- question quiz based on health literacy Attitude and confidence was measured through items related to importance of communication and patient satisfaction with a 5-point Likert scale (1 = not important/not at all confident and 5= very important/very confident) Communication skills measured through pre and post standardized checklists and observed by group of clinicians, nursing educators, and local communication experts Patient satisfaction measured through HCAHPs. The percentage of "top box" scores on 6 communication specific items was compared between 3 months prior and 3 months post intervention	76 of 112 medical residents and 85 out of 120 nurses participated Knowledge and attidue scores improved for both groups (P<0.001) Confidence increased in nurses (P<0001) but did not change for residents Communication skills: time of residents at the bedside averaged 9.6 min pre and 8.4 min post. Nurses averaged 7.8min pre and 8.7 post (Allenbaugh & et al., 2019) HCAHP score: percent of "top box" questions related to nurse and physician communication items increased in post curricular period. From resident-run surgical units, one of eight items improved and the scores for the remaining 7 items remained stable or worsened (Allenbaugh & et al., 2019)	LOE = II/Quality = B Strengths: Large number of observation (n=675); use of HCAHPS data, low cost Weaknesses: Bias in observation of communication skills; does not include attending physicians; survey and evaluation checklists not previous validated (Allenbaugh & et al., 2019)	Implementation of a brief training session related to communication can improve resident and nurse knowledge, attitudes, and communication skills and patient satisfaction (Allenbaugh & et al., 2019)
(2021)	Determine if a nurse practitioner led process promoting patient involvement	surgical unit at a nonprofit hospital	of health care team communication was measured through unit specific HCAHP survey results pre	HCAHP scores: increased from 2 to 12% from 2016 to 2017 and then increased from 1	= A Strengths: ICCAS has a 0.96 validity (Star, 2021) and HCAHPs is a	promote patient engagement with the health care team can improve patient perceptions of communication, as

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	would improve HCAHP items related to nurse and doctor communication and perception of collaboration abilities amongst healthcare team members Process: staff educated on process one month prior to implementation. Rounding occurred with members of health care team to determine patients to be seen. Bedside Rounds Checklist was used during round for each patient which was about took about 10- 15 minutes. Checklist included the NP or physician present to review plan of care with pt. Each team members contributed to discussion about patient's status. Patient and family members encouraged to participate in discussion. A safety check was completed to evaluate for DVT prophylaxis and necessity for central lines, catheters, and telemetry (Austin & et al., 2021)	Adults at least 18 years old with a nonpsychiatric admitting diagnosis for at least one- night hospital stay	intervention and post start of intervention specifically looking at the six nurse and doctor communication domain Changes in collaboration competencies amongst team members was measured with Interprofessional Collaborative Competency Attainment Scale (ICCAS) consists of 21 questions and is administered prior to intervention and after using a Likert Scale (poor = 1 and excellent = 5	to 5% from 2017 to 2018. Doctor related HCAHP scores improved from 69% in 2016 to 88% in 2017 (88%) after NPs were hired, with a slight decrease in 2018 (85%) after IBR were implemented. A statistically significant difference among these years was noted (F = 5.759; p = .040). For all three doctor HCAPHS questions scores increased 10 to 30% from 2016 to 2017, but all dropped slightly in 2018 from 1 to 4% Of the 53 care team members, 19 completed ICCAs which showed a 29% improvement and was statistically significant (Austin & et al., 2021)	reliable and valid measurement tool Weaknesses: HCAHPs survey may have bias and skewed results; low HCAHP response rate of 23.6%; other efforts were implemented on unit to promote communication; NP was not always present to determine if checklist is completed	well as the team's collaboration competencies. " (Austin 2021).
Davis (2017)	Quasi Experimental Purpose was to determine if a standardized patient engagement strategy to assess health literacy would improve nurse communication related to HCAHP scores	Progressive Care Unit Nurse interviews with 67 patients including two questions which assessed the patients skill and motivation during their hospital stay: What do you know about your diagnosis (assessing skills)? What do you want to know (assessing motivation)?	Pre and post test to nursing staff to identify areas of awareness and knowledge HCAHP scores related to nurse communication	Through nurse interviews with patients it was found that "28% did not know the reason for their hospitalization. " Only 42% of patients had a clear understanding of their diagnosis and why they were in the hospital." "25% of respondents either did not want or need further information about their diagnosis. This was due to these patients	LOE = II/Quality =C Strengths: Verbal engagement allowed for valuable interaction with patients, HCAHPs improved during time of intervention Weaknesses: Lack of sufficient statistical evidence	Two assessment questions point to a positive and improved perception of nurse- patient communication Based upon results providers should consider developing methods that provide patients greater knowledge about their health concerns, satisfaction with their provider with activation and motivation, and compliance with medical advice (Davis, 2017)

				feeling their doctor had been clear on their illness and treatment plan. "23% of patients knew a list of their symptoms but either had not received a diagnosis or did not, at that moment, understand it as referenced in these quotes: "shortness of breath, heart problem," "diabetic," "chest pain and itching," and "I have a lot of medical history and I am just sick." " The HCAHPS scores for quarter October– December 15, 2015, show a significant rise on the "Communication with Nurses" domain		
Lemire (2017)	Quasi-experimental To determine the impact of implementation and use of a communication boards on HCAHP patient experience or communication with nurses (Lemire, 2017).	Medical surgical unit Two time periods (sample being Pre intervention and Sample B being post) each with a sample size of 31 patients	Outcomes were based on the unit specific HCAHP scores of nurse related communication items. They were based upon pre and post implementation.	After implementation, the communication with nurse composite questions increased by 9.7%. Sub questions related to "nurses treat with courtesy and resect", "nurses listen carefully to you", and "nurses explain in a way you understand" increased by 12.9%, 9.7%, and 6.4% respectfully (Lemire, 2017)	LOE = II /Quality = C Strengths: Short time frame; no other initiatives were being implanted during intervention Weaknesses: Small sample size; had a low patient survey return rate; no monitoring for daily completion of white boards	"Caregiver and patient relationships developed from nonverbal and verbal communication when the board content was completed or updated" (Lemire, 2017)
Maloy (2021)	Quasi-experimental, Pre/Post study design	Pediatric Medical Surgical Unit	Outcomes were based on use of daily checklist and rounding	Improved multidisciplinary rounding for patient's plan of care	LOE=III / Quality C Strengths: Used audit tool for checklist	"77% of respondents perceived communication improvement with SMART card" (Maloy, 2021)

					Weaknesses: Results were	
McAllen et al (2018)	Quasi-Experimental To determine if incorporating bedside report (BSR) to standard nursing care would increase patient safety and patient satisfaction	3 units which consist of patients undergoing general surgery or patients with orthopedic and neuroscience diagnosis (McAllen & et al., 2018)	Unit-specific HCAHP scores, fall rates, Press Ganey scores, and nurse satisfaction survey BSR: tool used for auditing compliance of bedside shift report Falls: number of falls obtain through hospital incident reporting system before and after implementation	67 nursing staff completed education prior to BSR implementation Audits depicted a 94% compliance rate; 46 shift reports were observed and timed prior to intervention and 48 reports were observed and timed after implementation Patient falls decreased by 24% after implementation in comparison to pre implementation Nurse Survey: 95% of nurses completed pre survey pre and 85% completed post survey. Having enough time for report went from 80% to 59.6%. Feedback from nurses on BSR felt that BSR took longer to give report and 44% felt it was inconvenient report. Press Ganey patient satisfaction improved with BSR	LOE = II /Quality = B Strengths: lack of statistical evidence in HCAHP scores related to nurse communication Weaknesses: unable to apply to generalization of findings to other settings	Patient satisfaction was improved with BSR as measured by the Press Ganey® survey (McAllen & et al., 2018)
McMillan (2017)	Quantitative – quasi- experimental Determine if implementation of an education program based upon Watson's Theory of Human Caring would positively impact nursing perception and caring attributes into daily practice and increase nurse- specific	5 medical surgical units with a total of /101 registered nurses	Nyberg Caring Assessment Scale (CAS) – a 20 item questionnaire with a 5-point Likert scale (1 = cannot use in practice and 5 = always use in practice) Unit specific HCAHP scores related to nurse communication	CAS results:67 nurses responded to the pre CAS test and 47 responded to post CAS test. There was a 12.23-point increase between the pretest and posttest surveys' overall average composite scores. The significance level of post test scores was p<0.0001 (McMillan, 2017)	LOE=II/Quality = B Strengths: a large number of respondents to CAS survey. Education shows statistical significant for post survey Weaknesses: CAS may not be a valid measurement	Effective communication between the patient and nurse can lead to increased patient satisfaction (McMillan, 2017).

	communication HCAHP scores			Nurse related HCAHP scores: There was a 43% increase from previous 52nd percentile score prior to education sessions (McMillan, 2017)	tool; small sample size	
Prosser, Andrews, & Wheatley (2020)	Quasi-Experimental To determine if formal communication tool (notepad and pen at beside) can improve communication of patient's plan of care and thus increase patient satisfaction and reduce frequency of missed care	Inpatient Oncology unit Oncology patients HCAHPS return survey post intervention was 15% in comparison to the year prior at 11%	Department specific HCAHP scores to determine improvement of patient satisfaction MISSCARE survey used pre and post intervention to measure nurses' perception of the frequency of and the reasons for missed nursing care (Proser, Andrews,& Wheatley, 2020).	There was a 14.6% increase in HCAHPS communication scores but did not reduce omitted care MISSCARE survey had a response rate of 40% prior to intervention and a response rate of 24% post intervention. Based on results Basic care tasks were more frequently reported as missed in this pilot. (Prosser, Andrews, & Wheatley, 2020).	LOE = II / Quality = B Strengths: nurses had more frequently shared the plan of care with patients and family, written form or not Weaknesses: low response rate in MISSCARE survey for post intervention, : plan of care form was not always utilized	"The improvement noted in HCAHPS scores might therefore be a result of increased discussions with patients, but not necessarily a more accurate review of the overall plan of care by the primary nurse." (Prosser, Andrews, & Wheatley, 2020)

Appendix D

Author	Participants	Design	Theme	Interventions	Impact on Nurse Communication Related HCAHP
					Scores
Allenbaugh & et al., (2019)	Nurses and Residents	Quasi- Experiment al	Education	Health Literacy Curriculum	Improved
Austin & et al., (2021)	Nurses/physi cian, nurse practitioner	Quasi- Experiment al	Education	Beside Rounds Checklist	Improved
			Rounding	Interdisciplinary collaboration during rounding	
Davis (2019)	Nurses	Quasi- Experiment al	Communication Tool Education	Assessment tool for health literacy	Improved
Lemire (2017)	Nurses	Quasi- Experiment al	Communication Tool	Bedside communication board	Improved
Maloy (2021)	Nurses/Physi cians	Quasi- Experiment al	Rounding	A checklist utilized during rounding with multiple specialists and bedside nurses	N/A
McAllen & et al. (2018)	Nurses	Quasi- experiment al	Rounding	Incorporating patient's for bedside shift report	Improved
McMillan (2017)	Nurses	Quasi- Experiment al	Education	Educational program based upon Jean Watson's Caring Theory	Improved
Prosser, Andrews, & Wheatley (2020)	Nurses	Quasi- experiment al	Communication Tool	Paper format with pencil at bedside depicting patient plan of care	Improved



Appendix F



Appendix G

No.	Item	Grade					
		1	2	3	4	5	6
1	The patient accepts conversation with me	Doesn't accept	Very difficulty	Hampered	Good	Very good	Excellent
	following way						
2	I fully understand the severity of the patient's	Conversation impossible	Very difficulty	Hampered	Good	Very good	Excellent
	illness and I talk with them about it						
3	The patient talks to me about various themes but avoid or is not able to answer my questions about their illness	Conversation impossible as they do not answer my questions	Answers my questions extremely difficulty	Answers my questions hampered	Answers my questions well	Answers my questions very well	Answers my questions excellent
4	The patient looks like they listen to what I am saying about their condition but avoids or is not able to adequately cooperate with me while talking to them:	They resist or do opposite form what has been told	Does not resist but doesn't do what I am telling them	Cooperates but with difficulties	Cooperates well	Cooperates very well	Cooperate excellent

5	I fully understand the severity of patient's	Not possible at all	Extremely difficulty	Hampered	Good	Very good	Excellent
	illness, therefore only by observing the patients gesture I conclude that my communication with them is:						
6	The level of communication with the	No communication	Extremely difficult	Hampered	Good	Very Good	Excellent
	patient while I carry out or monitor their pharmacotherapy, I can describe as:						

Appendix H

S	Specialists	Do you know what specialists are consulted?		
М	Medications	Do you know what new medications are ordered?		
Α	Assess	What do you want to know about your plan of care?		
R	Routine	What labs or testing Is pending or ordered		
Т	Transition	What are the goals for discharge?		

Appendix I

Common Specialists

Specialist	What do they do?		
Cardiologist	A provider who cares for disease related to the heart		
Cardiovascular Surgeon	A provider who cares for disease related to the heart, arteries, and veins		
Endocrinologist	A provider who cares for disease related to diabetes or hormones		
Hematologist/Oncologist	A provider who cares for disease related to the blood or cancer		
Nephrologist	A provider who cares for disease related to the kidneys		
Neurologist	A provider who cares for disease related to the brain		
Pulmonologist	A provider who cares for disease related to the lungs		
Gastroenterologist	A provider who cares for disease related to the stomach		
Colorectal Surgeon	A provider who cares for disease related to the colon		
Infectious Disease Specialist	A provider who cares for disease related to infections within the body		
General Surgeon	A provider who cares for disease that need a surgical intervention		

Medications

This handout is to provide a template to keep track of new medications you may be placed on during your stay in the hospital

Medication(generic/brand)				
How much do I take?				
How often do I take it?				
This is for my				
Medication(generic/brand)				
How much do I take?				
How often do I take it?				
This is for my				

Assessment

What I know about my plan of care:

One thing I would like to know about my plan of care:

Routine

This handout is to provide a template to keep track of blood work and testing that is ordered during your stay in the hospital

Tests I am waiting to result:

Blood Work

I have scheduled bloodwork____

My labs are scheduled:

- Morning _____
- Nighttime _____
- Every two hours _____
- Every four hours _____
- Every six hours _____
- Every eight hours _____

Appendix J



Appendix K

SMART

A Communication Tool

THIS TOOL IS TO ASSESS A PATIENT'S HEALTH LITERACY/MOTIVATION, EDUCATE ON NEW MEDICATIONS, AND ADDRESS THE MOST COMMON QUESTIONS RELATED TO A PATIENT'S PLAN OF CARE

GOAL: TO IMPROVE PATIENT SATISFACTION THROUGH COMMUNICATION BETWEEN THE NURSE AND THE PATIENT

SPECIALISTS

- Review with the patient what specialists are
- consulted and who they have not seen yet
- Specialists have up to 24 hours to see the patient
- (that doesn't mean that's how long it will take)

MEDICATIONS

- Are there any new medications that the patient
- was started on during their admission?
- Is the patient familiar with their home medications that they are taking?



R



S

ASSESSMENT

- Ask the patient
 What do you know about your plan of care?
- What do you want to know about your plan of care?
- This Is to assess the patient's health literacy and
 - motivation

ROUTINE

- What tests and/or labs are planned?
- What tests and/or labs are In

process?

TRANSITION

- Discuss discharge planning considering what the
- patient may need at home
- A progressive rounding reminder

Appendix L



Expenses	Туре	Source	Cost
8" x 11" Printer Paper for MODIFIED	Resource	Direct	\$0.10/sheet
SMART Handouts (50 sheets per			
handout)			
16" x 20" Laminated Posters (20 posters)	Resource	Direct	\$7.32/poster
Clinical Nurse Specialist	Personnel	Direct	\$50/hour
Informative Session Time	Personnel	Direct	10 minutes to 15 minutes
Unit Rounding Time	Personnel	Direct	1 hour (60 minutes) to 2 hours (120
			minutes) per unit rounding
Projected Cost of Unit Rounding at	Personnel,	Direct	\$50.00*
60 minutes	Process		
Projected Cost of Unit Rounding at	Personnel,	Direct	\$100.00*
120 minutes	Process		
Pre and Post Patient Survey	Resource	Direct	\$0.10/ sheet

*Hospital does not currently credential/privilege clinical nurse specialists to bill for services; cost estimated based on hourly wage and time



