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Bedside Shift Report: A Way to Improve Patient and Family Satisfaction with Nursing Care

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Bedside Shift Report: A Way to Improve Patient and Family Satisfaction with Nursing Care

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Bedside Shift Report: A Way to Improve Patient and Family Satisfaction with Nursing Care

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Abstract

Poor communication during the handoff process contributes to approximately 30% of malpractice claims costing up to $1.3 billion annually (Fenner, 2017), which demonstrates the importance of evaluating the quality of information exchange between nurses, patients, and families when associating quality of care to patient satisfaction (Kullberg et al.,2017). The following question guided this Evidence-Based Project (EBP) project. In adult, progressive care unit patients **(P),** does the implementation of a nursing bedside handoff (**I)** compared to current handoff practices **(C)** improve patient/family satisfaction with nursing care **(O)** over eight weeks **(T)**? The literature revealed evidence from 10 studies answering the practice problem and supported implementing a Bedside Handoff (BSH) bundle. Themes from the evidence included patient and family participation in care, bedside handoff and impact on patient and family satisfaction, nursing perceptions associated with bedside handoff process, and measuring patient and family satisfaction with nursing care. The BSH bundle included staff education, utilization of a standardized handoff communication tool, safety checks, and use of patient whiteboards. Direct observation occurred to understand staff compliance using the Handoff Observation Feedback Audit Tool. The project demonstrated that bundling evidence-based practices improved specific nursing care aspects that influence the patient and staff experiences and satisfaction survey results.

Bedside Shift Report A Way to Improve Patient and Family Satisfaction with Nursing Care

The bedside handoff (BSH) demonstrates one of many strategies hospitals throughout the United States employ to encourage patients and families to participate in care and improve the patient/family hospital experience. The BSH process enhances the culture of patient safety, the delivery of care, and minimizes flaws in communication that compromise care resulting in unintended healthcare costs (da Silva dos Santos et al., 2018). When evaluating nursing care delivery and communication, the evidence-based approach of the BSH process shows improvement in patient/family satisfaction survey scores. (Radtke, 2013). This evidence-based practice (EBP) change project endeavors to assess patient/family perceptions of nursing care pre-implementation and post-implementation of a nursing BSH bundle. The project proposal evaluates the evidence of BSH and explains the methodology of the project intervention. It also discusses practice recommendations based on the evidence, measures and outcomes, results, impact, sustainability, and dissemination.

Significance of the Practice Problem

The Agency for Healthcare Research & Quality (AHRQ) (n.d.) identifies the handoff process as a significant cause and contributor of adverse events, especially in the acute care and critical care areas. Considered the leading cause of deaths due to preventable errors in the US, the impact of poor communication leads to approximately 1,000 deaths per day and results in $2.9 billion spent each year nationally (Institute of Medicine, 2010). Poor communication makes up 30% of all malpractice claims, with $1.7 billion spent annually on organizations' payouts across the nation (Fenner, 2017). The organizational cost associated with medication errors, adverse events, or deaths is $50,000 per/injury (P. Ciampa, personal communication, November 21, 2019).

Patient satisfaction surveys distributed by organizations to measure multiple nursing care dimensions link information exchange to patient-family satisfaction (Kullberg et al.,2017). Hospitals use the Consumer Assessment of Healthcare Providers and Systems (HCAPS) survey to collect data to understand patient satisfaction with nursing care and communication. The HCAPS patient satisfaction survey reported the VA Medical Center of Tampa, Florida, received a patient satisfaction percentage of 77%. This percentage exceeds the state rate of 76% but registers lower than the national percentage of 81% for patients who report satisfaction with nursing care and communication (U.S. Centers Medicare & Medicaid Services, n.d.). The significance of the HCAPS survey data identifies the need for improvement of patient satisfaction within the organization. The HCAPS survey fails to recognize unit specific patient satisfaction. Generalized assumptions of the survey results make it difficult to understand patient and family-specific needs from different types of units of care. Due to the unique needs of complex patients, the Nursing Intensive Care Satisfaction Scale (NICSS) was used in this project to measure satisfaction with nursing care from the critical care patient's perspective.

PICOT Question

In adult progressive care unit patients **(P),** does the implementation of a nursing bedside handoff (**I)** compared to current handoff practices **(C)** improve patient/family satisfaction with nursing care **(O)** over eight weeks **(T)**?

Population

Registered nurses, patients, and families on PCU served as the targeted population for the intervention. Registered nurses were the primary individuals to facilitate the change intervention, and non-licensed nursing staff and nurses who floated to the unit were excluded. Patients and families participated voluntarily and were queried to determine they met the following inclusion

criteria. Patient survey distribution occurred if the patient spent ≥ 24 hours in the PCU setting and participated in ≥1 BSH or spent ≤24 hours in the unit and participated in at least one BSH during their stay on the PCU unit. Patients unable to participate due to medical limitations spent ≤24 hours in the unit and did not participate in BSH were excluded from the project.

Intervention

The change intervention included implementing a BSH bundle that included staff education, and utilization of a standardized handoff communication tool, safety checks, and use of patient whiteboards. The implementation of a nursing BSH bundle provided a strategy that focused on reducing avoidable adverse patient outcomes associated with communication, supported the delivery of PFCC, improved patient/family satisfaction with nursing care, and improved nurse-to-nurse accountability (AHRQ, 2017; Goldfarb et al., 2017; Small & Fitzpatrick, 2017; Starmer et al., 2013; Tobiano et al., 2018).

Comparison

The bundled intervention was compared to current handoff practices, which involved inconsistent shift-to-shift handoff practices. Inconsistencies included handoff reports occurring at the bedside, outside of the patient's room, and at the nurses' station. Nurses were expected to deliver PFCC by modifying traditional shift-to-shift handoff/report and including and allowing patient and family input during the handoff process (Herbst et al., 2013).

Outcome

This project intended to improve patient and family satisfaction with nursing care and staff satisfaction with the handoff process in a specialized critical care area. The patient and family satisfaction level with nursing care was compared to baseline data, where nurses did not use the BSH bundle.

Time

The intervention was implemented for eight weeks. Implementation of the project began after receiving approval from the university and organizational project review boards.

Evidence-Based Practice Change Framework & Change Theory

Evidence-Based Framework

Kotter's conceptual framework was selected for this project because it represents a widely accepted approach for executing organizational change (Pollack & Pollack, 2015). Kotter's eight-step framework was used to report the implementation of the BSH bundle process and its effectiveness on improving patient and family satisfaction with nursing care, nurse compliance, and nurse perceptions of the process. In step 1, Kotter creates a sense of urgency to identify and communicate the need for change. Step 2 requires the formation of a coalition to guide and coordinate the project. Step 3 establishes a vision and goals to drive change. Step 4 requires individuals to communicate the vision. Step 5 focuses on empowering others to act on the vision. Step 6 creates quick wins used to celebrate and reinforce outcomes. Step 7 fosters reflection of practices to build on change, and step 8 focuses on institutionalizing the change as the new norm to include project dissemination throughout the organization (Small et al., 2016).

Change Theory

Peplau's theory of interpersonal relationships guided the evidence-based practice change project to help develop trust and meaning within the nurse-patient interaction and within the care delivered by the nurses to meet the patient's needs (Marchese, 2006; Radtke, 2013). This theory includes three phases: orientation, working, and termination of interactions (Penckofer et al., 2011). The BSH bundle develops the nurse-patient relationship and builds trust through open communication during the transfer and closure of a nurse-patient and family interaction. The

patient/family satisfaction with nursing care influences the nurse-patient and family interaction and affects future communications and delivery of care.

Evidence Search Strategy

The following PICOT question guided a comprehensive literature review. In adult progressive care unit patients **(P),** does the implementation of nursing bedside handoff (**I)** compared to current handoff practices **(C)** improve patient/family satisfaction with nursing care **(O)** over eight weeks **(T)**? An electronic search was completed using the following digital databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed, ProQuest Central, Ovid Medline, and Joanna Briggs Institute Evidence-Based Practice (EBP). To create an exhaustive search strategy, the following keywords and Boolean terminology were applied to each search: "*bedside handoff*" [or] "*handoff*" [or] "*shift report*" [and] "*patient satisfaction"* [and] "*family satisfaction*" [and] "*patient participation*" [and] "*staff satisfaction*" [and] "*patient safety."* Database searches were limited to articles written from 2015 to present and full text, academic peer-reviewed articles written in English, including adults and adolescents 13-18 years of age. Article exclusion criteria included post-operative handover, resident handoffs, multidisciplinary handoff, hospital handoff, hospital to hospital handoff, and handoff occurring outside of the inpatient setting.

Evidence Search Results and Evaluation

The initial search query contained phrases to include *handoff + patient satisfaction, handoff + family satisfaction, handoff +nursing, handoff + patient experience, handoff + family experience, and handoff + communication.* The literature review consisted of evidence published between 2015-2020 to obtain the most current and relevant evidence-based practice. The review searches conducted in ProQuest, Medline, CINAHL, PubMed, and Joanna Briggs databases

collectively generated 1,413 articles written in English from peer-reviewed journals. After removing 50 duplicates, a total of 1,363 non-duplicate articles underwent further screening. Additional screening practices excluded 1,225 articles after applying limiters. An abstract and title review eliminated 128 full-text articles. After all limiters were applied, and title and abstract reviewed, a total of 10 articles were included for analysis. Of the ten studies included, the designs varied and included mixed-method, qualitative, quantitative, systematic reviews, and systematic reviews with meta-analysis studies. A flow diagram illustrates the study selection process (see Figure 1).

The John Hopkins Nursing Evidence-Based Practice evidence level and quality guide was used to grade the level and quality of evidence for primary and systematic review literature (Dang & Dearholt, 2017). The primary research level of evidence varied from Level II, III & V, with the quality grade of literature ranging from A-B. The study graded as Level III was conducted on a single unit, and the Level V graded body of evidence was classified as such because it was based on a consensus panel using scientific evidence and clinical practice guidelines (see Appendix A). There were two systematic reviews and one systematic review with meta-analysis. All three were rated Level IA studies (see Appendix B). The identified evidence supported implementing the BSH bundle as an effective strategy to improve patient/family satisfaction with nursing care and answered the clinical question.

Themes from the Evidence

All studies selected contained supportive evidence answering the proposed clinical question. The literature sources were synthesized by conducting a rigorous analysis of the evidence to identify common themes, trends, and perspectives related to the nursing BSH process. The literature review findings were summarized and compared to understand the

research results better, noting similarities and differences. The literature synthesis identified the following four themes: patient/family participation in care, bedside handoff and impact on patient/family satisfaction, nursing perceptions associated with bedside handoff process, and measuring patient and family satisfaction with nursing care (see Figure 2).

Patient and Family Participation in Bedside Handoff

Extensive documentation shows BSH, including the patient/family, increases and promotes timely and effective communication between nurses, patients, and families (Clark et al., 2016; Malfait et al., 2019). Two articles identified families as surrogates and recognized family as a vital component to the decision-making process and part of the experience when patients could not do so themselves (Clark et al., 2016; Goldfarb et al., 2017). In contrast, other evidence suggested patients held mixed views about family involvement. However, nurses identified the family as a valuable resource when the patient could not participate (Tobiano et al., 2018). Evidence suggests increased tension, dissatisfaction, and poor patient outcomes occur when healthcare providers cannot align with patient/family values and goals of care (Goldfarb et al. 2017). One study indicated the BSH process helped patients feel informed, giving them an increased sense of control/relief. These patients reported satisfaction with nurse responsiveness and identified confidentiality breaches were not a significant concern (Luperi et al., 2016). The evidence identified that the BSH keeps patients/families informed when they actively participate, improves health outcomes, increases patient and family satisfaction, and offers a validated method for delivering PFCC (Bigani & Correia, 2018; Clark et al., 2016; Elue et al., 2017). Luperi et al. (2016) indicated the BSH process should include a framework that allows patients to progressively engage in the process at different stages ranging from informative to shared

decision-making when their condition permits or patients express a willingness to participate (see Appendices A and B).

Bedside Handoff and Impact on Patient and Family Satisfaction

Several studies reported BSH positively impacted patient/family satisfaction and satisfaction heavily correlated with effective communication strategies (Bigani et al., 2018; Clark et al., 2016; Elue et al., 2019; Skaggs et al., 2018). The literature identified specific nursing care components that influence patient/family satisfaction with care and included: nurses explaining things well, professionalism, nurse attentiveness, timeliness, and technical skills increased patient/family satisfaction with nursing care. Characteristics such as lack of attention and poor/lacking communication reported a negative impact on patient/family satisfaction (Clark et al., 2016; Elu et al., 2019; Lupieri et al.,2015; Romero-Garcia et al., 2019). Only one study reported that nurse-led intensive communication strategies failed to demonstrate an improvement in patient satisfaction (Goldfarb et al., 2107). Two studies measured patient satisfaction using different measurement tools. Both studies reported an increase in patient satisfaction after the implementation of BSH. With nurse communication positively linked to patient satisfaction in both studies, these findings are consistent with other literature (Elu et al., 2019; Romero-Garcia et al., 2019) (see Appendices A and B).

Nursing Perceptions and Bedside Handoff

Nurse perceptions varied amongst multiple studies. The evidence suggests nurses lack training and understanding of the Health Insurance Portability and Accountability Act (HIPPA), causing discomfort, avoidance, and stress during the implementation of BSH (Small & Fitzpatrick, 2017). One study indicated that nurses primarily viewed BSH in the traditional sense as occurring outside of the room and lacked structure resulting in a weak exchange of

information (Small & Fitzpatrick, 2017). Two articles indicated nurses identified BSH as time-consuming and raised concern for breaches in patient confidentiality (Bigani & Correia, 2018; Small & Fitzpatrick, 2017). Three studies validated that nurses reported BSH as the preferred form of shift handoff, improving accountability, patient safety, and patient participation (Bigani & Correia, 2018; Lupieri et al., 2016; Small & Fitzpatrick, 2017). Staff education and simulation training was considered an effective strategy to overcome barriers and supported staff engagement. The utilization of safety checks and patient/family inclusion during BSH confirmed reduced risk and improved patient safety outcomes. Lastly, audit tools provided an effective strategy to monitor compliance with the BSH process (Bigani & Correia, 2018; Skaggs et al., 2018; Small & Fitzpatrick, 2017; Tobiano et al., 2018) (see Appendix A).

Measuring Patient and Family Satisfaction with Nursing Care

Measuring patient/family satisfaction with care using a valid and reliable tool is essential to understanding nursing care delivery and quality. The literature identified several different surveys that measured patient/family satisfaction. Two research studies used the HCAPS survey (Elu et al., 2019; Small & Fitzpatrick, 2017). Elu et al. (2019) identified delayed results with little movement in HCAP scores, while Small & Fitzpatrick (2017) reported improved patient satisfaction survey results after implementing BSH. Clark et al. (2016) identified that the HCAP survey failed to measure patient and family satisfaction in the ICU setting and instead utilized the Family-Satisfaction in the ICU-24 (FS-ICU-24). The FS-ICU-24 questionnaire was identified as a valid and reliable tool to measure family satisfaction with care and decision-making in the ICU (Clark et al., 2016). Romero-Garcia et al. (2019) identified the NICSS as the only valid and reliable questionnaire that evaluated satisfaction from the critically ill patient perspective (see Appendix A).

In Summary, patient/family and staff satisfaction increased with the implementation and utilization of the BSH process in most of the studies reviewed in this literature search (Bigani & Correia, 2018; Elu et al., 2017; Goldfarb et al., 2017; Lupieri et al., 2016). Multiple studies confirmed that the BSH should consist of a standardized process that integrates safety checks and include utilizing a scripted report involving the patient and family (Bigani & Correia, 2018; Skaggs et al., 2018 Small & Fitzpatrick, 2017). The use of patient whiteboards offered a cost-effective measure to include patients in developing the patient care plan (Tobiano et al., 2018). The research supported using a valid and reliable tool to measure patient/family satisfaction to improve nursing care processes (Romero-Garcia et al., 2019) (see Appendix A&B). The evidence suggests the organization will benefit from utilizing a more formalized and structured nursing BSH process.

Practice Recommendations

The recommended change is implementing a nursing BSH bundle to increase patient/ family satisfaction with nursing care. The BSH bundle consists of multiple evidence-based strategies validated in the literature. The bundle contains the following elements: nurse and patient/family education, utilizing a universal report "ISHAPED" (I=Introduction, S=Story, H=History, A=Assessment, P=Plan, E=Error Prevention, D=Dialogue) handoff tool, safety checks, and use of communication whiteboards. The implementation of these interventions offers a strategy for the exchange of information during the handoff process and provides nurses a systematic approach to engage in timely, accurate, and effective communication with peers, patients, and families (Bigani & Correia, 2018; Clark et al., 2016; Elue et al., 2017). Also, a patient-centered and structured handoff tool provides an opportunity to increase patient and family participation in the delivery of care conversations, maintains patient safety, promotes

teamwork and accountability, and helps nurses understand patient/family values and goals of care (Bigani & Correia, 2018; Clark et al., 2016; Elue et al., 2017; Lupieri et al., 2016; Skaggs et al., 2018; Small & Fitzpatrick, 2017; Tobiano et al., 2018). The BSH process was an effective method to improve nursing communication, accountability, coordination of care, and validated patient/family information. The conduction of safety checks positively impacted nurse-sensitive indicators (Bigani & Correia, 2018). Patient whiteboards offer a communication tool and visual aid to display the patient's plan of care goals, preferences, and other daily reminders (Tobiano et al., 2018). The use of valid and reliable tools supports the delivery of nursing care and patient and family satisfaction with nursing care and staff satisfaction with the handoff process.

Project Setting and Overview

Description

The project occurred at a large West Central quaternary academic medical center located in Florida (U.S. Department of Veterans Affairs, 2018). The project site is part of an extensive healthcare system servicing four counties in Central Florida. The organization is part of a large Integrated System Network, including seven other Florida facilities, and treats approximately 94,812 Veterans per year (U.S. Department of Veterans Affairs, 2018). The selected unit houses an inpatient 12-bed Progressive Care Unit (PCU) in the critical care setting. The PCU consists of a Nurse Manager (NM), Assistant Nurse Manager (ANM), registered nurses, and certified nursing assistants. The unit serves patients with a variety of complex medical and surgical needs that require a higher level of monitoring and surveillance

Organizational Structure and Culture

The organizational structure consists of a medical center Director, Chief of Staff, Associate Director of Patient Care/Nursing Services, Deputy Director, Associate and Assistant

Director (U.S. Department of Veterans Affairs, 2019a). Leadership provides oversite of hospital operations and is accountable for department operations. Each hospital service consists of chiefs, managers, supervisors, and assistants. Leadership at all levels is guided by the organization's core values, mission, and vision statements (The U.S. Department of Veterans' Affairs, 2017).

Organizational Need

Using the Medicare Hospital Compare Data Results of Patient Experience, information obtained from the survey results indicated lower patient satisfaction scores than National averages for patients reporting satisfaction with nursing communication (Medicare, n.d.). Furthermore, the Medicare Hospital Compare data provides organizational patient satisfaction scores but fails to identify unit-specific information, especially in the critical care section. Considered part of the critical care section, the PCU was selected because most patients are physically/mentally able to communicate orally and participate in the handoff process. Additional considerations include PCU's interest in supporting the organization's mission to improve patient and family satisfaction with care.

Stakeholders

Key stakeholders were identified by using the "Key Stakeholder D.A.N.C.E" tool. The stands for *decision, authority, need, connections,* and *energy* (Kogon et al., 2015). The following individuals were identified as key stakeholders to assist with the successful implementation and completion of the project. Key stakeholders included the Nurse Manager (NM) and Doctorate of Nursing Practice (DNP) student/ Project Manager (PM) to make *decisions,* the Chief Nurse of Acute Care for *authority,* nursing staff representatives for *needs,* Assistant Nurse Manager (ANM), project champions, and patient representative for *connections,* and patients/families and nurses represent the *energy* (Kogon et al., 2015).

Organizational Support

The Nurse Manager and the Chief Nurse of Acute Care provided organizational support. The Director of Nursing Education also endorsed approval, and permission to complete the project was granted during initial meetings. Random queries with the PCU staff provided feedback and identified mixed interest in the proposed project. Understanding each key stakeholder's perspectives proved an essential step in achieving the desired results of the plan (Kogon et al.,2015). The organization maintains a high level of commitment to continuous quality improvement and actively trains and practices Lean Six Sigma principles. Staff is knowledgeable and familiar with the utilization of Lean practices in the PCU, and their baseline knowledge of EBP supported the project's success.

Interprofessional Collaboration.

The project focused on developing a common language for team communication during the BSH process. Presenting information to team members, patients, and families in an easy to understand manner contributes to safe and effective interprofessional care (Interprofessional Education Collaborative Expert Panel, 2016). The project focused on developing team-based competencies and patient and family education to increase the teams' understanding of why, when, and how to use the BSH process and associated bundle components (Bradley, 2003).

Sustainability

EBP improvement involves a change in the organizational culture and addresses the need for modified behavior changes to sustain EBP improvement outcomes. According to Hovlid et al. (2012), sustained improvements occurring after a systematic change represent organizational learning. The PM created a PowerPoint presentation and reviewed the reproducible educational training content and baseline data with NM and ANM to obtain feedback before dissemination.

Staff education included content on BSH practices and instructions on utilizing the BSH bundle to sustain project outcomes.

Strength, Weakness, Opportunity, and Threat Analysis

A Strengths, Weakness, Opportunity, and Threat (SWOT) analysis was completed to determine the PCU's readiness to implement change. The SWOT identified positive and negative factors providing an avenue for prioritizing project needs (see Appendix C). Opportunities for improvement include enhancing the delivery of PFCC by establishing a standardized process to improve communication, patient safety, and peer-to-peer accountability by creating a BSH bundle.

Project's Vision and Mission

The organizational mission is to serve and honor Veterans by delivering exceptional care (U.S. Department of Veterans Affairs, 2019b, para. 6). The project vision was to embrace the "delivery of 5-star care" by delivering patient-centered evidence-based care (U.S. Department of Veterans Affairs, 2019b, para. 7). The mission and vision of the project aligned with the organization through its patient-centered and evidence-based approach.

Objectives

The EBP change project aimed to understand if nurses' specific set of actions supported the reliable and accurate exchange of information and improved patient/family participation in the handoff process. The BSH bundle's premise was to improve patient satisfaction with nursing care and staff satisfaction with the handoff process. The main objective was to compare pre-implementation and post-implementation data to identify the clinical and statistical impact of the BSH bundle. The long-term objective was to sustain project outcomes with a policy change to

include using the BSH bundle as the standard for nurses when giving shift-to-shift handoff throughout the organization.

Unintended Consequences and Risks

The project's goal was to enhance the communication and delivery of PFCC to improve patient/family and staff satisfaction. Unintended consequences for this project include medication errors, patient falls during the change of shift, delivery of inaccurate/incomplete information, technical failures, no improvement or impact on patient/family satisfaction with nursing care or staff satisfaction with the handoff process, and lack of staff engagement with using the BSH bundle during the change of shift time period. The most significant and expected barrier was staff resistance to change. Consequently, the BSH bundle supported operational changes in the PCU setting as they adapted to changes associated with the global Coronavirus (COVID-19) pandemic. Risk avoidance led to no overtime cost or adverse outcomes caused by inadequate communication during the handoff process.

Project Plan (Method)

The goal was to develop and trial a new BSH bundle using Kotter's framework to implement the change project. The project directed nurses to report and discuss critical elements associated with patient care to minimize risk and support peer-to-peer accountability (Small et al., 2016).

Kotter's Framework Model

Kotter's eight-step framework guided the BSH change process since it was identified as a practical framework to institutionalize change. Kotter's eight-step model of change includes (1) Create a sense of urgency, (2) Form a guiding coalition, (3) Create a vision, (4) Communicate

the vision, (5) Empower others to act on the vision, (6) Establish quick wins, (7) Build on change, and (8) Institutionalize the change (Kotter, 2018).

Create A Sense of Urgency

A sense of urgency was created based on the evidence found in the literature associated with BSH practices. The management and Project Manager (PM) highlighted the potential risks and impact of inadequate handoff procedures and implications for poor patient outcomes resulting from poor handoff practices. By highlighting risks, staff understood the importance of maintaining patient safety, the need for using a standardized communication tool, and the benefit of a BSH bundle (Small et al., 2016). A review of current hospital policies and the unit needs assessment findings were also used to create a sense of urgency. Baseline unit data was collected to demonstrate the magnitude of the problem and the need for practice change. Manager rounding was encouraged as a strategy to communicate urgency and the importance of the practice change (Small et al., 2016).

Form A Coalition

Workgroup members selected to help drive the EBP change project included the PM, unit manager, chief nurse, one project champion from day shift and night shift, and a nurse educator. These individuals learned how to utilize and apply Kotter's framework to help facilitate changes in the BSH process (Small et al., 2016).

Create A Vision

Group members created a vision and identified key priorities discussed in the literature. The group established nursing expectations and formalized the communication plan to utilize during the handoff process (Small et al., 2016). The project manager and project champions

communicated the project timeline, goals, and objectives. Efforts enhanced staff connections between understanding the importance of handoff and its impact on patient safety.

Communicate the Vision

The project plan and mission were shared with staff by hosting education sessions to disseminate information and allow time for questions and answering concerns (Small et al., 2016). The NM, ANM, and PM supported the driving force to move change in a forward direction. Project team members utilized multiple communication forums such as education sessions, one-on-one conversations, and small group discussions with staff to offer support and guidance (Joshi et al., 2014). Project team members facilitated momentum as change agents displaying excitement about the vision and use of the BSH bundle.

Empower Others

Improving the culture of quality cannot occur without the participation and insight from the staff. The BSH bundle's use encouraged staff to speak up about patient safety concerns and helped promote peer-to-peer accountability. Management provided ongoing support to ensure that staff were clear about their roles and expectations and offered staff an opportunity to have control over BSH practices. Staff utilized the current organizational standardized communication tool ISHAPED, developed safety checklist and patient whiteboards autonomously. Random process audits evaluated staff compliance with various components of the BSH bundle. Audit findings were shared and communicated to staff to identify process gaps, generate discussion to help overcome barriers, and develop action plans to meet project goals and objectives.

Establish Quick Wins

The project plan included breaking the intervention feedback plan down into smaller, more tangible steps. Providing feedback to staff about the various components of the BSH

bundle prevented staff from feeling overwhelmed and encouraged staff participation and buy-in. Staff needed to see that their efforts contributed to the change process and awarding them for their efforts supported the project change efforts (Joshi et al., 2014). Quick wins were identified, such as staff engagement, improved communications, and the use of whiteboards. Methods used to acknowledge quick wins included recognition “in the moment” or at the time of handoff, in group settings, and during staff in-services. Data metrics that moved in a positive direction provided a sounding board to celebrate achievements toward meeting established goals and benchmarks. At the close of the project, a celebration meeting was hosted to recognize key stakeholders and share team successes.

Build on Change

Ongoing monitoring, reflecting on work practices, and reviewing process outcome measures at frequent intervals facilitated change. The project goal included staff transition to the integration and sustainment of a new BSH workflow process. The BSH bundle represents the standard of care nurses facilitate and use during the end-of-shift handoff. Also, a yearly staff competency checklist and audit tool was developed (see Appendix G). Sustainability was maintained by identifying champions of change at various levels within the organization. The purpose of preserving project champions is to inspire, coach, and mentor staff and hold them accountable for sustaining project objectives, goals, and expectations.

Institutionalize the Change

Staff and leaders discussed project outcomes and the current state of the project at its conclusion. To further promote the EBP project's sustainability, unit managers and designated unit champions were provided recommendations. Recommendations included the BSH Observational Feedback Audit Tool's continued use to monitor staff compliance with BSH

bundle components and incorporation of the BSH education plan in unit nursing orientation plan. Additional recommendations included the need for ongoing training and modifications to the current hospital handoff policy to use the BSH bundle. Chaghari et al. (2017) noted that in-service training supports staff competencies and achievement of organization goals. Direct observations also furnish an effective method to evaluate staff education and contribute to developing education plans.

Barriers and Facilitators

Barriers were anticipated and mitigated as best as possible. Staff were included in workgroup discussions and assisted with decision-making processes when problem-solving to build trust and gain buy-in. Involving the NM and ANM to participate in group discussions clarified staff expectations. Management officials were also encouraged to conduct leadership rounding to support staff compliance with handoff practices and processes. Project champions moved the project forward and helped staff overcome barriers to achieve project, timeline, goals, and outcomes. Project facilitators helped with the successful adaptation, uptake, and sustainability of the project and included executive and mid-level leadership and project champions (Harris et al., 2018).

Project Schedule

The project planning began with developing the project proposal and submitting the plan to the University of Saint Augustine's Evidence-Based Practice Project Review Council (EPRC) and Institutional Research and Development (R&D) Department for required review and approval. The timeline for the project was eight-weeks. Following approval, the team was assembled and prepared for implementation. Baseline data were collected, and training provided to project champions during weeks two and three. Staff was educated about the BSH bundle and

project goals during week three. Weekly audits were done through direct observation, and audit findings were reported. Data collection and analysis occurred in weeks seven and eight. After week eight, all project data and outcomes were evaluated and analyzed. The PM shared project results with staff, unit management, and hospital leadership. Upon completion, handoff occurred with the PCU management to support project sustainability. A detailed project timeline is provided (see Appendix D).

Project Resources and Budget

Project resources utilized for this project included two-unit champions. The NM and ANM provided project and staff support, secured training sessions and materials, and a secure location to store patient/staff survey responses. The budget request for this project was submitted to hospital leadership for approval. Associated project costs included one-hour staff training sessions for twenty-nine employees at an average hourly rate of $35.00 per/ hour or $1,015.00 plus an additional $200.00 for office supplies such as paper, printing services, and whiteboard supplies for a total project cost of $1,215.00. Existing items included patient whiteboards located in each patient's room and electronic unit handoff forms situated in the organization nursing shared drive folder. There were no additional costs for these items. Financial costs associated with this project are documented in a budget table (see Table 1).

Evaluation Plan

The project evaluation plan examined whether implementing a BSH bundle improved patient and family satisfaction with nursing care compared to usual handoff practices within 60 days of implementation in a PCU setting. Kotter's eight-step model provided the framework for addressing the practice problem in the clinical setting. The project evaluation design involved comparing baseline data to post-intervention data. The PM recruited project participants,

provided patient education, and distributed patient and staff surveys. The patient's primary care nurse assisted the PM with survey collection and safe storage of survey responses.

The DNP student functioned as the PM. The PM's roles and responsibilities included data collection, organization, analysis, and evaluation of data results. The data collection process began after University EPRC and R&D facility approvals. Data and surveys responses collected for this project did not contain patient sensitive information and upheld the anonymity of project participants. Data and survey responses were organized by the PM and stored in an electronic folder on a secure computer requiring a Personal Identification Verification (PIV) for login access. Password protection added additional security.

Process measures data were collected by developing a direct observation feedback tool (see Appendix G). Baseline data and post-intervention staff observation data metrics were compared and reported staff compliance using the BSH bundle components. Routine evaluations were conducted and included staff and key stakeholders' advice and criticisms from formal and informal methods. Feedback was used to determine the need for project modifications to help meet project goals and objectives. Data from outcomes are reflective of the impact of the intervention. Patient and family dissatisfaction and staff training costs were used as balancing measures. The project's balancing efforts helped identify unintended consequences of the project, such as unplanned overtime costs or lack of patient/family satisfaction resulting from the practice change. Financial measures monitored project costs and were evaluated weekly to ensure budget adherence. Financial benchmarks were established to adhere to the education time frame. The project budget was successfully met.

Variables

The independent variable in this project was the implementation of a BSH bundle. Dependent variables for the project include gender, degree, and years of nursing experience. Other dependent variables included nurse utilization of the ISHAPED handoff tool, participation and completion of safety checks, and utilization of patient whiteboards. Dependent variables were analyzed to determine if the BSH bundle components effectively improved patient satisfaction with nursing care and nurse satisfaction with the handoff process.

Missing Data

Observation audit feedback tool forms and staff surveys were collected daily and reviewed for completion and missing data. Missing information on observation forms was clarified with the project champion to validate findings and ensure data collection accuracy amongst collectors. Survey questions not answered were omitted.

Participant Selection

This project's total population included nurses, patients, and families on a single critical care step-down unit. In response to COVID-19, changes in the visitation policy occurred, and families were no longer allowed in the facility and were excluded from the project. Staff was encouraged to support family participation during the BSH process by using Virtual Video Conferencing (VVC). Nurses floating to the unit participated in the handoff process but were not evaluated on the BSH bundle's use at the time of handoff.

Data Collection

The project team included a PM, NM, ANM, and project champions. The PM conducted the literature review, presented findings, and sought University and facility approvals. The PM led the project team, who coordinated staff training sessions and meetings, monitored progress,

validated, and collected results. Additionally, the PM monitored project progress and adherence to the timeline. The PM made project modification based on stakeholder feedback and reported findings during and at the time of completion. Project champions were educated on the handoff observation feedback audit tool, and inter-rater reliability tested amongst users before the data collection process to ensure consistency of results (Sylvia & Terhaar, 2014, p.92).The patient's primary care nurse assisted the PM with survey collection and safekeeping of survey results. The NM, ANM, and project manager monitored staff compliance and project progress.

Data Measurement

Primary data collected during the project included pre-intervention and post-intervention data. Baseline data was collected over three weeks to compare pre-intervention handoff practices. Tools of measurement used during the project included the NICSS Questionnaire to measure patient satisfaction, The Nurse Feedback Questionnaire to measure staff satisfaction, and the Handoff Observation Feedback Audit tool to evaluate staff compliance. Descriptive statistics were used to provide a basic understanding of project data sets, variables, and relationships (Research Connections, 2019). An Excel database was used to collect and organize primary and secondary data. The Statistical Package for Social Sciences (SPSS) was used to analyze and compare baseline and intervention data. The data used to evaluate the intervention was collected over eight weeks.

Bedside Handoff Bundle Observational Feedback Audit Tool

The audit tool's purpose was to evaluate compliance with the use of the ISHAPED standardized handoff form, completion of safety checks, turning/repositioning, review of infusing medications, outstanding tasks/orders, and discussion of patient goals/plan of care. Compliance was measured as the number of staff who updated or reviewed the specific bundle

variable during observation and evaluated by the total number of staff observed at that same time. The project goal included ≥ 90% of staff compliance with BSH bundle components' utilization within 60 days. The observational feedback audit tool was developed and approved for use in the practice setting by the Chief of Education/DNP preceptor (see Appendix G).

Nursing Intensive Care Satisfaction Survey

The original authors of the NICSS survey tool established the instrument's validity and reliability (Romero-Garcia et al.,2019). Written permission was granted by the original developers of the NICSS to the PM/DNP student to utilize the tool for project purposes (see Appendix E). The NICSS measures patient satisfaction with nurse communication, professional behaviors, holistic care, and consequences (Romero-Garcia et al., 2019). The scale uses a six-point Likert range strongly disagree (1) to strongly agree (6) to rate each question. A higher score reflects greater patient satisfaction with nursing care delivery (Romero-Garcia et al., 2019) (see Appendix F). The survey was distributed to patients during their inpatient stay on paper and collected the same day. The PM reviewed applicants and distributed surveys. The patient satisfaction benchmark was to achieve a ≥ 5% increase in mean patient satisfaction scores post-intervention-NICSS. Pre-NICSS and post-NICSS survey responses were compared and analyzed. Families were excluded in response to COVID 19 pandemic.

Nurse Feedback Questionnaire

A nurse feedback tool was developed based on the evidence to understand nurse satisfaction with handoff practices (see Figure 3). The questions gathered descriptive statistics to understand participant demographics and measured changes in accountability, adequacy of communication at the change of shift, prioritization of workload, completion of medication reconciliation, and ability of the BSH to foster relationships. The tool was created electronically,

consisted of five questions, and used a five-point Likert scale of strongly agree (1) to strongly disagree (5) to rate each item. A lower score reflects greater nursing satisfaction with the overall quality of the BSH process. All nurses were invited to participate. The survey was voluntary and anonymous.

Efforts to Minimize and Adjust for Limitations

This project's limitations included the staff's willingness to participate, decreased project timeline, and staff and patient experiences. Leadership rounding was encouraged, and project goals were reinforced with unit management and leadership to supports staff adherence and evaluate the patient experience. Other factors included conditions in response to the COVID-19 pandemic included: No family visitation and reduced staff contact and in-person meetings

Formative and Summative Evaluations

Aggregate data were collected weekly by observing the handoff process, and data reported bi-weekly to staff and unit management. Data findings were used to identify gaps, and data findings shared with stakeholders to overcome barriers. Project development and improvement were acknowledged based on formal and informal feedback, nursing huddles, brainstorming sessions, and audit tool reports. Monthly goal reporting was provided to leadership. Upon completing the EBP change project, the project manager analyzed project results and made practice recommendations based on baseline and post-intervention findings. Suggestions to include the BSH bundle into unit orientation and modification to current handoff policy to include utilizing the bundle.

Measurements

The project interventions were measured using outcomes, process, balancing, and financial measures (see Table 2). The expected outcome was to improve patient satisfaction by

5% post-intervention. Data results were compared pre-intervention and post intervention. An unpaired t-test and Chi-Square test were used to analyze results; a p-value of ≤ .05 was considered statistically significant and contributed to improving outcomes post-intervention. Simple percentages determined patient satisfaction for each element of nursing care. The goal was to achieve a patient satisfaction score of ≥70% for each category of the NICSS evaluating nursing care. Staff satisfaction questionnaire responses rated less than two indicated that the percent of staff agreement favored using a BSH bundle and indicated clinical significance. Process measures evaluated staff education and staff compliance with using the BSH bundle. The anticipated goal for staff utilization of each BSH bundle variable and percent of staff educated before implementation was ≥ 90%. Balancing outcomes were used to identify if a new problem developed due to the intervention (Institute for Healthcare, 2020). The anticipated goal for balancing measure was to prevent unplanned overtime costs associated with the handoff process or patient and family dissatisfaction that resulted from the practice change. Financial measures monitored project costs and were evaluated weekly to ensure budget adherence. Financial benchmarks were established to adhere to education time frame allocations.

Results

Descriptive statistics were used to provide a basic understanding of project data sets, variables, and relationships (Research Connections, 2019). The Handoff Observation Feedback Audit Tool was used to collect pre-intervention and post-intervention data to compare and analyze results (see Appendix G). The method used to collect information occurred through direct observation. Post-intervention observation data indicated that staff compliance improved for all BSH bundle components.

A total of 13 out of 29 nurses (44% of staff) completed the pre-intervention and post-intervention questionnaire. Six nurses completed the pre-intervention, and seven completed the post-intervention questionnaire. All 13 nurse survey responses were used in data analysis. Twenty-three percent of participants identified as male, and 75% as female. Sixty-two percent of participants graduated with a Bachelor of Science Degree in Nursing (BSN) compared to 23% of participants with an Associate Degree in Nursing (ADN) and 15% of participants with a Master of Nursing Degree (MSN). Forty-six percent of participants had ≥20 years of nursing experience, followed by 31% percent with 16-20 years, 15% with 6-10 years, and 8% with 1-5 years.

A total of 24 out of 32 (93%) patients met inclusion criteria and participated in the project by completing the NICSS questionnaire. A total of eight patients completed the NICSS pre-intervention, and 16 patients completed the post-intervention questionnaire. Ninety-seven percent of patients identified as male, and three percent identified as female. This patient population reflects the general population and is expected since the male gender is the predominant population served (Bialik, 2017). Participants ranged in age from 41 to 93, with a mean age of 66.7. An unpaired-sample t-test assuming unequal variance test was used to calculate the differences between all NICSS categories to determine the intervention's effectiveness with improving patient satisfaction with nursing care.

Statistical and Clinical Significance

Observation data were graphed to visualize differences amongst bundle variables and note changes in staff compliance. Staff compliance regarding review of medications indicated no difference, and compliance remained 100% in the pre-observation and post-observation intervention period. Nurses' review of patient positioning had a higher rate of compliance in the post-observation data. Overall, staff compliance with using the BSH bundle increased for each

variable and was clinically significant (See Table 3). A chi-square test was run to determine the statistical significance of BSH variables that most contributed to improving nursing care delivery. The variables determined to have statistical significance included using the ISHAPED standardized communication tool, visual review of IV access, and assessment of pending nursing tasks and orders (See Table 4). The complete Chi-square analysis is included and can be reviewed in greater detail (see Tables 5-15).The statistical significance of the individual bundle components fluctuated, indicating that some variables did not improve patient and staff outcomes and require further evaluation. Patient satisfaction with nursing care and staff satisfaction with the handoff process increased after implementing the BSH bundle. The project results validate the clinical significance of the intervention bundle.

The Nurse Handoff Questionnaire pre-mean scores ranged from 2.33 to 1.67 compared to post-mean scores ranging from 1.57 to 1.14 (see Figure 4). The mean change in scores was lower in the post-intervention questionnaire. These findings were determined to be clinically significant and indicate greater nursing satisfaction with the handoff process post-intervention. Statistical significance of question measurement was determined by calculating the p-value using the Chi-square test. The question analysis, *The Report I Receive Matches the Patient Condition* indicated an improvement in the quality of communication delivered by nurses' post-intervention and determined to have statistical significance (p=.042). Statistical significance was not shown when evaluating the p-values in the remaining questions, making it difficult to assess the degree of change that resulted from the intervention regarding peer accountability and development of relationships (see Table 5).

An unpaired-sample t-test assuming unequal variance test was used to calculate the differences between all NICSS categories. The unpaired t-test determined an increase in the total

mean NICSS scores as 5.33 in the pre-NICSS and 5.46 in the post-NICSS questionnaire. The unpaired t-test reported (p = .008) for all NICSS categories (see Table 16). The results indicate a 2.4% increase in patient satisfaction post-intervention and suggest that patients were more satisfied with nursing care delivery when using the BSH bundle. The unpaired t-test determined that nursing communication, holistic care, and consequences had statistical significance (see Tables 17-20). Nursing professional behaviors reported (p = 1.782) (see Table 20). This finding was not statistically significant and was not shown to improve patient satisfaction; this finding is contrary to what was identified in the literature, which states professional behaviors influenced patient satisfaction (Romero-Garcia et al., 2019). Each of the NICSS categories had a patient satisfaction score of 100%, indicating no changes occurred in the pre-intervention and post-intervention period. These results make it difficult to determine the specific nursing care aspects that influence patient satisfaction. Two participants reported not being satisfied with nursing care delivery and accounted for eight percent of the project population. Overall, patient satisfaction increased when considering all NICSS categories, confirming the BSH's clinical significance to improve patient satisfaction with nursing care.

Table 3

Staff Compliance with BSH Bundle Components Comparison of Pre vs. Post Handoff Observation Data

Variable	Pre-Intervention Percent of Compliance	Post-Intervention Percent of Compliance
Handoff Occurred at the Bedside	23.1	60.3
Nurse Introductions	20.5	59.0
ISHAPED Used	16.7	70.5
Patient Verification	17.9	64.1
Review of IV Access	15.4	66.7
Fall Prevention	10.3	44.9
Review of Nursing tasks/Orders	17.9	70.5
Repositioning	83.3	84
Review of Medications	100	100

Updated Name for Shift on Whiteboard	10.3	41
Discussed Daily Goals	14.10	51.3
Reviewed Patient Preferences	12.8	51.3
Correct Date on Whiteboard	11.5	47.4

Table 4

Determination of Statistical Significance of BSH Bundle Variables: 2-sided Chi-Square Statistical Analysis:

Variable	p-value
Handoff Occurred at the Bedside	.125
Nurse Introductions	.558
ISHAPED Used	**.005**
Patient Verifications	.275
Visual review of IV Access	**.033**
Fall Prevention	.189
Review of Pending Nursing Tasks/Orders	**.020**
Correct Name for Shift	.357
Patient Goals Identified	.430
Patient Preferences	.231
Date Accurate for Day	.237

Table 5

Determination of Statistical Significance of Nurse Feedback Questionnaire: 2-sided Chi-Square Statistical Analysis:

Question	p-value
The Report I Receive Matches the Patient's Condition?	**.042**
The Report I Receive Is Sufficient for Me to Provide Care?	.450
During Report Medication Infusions are Reviewed?	.088
Information Given in Report is Relevant to the Care of My Patient?	.186
The Current System of Report Fosters a Partnership with Nurses, Patients, and Their Families?	.725

Table 16

Statistical Test: t-Test of the NICSS Questionnaire Between all Categorical Groups

Test	Pre	Post
Mean	5.336767	5.46187

Variance	0.288664	0.252136
Observations	8	16
Hypothesized Mean Difference	0.5	
df	13	
t Stat	-2.74545	
P(T<=t) one-tail	0.008341	
t Critical one-tail	1.770933	
P(T<=t) two-tail	0.016682	
t Critical two-tail	2.160369	

Table 17

Statistical Test: t-Test of the NICSS Questionnaire Communication

Test	Pre	Post
Mean	5.708333	5.6875
Variance	0.196429	0.551389
Observations	8	16
Hypothesized Mean Difference	0.5	
df	21	
t Stat	-1.97244	
P(T<=t) one-tail	0.030935	
t Critical one-tail	1.720743	
P(T<=t) two-tail	0.061871	
t Critical two-tail	2.079614	

Table 18

Statistical Test: t-Test of the NICSS Questionnaire Delivery of Holistic Care

Test	Pre	Post
Mean	5.625347	5.73125
Variance	0.331681	0.332958
Observations	8	16
Hypothesized Mean Difference	0.5	
df	14	
t Stat	-2.42808	
P(T<=t) one-tail	0.014625	
t Critical one-tail	1.76131	
P(T<=t) two-tail	0.02925	
t Critical two-tail	2.144787	

Table 19

Statistical Test: t-Test of the NICSS Questionnaire Consequences (Nurse Attentiveness & Responsiveness)

Test	Pre	Post
Mean	4.479166667	4.635416667
Variance	0.201884921	0.049884259
Observations	8	16
Hypothesized Mean Difference	0.5	
df	9	
t Stat	-3.897327369	
P(T<=t) one-tail	0.001817084	
t Critical one-tail	1.833112933	
P(T<=t) two-tail	0.003634169	
t Critical two-tail	2.262157163	

Table 20

Statistical Test: t-Test of the NICSS Questionnaire Professional Behaviors

Test	Pre	Post
Mean	4.847916667	5.722538
Variance	0.177891865	0.399693
Observations	8	16
Hypothesized Mean Difference	0.5	
df	20	
t Stat	-6.326048255	
P(T<=t) one-tail	1.78237E-06	
t Critical one-tail	1.724718243	
P(T<=t) two-tail	3.56474E-06	
t Critical two-tail	2.085963447	

Protection of Human Rights and Privacy

There was no implication of breaches in patient confidentiality. There were no reported incidences of HIPPA violations or violations of patient or staff confidentiality. The data and surveys did not contain patient sensitive information and maintained participant anonymity.

Paperwork collected for this project was scanned into an electronic drive/ folder located on a secure computer that was password protected and required PIV as a login requirement. Password protection was applied to the folder storing data to provide an extra layer of security. Paper documents were destroyed using facility procedures to dispose of any patient sensitive information in designated shredder bins to ensure proper destruction. A secure server-generated electronic surveys and responses of the end-user were kept safe. The project was submitted to university and organizational committees to evaluate any conflicts of interest and project approval.

Impact

During the EBP project, the data obtained supported the expected outcome to improve patient satisfaction with nursing care and staff satisfaction with the handoff process. The project results specific to patient satisfaction with nursing care is consistent with the literature findings, which state patient satisfaction is positively correlated with effective communication, consequences (timeliness and attentiveness of nurse), and holistic care (Bigani et al., 2018; Clark et al., 2016; Elue et al., 2019; Skaggs et al., 2018). Project results also indicated that nurses reported the BSH bundle to be the preferred form of change of shift handoff. During the project, no reported safety incidents resulted from poor communication, demonstrating that the intervention supported minimizing risks associated with poor communication (Da Silva dos Santos et al., 2018). The project also addressed the organizational need to obtain unit-specific patient satisfaction scores to meet complex patients' unique needs and improve patient outcomes.

To maximize the future state of the EBP project, the Nurse Manager and Assistant Nurse Manager must continue to monitor staff compliance regarding the use of the BSH bundle components. The ongoing use of unit champions supports the continuing need for staff

education. Additional responsibilities of the unit champions include a quarterly review of audit findings to sustain EBP associated with the handoff process. The next steps include incorporating the BSH bundle in unit orientation and annual training competencies. Furthermore, the project should be expanded to other nursing units within the facility.

Limitations of the project included the increased concern of the coronavirus pandemic and surge of COVID-19 patient cases in the facility. As a result, the project timeline was decreased and not implemented as initially planned. Towards the end of the eight-weeks, the PCU began to transition into an ICU to accommodate more ICU bed needs. The pandemic led to increased responsibilities of the PCU nurses. The project should be reproduced and conducted over a more extended period and in the absence of a pandemic.

Recommendations

Additional considerations include following the same project outline with families to evaluate family satisfaction with nursing care and using the BSH bundle to assess patient outcomes, such as patient falls and medication errors. This project indicated a clinical benefit for patients and staff working in a PCU setting. Modifications to hospital policies and procedures are needed to support staff compliance and sustainability of project outcomes. This EBP project should be tested on other hospital units to validate project outcomes with different patient populations to refine EBP and determine project sustainability.

Plans for Dissemination

Upon completing the project, the PM initially shared results with the PCU staff, NM, and ANM. Staff was queried for feedback regarding project successes and failures to improve project sustainability. A visual report using Microsoft PowerPoint will be created and presented to the Intensive Care Unit (ICU) Committee in December; the visual report will highlight project

outcomes, recommendations, and next steps. A summary report of the project and results will be presented to the Patient Care Executive Board (PCEB) after the semester's closing to discuss long-term goals, hospital-wide dissemination, and policy change to support project sustainability within the organization.

Additionally, the EBP project will be shared using the Veterans Integrated Service Network (VISN) using regional and national forums. These forums provide an electronic venue for *e-poster* presentations to share EBP to promote VISIN wide dissemination. Projects the costs were shared with leadership officials for budget planning. Conference attendance, registration fees, travel cost, poster development, and printed material will have an approximate cost/per episode of approximately $2,320 (see Table 1).

Long-term goals include submission to a peer-reviewed journal and presentation at local and national nursing conferences (see Appendix D). The following periodicals will be considered for publication: *Hospital Topics, Nurse Leader, American Journal of Nursing, and American Association of Critical-Care Nurses.* These nursing journals were selected because of their long-standing credibility and familiarity in nursing to publish evidence-based nursing practices. Before publication, a manuscript will be created to suit the publication format. This EBP project's publication is considered a long-term goal, and the final version of the manuscript will be submitted for publication consideration. The EBP project was completed following DNP capstone requirements and archived in SOAR, the University of St. Augustine for Health Sciences institutional repository that showcases scholarly work.

Conclusion

This EBP project evaluated the BSH bundle’s impact on improving patient satisfaction with nursing care and nurse satisfaction with the handoff process. Methods used to accomplish

this included identifying the practice problem's significance, reviewing the literature, and addressing the proposed PICOT questions. Kotter's framework provided a systematic method to address the practice problem, and Peplau's theory was applied to promote change in the practice setting. An organizational assessment and the mission and vision statements were used to develop project goals and outcomes. A project timeline guided the project from beginning to end to complete the project in eight weeks successfully.

Staff education in-services, ongoing education, and a handoff observation audit tool supported the PM's ability to collect and analyze staff compliance with the BSH bundle. Pre- and post-intervention data was necessary to understand the intervention's effectiveness and its ability to improve patient satisfaction with nursing care and staff satisfaction with the handoff process. Organizational support, budget planning, and data transparency contributed to the success of the project. Project dissemination is multidimensional and endorses the utilization of best-practices and life-long-learning in the healthcare profession. Implementing a nurse-driven BSH bundle was an effective evidence-based strategy that demonstrated clinical significance with its use over time and improved outcomes specific to patient satisfaction with nursing care and staff satisfaction with the handoff process. This project serves as a guide and reference for future projects looking to improve the handoff process, nursing care delivery, and patient and staff satisfaction.

References

Agency for Healthcare Research & Quality. (n.d.). *Readmissions and adverse events after discharge*. https://psnet.ahrq.gov/primer/readmissions-and-adverse-events-after-discharge

Agency for Healthcare Research & Quality. (2017). *Guide to patient-family engagement in hospital quality and safety*. https://www.ahrq.gov/professionals/systems/hospital/engagingfamilies/guide.html

Bialik. (2017). *The changing face of America's veteran population*. Pew Research Center. https://www.pewresearch.org/fact-tank/2017/11/10/the-changing-face-of-americas-veteran-population/

Bigani, D.K., & Correia, A.M. (2018). On the same page: Nurse, patient, and family perceptions of change-of-shift bedside report. *Journal of Pediatric Nursing, 41,* 84-89. https://doi.org/10.1016/j.pedn.2018.02.008

Bradley, D. (2003). Validating competency at the bedside. *Journal for Nurses in Staff Development, 19*(4), 165-173. https://doi.org/10.1097/00124645-200307000-00001

Chaghari, M., Saffari, M., Ebadi, A. & Ameryoun, A. (2017). Empowering education: A new model for in-service training of nursing staff. *Journal of Advances in Medical Education & Professionalism, 5*(1),26-32. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5238493/pdf/JAMP-5-26.pdf

Clark, K., Milner, K., Marlene, B., & Mason, V. (2016). Measuring family satisfaction with care delivered in the intensive care unit. *Critical Care Nurse, 36*(6), 9-14. https://dx.doi.org/10.4037/ccn2016276

Dang, D., & Dearholt, S. (2017). *John Hopkins nursing evidence-based practice: model and guidelines* (3rd ed.). Sigma Theta Tau International.

Da Silva dos Santos, G. R., Campos, J. F., & da Silva, R. C. (2018). Handoff communication in intensive care: links with patient safety. *Anna Nery School Journal of Nursing / Escola Anna Nery Revista de Enfermagem*, *22*(2), 1–12. https://doi.org/10.1590/2177-9465-EAN-2017-0268

Elue, R., Simonovich, S.D., Tariman, J.D., Newkirk, E.A., & Neerhof, M. (2017). Bedside shift report enhances patient satisfaction for Hispanic and public insurance patients and improved visibility of leadership in obstetrics and postpartum settings. *Journal of Nursing Practice Applications & Review of Research, 9(2):* e0170474. http://doi: 10.1371/journal.pone.0170474

Fenner, K. (2017). *TJC sentinel event alert 58 focuses on inadequate handoff communication*. Tier 1 Healthcare. https://www.compass-clinical.com/tjc-sentinel-event-alert-58-inadequate-hand-off-communication/

Goldfarb, M., Bibas, L., Batlett, H., & Kahn, N. (2017). Outcomes of patient and family-centered care interventions in the ICU A systematic review and meta-analysis. *Critical Care Medical*, *45* (10),17151-1761. http://doi:10.1097/CCM.0000000000002624.

Harris, J. L., Roussel, L., Dearman, C., & Thomas, P. L. (2018). *Project planning and management: A guide for nurses and interprofessional teams*. Jones & Bartlett Learning.

Herbst, A. M., Friesen, M. A., & Speroni, K. G. (2013). Caring, connecting, and communicating: Reflections on developing a patient-centered bedside handoff. *International Journal of Human Caring*, *17*(2), 16-21. https://doi.org/10.20467/1091-5710.17.2.16

Hovlid, E., Bukve, O., Haugh, K., Aslaksen, A.B., & Plessen, C.V. (2012). Sustainability of healthcare improvement: what can we learn from learning theory? *BMC Health Services Research*, *12*(235). https://doi.org/10.*1186/1472-6963-12-235*

Institute for Healthcare Improvement. (2020). *Science of improvement: Establishing measures*. http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementEstablishingMeasures.aspx

Institute of Medicine. (2010). *The future of nursing: Leading change, advancing health*. https://www.ncbi.nlm.nih.gov/books/NBK225182/

Interprofessional Education Collaborative. (2016). *Core competencies for interprofessional collaborative practices:2016 update.* Interprofessional Education Collaborative. https://nebula.wsimg.com/2f68a39520b03336b41038c370497473?AccessKeyId=DC06780E69ED19E2B3A5&disposition=0&alloworigin=1

Joshi, M., Ransom, E., Nash, D. B., & Ransom, S. B. (2008). *The healthcare quality book: Vision, strategy, and tools (3rd ed)*. Health Administration Press.

Kogon, K., Blakemore, S., & Wood, J. (2015). *Project Management for the Unofficial Project. Manager*. BenBella Books, Inc.

Kotter, J. (2018). *8 Steps to Accelerate Change in Your Organization* [eBook edition]. Kotter International.https://www.kotterinc.com/wp-content/uploads/2019/04/8-Steps-eBook-Kotter-2018.pdf

Kullberg, A., Sharp, L., Johansson, H., Brandberg, Y., & Bergenmar, M. (2017). Patient satisfaction after implementation of person-centered handover in oncological inpatient-care-A cross-sectional study. *PLoS One*, *12*(4), 1-14. https://doi.org/10.1371/journal.pone.0175397

Lupieri, G., Creatti, C., & Palese, A. (2016). Cardio-thoracic surgical patients' experience on bedside nursing handovers: Findings from a qualitative study. *Intensive and Critical Care Nursing*, *35*,28-37. https://doi.org/10.1016/j.ijnurstu.2018.04.011

Malfait, S., Hecke, A.V., Biesen, W.V., & Eckloo, K. (2019). A systematic review of patient participation during bedside handovers onwards with older patients indicates evidence is urgently needed. *International Journal of Older People Nursing, 14(2),* e12226. http://doi: 10.1111/opn.12226

Marchese, K. (2006). Using Peplau's theory of interpersonal relations to guide the education of patients undergoing urinary diversion. *Urologic Nursing*, *26(5),* 363–371. http://0b30b1tbu.mp03.y.http.eds.b.ebscohost.com.prx-usa.lirn.net/eds/pdfviewer/pdfviewer?vid=3&sid=e8c93794-63dd-4d77-b30f-ffab11b00943%40sdc-v-sessmgr02

Medicare. (n.d.). *Hospital compare: Survey of patients' experiences*. https://www.medicare.gov/hospitalcompare/compare.html#cmprTab=1&vwgrph=1&cmprID=10009F%2C10099F%2C10063F&cmprDist=0.0%2C0.0%2C0.0&stsltd=FL&dist=25&state=FL&lat=0&lng=0

Penckofer, S., Byrn, M., Mumby, P., & Ferrans, C.E. (2011). Improving subject recruitment, retention, and participation in research through Peplau's theory of interpersonal relations. *Nursing Science Quarterly*, *24*(2), 146-151. http://doi:10.1177/0894318411399454

Pollack, J. & Pollack, R. (2015). Using Kotter's Eight Stage Process to Manage and Organizational Change Program: Presentation and practice. *Systemic Practice & Action Research, 28*(1), *51-66. https://doi.org/10.1007//s11213-014-9317-0*

Radtke, K. (2013). Improving patient satisfaction with nursing communication using bedside shift report. *Clinical Nurse Specialist*, *27*(1), *19-25.* https://doi.org/10.1097/nur.0b013e3182777011

Research Connections. (2019). *Descriptive statistics*. https://www.researchconnections.org/childcare/datamethods/descriptivestats.jsp

Romero-Garcia, M., Delgado-Hito, P., de la Cueva-Ariza, L., Martinez-Momblan, M.A., Lluch-Canut, M.T., Trujols-Albet, J., Juave-Udina, M.E., & Benito, L. (2019). Level of satisfaction of critical care patients regarding the nursing care received: Correlation with sociodemographic and clinical variables. *Australian Critical Care, 32,* 486-493.https://doi.org/10.1016/j.aucc.2018.11.002

Skaggs, M.K., Daniels, J.F., Hodge, A.J., & DeCamp, V.L. (2018). Using the evidence-based practice service nursing bundle to increase patient satisfaction. *Journal of Emergency Nurses, 44,* 37-45**.** https://doi.org/10.1016/j.jen.2017.10.011

Small, D., & Fitzpatrick, J. (2017). Nurse perceptions of traditional and bedside shift report. *Nursing Management, 48*(2), 44-49. https://doi.org/doi:10.1097/01.NUMA.0000511921.676.45.47

Small, A., Gist, D., Souza, D., Dalton, J., Magny-Normilus, C., & David, D. (2016). Using Kotter's change model for implementing bedside handoff: A quality improvement project. *Journal of Nursing Care and Quality*, *31*(4), 304-309. http://doi:10.1097/NCQ.0000000000000212

Starmer, A.J., Sectish, T.C., Simon, D.W., Keohane, C., McSweeney, M.E., Chung, E. Y., Yoon, C.S., Lipsitz, S.R., Wassner, A.J., Harper, M.B., & Landrigan, C.P. (2013). Rates of medical errors and preventable adverse events among hospitalized children following implementation of a resident handoff bundle. *JAMA, 21,* 2262-2270. http://doi:10.1001/jama.2013.281961

Sylvia, M., & Terhaar, M. (2014). An approach to clinical data management for the doctor of nursing practice curriculum. *Journal of Professional Nursing*, *30*(1), 56-62.

https://doi.org/10.1016/j.profnurs.2013.04.002

Tobiano, G., Bucknall, T., Sladdin, I., Whitty, J. A., & Chaboyer, W. (2018). Patient participation in nursing bedside handover: A systematic mixed methods review. *International Journal of Nursing Studies*, *77*, 243-258. https://doi.org/https://doi.org/10.1016/j.ijnurstu.2017.10.014

U.S. Centers Medicare & Medicaid Services. (n.d.). *Compare hospitals: Survey of patients' experiences*. https://www.medicare.gov/hospitalcompare/compare.html#vwgrph=1&cmprTab=1&cmprID=10009F%2C10099F%2C10063F&cmprDist=0.0%2C0.0%2C0.0&stsltd=FL&dist=25&state=FL&lat=0&lng=0

U.S. Department of Veterans Affairs. (2017). *I CARE core values*. https://www.va.gov/ICARE/

U.S. Department of Veterans Affairs. (2018). *About James A. Haley Veterans' Hospital-Tampa, Florida*. https://www.tampa.va.gov/about/index.asp

U.S. Department of Veterans Affairs. (2019a). *James A. Haley Veterans' Hospital-Tampa, Florida: Leadership team*. https://www.tampa.va.gov/about/leadership.asp

U.S. Department of Veterans Affairs. (2019b). *Veterans' health administration: About VHA*. https://www.va.gov/health/aboutVHA.asp

Table 1

Budget

EXPENSES			
Direct:			
Staff Education & Training	Number of hours Inservice/Training	Avg Cost	Total Cost
29 Employees	1	$35.00	$1,015.00
Indirect:			
Office Supplies: Paper, Copies, Dry Erase Markers			$200.00
		Total Expenses	$1215.00
Anticipated Long-Term Project Cost:			
Conference Attendance, Registration Fees, Travel Cost, Poster Development and Printing			$2,320 (Variable per episode)

Table 2

Measurement of Variables

Data	Type of Measure	Measure Defines	Level of Measurement	Goal	Statistical Test
Improve Patient satisfaction	Outcome	Measured by comparing pre and post mean patient satisfaction scores	Scale	≥5% increase in patient satisfaction post-intervention Goal: Not Met, pre and post mean patient satisfaction scores indicated a 2.4% increase	Unpaired t-test Simple percentage calculation
Patient satisfaction with nurse communication	Outcome	Measured by comparing mean scores pre- and post-intervention	Scale	≥70% patient satisfaction for category Goal: Met p-value of ≤ .05 Goal: Met (p-value = .002)	Unpaired t-Test
Patient satisfaction with holistic nurse care	Outcome	Measured by comparing mean scores pre- and post-intervention	Scale	≥70% patient satisfaction for category Goal: Met p-value of ≤ .05 Goal: Met (p-value = .014)	Unpaired t-Test

Patient satisfaction with consequences (feelings/emotions) because of nursing care	Outcome	Measured by comparing mean scores pre- and post-intervention	Scale	≥70% patient satisfaction for category Goal: Met p-value of ≤ .05 Goal: Met (p-value = .002)	Unpaired t-Test
Patient satisfaction with professional behaviors of nurses	Outcome	Measured by comparing mean scores pre- and post-intervention	Scale	≥70% patient satisfaction for category Goal: Met p-value of ≤ .05 Goal: Not Met (p-value = 1.782)	Unpaired t-Test
Staff satisfaction with the handoff process	Outcome	Measured by comparing mean scores pre- and post-intervention score on Nurse Feedback Questionnaire.	Scale	Achieve a mean rating score of ≤2 post-intervention. Goal: Met, scores ranged from 1.57 to 1.14 p-value of ≤ .05 on all five questions Goal: Not met only 1 out of the five questions had a (p = .042)	Chi-Square Test

Percentage of staff educated about BSH bundle before implementation	Process	The numerator is the total number of registered nurses that were educated on the intervention bundle. The denominator is the total number of registered nurses that work on the unit.	Continuous	≥ 90% of nurses are educated before project implementation percentage Goal: Not Met, only 85% of nurses were educated before data collection.	Simple Percentages
Percentage of staff who conducted handoff at the bedside	Process	The numerator is the number of staff who conducted handoff at the bedside at that given time. The denominator is the total number of staff observed at the same given time	Continuous	≥90% of nurses are compliant with conducting handoff at the bedside percentage Goal: Not Met, only 60.3% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Not Met (p-value = .125)	Simple Percentages Chi-Square Test
Percentage of staff who provided nurse introductions during handoff	Process	The numerator is the number of staff who provided nurse introductions at that given time. The denominator is the total number of staff observed at the same given time	Continuous	≥90% of nurses are compliant with providing introductions percentage Goal: Not Met, only 59% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Not Met (p-value = .558)	Simple Percentages Chi-Square Test

Percentage of staff compliance with using ISHAPED tool during handoff	Process	The numerator is the number of staff using the ISHAPED tool at that given time. The denominator is the total number of staff observed at the same given time	Continuous	≥90% of nurses are compliant with using the ISHAPED tool percentage Goal: Not Met, only 71% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Met (p-value = .005)	Simple Percentage Chi-Square Test
Percentage of staff compliance with engaging in patient verification during the handoff process	Process	The numerator is the number of staff who engaged in patient verification at that given time. The denominator is the total number of staff observed at the same given time.	Continuous	≥90% of nurses are compliant with engaging in patient verification percentage Goal: Not Met, only 64% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Not Met (p-value = .275)	Simple Percentages Chi-Square Test
Percentage of staff compliance with checking IV access during the handoff process	Process	The numerator is the number of staff who checked IV access at that given time. The denominator is the total number of staff observed at the same given time.	Continuous	≥90% of nurses are compliant with checking IV access percentage Goal: Not Met, only 64% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Met (p-value = .033)	Simple Percentages Chi-Square Test

Percentage of staff compliance with discussing fall prevention during the handoff process	Process	The numerator is the number of staff who discuss fall prevention at that given time. The denominator is the total number of staff observed at the same given time.	Continuous	≥90% of nurses are compliant discussing fall prevention percentage Goal: Not Met, only 45% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Not Met (p-value = .189)	Simple Percentages Chi-Square Test
Percentage of staff compliance with reviewing pending nurse tasks/orders during the handoff process	Process	The numerator is the number of staff who discuss pending tasks/orders at that given time. The denominator is the total number of staff observed at the same given time.	Continuous	≥90% of nurses are compliant discussing fall prevention Goal: Not Met, only 71% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Met (p-value = .020)	Simple Percentages Chi-Square Test
Percentage of staff compliance with updating name on patient whiteboards in patient rooms during the handoff process	Process	The numerator is the number of staff who put their name on the whiteboard at that given time. The denominator is the total number of staff observed at the same given time.	Continuous	≥90% of nurses will update their name on patient whiteboard percentage Goal: Not Met, only 41% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Not Met (p-value = .357)	Simple Percentages Chi-Square Test
Percentage of staff compliance with	Process	The numerator is the number of staff	Continuous	≥90% of nurses will review or update daily patient goal	Simple Percentages

updating or reviewing daily patient goals on patient whiteboards in patient rooms during the handoff process		who update or review daily goals on the whiteboard at that given time. The denominator is the total number of staff observed at the same given time.		on patient whiteboard percentage Goal: Not Met, only 41% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Not Met (p-value = .430)	 Chi-Square Test
Percentage of staff compliance with updating or reviewing patient preferences on patient whiteboards in patient rooms during the handoff process	Process	The numerator is the number of staff who update or review patient preferences on the whiteboard at that given time. The denominator is the total number of staff observed at the same given time.	Continuous	≥90% of nurses will review or update patient preferences on patient whiteboard percentage Goal: Not Met, only 51% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Not Met (p-value = .231)	Simple Percentages Chi-Square Test
Percentage of staff compliance with updating calendar date on patient whiteboards in patient rooms during the handoff process	Process	The numerator is the number of staff who update the calendar date on the whiteboard at that given time. The denominator is the total number of staff observed at the same given time.	Continuous	≥90% of nurses will update the calendar date on patient whiteboard percentage Goal: Not Met, only 47% of staff were compliant post-intervention Reach a p-value of ≤ .05 Goal: Not Met (p-value = .231)	Simple Percentages Chi-Square Test

Patient /Family Dissatisfaction post intervention	Balancing	Measures by comparing mean scores pre- and post-intervention	Scale	≤10% of patient will be dissatisfied with nursing care post-intervention 2 out of 25 participants reported being dissatisfied. Areas of dissatisfaction include nurse communication and professional behaviors Goal: Met, only 8% of patients reported dissatisfaction.	N/A
Total Costs of Project	Financial & Continuous	This represents the estimated costs associated with training 100% of the staff on the unit and the cost of supplies. This is a one-time cost.	One Time	Expenses are ≤ $1215.00 Goal: Met total expenses did not exceed $1215.00	N/A

Table 5

Handoff Occurred at the Bedside

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.352[a]	1	.125		

Continuity Correction[b]	1.392	1	.238		
Likelihood Ratio	2.854	1	.091		
Fisher's Exact Test				.169	.115
N of Valid Cases	78				

Table 6

Nurse Introductions

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.344[a]	1	.558		
Continuity Correction[b]	.067	1	.795		
Likelihood Ratio	.359	1	.549		
Fisher's Exact Test				.748	.411
N of Valid Cases	78				

Table 7

ISHAPED Used

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	7.908[a]	1	.005		
Continuity Correction[b]	5.845	1	.016		

Likelihood Ratio	6.791	1	.009		
Fisher's Exact Test				.011	.011
N of Valid Cases	78				

Table 8

Patient Verification

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.194[a]	1	.275		
Continuity Correction[b]	.561	1	.454		
Likelihood Ratio	1.118	1	.290		
Fisher's Exact Test				.310	.222
N of Valid Cases	78				

Table 9

Visual *Review of IV Access*

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.530[a]	1	.033		
Continuity Correction[b]	3.129	1	.077		

Likelihood Ratio	4.028	1	.045		
Fisher's Exact Test				.066	.044
N of Valid Cases	77				

Table 10

Fall Prevention

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.722[a]	1	.189		
Continuity Correction[b]	1.096	1	.295		
Likelihood Ratio	1.717	1	.190		
Fisher's Exact Test				.289	.148
N of Valid Cases	78				

Table 11

Review of Pending Nursing Tasks/Orders

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.374[a]	1	.020		
Continuity Correction[b]	3.630	1	.057		

Likelihood Ratio	4.637	1	.031		
Fisher's Exact Test				.034	.034
N of Valid Cases	78				

Table 12

Correct Name for Shift

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.847[a]	1	.357		
Continuity Correction[b]	.431	1	.512		
Likelihood Ratio	.849	1	.357		
Fisher's Exact Test				.433	.256
N of Valid Cases	78				

Table 13

Patient Goals Identified

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.623[a]	1	.430		
Continuity Correction[b]	.262	1	.609		

Likelihood Ratio	.611	1	.434		
Fisher's Exact Test				.580	.301
N of Valid Cases	78				

Table 14

Patient Preferences

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.436[a]	1	.231		
Continuity Correction[b]	.853	1	.356		
Likelihood Ratio	1.404	1	.236		
Fisher's Exact Test				.276	.177
N of Valid Cases	78				

Table 15

The date is Accurate for Day

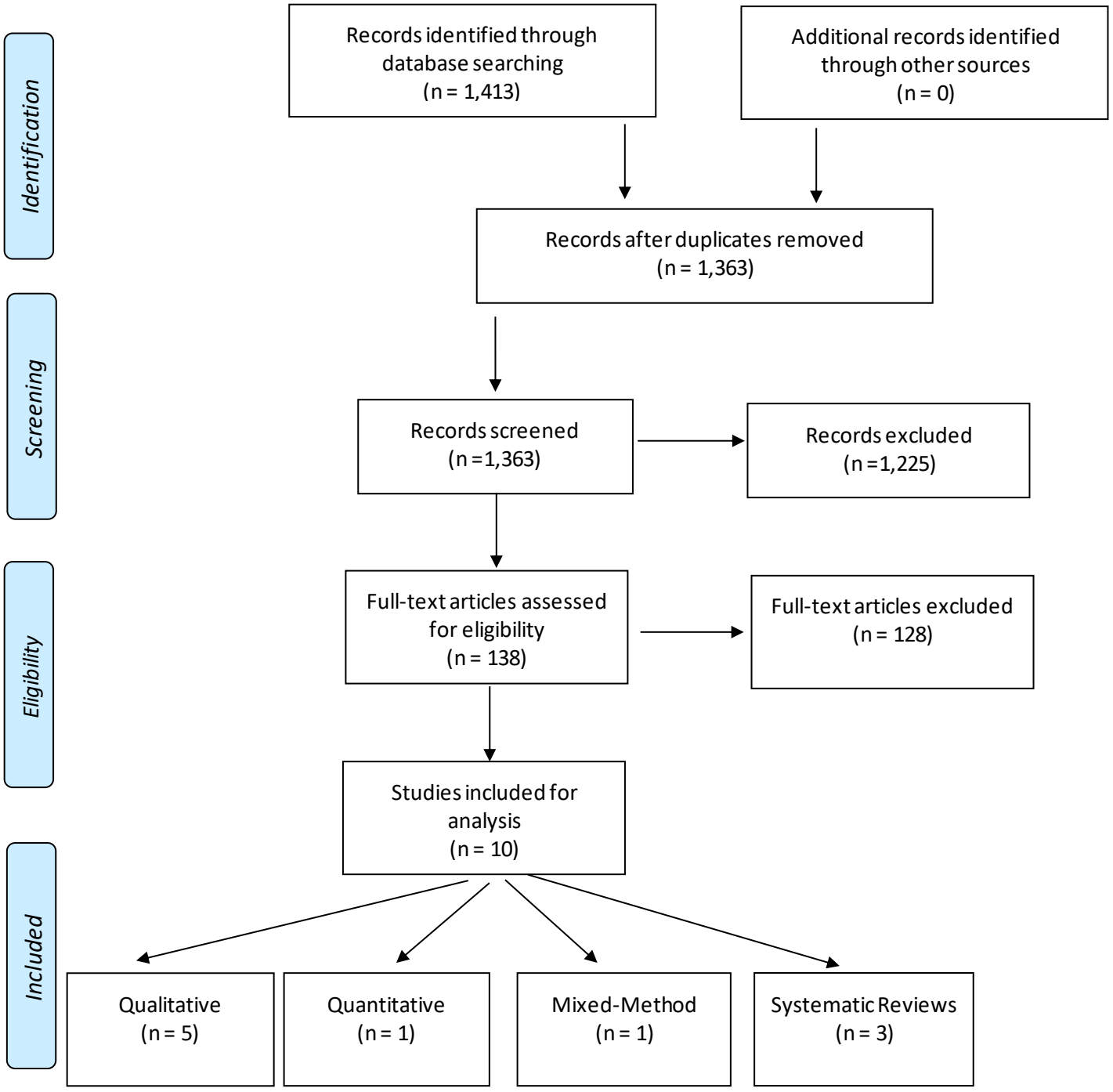
Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.398[a]	1	.237		
Continuity Correction[b]	.836	1	.361		

Likelihood Ratio	1.382	1	.240		
Fisher's Exact Test				.288	.180
N of Valid Cases	78				

Figure 1

PRISMA Flow Diagram. This flow Diagram Illustrates the Study Selection Process



Note:Adapted from Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). *P*referred *R*eporting *I*tems for *S*ystematic Reviews and *M*eta-*A*nalyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal. pmed1000097

Figure 2

Themes from the Evidence

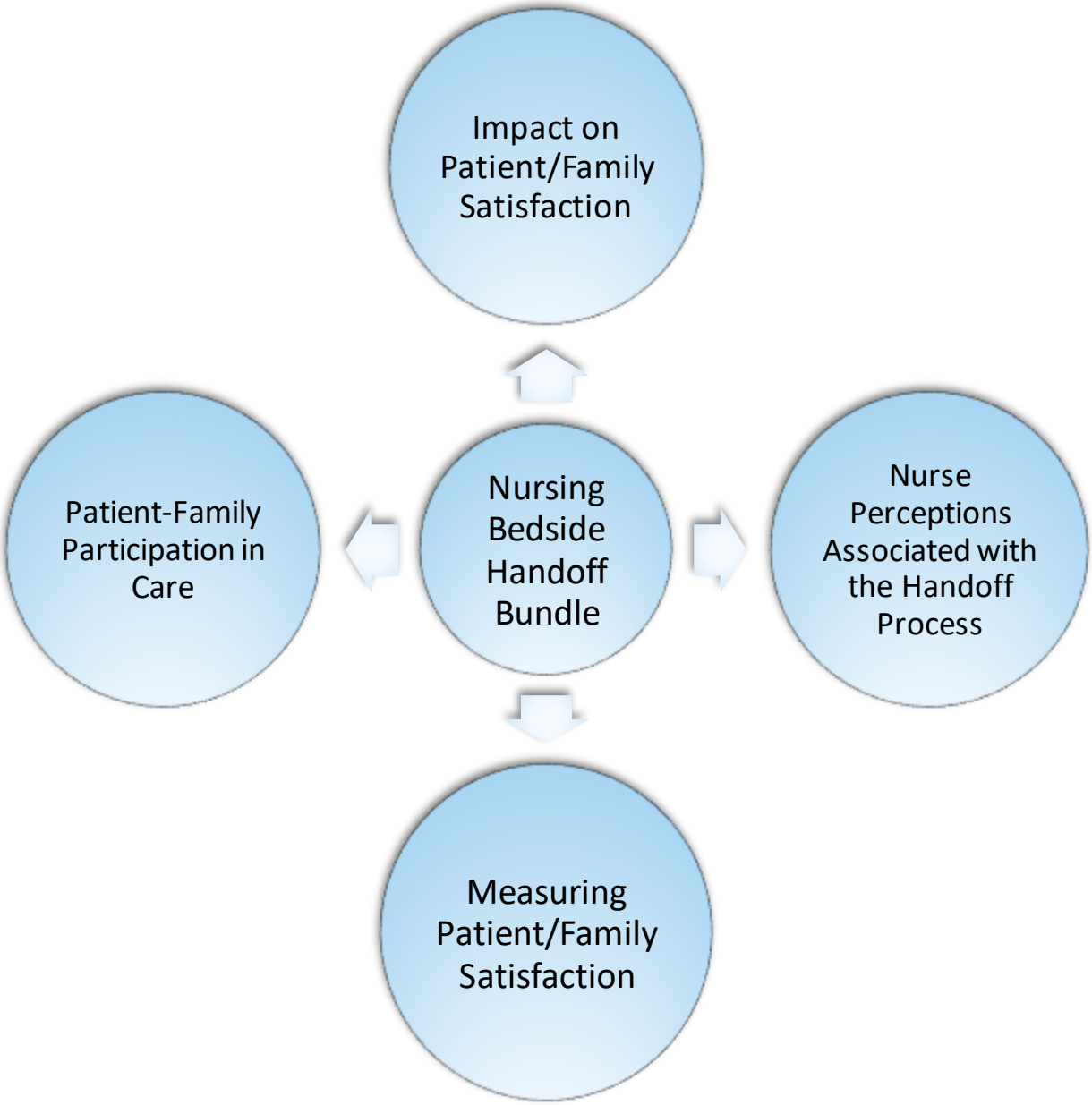


Figure 3

Nurse Feedback Questionnaire

Gender

□ Male □ Female □ Non-Binary

Years of Registered Nursing Experience

□1-5 □5-10 □10-15 □ 15-20 □ ≥20

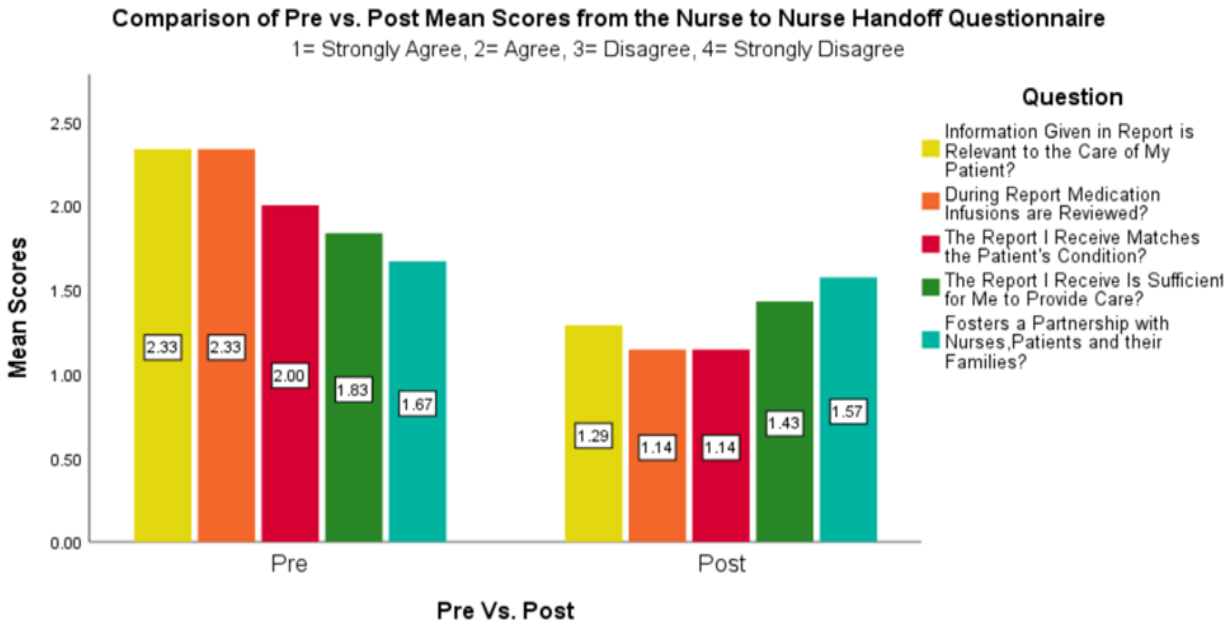
Nursing Degree

□ ADN □BSN □MSN □DNP

1.) The Report I Receive Matches the Patient's Condition?					
1 Strongly Agree	2 Agree	3 Neither Agree nor Disagree	4 Disagree	5 Strongly Disagree	
2.) The Report I Receive Is Sufficient for Me to Provide Care?					
1 Strongly Agree	2 Agree	3 Neither Agree nor Disagree	3 Disagree	4 Strongly Disagree	
3.) During Report Medication, Infusions are reviewed?					
1 Strongly Agree	2 Agree	3 Neither Agree nor Disagree	4 Disagree	5 Strongly Disagree	
4.) Information Given in Report Is Relevant to The Care of My Patient?					
1 Strongly Agree	2 Agree	3 Neither Agree nor Disagree	4 Disagree	5 Strongly Disagree	
5.) The Current System of Report Fosters a Partnership with Nurses, Patients, and their Families?					
1 Strongly Agree	2 Agree	3 Neither Agree nor Disagree	4 Disagree	5 Strongly Disagree	

Figure 4

Comparison of Pre vs. Post Mean Scores from Nurse Handoff Questionnaire



Appendix A

Primary Research Evidence

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
Bigani, D.K., & Correia, A.M. (2018). On the same page: Nurse, patient, and family perceptions of change-of-shift bedside report. *Journal of Pediatric Nursing*, 41, 84-89. https://doi.org/10.1016/j.pedn.2018.02.008	What is the nurse-patient and family perceptions about the change of shift bedside report?	**Research Design:** Exploratory, descriptive qualitative study. Conducted in freestanding children's hospital in inpatient medical and surgical unit with 48 patient beds and average daily census of 34 & 17 patients between the two units. **Sample Size**: approximately 120 nurses and 25 patient and family members **Data Analysis**: The semi-structured interview technique was used to obtain nurses' and patients' perceptions regarding bedside handoff, patient safety, and quality of care. Reliability and validity testing were not used.	BSH consisted of a standardized process that included the EHR, patient-family involvement, and safety checks. The informational flyer was distributed to all patients and families upon admission to either floor for a minimum of one day. Nursing perceptions/barriers included BSH to be too time-consuming, too much information, families do not want to be bothered, and forgot to provide education during the orientation period.	Staff education is critical to staff buy-in and utilization of BSH. Bedside report promoted patient safety and was the preferred form of change-of-shift handoff communication for nurses, patients, and families. BSH increased accountability and transparency as everyone is involved at the bedside and assist in getting everyone on the same page. Change of shift report is vital to nursing care and should be consistently coordinated to accomplish patient safety. The utilization of scripted and standardized resources for BSH results in the most accurate information	II	B

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
			Patients and families did not have any perceived barriers, and participants felt more at ease with family members verbalizing a perception of thoroughness and transparency of information. Adding safety checks to BSR prevented errors, keeps family informed with active participation, and impacts nurse accountability. BSR is beneficial Findings were consistent with other literature	exchange and increases patient/family satisfaction. Patient and family involvement in BSH are critical to improving communication during the change of the shift process.		
Clark, K., Milner, K., Marlene, B. & Mason, V. (2016). Measuring family satisfaction with care delivered in the intensive care unit. *Critical Care Nurse, 36(6),* e9-e14.	Evaluating a reliable measurement tool to assess family satisfaction in the ICU setting.	**Research Design:** Descriptive survey using family satisfaction in the ICU-24 item questionnaire to measure satisfaction with care and decision making. **Sample Size:** Forty family members out of 60 patients admitted to 12-bed medical-	Families often act as surrogates for patients in an ICU setting and help make decisions when the patient is unable to. Care in the ICU focus and patient and family.	Identify a change agent from nursing and medicine to support practice change. Share results with ICU staff to gain buy-in, and identify individuals interested in	II	B

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
https://dx.doi.org/10.4037/ccn2016276		surgical ICU were included. Included patients with the following diagnosis septic shock, pneumonia, multisystem organ failure, gastrointestinal bleeding, and complicated polysubstance abuse, and individuals were receiving mechanical and noninvasive ventilation and hemodynamic monitoring. **Data Analysis**: Data analysis was done using SPSS for Windows 18. For ease of understanding, FS-ICU-24 values were converted to form a Likert 5-point scale to a scale from 0%- 100%, with higher values, indicated higher satisfaction. Family satisfaction subscales, individual means were calculated by using the total number of questions answered as the denominator for any family member who responded not applicable. Individual's means were then used to calculate the overall mean score for the FS-ICU-24.	Including patients' families in acute care promotes improved health outcomes and increases satisfaction for patients and their families. Measuring family satisfaction is essential in the ICU to understand how they perceive care in the ICU and is considered a quality indicator of ICU care. Press Ganey and HCAPS surveys are often sent to evaluate patient/family experience in the hospital setting. They are not a direct measure of these interactions in the ICU setting. This could impact the ability to improve the delivery of care.	championing the different recommendations. Including patients and family in the handoff process improves patient and family satisfaction. PDSA method can help facilitate process improvement to determine if there is a positive difference in care or if the change is sustainable. Interventions/strategies to improve communication are needed. Improve communication and delivery of timely and accurate information. Failure to provide timely and accurate information was identified as family dissatisfiers during their ICU experience.		

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
			Tools for measuring family satisfaction should measure family satisfaction with decision-making and measure the quality and processes of care. FS-ICU-24 is considered a reliable tool for measuring family satisfaction. This survey was deemed reliable with a Cronbach alpha score of 0.92 for satisfaction and 0.88 for satisfaction with decision making. Total FS-ICU-24 was 0.94, and the decision subscale was 0.87, and the care subscale was 0.93, indicating high reliability. Families of patients transferred to palliative/hospice care or died were			

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
			not asked to complete the survey. 50% of study participants indicated a need to improve communication and delivery of timely and accurate information.			
Elue, R., Simonovich, S.D., Tariman, J.D., Newkirk, E.A. & Neerhof, M. (2017). Bedside shift report enhances patient satisfaction for Hispanic and public insurance patients and improved visibility of leadership in obstetrics and postpartum settings. *Journal of Nursing Practice Applications & Review of Research, 9(2):* e0170474. https://doi: 10.1371/journal.pone.0170474	Is there an association between bedside shift reports and patient satisfaction scores in obstetric and postpartum women measured by the HCAHPS?	**Research Design:** quasi-experimental study completed by Retrospective cross-sectional and longitudinal study of HCAHPS survey data results comparing pre- and post-implementation of BSR results in an obstetric and postpartum inpatient setting. The study population included all postpartum women ≥18 years. Conducted in a tertiary metropolitan area with 26 post-partum units. **Sample Size:** Pre-intervention survey respondents (n=146) and post intervention survey respondents (n=143), total of 289 subjects. **Data Analytics:** Data collected three months prior and three months after the implementation of BSR implementation. They	Implementation of BSR increased leadership visits and improved patient satisfaction for the Hispanic and general insurance population. Nurse leader rounding contributes to improving the patient perception of care and nurse communication. BSR improves communication and validated methods of delivering patient-centered care.	BSR improves patient satisfaction and nurse manager visibility. BSR is a valid communication for nurses to understand patient values and preferences to help meet their expectations with care during the postpartum setting.	II	A

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
		used the hospital data warehouse to query postpartum deliveries within a specific timeframe. Also analyzed HCAHPS questions measuring nursing communication, global satisfaction, and hospital experience during the same time frame pre- and post-intervention. Used descriptive statistics to stratify the postpartum population. Chi-Square and Fisher exact test was used to evaluate categorical variables. Student t-test was used to assess continuous variables, and Mann Whitney was used to analyzing patient satisfaction scores. SAS version 9.3 was used to conduct all data analyses.	Improved patient satisfaction scores in Hispanic resulted in (P<.001) and public insurance populations (P<.001). Overall, patient satisfaction scores remained high at 98.6% (pre) vs. 97.9% (post); BSR was noted to help maintain a positive care experience.			
Lupieri, G., Creatti, C. & Palese, A. (2016). Cardio-thoracic surgical patients' experience on bedside nursing handovers: Findings from a qualitative study. *Intensive and Critical Care Nursing, 35*,28-37. https://doi.org/10.1016/j.ijnurstu.2018.04.011	Describe the experience of postoperative cardiothoracic surgical patients who were experiencing nursing BH.	**Research Design:** Qualitative study occurs in a tertiary Joint Commission Accredited academic facility in a single cardiothoracic ICU. Utilization of descriptive statistics and semi-structured interviews **Sample size:** 14 patients (10 males and four females) between 49-86 years. **Data Analysis:** Data were analyzed by reading interview transcripts. Bracketing was used to avoid reviewer misconceptions. Transcripts	Patients felt satisfied by BH by the cooperation perceived by nurses and their readiness to respond to their needs. Nurses' kindness, careful attention, and hand touching during the handover made patients feel comfortable.	Patients were supportive of BH and helped them to feel more informed about their health status. BH increases patient safety, patient involvement and promotes better teamwork and staff relationships. Nurses should avoid medical jargon to promote patient participation and prevent feelings of being	III	A

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
		were re-read independently by each researcher to transcribe information into themes to describe the patient experience. Triangulation was used by researchers to increase confidence in the findings.	The patient's opportunity to listen to handover identified that they felt the nurse had sufficient knowledge about their situation and care plan that nurses could care for them competently. BH was considered positive and useful, but patients reported wanting to be more involved during the process. The use of medical jargon excluded patients from conversations. Patients wanted to assure that their privacy was maintained but listening to report more valuable to them than confidentiality. Patients were satisfied with participating in BH	excluded from the conversation. Confidentiality is not an issue for patients, but nurses should use discretion when reporting patient sensitive information in others' presence. BSH should be a process based on a framework that allows critically ill patients to be involved progressively at different stages from informative to shared decision making when their condition and willingness to participate in the BH process is expressed.		

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
			allowed them to verify the completeness of the information being exchanged. BR assured patients that everything was under control and gave a sense of relief.			
Romero-Garcia, M., Delgado-Hito, P., de la Cueva-Ariza, L., Martinez-Momblan, M.A., Lluch-Canut, M.T., Trujols-Albet, J., …Benito, L. (2019). Level of satisfaction of critical care patients regarding the nursing care received: Correlation with sociodemographic and clinical variables. *Australian Critical Care, 32*, 486-493. https://doi.org/10.1016/j.aucc.2018.11.002	To analyze the level of satisfaction of critical care patients about the nursing care received and the relationship between satisfaction and sociodemographic and clinical variables.	**Research Design:** Prospective and descriptive correlational study performed in the third-level hospital with three adult ICUs with 32 patient rooms. **Sample size:** Patients discharged from the three ICUs between a specific period and 200 participants. **Data Analysis:** Utilized two-self reported instruments used for data collection to collect socioeconomic demographics and clinical data. The perception of health was evaluated by using a Likert-type scale. The second instrument included the use of the NICSS to assess patient satisfaction of CCP regarding nursing care during their ICU stay. NICSS uses a six-point	NICSS was considered easy to fill out by participants and the only instrument that incorporates the perspective of the CCP in both design and validation. NICSS identified aspects that affect the satisfaction of the CCP and may be used to improve the care process. Variables analyzed (sex, age, marital status, level of education, employment,	Widely accepted and validated tool that evaluates CCP satisfaction that can be used to improve the care process	II	B

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
		Likert scale; scores were obtained by obtaining averages of scale items. NICSS has widespread recognition or acceptance and is considered a reliable tool to measure patient satisfaction in the ICU setting. Frequencies, percentages, and measurements of central tendency were obtained. Each item's descriptive values on the scale were calculated and divided into factors and classified into two categories. Mean scores of the total scale and four factors were compared. Nonparametric Wilcox-Mann-Whitney was used to compute independent groups, and the nonparametric Kruskal-Wallis test was used to calculate more than two separate groups. Multivariate linear regression was used to evaluate nursing care satisfaction and used an R-3.12 statistical package on Windows to manage and analyze data.	previous admission, and the number of days in ICU) were not statistically significant; this finding aligned with other research findings; failing to identify differences between the overall level of satisfaction related to the variables mentioned above.			
Small, D. & Fitzpatrick, J. (2017). Nurse perceptions of traditional and bedside shift report. *Nursing Management, 48(2),* 44-49. https://doi:10.1097/01.N	What are the nursing barriers associated with the implementation of the BSR process?	**Research Design:** Quantitative online survey using the NABSR. Conducted in a 504-bed community hospital, with survey distribution on two 36-bed medical-surgical inpatient units in an acute care setting with total RN staff on both units was 84.	The mean response rate was 3.7 out of 5—seven of the 20 questions scoring below average rating and representing barriers to	BSR promotes patient safety and increases patient-involvement and staff accountability on either a structured or unstructured basis.	III	B

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
UMA.0000511921.67645.47		Units were considered representative of other units within the hospital setting. **Sample Size**: 54 of 85 RN's participated in the survey, resulting in a 67% response rate. Participant age range was 22-65+, timing in nursing ranged from 6 months to 33 years, time at hospital ranged from 6 months to 33 years, current degree went from associates to masters or higher. The usual shift worked included 7 am-7 pm, and 7 pm-7 am, and 7 am-3 pm. **Data Analysis:** The original survey was completed by 148 RNs at a University hospital, as was used as the benchmark hospital before the implementation of BSR. The categorical analysis was conducted to identify specific barriers to BSR.NABSR was sed t measure nurses' perceptions of BSR. NABSR uses a Likert scale rating strongly disagree (1) to strongly agree (4); the survey contains 17 questions. Cronbach's alpha instrument was used to determine the reliability and was reported as 0.90. The categorical analysis was completed on two open-ended survey questions (What is	implementation of BSR. The lowest scoring questions include evaluating the following aspect of handover helps prevent delays in patient care/discharge, handover is relatively stress-free, and effectiveness of handoff process regarding informing nurses on various aspects of patient care (patient needs/education, teaching, discharge and care plan). Lastly, the report is completed in a reasonable amount of time. Highest scoring questions include evaluation of the following aspects of care: BSR promotes patient involvement in care, provides an	Findings were consistent with other research. Limit barriers during implementation by using a structured BSR process to help address staff and patient concerns for breaches in confidentiality Implicated that findings could be transferable to other organizations looking to improve nurse-driven evidence-based practices.		

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
		going well with BSR? And What needs to change with BSR?). 41 responses were obtained The reliability for this study was also reported to be 0.90. The researchers identified statically significant differences in mean response rates on NABSR questions when they compared the current study (BSR) to actual study outcomes (outside of room shift report). The survey was re-administered at 3- and 13-months post-implementation of structured BSR.	opportunity for mentoring /teaching new newer nurses, supports accountability, report given professionally, prevents patient safety problems, and promptly identifies changes in the patient's condition. Nurses indicated that BSR had a significant impact on accountability, patient involvement, and patient safety. Structured BSR showed a decrease in nurses reporting stress but was still perceived to cause high-stress levels than traditional shift reports. Nurses were concerned about confidentiality and patient			

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
			interruptions when performing BSR. BSR had a generally positive view of its ability to involve patients, and a negative outlook was given to traditional shift report (outside of patient's room)			
Skaggs, M.K., Daniels, J.F., Hodge, A.J., & DeCamp, V.L. (2018). Using the evidence-based practice service nursing bundle to increase patient satisfaction. *Journal of Emergency Nurses, 44*, 37-45. https://doi.org/10.1016/j.jen.2017.10.011	Does implementing an evidenced-based nursing service bundle improve patient satisfaction?	**Research Design**: Kotter Change Model. Conducted in a large rural 232 acute care bed teaching hospital with a 43 bed-ED department serving eight counties. **Sample Size**: The study population ranges from 6 months to 91 years of age, mean age of 45.85 years—most Appalachian culture. Because of cultural influence, family and extended family often accompanied patients to the ED. Pre-intervention sample group=100 randomly selected patients before bundle implementation, and post-intervention sample group=97 randomly chosen patient receiving care post-intervention.	Implementation of hourly rounding and bedside report had a positive impact on patient perceptions of care and communication Positive impact on patient satisfaction scores associated with nurse communication, quality of care and nursing care. When the length of stay decreased, patient, satisfaction increased.	Findings suggest that the service nursing bundle of communication, hourly rounding, and BSR can positively impact multiple attributes associated with patient satisfaction metrics. The use of EBP service nursing bundle, robust auditing process, and provided staff feedback regarding bundle compliance, and patient satisfaction scores can improve patient perceptions of ED quality of care.	V	B

Citation	Question or Hypothesis	Research Design, Tools, Sample Size & Data Analysis	Key Findings	Recommendations/ Implications	Level of Evidence	Quality of Evidence
		All staff participated, demographics include age 20-29 years and had 5 years or less experience as ED RN. **Data Analysis**: PRC metrics and audit tool compliance were analyzed to explore the nursing service bundle's impact on patient experience. Priori power analysis was conducted to determine the number of audits required to determine statistical differences. Descriptive statistics, logistic regression, and odds ratios were used to analyze the service nursing bundle implementation's impact. The analysis included a review of five PRC survey questions that represented the patient's perception (overall quality of care, overall quality of nursing care, nurses understanding and caring, nurse's explanation of treatments/tests, and time spent in ED). A 5-point Likert was used (1-poor to 5-excellent rating of service). Excellent ratings were used to compare survey and percentile ratings pre-and post-intervention. T-test was used to compare response rates to LOS, and p-value to show statistical significance	Audits showed staff compliance increased over the eight-week period. Last, weekly audit results indicating 100% compliance with all three bundle components across both shifts. Post-bundle patients rated their overall quality of care as excellent, 59.8% versus 48% in the pre-bundle implementation group. 36 out of 97 patients responded with excellent ratings on all five questions after bundle implementation of EBP service-nursing bundle: yielding a 1.519 odds ratio.	Ongoing education and continual reminding of the EBP service bundle were considered crucial to the bundle-implementation success. Patient satisfaction was correlated with communication strategies and the delivery of timely care in the ED setting.		

Legend:

BSR: Bedside Reporting

BSH: Bedside Handoff

CCP: Critical Care Patients

EBP: Evidenced-Based Practice

ED: Emergency Department

EHR: Electronic Health Record

FS-ICU-24: Family Satisfaction in the ICU 24-item questionnaire

HCAPS: Hospital Consumer Assessment of Healthcare Providers and Systems

ICU: Intensive Care Unit

LOS: Length of Stay

NABSR: Nurse Assessment of Bedside Shift Report

NHPPD: Nursing Hours Per Patient Day

NICSS: Nursing Intensive-Care Satisfaction Scale

SORT: Strength of Recommendation Taxonomy

PFCC: Patient Family-Centered Care

PRC: Professional Research Consultant

RN: Registered Nurse

SD: Standard Deviation

Appendix B

Summary of Systematic Reviews (SR)

Citation	Question	Search Strategy	Inclusion/ Exclusion Criteria	Data Extraction and Analysis	Key Findings	Recommendation/ Implications	Level of Evidence	Quality of Evidence
Malfait, S., Hecke, A.V., Biesen, W.V. & Eckloo, K. (2019). A systematic review of patient participation during bedside handovers onwards with older patients indicates evidence is urgently needed. *International Journal of Older People Nursing, 14(2),* e12226. https://doi: 10.1111/opn.12226	What does the evidence say about patient participation during BH on nursing wards for older patients?	Systematic Review of qualitative and quantitative data PubMed, Cinahl, Embase, and Web of Science 22 articles retained One article fulfilled all study criteria.	**Inclusion Criteria:** Patient participation during BH onwards with an older patient population. **Exclusion criteria:** articles that did not discuss bedside handover on a ward with a partially older population	22 articles retained One article fulfilled all study criteria	Patient participation is crucial to achieving the benefits of BH. Without patient participation, BH is considered disempowering	If patients have cognitive dysfunction, alternatives methods to promote participation should be considered, such as family, relatives, or caregivers.	I	A
Tobiano, G., Bucknall, T., Sladdin, I., Whitty, J.A., & Chaboyer, W. (2018). Patient participation in nursing bedside handover: A systematic mixed methods review. *International Journal of Nursing Studies. 77, 243-258.*	What is the patient's role in BSH, what are the barriers, and what are the strategies that support patient participation	Systematic mixed-method review of qualitative, quantitative, and QI projects. CINHAL, Medline, and	**Inclusion criteria** adult patients and nurses in the hospital setting and studies related to bedside handover and	Most studies were conducted in either a medical or surgical ward, on more than one unit in a single	Patients reported that they feel like they knew what was going on, secure, and confident in nurses.	Standardizing handoff may create predictability for patients. Training nurses to be flexible when approaching confidential and sensitive patient	I	A

https://doi.org/10.1016/j.ijnurstu.2017.10.014	in nursing handover?	PsychINFO database searches were used. Reference list articles were also used to option relevant articles not discovered in the original search. Scopus database was used to conduct forward citation searching. Used a two-step screening process. The first screen was to evaluate if articles meet the inclusion criteria. The second screen was to separate research articles from the QI project. Two reviewers independently reviewed research and QI projects and discussed	patient participation were considered research or QI. All QI articles were obtained from peer-reviewed journal articles. MMAT was used to determine the quality of evidence in quantitative and qualitative studies. The QI-MQCS was used to appraise the quality, reliability, and validity of the QI projects to help made future recommendations based on study findings.	hospital setting. Included 391 patients and 341 nurses. Included 25 QI projects related to implementing bedside handover and inpatient hospital settings are most often conducted on a single unit. Although six QI projects were conducted on four or more units in the hospital setting. Analysis of the literature was completed using thematic synthesis for QI projects, observations, and	Patients reported that their role was to listen, add information, share preferences, and clarify information and answer nurses' questions. Patients had mixed views about family involvement, but nurses identified the family as useful resources if the patient could not participate. The research concluded that BSH improves the patient-nurse relationship Patients were less concerned about confidentiality when discussing medical	information may promote patient participation during BSH. The admission and rounding process was a strategy that may provide an opportunity to educate patients about the BSH process to encourage patient participation. The use of a standardized handoff format provides a guideline and can help guide patient participation. Developing an Education strategy can help nurses overcome concerns regarding patient confidentiality or sensitive patent information to promote handoff at the bedside. Role-playing was suggested as a method to teach about the handoff process, address		

		discrepancies. A third review was added to adjudicate differences.	**Exclusion criteria:** Not specifically identified	perceptions identified in the studies used to confirm or deny findings. NVivo software was used to review data. Line coding was used to identify similar themes in qualitative and quantitative studies. Group coding was helped to generate a hierarchy to validate findings. Cross-comparison was used to evaluate the finding of segregating research findings. Study findings	conditions. While nurses expressed concerned and often wrote things down, spoke closer and softer to the patient, or moved away from the bedside. Patients felt excluded when handoff did not occur at the bedside and was concerned about a breach of confidentiality when they could not listen. Nurses viewed patient involvement to improve communicatio n and wanted them to play a more active role by asking questions.	barriers, and show nurses how to communicate in a patient-centered way. Patients felt excluded when handoff was not conducted at the bedside Patients should play an active role by asking questions. The patient participation was improved with whiteboards and helped develop the care plan based on patients' feedback/questions. BSH decrease falls, discharged times, overtime cost, and enhance team collaboration. BSH can incorporate other processes such as nurse-patient introductions and patient participation Nurses need to know how to build		

				were placed in tables to identify common themes and outcomes associated with literature review findings. MMAT scored half of the QI articles high to help determine validity. Still, data collection instruments were not used, in turn making it difficult to make an accurate determination of the validity and reliability. The QI-MQCS identified that QI projects often used patient and	QI projects identified four typical roles of patients during handover: participate in developing care plan; this was enhanced by using the patient whiteboard and included patients listening during handover, and asking questions, and voicing concern during the process. Overall, the researcher identified that BSH encourages patient participation,information sharing and promotes collaboration amongst nurses, patients, and families	relationships and develop individualized care with BSH. Suggest the use of written material on admission to inform patients of their role during the handoff process. To maximize effectiveness, include patients in development. The use of scripting contributed to informing patients about the process. Standardizing handoff may create predictability for patients. Leaders play a vital role in monitoring handover and coaching staff accordingly to support patient involvement in handover.		

				nurse perception surveys, but these findings were not tested. Some excluded handoff practices. QI projects did not measure health outcomes.70 % of QI projects monitored implementation and compliance with handoff practices.				
Goldfarb, M., Bibas, L., Bartlett, V., Jones, H. & Khan, N. (2017). Outcomes of patients and family-centered care intervention in the ICU: A systematic review and meta-analysis. *Critical Care Medicine, 45(10),* 1751-1761. .https://doi.1097/CCM.0000000000002624	Determine if patient/family -centered care interventions improve ICU outcomes	Systematic Review & Meta-Analysis of quantitative and qualitative research. They consisted of articles evaluating PFFC interventions and family	**Inclusion criteria:** Articles that contained elements of PFCC criteria such as respect, values, preferences, Information, communication, family	Information extracted by author, year of publication, study design, population, setting, intervention, and outcome. 46 studies were included,	PFCC is an extension of patient-centered care and recognizes the family as a vital part of the patient experience. Failing to involve the	PFCC interventions helped to decrease ICU LOS but did not affect mortality. Communication strategies had the most significant impact on improving patient/family satisfaction.	I	A

		outcomes in the ICU setting. Conducted search in Medline, EMBASE, PsychINFO, CINAHL, and Cochrane Library 46 studies retained (35/observational pre/post and 11 randomized)	involvement, transition in care, physical comfort, and coordination of care. **Exclusion criteria**: Pediatric and individuals <18 years of age	with 78% of them reporting at least one positive outcome measure, 22% of the studies reported no statistically significant outcomes. Highest quality randomized studies reported OR=1.07; CI 0.95-1.21; p=0.27, demonstrating no statistical significance on mortality outcomes. A decrease in LOS by 1.21 days was reported to be statistically significant 95% CI; P=0.02.	family in the ICU setting can cause tension, dissatisfaction and increase the potential for poor outcomes. Patient satisfaction improved in 55% of studies and included communication strategies 75% of studies that evaluated PFCC interventions concluded that there was a decrease in LOS. No studies reported an increase in LOS.	Delivery of PFCC is vital to patient and family experience. Involving family in the ICU setting reduces tension and dissatisfaction with care and minimizes the risk associated with poor patient outcomes. Most studies identified a decrease in LOS when patients and families were involved. Suggested use of pocket guides and reminders to enhance patient engagement.		

Legend:

CI: Confidence Interval

BSH: Bedside Handoff

PFCC: Patient Family-Centered Care

ICU: Intensive Care Unit

LOS: Length of Stay

MMAT: Mixed Method Assessment Tool

OR: Odds Ratio

PICOT: Population of Interest (P), Issue/Intervention (I), Comparison (C), Outcome (O), Timeframe (T)

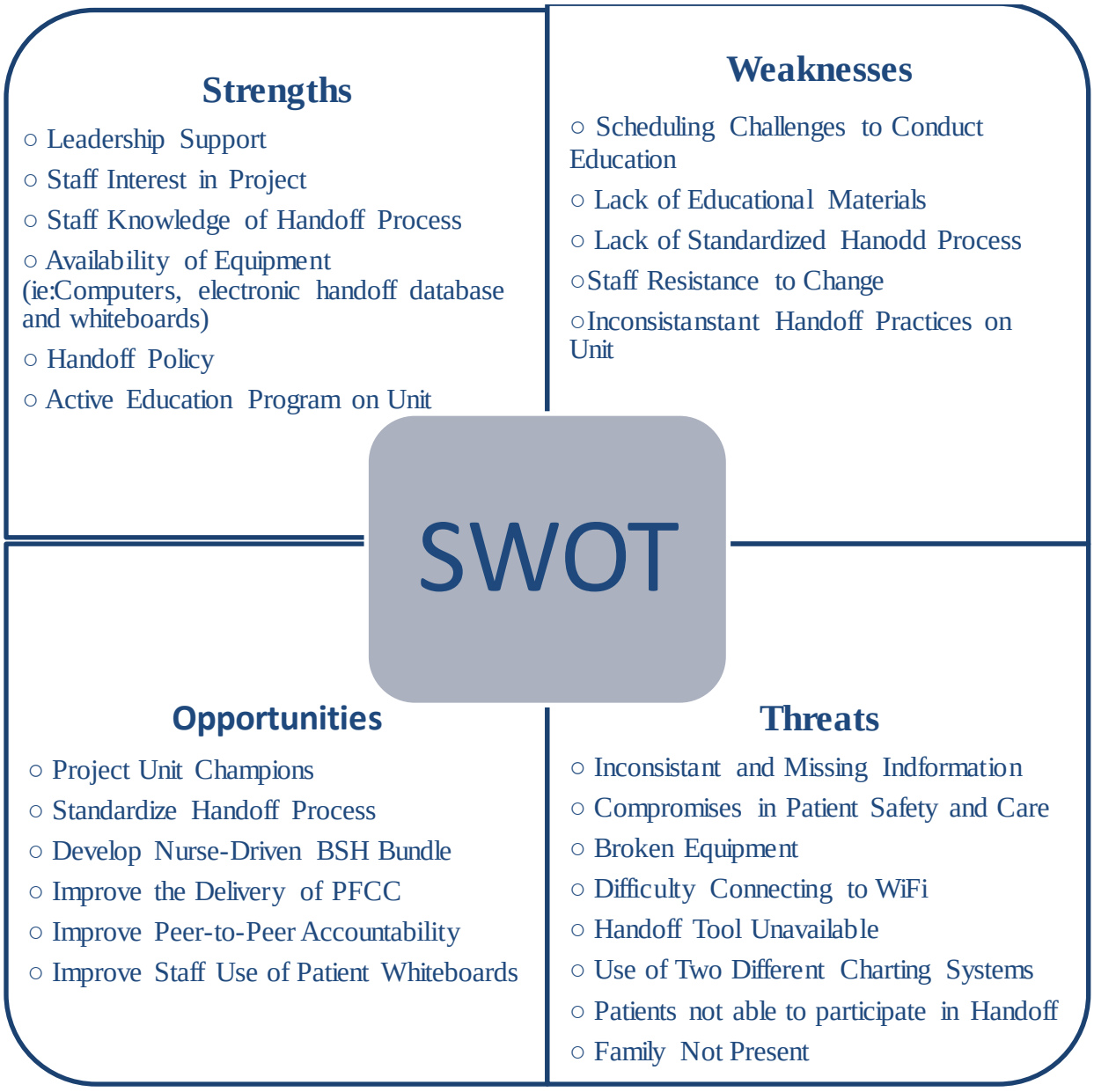
PFCC: Patient-Family Centered Care

QI: Quality Improvement

QI-MQCS: Quality Improvement Minimum Quality Criteria Set

Appendix C

Strengths Weaknesses Opportunities and Threats (SWOT) Analysis



Appendix D

Project Timeline

Task	Assigned To	Start	# of days
Practicum I: January 7, 2020, through April 22, 2020			
Prepare project proposal	Audry Pevec, Project Manager	1/26/2020	90
Practicum II: May 11, 2020, through September 8, 2020			
Project implementation			
Submit an approved project proposal	Audry Pevec, Project Manager	Week 1-2	14
Assemble Quality Improvement (QI), Team	Audry Pevec, Project Manager	Week 1-2	14
Review timeline, roles & responsibilities, project goals, and team expectations.	Audry Pevec, Project Manager	Week 1-2	14
Develop a handoff audit tool	Audry Pevec, Project Manager and NM/ANM	Week 1-2	7
Develop patient/family education pamphlet, submit to the education department for review and approval	Project Champions, Nurse educator	Week 1-2	14
Provide training to unit champions, Nurse Educators, NM, and ANM (handoff processes and audit tools)	Audry Pevec, Project Manager	Week 2-3	14
Staff training initial, ongoing, and orientation	Project Champions, Nurse Educator	Week 3	56
Weekly audits to observe handoff practices submit to NM	Project Champions	Week 4	56
Collect weekly audit tools (Aggregate Data)	Audry Pevec, Project Manager	Week 4	56
Report weekly audit data to NM/ANM	Audry Pevec, Project Manager	Week 5	56
Bi-weekly staff meeting to address audit findings, barriers, and concerns	NM/ANM	Week 5	56
Weekly staff training one-on-one or group to address audit gaps.	Project Champions	Week 5	56
Monthly stakeholder meeting to discuss progress, data, and barriers	Audry Pevec, Project Manager	Week 6	56
Continue development of project documentation	Audry Pevec, Project Manager	Week 7	56
Practicum III: September 8, 2020, through December 11, 2020			
Project Evaluation			
Evaluate project outcomes using SPSS	Audry Pevec, Project Manager	Week 1	14
Develop a final project report	Audry Pevec, Project Manager	Week 3	14
Report findings to key stakeholder's unit/service leadership	Audry Pevec, Project Manager	Week 5	1
Report findings to unit staff	NM & Project Manager	Week 6	7
Report findings to nurse practice council & Patient Care Executive Board (PCEB)	Audry Pevec, Project Manager	Week 7	1
Celebrate success	Project Team	Week 8	7

Discuss Project Dissemination in Critical Care and Institutional quality forum	Chief Nurse Acute Care	Week 8	1
Post Practicum: Dissemination Plan			
National Quality Forum Presentation and Speaker at Local Nursing Conference	Audry Pevec	Six months from the time of completion	
Publication	Audry Pevec	1-2 year from time completion	

Appendix E

Data Collection Tool Approval Letter

UNIVERSITAT DE BARCELONA

Escola d'Infermeria
Facultat de Medicina
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PERMISSION FOR ADAPT AND VALIDATE TO ENGLISH

NURSING INTENSIVE CARE-SATISFACTION SCALE (NICSS)
(by Romero-García 2018)

As an author of the Nursing Intensive Care-Satisfaction Scale (NICSS by Romero-García 2018) I reported that I have been informed by Mrs/Mr. **Audriana Pevec** from University of St. Augustine For Health Sciences - United States for adapt and validate the NICSS in her/his study "Bedside Shift Report A Way to Improve Patient and Family Satisfaction with Nursing Care"

I give my approval for use the NICSS as a part of this study.

Best Regards

Marta Romero-García, PhD, MHSc, RN (martaromero@ub.edu)
Departament of Fundamental Care and Medical-Surgital Nursing. http://www.ub.edu/infermeria/
Nursing School, Faculty of Medicine and Health Sciences
Central Pavillion, 3r floor. 08907 L'Hospitalet de Llobregat (Barcelona, Spain)
UNIVERSITY OF BARCELONA

Barcelona (Spain), 31 April 2020

Romero-García M, de la Cueva-Ariza L, Benito-Aracil L, Lluch-Canut T, Trujols-Albet J, Martínez-Momblan MA, Juvé-Udina ME, Delgado-Hito P. Nursing Intensive-Care Satisfaction Scale [NICSS]: Development and validation of a patient-centered instrument. J Adv Nurs. 2018;74(6):1423-1435 https://doi.org/10.1111/jan.13546. Factor Impacto: JCR: 1,998 Q1.

Romero-García M. Diseño y validación de un cuestionario de satisfacción con los cuidados enfermeros desde la perspectiva del paciente crítico [tesis doctoral]. Universidad de Barcelona; 2016. Disponible en: http://hdl.handle.net/2445/98701

Romero-García M., Trujols-Albet J. Hacia una mayor incorporación de la perspectiva del paciente en el diseño de los instrumentos de evaluación de la efectividad y calidad de los cuidados. Enferm Intensiva, 2015;26(1):1-2. Factor de Impacto SJR 0,33: Q2.

Jover Sancho C, Romero García M, de la Cueva Ariza L, Delgado Hito P, Acosta Mejuto B, Ricart Basagaña MT, Solà Ribó M, Solà Solé N., Juandó-Prats C. Percepción de las enfermeras de uci en relación al cuidado satisfactorio: convergencias y divergencias con la percepción del paciente crítico. Enferm Intensiva, 2015:26(1):3-14. SJR: 0,334 Q2. https://doi:10.1016/j.enfi.2014.12.002

de la Cueva L, Romero M, Delgado P, Acosta B, Jover C, Ricart MT, Juandó C, Solà N, Solà M. (2014). Development of an instrument to measure the degree of critical patient's satisfaction with nursing care: research protocol. J Adv Nurs. 2014;70(1):201–210. Factor de impacto JCR: 1,527: Q1.

Romero-García, M.; de la Cueva Ariza, L.; Jover Sancho, C.; Delgado Hito, P.; Acosta Mejuto, B.; Sola Ribo, M.; Juandó Prats, C.; Ricart Basagaña, M.T.; Sola Sole, N. La Percepción del paciente crítico sobre los cuidados enfermeros: una aproximación al concepto de satisfacción. Enferm Intensiva, 2013;24(2):51-62. Factor de Impacto SJR 0,33: Q2.

Appendix F

Nursing Intensive Care Satisfaction Scale (NICSS) Questionnaire

A	During my stay in the ICU, and on the basis of my experience, I feel that the nurses who attended to me:	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
1	Introduced themselves.	☐	☐	☐	☐	☐	☐
2	Saw to me quickly when I needed them.	☐	☐	☐	☐	☐	☐
3	Demonstrated ability in their techniques (e.g. taking blood samples, aspiration of secretions, handling machines, etc.)	☐	☐	☐	☐	☐	☐
4	Demonstrated that they knew what to do at all times on a technical and human level.	☐	☐	☐	☐	☐	☐
5	Had a professional attitude towards care, on a technical and human level.	☐	☐	☐	☐	☐	☐
6	Ensured that I was not in pain.	☐	☐	☐	☐	☐	☐
7	Provided my medication on time	☐	☐	☐	☐	☐	☐
8	Listened to me when I needed it.	☐	☐	☐	☐	☐	☐
9	Knew what to do at all times.	☐	☐	☐	☐	☐	☐
10	Worked in a team.	☐	☐	☐	☐	☐	☐
11	Resolved the problems I had as my illness and treatment evolved.	☐	☐	☐	☐	☐	☐
12	Worked continuously to care for me.	☐	☐	☐	☐	☐	☐
13	Showed that they enjoyed their work.	☐	☐	☐	☐	☐	☐
14	Were always concerned for my needs.	☐	☐	☐	☐	☐	☐
15	Kept me clean and/or with hydrated skin.	☐	☐	☐	☐	☐	☐
16	Respected my sleep and my rest.	☐	☐	☐	☐	☐	☐
17	Treated my injuries well.	☐	☐	☐	☐	☐	☐
18	Moved me and changed my position when needed.	☐	☐	☐	☐	☐	☐
19	Were concerned for my comfort.	☐	☐	☐	☐	☐	☐
20	Explained what they were going to do.	☐	☐	☐	☐	☐	☐
21	Maintained a relationship of trust with me.	☐	☐	☐	☐	☐	☐
22	Were attentive to my needs.	☐	☐	☐	☐	☐	☐
23	Demonstrated patience when caring for me.	☐	☐	☐	☐	☐	☐
24	Were able to empathise with me.	☐	☐	☐	☐	☐	☐
25	Answered me questions.	☐	☐	☐	☐	☐	☐
26	Worked with a smile	☐	☐	☐	☐	☐	☐

A	During my stay in the ICU, and on the basis of my experience, I feel that the nurses who attended to me:	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
27	Provided emotional support.	☐	☐	☐	☐	☐	☐
28	Knew how to anticipate what care I needed before I asked for it.	☐	☐	☐	☐	☐	☐
29	Were sensitive to my suffering.	☐	☐	☐	☐	☐	☐
30	Looked me in the eye when they entered the room.	☐	☐	☐	☐	☐	☐
31	Treated me in a personal way.	☐	☐	☐	☐	☐	☐
32	Looked after me kindly.	☐	☐	☐	☐	☐	☐
33	Encouraged me to communicate with them.	☐	☐	☐	☐	☐	☐
34	Saw to me with tact/sensitivity.	☐	☐	☐	☐	☐	☐
35	Provided care that helped me to recover.	☐	☐	☐	☐	☐	☐
36	Maintained close, friendly communication with me.	☐	☐	☐	☐	☐	☐
37	Cared for me in personalised way.	☐	☐	☐	☐	☐	☐
B	**During my stay in the ICU, the nursing care I received made me feel:**	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
38	Optimistic.	☐	☐	☐	☐	☐	☐
39	Calm.	☐	☐	☐	☐	☐	☐
40	That my opinion with respect to the care was important.	☐	☐	☐	☐	☐	☐
41	Good.	☐	☐	☐	☐	☐	☐
42	That I was 'in the nurse's hands', given my situation of dependence.	☐	☐	☐	☐	☐	☐
43	That I was cared for by efficient nurses.	☐	☐	☐	☐	☐	☐
44	Like a number, an object.	☐	☐	☐	☐	☐	☐
45	Grateful.	☐	☐	☐	☐	☐	☐
46	Physically secure despite being connected to machines.	☐	☐	☐	☐	☐	☐
47	A desire to keep living	☐	☐	☐	☐	☐	☐
48	Alone.	☐	☐	☐	☐	☐	☐
49	Unattended.	☐	☐	☐	☐	☐	☐

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Appendix G

Handoff Observation Feedback Audit Tool

Date of Observation_____Time of observation_____

Completed By (Print Name): _____

Handoff occurred at the bedside (Inside Pt. room)?	Yes	No	Other:
Nurses introduced themselves?	Yes	No	
ISHAPED-Standardized handoff tool was used?	Yes	No	Other:
Safety Observations: Did nurses complete any of the following?			
Patient verification	Yes	No	
Review IV access	Yes	No	
Address the need for Turning/Repositioning	Yes	No	
Review Infusing medications	Yes	No	N/A
Discuss fall prevention?	Yes	No	
Discuss pending nurse tasks/orders	Yes	No	
Whiteboard Observation:			
Date is updated by oncoming RN?	Yes	No	
Nurse updates name for shift?	Yes	No	
Patient preferences are addressed?	Yes	No	
Patient daily goals are established or addressed?	Yes	No	
Was the patient AOX3 and able to participate in handoff?	Yes	No	
If yes, was the patient an active participant (i.e.: asked questions or provided information) **or** passive (present but just listened)?	Active	Passive	
If no, ask the nurses if the family was asked to participate in bedside handoff via tele-conferencing?	Yes	No	Comments: