Summer 2019

# Optimizing Intraprofessional Communication at Patient Handover

Allison Crabtree
*Jacksonville State University*, ecrabtree@jsu.edu

# Optimizing Intraprofessional Communication at Patient Handover

E. Allison F. Crabtree

Jacksonville State University

Department of Nursing

Faculty Chair: Dr. Kimberly Helms

Date of Submission: July 1, 2019

Dedication

To my family, whose love and support have always been an incredible source of encouragement to me. To my faithful husband, who supports my dreams and goals, believes I can accomplish great things and ensures I have the resources needed to succeed. To my Father, for Your countless gifts that enable me to have a life of purpose, a living hope, and reason for endless gratitude.

Acknowledgement

No endeavor of this magnitude comes without contributions from many outside sources. To compile an exhaustive list of individuals who deserve acknowledgement and public expression of gratitude would be impossible. It is with deepest gratitude that I extend my heartfelt appreciation to those at my university, who work tirelessly to ensure students are prepared to practice at the highest level, who sacrifice time, energy and effort to see the dreams of students realized. I am indebted to the clinical organization that offered administrative and physical resources for the project implementation and for the participants whose sacrifices have allowed new knowledge to be added to the growing body of evidence. Lastly, to my colleagues, who traveled alongside me on this journey, and of whom I'm confident will make an extraordinary impact on healthcare and healthcare education. I am richer because of the road I have traveled with you all, and I sincerely appreciate your contributions to this work and my personal and professional growth.

**Table of Contents**

Abstract

This performance improvement project aimed to increase the communication competency of nurses during intraprofessional interactions at patient handover. An educational program focused on optimizing communication among nurses was implemented in a community-based, not-for-profit, rural hospital. The course was designed to incorporate a variety of instructional strategies to meet learner needs. Consistency and standardization of the patient handover process was a central theme. Topics of the course focused on the use of a standardized communication tool, the relationship of communication on patient safety, the importance of clear and effective communication, the role of the nurse as gatekeeper and facilitator of patient-specific information to peers during handover events, and intraprofessional collaboration in an acute care setting. The self-perceived communication competency of participating nurses was measured at pre-test and post-test using a valid and reliable instrument. The data collected from the survey informed this process improvement effort.

**Keywords:** intraprofessional collaboration, patient safety, patient handover, handoff events, communication competence, standardized communication tool

Optimizing Intraprofessional Communication at Patient Handover

## Introduction

Safe and effective care is both a healthcare consumer expectation and a mandate from accrediting agencies in the healthcare environment. In acute care settings, many healthcare professionals provide care to patients. The coordination of patient care among various members of this team is essential to ensuring care is delivered safely and timely. Healthcare providers must relay pertinent patient information during transitions of care to effectively harmonize care. Communication during patient handover events is intended to ensure the continuum of care and patient safety. Lack of communication between care team members creates situations where medical errors can occur. These errors have the potential to cause adverse events or medical errors which threaten patient safety and compromise safe, efficient care. Medical errors, related to a failure to communicate, are a pervasive problem in today's health care organizations (O'Daniel & Rosenstein, 2008). Evidence demonstrates that information degradation due to the ineffective handover of patient care strongly increases the opportunity for medical errors (Gephart, 2012). Effective communication among care team members is an integral part of patient care and safety and a necessary component of care collaboration. Communication that occurs during care transitions is challenging, multifaceted, and often takes place in complex care situations (Kitson, Athlin, Elliott, & Cant, 2014). Links between miscommunication and poor patient outcomes have been well documented (The Joint Commission, 2015). Communication of patient status during handover is a critical link in the chain of continuity of care and essential to the provision of safe and effective care (Holly & Poletick, 2014).

## Background

Miscommunication between care team members has been found to have a significant link in the root-cause analyses for an estimated 80% of serious medical errors (Makic & Bueno, 2016). These findings led The Joint Commission (TJC) to develop a patient safety goal to improve communication among caregivers using a standardized approach to handover communication, providing opportunities for team members to ask and respond to questions (Holly & Poletick, 2014). Effective communication is vital in providing safe and effective healthcare to patients (Judd, 2013). Nurses are the primary healthcare providers for patients in acute care settings. Nurses work collaboratively in both *intraprofessional* and *interprofessional* teams.

*Intraprofessional* teams are composed of individuals from the same profession or discipline. In contrast, *interprofessional* teams are comprised of professionals from different disciplines, working collaboratively to provide patient care. The term *handover* is used to describe the end-of-shift transfer of patient care between outgoing and incoming nursing staff. The term *handoff* is commonly interchanged with the term *handover* and is also used to describe these same type events; however, for the sake of clarity, the term *handover*, used in this paper, indicates the end-of-shift or transfer of patient care from one healthcare professional to another.

Patient handover events are one of the most critical aspects of patient care, where active and efficient communication contributes to optimal and safe care (Eberhardt, 2014). Despite evidence pointing to effective communication at patient handover as a prerequisite to safe and high-quality patient-centered care, inconsistencies prevail (Kitson et al., 2014). Patient handover events are crucial times for intraprofessional and interprofessional communication because every time patient information transfers from one healthcare professional to another, there is a risk for vital information to be omitted or miscommunicated (Kitson et al., 2014).

*Competence* is defined as the skill to develop knowledge and the ability to enhance professional practice in multiple ways (Hsu, Chang, & Hsieh, 2015). Communication and interpersonal skills are necessary for collaboration of patient care and essential competencies of the professional nurse. Communication skills training in nursing practice has become increasingly important. Effective communication skills in nursing practice are not innate, can be learned, and can be enhanced (Hsu et al., 2015). Effective communication involves listening, asking questions, exploring, giving information, dealing with emotions, and handling psychosocial problems. The demonstration of *communication competence* occurs in interpersonal interactions that display these crucial skills.

Increasing the communication competency of nurses can directly impact the quality of patient care by improving the flow of critical information during handoff events. Improving the flow of critical information is particularly vital during activities, such as shift change, when intraprofessional collaboration is the most crucial factor in the continuity of care. Communication competence is a valuable resource and an essential skill for nursing (Yu & Ko, 2017). McCroskey and McCroskey (1988) developed the Self-Perceived Communication Competency Scale (SPCC) to obtain information concerning how competent people feel in a variety of communication contexts and with a variety of types of receivers. The scale was designed to let the respondent define communication competence. People make decisions regarding communication, and it is their perception that is important, not that of an outside observer (McCroskey & McCroskey, 1988). The SPCC, utilized in this project, measured the participants' self-perceived communication competence.

**Problem Statement**

An exploratory, fact-finding meeting occurred with the project planner, the chief nursing officer (CNO), and nurse manager of a community-based, not-for-profit, rural hospital in east-central Alabama. It was during this meeting that the CNO and nurse manager identified a clear need for improvement in nurses' verbal communication using a standardized process of patient handover at shift change. An additional goal of administration was to increase the role of the bedside nurse in engaging the patient and family in bedside shift reporting. The concept for a process improvement project resulted. The purpose of this project was to determine if nurses' participation in an educational program focused on intraprofessional nursing communication using a standardized process increased the perceived communication competency of acute care nurses during patient handover at shift change. It was hypothesized by administration and the project planner that increasing the communication competency of nurses could translate to improved communication between nursing peers as well as with patients and their families during bedside shift report. The perceived communication competency of participating nurses was measured using the SPCC, a proven and reliable tool.

A population, intervention, comparison, and outcome question (PICO) is a method used in evidence-based nursing to frame and answer clinical questions. For this project, the individual components of the PICO question were as follows: *P* (population) = nurses, *I* (intervention) = participation in a focused education program, *C* (comparison) = no involvement in a focused educational program, *O* (outcome) = increased perceived communication competency in intraprofessional interactions using a standardized process during patient handover events. Do nurses who participate in a focused educational program compared to nurses who do not participate in a focused educational program have increased perceived communication competency using a standardized process during patient handover events?

**Organizational Description of Project Site**

The site of project implementation was a regional hospital (Hospital A) for a five-county surrounding service area in east-central Alabama. Geographically located in the foothills of the Appalachian Mountains, this agency sits inside the city limits near the downtown area. This healthcare agency is the region's leading healthcare provider and the second largest employer in the area. The hospital employs more than 1,600 employees, with nursing specialties comprising over one-third of those employees. There is one smaller acute care hospital located within the same county as this hospital. The closest comparably sized hospital offering similar services is over 30 miles away.

The Centers for Medicare and Medicaid Services (CMS) gives Hospital A the 2-star rating (Centers for Medicare and Medicaid Services [CMS], n.d.). The most recently reported data from Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores reveal that 80% of patients felt their nurses "always communicated well," compared to the overall Alabama average of 81%, and a national average of 80%. Seventy-nine percent of respondents reported that their doctor "always communicated well," compared to the overall Alabama average of 85%, and a national average of 82%. Sixty-three percent of respondents indicated that staff "always explained their medicines before giving it to them," compared to the Alabama average of 67%, and a national average of 66%. Eighty-three percent of patients responding reported that "they were given information about what to do during their recovery at home," compared to the Alabama and national averages of 87%. Forty-eight percent of patient respondents strongly agreed that "they understood their care when they left the hospital," compared to the Alabama average of 50%, and a national average of 53%. Sixty-six percent of patient respondents gave this hospital a score of 9 or 10 on a scale from 0 (lowest) to 10

(highest), compared to the Alabama average of 72%, and a national average of 73%. Sixty-four percent of patient respondents reported, “yes, they would recommend this hospital,” compared to the Alabama average of 70%, and a national average of 72% (Centers for Medicare and Medicaid Services [CMS], n.d.).

The CNO of Hospital A agreed to serve as a preceptor to the project planner for the performance improvement initiative. The CNO holds a Master of Science degree in Nursing with a concentration in Community Health Nursing and has over 27 years of nursing experience. She has served in this leadership position since 2013 and is accountable for the overall direction and management of 33 departments in the Patient Services Division with approximately 746 staff equaling 515 full-time equivalents.

The department of implementation was the Observation Unit. At the time of project implementation, twelve full-time nurses working traditional 12-hour shifts staffed this 22 bed unit. The average daily census was 18 patients. There was one part-time nurse. Patients admitted to this floor were medically stable and most often transferred from the emergency department. There were some cases of direct transfer from surrounding nursing homes, rehab facilities, assisted living facilities, physician offices, and occasionally admissions from the home environment. The top chief complaint of admitted patients was chest pain, followed by altered mental status. The average length of stay in the unit was 36 hours. There were some patient admissions from other hospital floors related to overflow. In-house transfers came primarily from medical-surgical, surgery, progressive-care, and psych.

These employed nurses had either an Associate of Science or Bachelor of Science degree in Nursing. Registered nurses comprised the bulk of nursing staff. Additional personnel included patient care technicians, unit secretaries, and a case manager. The Nurse Manager of the

department of implementation agreed to serve as a mentor to the project planner. The Nurse Manager holds a Bachelor of Science degree in nursing and has held responsibility for the day-to-day management of the unit for seven years. The manager's relevant prior experience includes the role of Director of a 350-patient home health and hospice agency. She previously served as a community liaison to a local acute and long-term care facility for Reduction in Rehospitalization Project. Other experience includes the role of nurse manager of a 34 bed acute care unit of Hospital A, member of TJC Task Force for Hospital A, and the clinical coordinator for a prior hospital Post Op Pain Management Quality Improvement Project. Additional experience as an oncology research nurse, chemotherapy nurse, member of the Oncology Committee of Hospital A, and liaison to the International Review Board (IRB) of the hospital is directly relevant experience.

The unit was hand selected by the CNO and project planner as a site of project implementation. Primary factors for selection included the reputation of the unit as one of high performance and outcomes, for the staff's reputation of responsiveness to change of process recommendations, and previous guidance from hospital leadership for implementation of a standardized communication tool during patient handover at shift change. Additionally, the past participation and direction of the nurse manager in previous performance improvement projects was a key consideration.

Patient handover events on this unit occurred primarily at nursing shift change. The norm for the frequency of patient handover events on this unit was one to two occurrences per 24-hour period. There were additional handover events when patients transferred to the floor either by direct admit or from the Emergency Department or other units. Patient handover events also occurred during transfer from Observation to other departments, other care facilities, and

discharge to home or community settings. Patient handover events additionally occurred during times of treatment, diagnostic testing, procedures, or dialysis. A standardized communication sheet, Situation-Background-Assessment-Recommendation (SBAR) had previously been approved by Hospital A and endorsed as the preferred method for handover communication. At the time of project implementation, a basic computerized format SBAR was being used as a supplement during nursing report at shift change. The form was generated by the organization's electronic medical record system with population pre-set patient information including name, diagnoses, drug allergies, past medical history, past surgical history, admitting diagnosis, height, weight, and most recent vital signs. Nurses printed the computer-generated form from the computer system and were adding additional pertinent information by hand. Each nurse personally determined what additional information was handwritten onto the computer generated SBAR. This process had been used on the unit for approximately six months before the DNP project was implemented. There had been no formal training on the unit regarding the use of this tool nor training in analyzing what critical patient information should be added by hand.

TJC has recommended that SBAR be used as a guideline for handover communication, although there is limited research on the outcomes of this communication strategy (Holly & Poletick, 2014). Before the DNP project implementation, there had been no prior formal training on the use of SBAR hospital-wide nor the unit of implementation. SBAR has been widely utilized in healthcare to standardize the handover process. Originally established by the U.S. Navy, SBAR is used to communicate critical information and when applied in a clinical setting, can be used to organize information into a logical, easily recalled pattern that may expedite the handover process and reduce error (Eberhardt, 2014). In the health care arena, Kaiser Permanente of Colorado was one of the first hospitals to adopt the SBAR approach and develop

a worksheet outlining the format and guidelines (Institute for Healthcare Improvement, n.d.). SBAR allows for a smooth, focused way to set expectations for what information is intended for communication. The format also guides how to communicate among members of the team. These communication elements are essential for developing teamwork and fostering a culture of patient safety.

## Review of the Literature

At the inception of this DNP project, a literature review was completed by the project planner to determine the project design. The literature review was conducted by searching the CINAHL and PubMed databases using search terms such as nursing care, collaboration, communication, patient safety, communication failures, patient handover, communication training, nursing communication, and communication competency. In the body of evidence, numerous studies focused on the impact of communication failures on patient safety. There was also substantial evidence found on patient handover events and strategies to improve communication in healthcare settings. Fewer studies examine the dynamic of intraprofessional nursing communication or nursing communication competency.

Emerging themes found in the literature search guided the project design. These themes centered on the role of nursing on patient safety, the impact of communication failures on patient safety, the critical need for effective communication at patient handover, communication competence in nurses, the urgency for the creation of a culture of safety, and the power of effective communication on both intraprofessional and interprofessional relationships.

### Patient Safety: A Primary Nursing Goal

Kowalski and Anthony (2017) conducted a comprehensive literature review of the *American Journal of Nursing (AJN)* tables of contents from 1900 through 2015. The authors

identified for inclusion articles with titles that suggested a focus on nursing care, patient safety, or clinical content. The authors read and analyzed each of the final 1,086 items over a period of nine months. Their findings concluded that even though the recognition of safety threats and response of nursing have changed over time, patient safety has been a primary goal of nursing from the journal's inception in 1900. The authors identified three major themes related to patient safety throughout the 115 years covered by the analysis. These included: infection prevention, medication safety, and response to new technology.

Findings revealed that processes and procedures to improve patient safety have been recommended over the past several decades but have not been universally adopted, despite the substantial supportive evidence. The authors noted that since the Institute of Medicine (IOM) 1999 report on patient safety as a serious health concern, efforts to improve patient safety have progressed slower than anticipated. The content analysis was limited to articles published in a single journal, the *AJN*. Excluded in the evaluation were articles published in other nursing journals. However, the *AJN* is the oldest, continuously published nursing journal. This rich history provides a lens through which to view trends in patient care and safety related to nursing. One notable strength of the analysis is that the search for relevant articles and the article analyses were both conducted independently by the two authors. Kowalski and Anthony (2017) encourage that reflecting on the past and present role of the nurse in promoting patient safety and overcoming barriers to implementating safety measures may inspire all nurses to take action to improve patient safety today.

**Effective communication at Handover: Essential to Patient Care**

Kitson et al. (2014) report that evidence demonstrates that effective nursing communication is an essential component of safe, quality patient care. The authors conducted a

review of empirical and seminal literature that examines the communication behaviors of nurses at patient handover. This review included 29 peer-reviewed papers which were published between the years 1970 to 2012 and included the criteria of registered nurses' communication during handovers in adult hospital settings. The researchers found this area of literature to be challenged by a lack of consistency in terminology and methodological rigor. Additionally, they found that recent studies have not been able to elaborate on some of the critical challenges to refine the existing knowledge base. Kitson et al. (2014) concluded that a more integrated approach is necessary to understand the complex process of improving communication behaviors around nursing handover events.

From the chronology, the authors found the studies took on a different perspective over time. Early research tended to focus on resources and financial management issues around shift change. In the 2000s, patient safety issues drove many of the concerns found in literature, and more recent studies have tended to focus on technical aspects such as information processing. The terms used to describe the handover event varied across the studies. Of note, this variation of terminology also challenged this project planner when attempting a comprehensive literature search examining nursing communication during patient handover.

Kitson et al. (2014) identified seven main themes in the literature: overall purpose or primary function, report givers and receivers, seeing the whole picture, teaching or education, language, patient-centered care, and social cohesion. Initially, the overall purpose or primary function of the patient handover was a method of imparting instructions to nurses commencing their shift. This concept changed in the 1990s when the passing of information became identified as critical to maintaining continuity of care. The function of the handover was revealed to be

multidimensional from the 1990s onward. It was evident, however, that the communication of medical information, rather than nursing requirements, remained the purpose of the handover.

Communication of care evolved from a single nurse to the involvement of numerous participants, including nurses involved in direct patient care. The literature review revealed that by 1995, the roles and responsibilities of report givers and receivers differentiated. The literature review also found that the information given or received was seen to be influenced by the individual nurses' characteristics. The nurses' knowledge and experience were seen to be contributors to the complexity and variation in the information communicated. Kitson et al. (2014) found that subtle language cues and social interaction among nursing teams became essential mechanisms in familiarizing oncoming nurses to the ward or unit environment. An informal method of conversation was seen to surround the formal patient handover. Handover evolved into a two-way communication forum, and clinical teaching and education became incorporated into the handover process.

Teaching by example and provision of support to new nurses from more experienced nurses became essential components of handover. The demonstration of professional competence through information transfer was identified, with feedback viewed as necessary for professional and interpersonal development. Handover became known as a method of transitioning new nurses to the unit or ward culture. Language ranged from informal and subjective to formal, and the type of language adopted had a direct impact on the quality of handover and quality of nursing care delivered. Language cues were also expressed to influence communication, such as tone, facial expressions, or non-verbal language. These findings resulted in recommendations for the use of standard protocols to improve the process. The method of context-specific shared language systems was recommended to improve information communication.

Handovers became subjective and task-driven with a shift toward a more patient-centered approach, which resulted in a change in the physical proximity of handover events. The patient bedside was suggested to provide individualized care that engaged the patient. Interestingly, these interactions were varied and ranged from ignoring the patient with handover occurring around them to direct patient engagement. Nurses described this process of simultaneously 'speaking to' and 'speaking about the patient' as awkward and confusing to both nurse and patient (Kitson et al., 2014, p. 1234). Another interesting finding of this literature review was the description of handover as a mechanism of social cohesion, and a means for nurses to gain psychological support by discussing their anxieties about patient care. Debriefing was found to be a mode of developing group solidarity. Team building occurred through debriefing, teaching, and morale building. The ritual of the handover enabled team development.

Kitson et al. (2014) concluded that the communication behaviors of nurses, in general, and particularly at the handover, is an underdeveloped field of research. This opinion was supported by the lack of consistency in terminology and poor methodological rigor of studies reviewed. The overarching themes identified from the empirical studies provide areas of investigation and may point to possible areas of subsequent studies. An explanatory framework is needed to understand the multiple elements involved in effective communication behaviors at patient handover. A more integrated approach is required to understand the nature of nursing handover.

**The Impact of Communication Failures on Patient Safety**

The *Patient Safety Monitor Journal* (2016) highlighted an editorial interview with leading experts about why communication failures occur so often in healthcare and what hospitals can do to reduce miscommunication. For nearly two decades, communication failures

have attributed to adverse events in healthcare. A recent report evaluating medical malpractice claims, filed between 2009 through 2013 in which patients suffered some degree of harm, provides further evidence that communication failures continue to plague healthcare and impact patient safety. Researchers found that more than 7,000 cases featured at least one kind of communication breakdown and 44% of those cases resulted in severe patient injuries or death. A recent IOM report entitled *Improving Diagnosis in Healthcare* highlighted effective communication and collaboration as a critical focus area for improving patient safety (National Academies of Sciences, Engineering, Medicine, 2015). This recommendation supports the 1999 IOM landmark report, *To Err is Human: Building a Safer Health System*, which spotlights communication as a contributing factor to patient harm (Kohn, Corrian, & Donaldson, 1999). The reasons for miscommunication or failure of communication in healthcare are varied, but some commonality sheds light on this persistent problem. The urgency and critical timing of the delivery of healthcare often force rushed intraprofessional and interprofessional interactions. Other human factor components of communication failures lie in information delivery. The individual relaying information may have a lack of appreciation of whether the receiver can perceive the data to be able to analyze or use it. Lack of a standardized information exchange process may present challenges where critically essential facts fail relaying. Relying solely on electronic health records instead of engaging in two-way conversations decreases opportunities for team members to clarify information or ask questions. The vice president of the Institute for Healthcare Improvement (IHI), Frank Federico, (2015), contends that breaking down silos within healthcare is key to improving communication across specialties and providers. He further adds that nurses have information that is critical for physicians to make decisions and interaction between these disciplines should be seamless and allow all partners to see the big picture

("Communication Failures," 2016). Brian Harte, president of Hillcrest Hospital within the Cleveland Clinic, associate professor at the Lerner School of Medicine in Cleveland, and president of the Society of Hospital Medicine (SHM) recommends the use of standardized communication tools and templates as a method of increasing communication but contends that person-to-person communication must be a part of the handover process ("Communication Failures," 2016). Dana Siegal, director of patient safety for CRICO Strategies, a division of The Risk Management Foundation of the Harvard Medical Institutions, Inc., agrees that structured communication tools offer an opportunity for improved communication but only when consensus and accountability of use exist ("Communication Failures," 2016). Bob Harrington, past president of SHM, also promotes standardization of communication processes across clinician groups and the continuum of care ("Communication Failures," 2016). While there appears to be some consensus on the use of standardized communication tools, no one method seems to be superior. It is the consistent use rather than the actual mechanism that improves communication.

**Patient Handover Events: A Critical Point of Communication**

Holly and Poletick (2014) conducted a systematic review examining qualitative studies conducted between 1988 and 2012. The aim and objectives of this study were to explore the qualitative evidence on the dynamics of knowledge transfer during transitions of care in acute care hospital settings. The four-stage search strategy identified 125 qualitative studies that met the inclusion criteria. There were twenty-nine qualitative studies in the final evaluated sample. These studies represented more than 800 nursing handoff events and 300 nurse interviews. The synthesized findings of Holly and Poletick (2014) revealed the most common transition point between nurse care providers to be shift handover events. This care transition event was found to be a complex, essential function to the quality of care and patient safety. These events were

found to be subject to wide variability in both methods used and information handed off between nurses. The concept of nurses as information gatekeepers directly influencing patient care was a finding of this research. Despite the opportunity during handover events to relay critical information, these periods were found to be a time fraught with risks and hazards that could potentially result in passive or active failure of care or the inability to recognize or prevent serious patient harm. The authors found that ineffective handover events lead to wrong treatment, delays in diagnosis, severe adverse events, patient complaints, increased costs, and longer lengths of patient stay. In 2006, TJC reported that nearly 70% of sentinel events could be traced down to a breakdown in communication. These findings led TJC to issue a patient safety goal to improve communication among caregivers using a standardized approach to communication handover. In addition to a standardized approach, TJC urges providing the opportunity for asking and responding to questions (The Joint Commission, 2015). Holly and Poletick (2014) identify the communication of patient status during handover as a critical link in the chain of continuity of care and essential to the provision of safe care. During a patient transfer, nurses decide what information to convey. The authors found this streamlining of information to underscore the nurses' gatekeeper role. The review of findings calls for the incorporation of proper handover techniques as a learning requirement for all nurses. The use of a standardized communication tool has been consistently recommended for stimulation of recall for nurses, ensuring the relay of crucial issues and significant findings. The Holly and Poletick review further demonstrated that handovers allow nurses the opportunity to exchange information that will be used to make subsequent patient care decisions. The role of the nurse as a decision-maker of what information is chosen to be transmitted was a significant finding of the review (Holly & Poletick, 2014).

Nurses have significant opportunities to serve as role model collaborators to bridge gaps in healthcare systems and improve patient care delivery (Laskowski-Jones, 2015). Collaboration is a valuable skill that can be intentionally developed. Nurses must mentor colleagues and create relationships that foster collaboration (Laskowski-Jones, 2015). The American Nurses Association (2015) has identified the need to form positive working relationships and to collaborate in the Code of Ethics for Nurses with Interpretive Statements. The Code of Ethics serves as the ethical framework for nursing practice in the United States. Being collaborative requires communication competency development in intraprofessional relationships and the ability to connect and communicate with people. Intraprofessional collaboration promotes a healthy and positive work culture (Laskowski-Jones, 2015).

**Nurses' Communication Skills Enhance Competent Patient Handover**

Streeter and Harrington (2017) recently sought to describe communication behaviors identified by nurses as key to competent handover events at the change of shift. This qualitative analysis of nurses' descriptions of best and worse handovers included opinions from both incoming and outgoing nursing perspectives. Nurses described the best handovers as those providing organized, detailed, and comprehensive information. Worse quality handovers involved inaccurate or incomplete information. Nurses related the opportunity to seek and ask questions during handover as a driving factor in the continuity of patient care. Bad handovers were events that limit these opportunities.

Additionally, nurses reported that opportunities to verify information or seek clarification corresponded with best handovers and identified face-to-face events as optimal. Nurses desired relational behaviors that express a sense of warmth, trust, and concern. Nurses reported appreciation of handover communication in a calm, focused, and professional manner and

reported feelings of being rushed or hurried as indicators of lack of concern for peers. Nurses specified patient bedside as an ideal location for handover events. Calm, quiet areas with minimal distractions were felt to be conducive to effective handover (Streeter & Harrington, 2017).

Streeter and Harrington (2017) found that competent, quality handovers include specific information exchange and relational communication behaviors. This communication-based perspective may be useful in establishing handover routines that reduce communication-related patient care errors and foster a positive nursing environment. Streeter and Harrington (2017) conclude that understanding nurses' expectations for competent, quality handovers can lead to interventions to train nurses in effective handover communication. Nurses, equipped with effective communication strategies, have a better understanding of these expectations, and will be better prepared to meet complex nursing challenges (Streeter & Harrington, 2017).

Use of a standardized communication tool along with the opportunity for a face-to-face exchange promotes the recommendations from TJC related to communication goals. Nurses provide and coordinate more than 80% of patient care. Handover methods used by incoming and outgoing nurses at the change of shift are varied with little evidence supporting any specific protocol for handovers (Gephart, 2012). Gephart (2012) also reports that the quality of research related to handover protocols is lacking but speculates this may be because improving handover communication is mostly local and limited to unpublished quality improvement projects. A systematic review of 20 years of handover literature identified barriers to effective nursing handovers (Riesenberg, Leitzsch, & Cunningham, 2010). These barriers include the lack of a standardized approach to handover communication, problems with equipment, environmental hindrances, complex patients, and high caseloads. Nursing barriers include high nursing

turnover, high patient to nurse ratios, too little time, splintered team dynamics, and a lack of team cohesiveness. Evidence demonstrates that effective handovers minimize loss of information, especially when supported by structured checklists. These handovers focus on pertinent information, use a standardized structure, allow time for questions, and include face-to-face interaction (Gephart, 2012). Evidence supports limiting the actions of human factors most likely to negatively impact handover communication. Restricting reliance on memory, avoiding interruptions, decreasing excess noise, standardizing the process, and providing an opportunity for information verification through a feedback process have all been proven to improve the nursing handover process (Gephart, 2012).

**Communication Competence Effects Nurses' Job Performance**

Yu and Ko (2017) studied the effects of self-leadership and communication competence on the job performance of general hospital nurses. The study examined 211 nurses working in hospitals in South Korea. Data collected from October to December 2015 was analyzed. The authors found that self-leadership and communication competence positively correlated with nursing performance. Yu and Ko (2017) found self-leadership to be an essential factor influencing personal and organizational performance. *Self-leadership* refers to the thinking and behavior strategies that are collectively used by individuals to exercise self-influence. This vital factor emphasizes autonomy as a fundamental internal feeling of human beings. *Self-leadership* refers to a process of leading oneself and engaging in responsible behavior as independence and responsibility are given (Yu and Ko, 2017). Yu and Ko (2017) conclude that leadership that aims to secure nursing expertise and autonomy is necessary for a nursing organization and should be follower-oriented rather than leader-oriented to ensure self-sufficiency, equality, and participation of the organizational members. Communication competence was found to be

necessary for collaborative care and teamwork. Yu and Ko (2017) found that communication competency played a role in the relationship between nurses' self-leadership and job performance. The authors recommend focused communication training and education as a strategy to develop communication competency and improve job performance. Yu and Ko (2017) used the Global Interpersonal Communication Scale to measure communication competency. Higher scores on the five-point Likert scale demonstrate greater communication ability. Nurses' job performance was measured using a scale comprised of four factors, including competency, attitude, willingness to improve, and application of the nursing process. A higher score on this scale indicated that nursing work performance was high. The verification of the mediating effect of communication competency on self-leadership and job performance occurred through a three-step regression analysis. Yu and Ko (2017) found that communication competency played a partial mediating role in the relationship between nurses' self-leadership and job performance. The authors also found that as communication competence increased, job burnout significantly decreased. Based on research findings, Yu and Ko (2017) conclude that job performance can improve through self-leadership. To achieve this, it would be necessary to improve communication competency in areas of providing education and descriptions to patients or caregivers; reporting and discussing information with superior nurses, co-nurses, and staff members in other departments; and discussing patient problems with co-nurses to determine the flow of nursing services (Yu & Ko, 2017). These recommendations are consistent with an intraprofessional collaborative model of patient-centered care. These study findings further support the need for developing communication competency in nurses and the value of improved communication during critical exchange times such as patient handover events. The authors noted how improved communication competency is particularly important in maintaining

patient-centered care. The study found that organizational interest and investment for such improvement is necessary. Yu and Ko (2017) found that nurses who receive communication focused education have better communication ability, communicate more smoothly, and have greater organizational commitment than nurses who have not received such education. These findings support this DNP project that aimed to improve the communication competency of nurses through a focused educational program. Yu and Ko (2017) also encourage the implementation of educational programs aimed specifically at developing communication skills in nurses to help establish cooperative relationships between other medical personnel. This DNP project reflected the recommendation of Yu and Ko (2017) to broaden nurses' communication competency in professional collaborations.

**Evidence-Based Practice: Verification of Chosen Option**

Evidence supports the need for implementation of nursing processes and procedures that seek to decrease adverse patient events, eliminate medical errors, and improve the delivery of safe and efficient patient care. Further, evidence has found that enhancing communication among healthcare professionals, as collaborating members of healthcare delivery teams, is one avenue of reaching these goals. Nurses, as gatekeepers, play a crucial role in ensuring and contributing to the relay of critical information during patient handover events to ensure the continuity of safe and efficient care and decrease medical errors.

In keeping with TJC recommendation to implement a standardized approach to handover communication that includes an opportunity for healthcare providers to ask and respond to questions, this process improvement project was timely and warranted. The selection of the observation unit was appropriate due to the volume and frequency of handover events. The choice of nurses as participants was ideal due to the spectrum of direct patient care and the role

of the nurse as a gatekeeper. Developing a defined and structured process continues to be a goal of the chosen agency of implementation, and the leadership support of a cultural change contributed to this DNP project success. Evidence of organizational support can be found in Appendix E. Educating nurses on strategies of effective communication, and the consistency of a standardized process of information relay is pivotal to developing nursing communication competency in intraprofessional interactions that occur in the context of patient handover events. Increasing the participation of the patient and family in the bedside shift report, or patient handover, further decreases risks to patient safety and may improve patient satisfaction scores.

## Theoretical Framework/Evidence-Based Practice Model

Nurses spend a significant amount of time and energy involved with learning and teaching as they acquire new information as part of professional and continuing education or while instructing others, such as peers, subordinates, or patients. Butts and Rich (2018) identify the key to learning as experience. As healthcare continuously changes, nurses are challenged to learn new information and skills throughout a career. With the challenge of learning new information, comes the need to unlearn or relearn behaviors or attitudes. Learning is a complex process that involves the biological, emotional, cognitive, and socio-cultural dimensions (Butts & Rich, 2018). No single theory of adult learning can apply to all learners; therefore, the use of a combination of educational approaches provided a framework for the educational component of this DNP project.

Malcolm Knowles (1980) popularized the concept of andragogy, the art, and science of helping adults learn. See Figure 1, Appendix A for a diagram of Knowles' Assumptions of Adult Learners. Knowles (1980) theorized that adult learners move from dependency to increasing self-directedness as they mature and direct their learning. The adult learner draws on the accumulated

reservoir of life experiences to aid in learning and is ready to learn when assuming new social or life roles. Adult learners are problem-centered and want to apply new knowledge immediately. Internal, rather than external, factors motivate adult learners (Knowles, 1980).

At the onset of this DNP project implementation, the planner provided learners with the rationale for teaching intraprofessional communication skills. Giving this justification answered the adult learners' need to know why they were being asked to develop or improve an ability. The educational course central to this project covered the implications of communication failures on patient safety and the role of the nurse as the gatekeeper of patient care. Because adults learn by doing, instruction focused on tasks the adult participants could perform, rather than on memorization of content. This goal was achieved through implementing hands-on activities such as completing a standardized tool to guide a patient handover. Because adults are problem-solvers and learn best when the subject is of immediate use, the course included an instruction style that actively engaged the learner in solving real-life problems encountered during typical nursing duties involving intraprofessional collaboration events such as patient handover.

Using Knowles' assumptions, the educational component of this DNP project was designed to reflect the Adult Learner Theory concepts. A climate for classroom learning was designed to accommodate the adult learner. A needs assessment evaluated the learner's specific needs and interests. A copy of the results of this assessment can be found in Appendix Q. Ongoing evaluation occurred through the project planner and learner dialogue, and lastly by a pre-test and post-test evaluation survey. The participants' responses to the initial needs assessment using a Likert-type scale, and the participants' anectodical comments were used to guide and inform the course content. These techniques ensured the course content met these adult learners' specific needs and interests and aided in identifying deficiencies and gaps in

knowledge. Learners' needs, interests, and skill levels were used to develop the learning objectives. Sequential activities were designed to achieve the objectives. The project planner worked collaboratively with the learners to select methods, materials, and resources for instruction based on the initial needs assessment, pre-test evaluation surveys, and the ongoing evaluation and dialogue during project implementation. Dialogue between learners and the project planner, focus-group discussion, learner verbal feedback, and a formal post-evaluation course survey were all used to evaluate the quality of the learning experience. The comparison of pre-test and post-surveys of the participants' perceived communication competency was used to assess for changes in self-perceived competency in communication. The participants' ability to effectively use a standardized communication tool to guide handover events occured through discussion of a mock patient handover. The results were used to determine if project goals were met and to identify any residual knowledge deficiencies or gaps. The pre-test and post-test surveys enabled the project planner to determine if the participants' self-perceived communication competency improved after course participation. Participants verbalized and demonstrated proficient use of a standardized communication tool, SBAR, that was promoted during the educational program and endorsed by Hospital A for patient handover events.

The K.P. Cross (1981), Characteristics of Adults as Learners (CAL) model was a minor supporting framework for this DNP project. An illustration of the Cross model appears in Figure 2, Appendix B. This model attempts to integrate other theoretical frameworks for adults such as Knowles' andragogy (1980), Carl Rogers' experiential learning (Weibell, 2011), and lifespan psychology. Rogers' described experiential learning as one in which the student learns through significant, meaningful experiences that are not easily forgotten. There are five elements of

Rogers' experiential learning theory: personal involvement, self-initiation, pervasiveness, learner evaluation, and the essence of meaning. Weibell (2011) illustrates these five elements.

Experiential learning encompasses personal involvement in which the learner involves both feeling and cognition in the learning event. Experiential learning is self-initiated. The sense of discovery, reaching out, grasping and comprehending comes from within the learner. Experiential learning is pervasive, which makes the learning significant with a difference seen in behavior, attitude, or personality of the learner. The learner evaluates experiential learning. The learner appraises whether it is meeting his or her needs and leading toward what he or she desires to know.

Lastly, experiential learning's essence has meaning. When the learning takes place, the element of meaning to the learner builds from the whole experience (Weibell, 2011). Lifespan psychology studies how people change and grow over the course of a lifespan. Individuals grow and mature. Therefore, learning needs change, and require adaptation of educational strategies to meet the learner's developmental stage. The CAL model provides guidelines for adult education programs. The principles of this model include designing adult learning programs to capitalize on the experience of participants, adapting programs to the aging limitations of the participants, challenging learners to move to increasingly advanced stages of personal development, and giving learners as much choice as possible in the availability and organization of learning programs. The art of effectively teaching adults requires an understanding of various principles or theories of how adults learn. It also requires effort on the educator's part to apply some of those principles to practice. In this DNP project, participants had ample opportunities to engage in learning strategies that reinforced desired outcomes. The use of audio/visual presentation, supporting videos demonstrating the role of the nurse in communication, mock use of a

standardized tool, and focus-group discussion supplied multimodal learning experience opportunities. Participants also engaged in a verbal demonstration of the utilization of a standardized communication tool, SBAR, that was recommended for supplemental use in future patient handovers. Further, the implementation in practice of newly learned techniques and methods will continue to reinforce these concepts.

Lewin's Change Theory was used to provide an underpinning for this performance improvement project. Lewin's concepts of unfreezing, moving, and freezing are often employed to supply the dynamic force necessary to advance individuals and organizations in the desired outcome. The broader result of this project was to effect organizational change. Change on an individual level was found to be necessary to precede the larger, overarching goal; therefore, this DNP project aimed to increase the communication competency of individual nurses. Individual achievements can promote substantial organizational changes as intraprofessional collaboration is enhanced. The desired effect of increasing the communication competency of individual nurses was to improve collaboration in patient care during care transitions to decrease adverse events and medical errors while enhancing patient safety during an acute care hospital stay.

In Lewin's theory, the driving force toward change is one in which the participant uses a restraining force to push back the change directed their way. In any performance improvement project, there is expected pushback from affected individuals. The driving force of this DNP project toward change was the desire to decrease errors and improve patient safety and to a lesser degree, the goal of nursing administration to implement a standardized handover process that increased the participation of the patient and family in bedside shift report. Lewin describes change as a dynamic balance of these forces and not an event (Butts & Rich, 2018). Unfreezing is the act of destabilizing old behaviors which is necessary to unlearn or discard prior habits. In

this project, poor communication patterns, lack of structure in communication, or failure to relay pertinent patient information were examples of behaviors or habits the participants strived to extinguish. *Moving* enables participants or groups to switch to a more acceptable or desired behaviors. Through leadership support, focused education, coaching, individual testing, and adoption of new communication strategies, participants are now armed with the means to move toward change. *Refreezing* enables the individual or organization to return to a new state of equilibrium. The outcome of this project, improved communication competency of nurses, is anticipated to affect broader change on the organizational level. Improved nurse and patient satisfaction should evidence this change. The nurses' desire to provide safe and efficient patient care through a process of enhanced intraprofessional communication continues beyond the project implementation period.

Radtke (2013) informs that changing practice on an individual and organizational level can be intimidating. The process begins with the realization that change is required and acceptance that the switch can bring improvement. Radtke (2013) cautions, however, that change for the sake of change is often not sustainable and leaves participants with frustration. The changes required to implement this project were constructed on structure, substance, methods, and means for application. Lewin informed that change for the sake of change is stressful and unnecessary. The needs assessment conducted prior to the project implementation, focused educational training that linked communication failures to adverse patient events, and achievement of improved self-perceived communication competency of program participants, were factors that decreased the stress levels of individual participants and revealed the need for change on both personal and organizational level (Radtke, 2013). Leadership support of professional nursing development and continuous quality improvement of nursing processes

contributed to decreased stress for the program participants. Employing realistic and achievable goals further served to minimize pressure on the participants and the organization during the project implementation.

**Goals, Objectives and Expected Outcomes**

George Doran (1981), a management consultant, developed the SMART method of establishing goals and objectives. Using the acronym SMART, Doran proposed that goals represent a unique philosophy of an organization or individual. These goals should be specific, measurable, achievable, relevant, and time-specific. *Specific* goals and objectives include the who, what, and where. These goals and objectives should provide a clear description of the desired results. *Measurable* goals and objectives focus on the degree of expected change and identifies targets that indicate success. *Achievable* goals and objectives depend on realistic program resources and planned implementation. *Relevant* goals and objectives relate directly to program and activity goals. *Time-specific* goals and objectives focus on the timing of achievements.

The goals and objectives of this DNP project were designed using the Doran model as a guide. The overarching *(specific)* purpose of this DNP project was to optimize intraprofessional nursing (*who*) communication *(what)* during a standardized process of patient handover events in an acute care setting *(where)*. Two primary objectives achieved the overarching goal. The first goal was *achieved* by implementing a standardized process of communication during patient handover events. This objective was *realistic* given the availability of an existing standardized communication tool, SBAR, approved for use in acute care settings and endorsed by the leadership of Hospital A. Using SBAR to guide communication exchange at patient handover is directly *relevant* to the project goal. This objective was *measured* by direct observation of the

participating nurses' ability to competently verbalize use of an SBAR to guide communication exchange at shift change. The outcome of this objective was evidenced by the nurses' modeling SBAR competency by identifying relevant and meaningful patient-specific information on the standardized tool and verbalizing intent to use during future patient handovers after completing training *(time-specific).*

The overarching goal of optimizing intraprofessional nursing communication during a standardized process of patient handover events in an acute care setting was *achieved* by increasing the self-perceived communication competency of nurses by participation in the focused educational program. This objective was reasonable for the participant's level of education and experience and *relevant* to the overarching goal of the DNP project. A valid and reliable instrument, SPCC, was used to *measure* participants' self-perceived communication competence. These measurements were obtained before and after completion of the educational course. Increased scores from pre-test to post-test validated the outcome of this objective.

## Project Design

This DNP project began with the identification of an opportunity for improvement in verbal communication during intraprofessional nursing interactions in patient handover events at shift change. A literature review was used to lay the foundation and move the project forward in finding solutions to close the theory-practice gap. A linkage of poor communication to adverse patient events informed the educational program design. A needs assessment, conducted by the project planner, was completed using a combination of direct observation, interview, and completion of a paper-pencil Likert-type survey that was completed by the nurses of the unit of implementation. See Appendix G for the needs assessment. The assessment was used to identify deficiencies and gaps in nursing knowledge related to communication and in the use of SBAR,

endorsed by Hospital A. An evaluation of knowledge gaps or weaknesses was conducted to evaluate for possible links to existing suboptimal communication. From the needs assessment, an educational program was designed and implemented to increase the communication competency of participating nurses through use of SBAR. A teaching template was used to guide the development of the course. See Appendix N for the teaching template. Course objectives served as a guide in the development of the educational program. Upon completion of the educational training program, participants were able to:

1. Relate the threat of patient safety to communication failures. (knowledge)
2. Identify the impact of intraprofessional nursing communication on patient handover events. (comprehension)
3. Illustrate elements of effective communication. (application)
4. Compare effective communication strategies against personal philosophies and previously utilized skills. (analysis)
5. Develop proficiency in the utilization of a standardized communication tool, SBAR, to guide handover events at shift change. (synthesis)
6. Demonstrate competence in handover communication strategies. (evaluation)

A pre-test and post-test survey using a valid and proven instrument enabled measurement of self-perceived communication competence change among participants. The measurement tool, developed by McCroskey and McCroskey (1988), is protected under the Creative Commons attribution non-commercial 3.0 license. It is available for public use from the Measurement Instrument Database for the Social Sciences (MIDSS). There was no adaptation to the tool for this DNP project. The tool was used for educational purposes only and not for any commercial purposes. Data, collected from the results of the pre-test and post-test surveys, informed the

project. Methods of evaluating participants included verbalization of pertinent SBAR components and use in mock patient handovers, self-report methods such as anectodical comments, immediate participant feedback, and focus group participation with semi-structured questions. Data from these evaluations was for informational purposes only. Implementation of a standardized process of communication handover was included in this performance improvement project and is anticipated to continue. Leadership support and compliance with hospital policy to standardize the handover process at shift change will likely fuel sustained change. Future areas for research may include patient satisfaction scores, nursing satisfaction scores, and retest of self-reported communication competency after the project implementation period.

**Project Site and Population**

The site of project implementation was a regional hospital for a five-county service area in Alabama. Hospital A has a total of 323 inpatient beds and is the region's leading healthcare provider for more than 13,500 inpatients, 57,000 outpatients, nearly 1,800 newborn deliveries and 42,000 emergency room visits each year. More than 1,600 employees, 300 volunteers, and over 200 physicians, who represent a full range of medical specialties including cardiac, women's, orthopedics, oncology, and emergency services, provide healthcare to patients. At the time of project implementation, nurses comprised over 564 employees of the workforce of the agency (C. Word, personal communication, August 27, 2018).

The department of implementation was the observation unit. At the time of project implementation, this 22-bed unit was staffed of 12 full-time nurses and one part-time nurse who all worked traditional 12-hour shifts. There were six full-time nursing positions open at the time of project implementation. Employed nurses had either an Associate of Science or Bachelor of

Science degree in Nursing. Registered nurses comprised the bulk of nursing staff on the unit. Of the total employed nurses, 11 were registered nurses, and 2 were advanced practice licensed practical nurses. Nurses typically had a patient load of 4 -6 patients per shift.

No monetary resources were available for this project. The project planner was responsible for the investigational research and completion of the needs assessment before project implementation. The project planner was also accountable for the development of the educational program, the collection of data, and evaluation of program outcomes. Additional duties of the project planner included satisfying requirements set forth by the education department of Hospital A to ensure participants were eligible for continuing education credit after program participation. The project planner supplied all handouts, media needs, and presentation associated materials. There was limited advertisement for the course. The advertisement was restricted to placement of flyers on the unit of implementation and posting began four weeks before course offering, updated at two weeks earlier and again one week before the event date.

**Project sponsors and key stakeholders**. This DNP project had no sponsors. Key stakeholders included the project planner, hospital CNO, unit nurse manager, and nurses selected for participation in the educational program. The project planner acted as student investigator. The CNO and nurse manager provided administrative support and guidance for the project. The CNO agreed to serve as advisor and mentor to the project planner and met monthly to review project status and findings and provided guidance from an administrative perspective. The unit manager offered managerial expertise, mentored the project manager in project implementation, ensured storage capabilities were available for various project needs, provided space for training, provided project planner introduction to staff and answered general questions about the

performance improvement process during times when the project planner was unavailable. The unit manager provided staff guidance, additional instruction, and encouragement in using SBAR as a communication tool during project implementation and beyond to ensure the performance improvement process continues to be successful. The nurses selected for inclusion filled the role of student participants and provided feedback for evaluation and final project findings. Additional mentors were sought to inform and guide the project planner on the educational program portion of this project. Jacksonville State University (JSU) faculty provided oversight and guidance to the project planner from inception through completion. In this DNP project, the population identified for selection and participation of the focused educational course were registered and licensed practical nurses employed by the hospital and assigned to the Observation unit on a full-time, part-time or PRN basis. Lastly, the education department of Hospital A, provided support to ensure the project met all policies and protocols required for continuing education credit for participating nurses.

**Project participants**. Participation in this project was strictly voluntary. There was no monetary compensation from the project planner for participation. The participants were compensated at their standard rate of hourly pay for continued education pay by Hospital A. A signed consent form indicating the voluntary nature of involvement was secured before participation. Appendix J features a copy of the consent form. The hospital's education department staff awarded continuing education credit to participants after completion and evaluation of the course through written feedback.

Face-to-face and written invitations via handouts were conducted by the project planner. These interactions were timed to coincide with all shifts to provide an opportunity for all nursing staff participation. Advertisement occurred via an informational poster placed in the unit

breakroom, on the staff huddle board near the nurses' station, and a handout to each prospective participant (featured in Appendix F). The poster detailed the project planner's contact information and course details. A listing of all employed nurses on the unit was obtained from the unit manager and guided the distribution of written and oral invitations to participate.

The project planner collected a signed agreement, indicating the voluntary nature of participation, from nurses participating in the course before any data collection occurred. The project planner confidentially held the participant name listing in a secured site on hospital property under lock and key. Identifying participant information obtained for measurement and record keeping purposes included employee identification number and limited sociodemographic details. Sociodemographic data consisted of professional licensure, gender, sex, age, educational level, nursing experience, and prior training in the use of SBAR or other standardized communication tools. This information was held in confidence, stored under lock and key, and destroyed in the hospital shred system at project completion. Program advertisement for continuing education credit followed hospital policy. All participants requested continuing education credit, therefore, a sign-in sheet with participant name, employee number, and professional license number was completed and hand-delivered by the project manager along with the program evaluations to the educational department for record keeping and statistics. This information was then entered into the state Board of Nursing computer system by the continuing education coordinator of Hospital A for program participation credit. The request for continued education credit was optional and did not limit participation in the project. Considered for inclusion were registered and licensed practical nurses employed by the hospital working on the observation unit. Employment status was defined as full-time, part-time, or PRN.

While interprofessional communication has been proven to decrease patient safety risks and improve quality of care, this project was focused solely on intraprofessional nursing communication interactions during patient handoff events. Therefore, inclusion criteria limited participation to the nursing discipline. Length of tenure with the hospital or years of nursing experience were independent of inclusion or exclusion requirements.

The project entailed the development of a 1-hour learning module aimed to improve the communication competency of participants. The project planner led the program that included a variety of teaching strategies. These included, but not limited to, print education resources, power-point presentation, verbalization of use of the featured communication tool, and focus-group participation. The program was conducted on the hospital campus in small group sessions at multiple times to allow for participants' schedules. There was no use of patient data nor patient participation. A pre-test and post-test survey of participants' self-perceived communication competence was collected and analyzed for assessment and conclusion of project findings. The instrument, SPCC, chosen for the pre-test and post-test evaluation, has been proven to be valid and reliable.

**Setting facilitators and barriers.** Barriers that impacted the project included limited financial resources for print material and educational handouts, limited time for participant response following the educational program, and small participant enrollment. Other factors of concern were potentially unclear desired outcomes of the project, lack of participant motivation to change personal or organizational processes, participant fear of change, possible participant apathy, and risk of project planner failure to match teaching strategies to the learner's desired modes of instruction. Barriers related to the implementation setting included distractions, occasional interruptions, and lack of privacy for group discussion and mock use of the

standardized communication tool. Noise level, lack of audio-visual capabilities, limited classroom space, and seating capacity of the environment were additional challenges. Variation in quality of repeated educational sessions and fatigue level of participating nurses at the time of instruction were factors that were considered to be potential barriers.

**Strategies to overcome potential barriers.** Limited project funding spurred the creative use of less costly technological resources instead of print material for educational handouts. To combat the concern of low enrollment or participant fatigue, the project planner encouraged participants to enroll in the program offering options at times most convenient to them and those most likely to be conducive to optimal learning. The project planner allowed time before and after educational program offerings for small group or individual participant response and interaction and provided opportunities for one-on-one coaching sessions if requested. The concern for potential low participant enrollment was addressed through both the project planner and organizational leadership's encouragement and by the compelling demonstration of the need for communication training and organizational change. Both written and verbal invitations were extended on multiple occasions to encourage increased enrollment numbers. Additionally, as incentive, participants clocked-in for the time invested in the continued education course offering.

Identification of the desired outcomes of the project at the outset decreased potential participant confusion related to project goals. Verbal and written explanation supported the goal. Increasing the participants' awareness of proven threats to patient safety linked to poor communication at handover, leadership support, and enforcement of hospital policy to utilize a standardized process of communication during handover opposed potential participant apathy or lack of motivation to change personal or organizational processes. Some minor participant fear

of change was anticipated but was not expressed by any of the participants. This concern diminished when teaching strategies matched the learners' needs, and when participants actively engaged as they grew in their self-perceived communication competence and skill in using the featured communication tool.

Setting realistic and achievable goals at the outset of the organizational change has been proven to decrease the anxiety of affected individuals. The goals and objectives of this performance improvement project were specific, measurable, assignable, realistic, and time-specific. The goals and objectives were shared and readily available to participants for subsequent review. Lastly, the project planner employed a multi-modal method of educational instruction to address the possiblity of failing to match teaching strategies to learners' desired mode of instruction. This design allowed a variety of ways to expand knowledge and skill. Using theories specific to the needs of adult learners provided a framework for the educational program design.

The barriers and potential obstactles related to the physical setting for instruction were minimized as much as possible before implementation. Classroom space, secured in advance through the hospital's education department, decreased some of these potential barriers. This equipped space provided simple, but adequate audio-visual capabilities and seating was limited but conducive to a small-group learning environment. The designated area was conveniently located on the hospital campus and has been designed to provide an atmosphere that minimizes distractions and excessive noise levels. Utilizing an area capable of ensuring participant freedom to interact with the project planner and dialogue without fear of violating privacy policies answered potential concerns related to lack of privacy. The interruptions occurring during the

educational course were chiefly from other nurses arriving early for subsequent educational sessions unrelated to the DNP project. Interrruptions were not problematic in the second session.

The educational program sessions of this DNP project were structured to be consistent with each repeated session. While there were some minor variations related to the level of participant interaction, the course core did not vary in content delivery to ensure each participant received consistent training and instruction. Participants were encouraged to enroll in the educational program outside of regularly scheduled work times to avoid concerns of human fatigue, unit downtime, and potential distractions.

## Implementation Plan/Procedures

An educational program focused on optimizing communication among nurses during handover events was developed for this project. The project planner offered two separate course offerings to allow for small groups, individual instruction, and to accommodate for space limitations of the learning environment. The course was offered on Friday, February 22, 2019, from 0800 to 0900, and Monday, February 25, 2019, from 0800 to 0900. Participants were free to select either session. A total of seven nurses participated in the program. Participation was strictly voluntary and limited to those meeting the inclusion criteria. Securement of informed consent, in writing, occurred before participation and data collection. Appendix J features a copy of the consent form. Distribution of paper flyers, advertisement postings, and face-to-face recruiting efforts by the project planner began four weeks before the in-service event. See Appendix K for a copy of the advertisement. Repeated recruitment efforts were ongoing before the event. Informed consent forms were collected during the week before the course and accepted up to the day of the program offering.

A variety of instructional strategies were implemented to meet a range of learning styles. Consistency and standardization of the patient handover process was a central theme. The topics of instruction focused on the use of SBAR, the relationship of communication on patient safety, the importance of clear and effective communication, and the role of the nurse as gatekeeper and facilitator of patient-specific information to peers during handover events. Vital intraprofessional collaboration in the acute care setting was discussed. Engagement of the patient and family in bedside shift report was a secondary theme as well as conducting a focused physical assessment of the patient and safety assessment of the patient room during these patient handover events.

A PowerPoint presentation, combined with the corresponding lecture, introduced participants to highlights of the risks of communication errors on patient safety and financial implications to healthcare agencies. Focus group discussions were used as a mechanism for participants to evaluate previously used methods of delivering patient handover at shift change. Participants were asked to complete a written pre-test survey evaluating their self-perceived communication competence. Participant responses were scored using the developer's written instructions. The project planner, through PowerPoint presentation and lecture, highlighted research findings of effective patient handover strategies and best-practice recommendations from TJC and The Agency for Healthcare Research and Quality (AHRQ). Participants evaluated these best-practice recommendations through group discussion, question and answer participation, and completion of a blank communication tool.

Peer-to-peer discussion and return demonstration of completion of SBAR enabled participants the opportunity to apply newly developed skills. Participants were encouraged to further examine their self-perceived communication competence surveys as an additional opportunity for self-reflection. Instruction on accurate completion of SBAR occured through

PowerPoint illustration, project planner instruction, and hands-on return demonstration. Participants engaged in both individual and group activities that supported the development of standardized form completion and were provided opportunity for return demonstration. A peer-to-peer comparison of SBAR completion exercise provided participants the opportunity to demonstrate the culmination of new knowledge and skills (see Appendix L for PowerPoint presentation). Peer-to-peer collaboration utilizing SBAR as a critical component of intraprofessional communication exchange reinforced the need for effective communication. A group discussion format allowed evaluation of the featured tool to drive patient handover and increase patient engagement. Lastly, a written post-test survey of self-perceived communication competence was conducted after the presentation, mock simulation, and group discussion activities. Reassessment of participant's self-perceived communication competency was completed utilizing the same tool and scoring method from the pre-test survey. The survey data was compared to pre-test results to evaluate for changes in participating nurses' self-perceived communication competence after involvement in the program. Participants were required to complete a post-course evaluation supplied by the education department per agency protocol for continued educational credit.

Gilboy, Heinerichs, and Pazzaglia (2015) advocate for innovative classroom approaches focused on learner-centered instruction. These authors caution against relying solely on traditional lecture as a method of instruction. This approach takes classroom time away from challenging student's thinking, guiding them to solving practical problems, and encouraging the direct application of material through active learning strategies. Gilboy et al. (2019) inform that knowledge must be constructed or reconstructed by individuals trying to make sense of new information in light of what they already know. The process of constructing or reconstructing is

best done through active-learning strategies (Gilboy et al., 2015). These strategies include problem-based learning, simulation, and peer-to-peer sharing. These principles were utilized in this DNP project. Using a combination of teaching methods ensured participant engagement. Proven methods of audience engagement strategies that promote information retention include lectures, use of visual aids, return demonstration activities, opportunities for self-reflection, group discussion, question-and-answer segments, role-play exercises, and simulation.

Achievement of learning objectives occurred through a variety of methods. Participants verbally defined the impact of adverse patient events related to communication through small-group discussion after the PowerPoint presentation. Participants explained nursing events that require optimal intraprofessional nursing communication through question-and-answer activities and group discussion. Participant responses and feedback were evaluated in focus-group discussion. Participants completed a paper-pencil pre-test survey of self-perceived communication competence using the SPCC, which was used to provide statistical data for the project and gave participants a mechanism for self-reflection and insight. Participants demonstrated effective communication during return demonstration of completion of the standardized communication tool, question-and-answer sessions, small group discussions, and semi-structured questions.

Participants were asked to evaluate effective and ineffective communication strategies through question-and-answer sessions and small-group discussion. Participants completed the communication tool by handwriting or denoting key information in the appropriate sections of the standardized form. Competency was evaluated through return demonstration. Lastly, participants engaged peers in evaluating the featured standardized tool as an effective method of delivering verbal and written communication during intraprofessional exchanges and as a

mechanism for increasing patient and family engagement in the bedside shift report. Feedback from peers and the project planner validated participants' skill. A post-test survey of participant's self-perceived communication competence using SPCC was conducted by paper-pencil and self-scored after completion of the educational session. Results were evaluated by the participants and the project planner to assess for change in self-perceived communication competence after completion of the focused training. The results of the pre and post-test surveys supported the need for training related to communication competence.

**Measurement Instruments**

The primary data utilized in this project was the program participants' self-perceived communication competence at pre-test (before participation in the focused educational session) and post-test scores (after participation). Data, collected through the survey tool, SPCC informed the project. The primary purpose of measuring at these two points was to assess for change in nurses' self-perceived communication competency after participation in the focused educational program.

The SPCC is designed to obtain information concerning how competent participants feel in various communication contexts and with different types of receivers. This scale, developed by McCroskey and McCroskey (2013), is intended to let the project participant define communication competence rather than the project planner or outside observer. The SPCC, found in Appendix C, was utilized in this project for the primary purpose of measuring participant's perceived communication competence at pre-test and post-test points. This tool has generated good alpha reliability estimates (above .85) and has strong face validity. It has been found to have substantial predictive validity (McCroskey & McCroskey, 2013).

A standardized communication tool, SBAR (Institute for Healthcare Improvement, 2017) was utilized in this project. This SBAR additionally featured elements considered by AHRQ to be critical to a bedside shift report. These elements include inviting the patient and family to participate in bedside shift report, access to the electronic medical record from the patient room, and conducting a verbal report with the patient and family. Additional elements that are recommended for inclusion are conducting a focused assessment of the patient, conducting a safety assessment of the patient room, review of tasks to be done, and assessing patient and family needs or concerns. Considered the gold standard handoff structure, SBAR was developed and effectively used during submarine duty handoff by the US Navy (Shahid & Thomas, 2018). This standardized form, designed for improving communication, served as a tool for gathering and relaying patient information in this DNP project. SBAR has been long recognized for its usefulness in a variety of settings to transmit critical information succinctly. SBAR has been successfully adapted for use in acute care settings. TJC, AHRQ, Institute for Health Care Improvement (IHI), and World Health Organization (WHO) recognize SBAR as a useful communication tool for patient handoff. SBAR has been proven to be a reliable and validated communication tool. Consistent use of SBAR has been shown to reduce adverse events in the hospital setting, improve communication among health care providers, and promote patient safety (Shahid & Thomas, 2018). The primary rationale for using SBAR as a communication tool resource in this DNP project was the recommendation and endorsement of its use by industry experts, and the participating hospital and leadership's urgency to consistently implement the routine use of this specific tool with all patient handover events. The rationale for including the critical elements identified by AHRQ in bedside shift report on the SBAR was to introduce new knowledge to the participants and secondarily to increase nurses' communication

with the patient and family. Including the AHRQ elements also supports the importance of conducting a focused physical assessment of the patient and safety assessment of the patient room. See Appendix D, for example.

**Data Collection Procedures**

After recruitment and securement of participants' written consent, the educational in-service occurred. Participants completed a pre-survey assessment of self-perceived communication competence using the SPCC. Survey completion occurred in the introductory part of the educational program. Upon completion of training, a post-survey was conducted using the SPCC. These surveys were used to measure the participants' self-perceived communication competence after completion of the focused educational training. The tool, SPCC, is specifically designed to capture the type of data that was desired in the DNP project.

**Data Analysis**

The project planner analyzed and verified the SPCC scores of the pre-survey and post-survey results after participant completion. There was no deviation from the recommended manner of scoring the SPCC developed by the author (McCroskey & McCroskey, 2013). The SPCC scores were then used to conduct a paired, two-tailed, *t*-test. This statistical analysis was used to test the difference between the same group means at the two points in time, pre and post-test (Sylvia & Terhaar, 2014). The significance level was set at the standard, $p = < .05$. The hypothesized mean difference was set at 0. Microsoft Excel was utilized to manage and analyze the data by applying the Analysis ToolPak add-in features. Results are reflected in Appendix O.

The mean SPCC pre-test score of participants was 82.021 and at post-test 88.092. A total SPCC score >87 reflects a high self-perceived communication competence with basic communication contexts and receivers (McCroskey & McCroskey, 2013). A total SPCC score

<59 reflects a low self-perceived communication competence with basic communication contexts. There were seven participants in this pilot. Among those nurses, four demonstrated no change in scores from pre to post-test. In the remaining three participants, there was a small increase from the pre to post-test SPCC score; however, these results, *paired* $t(6) = 1.37$, $p = 0.21$, were not found to be statistically significant. The analysis is reported in Appendix O.

**Cost-Benefit Analysis/Budget**

The costs of researching, planning, implementing, and analyzing the results of this DNP were the sole responsibility of the project planner. Hospital A supplied reproduction costs of the handout material, classroom training space, some audio-visual equipment, and seating for the educational sessions of the project. There was no compensation to participants from the project planner. However, they did clock-in per hospital policy for continued education time. It is expected that continued and sustained use of SBAR will likely continue now that the project has been implemented. Hospital A will bear all future costs related to the continuation of this process improvement.

Placing a cost-benefit figure on this project would be difficult as adverse events, and medical errors related to communication inefficiencies are impossible to track. Consistent use of a standardized process of patient handover may improve the administrative costs of employee overtime that occurs with the standard shift change method. A more efficient and timely handover process could offset these administrative expenses. Again, these figures would be difficult to track due to the wide variation in personal communication styles, the time required for question-answer opportunities, the complexity of patient conditions, the volume of information relayed and the organizational skills of each nurse participating in communication interactions. Expenditures associated with increasing efficiency in nursing processes that directly

result in increased patient safety and improved efficacy of patient care are a worthy investment for this organization.

The administrative leadership team at this agency endorsed and fully supported the implementation of this DNP project as the team has a strong desire to increase process efficiency and improve patient care. Overall, the nominal costs to Hospital A for this DNP project and the anticipated continuation of the performance improvement project were a worthy investment of the organization's resources and a positive step toward creating a culture of patient safety. There was a considerable investment of time on the project planner's part from initial research to completion of this DNP project. An investment of 630 hours in mentoring relationships, leadership development, and professional advisement were completed to satisfy university program requirements. There were additional hours spent in research, preparation, interpretation, and dissemination of project findings undertaken by the project planner. While patients of Hospital A bore no costs related to this project, they are expected to be the final recipients of this considerable investment of human resources.

**Timeline**

The planning and design of this DNP project began Summer of 2018 and continued through Fall of 2018. The needs assessment and course design were ongoing during this period. IRB approval for both the agency and the educational institution were completed before recruitment and solicitation of participants. The educational course and training of participants occurred in February of 2019. Evaluation of course outcomes and preparation of project results continued through the Spring of 2019. Dissemination of results to the organization and the university occurred in the Summer of 2019. The final culmination of the project findings through

poster and podium presentation occurred June 21, 2019, on the campus of JSU (see Appendix M for a timeframe illustration).

## Ethical Considerations/Protection of Human Subjects

The securement of JSU IRB approval was obtained before initiating this DNP project. See Appendix I for institutional support letter. The IRB of Hospital A also endorsed this project. See Appendix H for hospital IRB approval. Nurses were asked to commit personal time for participation in the educational program, ongoing on-the-job training, and small focus group training sessions. The nurses were also asked to make changes or adaptations to existing personal and unit processes for participation in this performance improvement project.

The project planner anticipated there might be some minor feelings of discomfort, possible fear, apathy, or participant resistance related to these requested changes. Participation was strictly voluntary with no penalties for participants who opted out of the project. It is the opinion of the project planner that this decision could have caused some minor discomfort and concern for participants for fear of affecting existing relationships with the hospital, CNO, unit manager, peers, project planner, or the affiliated educational institution. Declination to participate was very unlikely to impact current or future relationships with individuals or the affiliated academic institution but could not be guaranteed. There was no special compensation for nurses who elected to participate. There were no financial costs to participants to take part in the educational course. Participants received no financial benefit from the project planner.

A breach of confidentiality was the most significant risk of this project. The likelihood of a breach was minimal because the project planner was committed to the protection of the data. Therefore, there was no unintended disclosure of information throughout the study. Course participants were given an alternative to decline participation without penalty and had the right to

withdraw at any time with no penalties or consequences. Information obtained from the project was kept confidential to the extent allowed by law. However, research information that identifies participants or study results may be required to be shared with both the JSU and the hospital IRB board and others who are responsible for ensuring compliance with laws and regulations related to research and the Office for Human Research Protection (ORP). Electronic data specific to this project was secured on the project planner's university-issued laptop. This data was password protected, and anti-virus software kept current and updated throughout the development and implementation phases. The print material was housed on the hospital campus under lock and key and accessible only by the project planner and unit manager. This data was secured in the learning lab in a locked cabinet until project completion, after which it was destroyed in the hospital shred system. The culmination of findings from this DNP project may be published for educational purposes or presented in professional or academic settings; however, the disclosure of the identity of participants is not anticipated.

## Results

There were many lessons learned by the project planner during the planning and implementation of this DNP project. The needs assessment, designed by the project planner and completed by the unit nursing staff, reflected the nurses' desire to ensure the safety of patients admitted to the observation unit. Eight of the twelve staff nurses participated in the needs assessment. All respondents indicated they were committed to high quality care to patients, decreasing patient safety risks, and improving processes. Nearly 88% of respondents agreed or strongly agreed that communication on the unit could be improved. These results were encouraging to the project planner and served to build a strong foundation for an educational course emphasizing enhanced intraprofessional communication.

**Implementation of the DNP Project: The Journey**

A total of seven participants completed the project educational course. This group consisted of five registered nurses (RN), and two licensed practical nurses (LPN). All participants were female. Every participant had greater than five years of nursing experience. Eight-six percent of participants reported having had some prior training on healthcare related communication. There were no participants under the age of 31 years old. The majority of participants (57%) hold an Associate Degree in Nursing. See Appendix Q for participant demographic details.

Concern for patient safety was an apparent theme identified in the small group discussions during the educational program. Introduction of the critical elements identified by AHRQ was new information for every participant. Other revelations expressed by participants was the nurses' role as gatekeeper of patient information. A discussion related to individual nurses' determination of what patient specific information is passed on and to whom during patient handover events unveiled the many and varied roles of the acute care nurse. There was reflection by several nurses on prior methods of conducting patient handovers. Some of these mentioned methods, such as audio taped or exclusively handwritten, were highlighted by participants as ineffective methods of communication compared to face-to-face interactions. All participants expressed a desire for opportunities to seek and ask questions during the patient handover events, as recommended by TJC.

The allotted time for the program was primarily taken up by the PowerPoint presentation with corresponding lecture that included semi-structured questions and participant feedback and group discussion. In retrospect, the project planner did not allow ample time for simulation or adequate time for mock demonstration of the communication tool completion. There was also

limited time for discussion and comparison of the SPCC scores. Participants remarked that the tool was “confusing” and “scattered.” The complexity of the tool limited its usefulness in self-revelation. The learning environment was conducive to small groups but unlikely to promote groups larger than four to five participants due to size constraints. Interruptions were somewhat problematic due to other nurses’ arriving early for a subsequent class unrelated to the DNP project. The project planner timed the DNP course to coincide with a required competency class for nurses as a strategy of increasing attendance. This approach was effective in increasing attendance but impacted the privacy of the first educational session offering. At the second course offering, attendance was significantly decreased when the schedules for the DNP course and a mandatory competency course were not subsequent. There were, however, no concerns with privacy and the limited space size was not a barrier at this offering. There were no interruptions during the second session. The smaller second session limited the meaningful group discussion and reflection found in the initial educational session.

**Evaluation of Project Effectiveness**

The PowerPoint presentation, combined with the corresponding lecture, effectively stimulated discussion of the risks of communication errors on patient safety. The focus group discussions allowed participants to evaluate previously used methods of conducting shift handover compared with current industry best-practice recommendations. Participants were able to verbalize recommendations from TJC and AHRQ after the course. Further evaluation of these recommendations occurred through group discussion and question and answer dialogue with the project planner. Participants were able to demonstrate completion of the featured standardized communication tool, enabling the application of newly developed skills. Peer-to-peer collaboration utilizing the tool for communication exchange reinforced these new concepts. Peer

sharing resulted in constructive dialogue and highlighted the role of the nurse as a creative problem solver.

The project planner intentionally implemented a combination of teaching methods to ensure participant engagement. The PowerPoint presentation with supporting visual aids, return demonstration activities, and structured opportunities for self-reflection, group discussion, and question-and-answer segments provoked interesting dialogue and good participation. Insufficient time prohibited the inclusion of a mock bedside low-fidelity simulation as originally planned as part of the course design. While this led to some disappointment on the project planner's part, the small group discussions were productive as evidenced by participant feedback and comments.

Achievement of learning objectives was met, even with the omission of the low-fidelity simulation as originally planned. After the program, participants were able to verbally define the impact of adverse patient events related to communication through small-group discussion. Participants explained nursing events that require optimal intraprofessional nursing communication through question-and-answer activities and group discussion. Participants demonstrated effective communication during demonstration of completing the standardized communication tool, as well as question-and-answer sessions, small group discussions, and semi-structured questions posed by the project planner. Lastly, participants engaged peers in evaluating the featured standardized tool as a new method of effectively delivering verbal and written communication during the primary patient handover event on the unit, the bedside shift report. Participants also evaluated the standardized tool as a mechanism for increasing patient and family engagement in future bedside shift report events. Feedback from participants regarding the tool was overwhelmingly positive. There was insufficient time for participants to fully evaluate their individual SPCC scores or discuss personal communication styles or beliefs.

There was discussion on the impact of poor nursing communication on job satisfaction, and several participants expressed interest in research studies that evaluate these variables.

**Conclusion**

In conclusion, the project planner realizes that even under ideal circumstances, recruiting acute care nurses to participate in a non-mandatory, educational course proves challenging, even when participants feel strongly about the course topic. In retrospect, the project planner also realizes that a simulation activity takes careful planning and adequate time to realize its potential as an adult teaching strategy. It is apparent that nurses, including those on the unit of project implementation, are dedicated to ensuring that safe, effective care is delivered under their watch. It is also evident that peer communication impacts job satisfaction among nurses.

The sustainable product, which could be instituted at this agency, would be in the form of an online educational course focused on communication competence. This course would be housed in the agency's employee education portal. An additional product, a new enhanced standardized communication tool, was introduced to the participants. If approved by administration, a modification to the existing electronic standardized handover tool could be undertaken to reflect the new enhanced tool introduced to program participants by the project planner. These products are very likely to impact future patient handover events, chiefly the bedside shift report, as evidenced by participant feedback. Collection of data through the tool, SPCC, failed to lend any credible evidence that a focused educational course improves the communication competency of participating nurses. Nurses with high pre-test self-perceived communication competency scores demonstrated only very slight or no increase in post-test scores. There was a noted increase at post-test in participants with lower pre-test self-perceived communication competency scores. The small sample size impacts the confidence of stating the

differences are significant. A larger number of participants would be needed to evaluate the statistical significance, the impact of subsequent training on this unit or inclusion of other units of the hospital. It is also unclear if higher self-perceived communication competency scores translate to optimal intraprofessional communication during patient handover events. Evaluating the correlation between communication skills and patient safety remains a largely underdeveloped field of research, as evidenced by the paucity of literature specific to the interests of this DNP project. Additional research is also needed to evaluate the feasibility of redesigning the current electronic SBAR version embedded in the electronic medical record to reflect current best-practice recommendations as featured in the enhanced standardized tool utilized in this DNP project educational course.

Given the interest of participants in discussing the relationship between nursing communication and job satisfaction, further research should be considered in this area. An additional area of research that could be evaluated is the relationship between implementing a standardized approach of patient handover to patient satisfaction rates. The standardized communication tool utilized in this DNP project has been specifically designed to include the critical elements recommended by AHRQ to increase patient and family engagement. Further research that compares nursing communication focused on increasing patient engagement with lengths of stay would be timely and of interest to most healthcare organizations. This research would likely garner attention of most healthcare organizations concerned with increasing patient satisfaction, delivering effective and efficient care while decreasing overall costs. Exploring interprofessional (different disciplines) communication is another area of research underdeveloped. Lastly, exploring new and dynamic methods of recruiting nurses for ongoing, continued education stands out to this project planner as an area of interest and a worthwhile

investment. Nurses have historically proven to be creative and innovative. Finding avenues to engage nurses as life-long learners is crucial to sustaining evidence-based practice and in translating research findings to practice.

In conclusion, safe and effective care is a realistic and achievable goal for the healthcare consumer and healthcare provider. Through collaboration and coordination of care, nursing professionals can nurture a culture of patient safety. Improving communication between care team members during transitions of care effectively harmonizes patient care and contributes to healthcare efficiency. Nurses proactively decrease opportunities for adverse events and threats to the patient by ensuring pertinent patient information is relayed. By standardizing the process of communication during patient handover events, nurses optimize intraprofessional nursing collaboration along the continuum of care and increase patient safety. The implementation of a standardized method of communication decreases the likelihood of adverse events related to communication failures and enables effective information exchange in the challenging, multi-faceted, and complex care situations found in acute care settings. As gatekeepers and effective communicators, nurses are a critical link in the chain of continuity of care and essential care team members targeting safe and effective patient care.

References

American Nurses Association. (2015). *Code of ethics for nurses with interpretive statement*. Retrieved from https://www.nursingworld.org/coe-view-only

Butts, J. B., & Rich, K. L. (2018). *Philosophies and theories for advanced nursing practice* (3rd ed.). Burlington, MA: Jones & Bartlett Learning.

Centers for Medicare and Medicaid Services. (n.d.). *Hospital compare: General information*. Retrieved from https://www.medicare.gov/hospitalcompare/compare.html#cmprTab=0&vwgrph=1&cmprID=010078%2C010146%2C010038&cmprDist=0.7%2C11.7%2C0.7&dist=50&loc=ANNISTON%2C%20AL&lat=33.6598257&lng=-85.8316318

Centers for Medicare and Medicaid Services. (n.d.). *Hospital compare: Survey of patient experiences*. Retrieved from https://www.medicare.gov/hospitalcompare/compare.html#vwgrph=1&cmprTab=1&cmprID=010078%2C010146%2C010038&cmprDist=0.7%2C11.7%2C0.7&dist=50&loc=ANNISTON%2C%20AL&lat=33.6598257&lng=-85.8316318

Communication failures continue to plague patient care [Editorial]. (2016). *Patient Safety Monitor Journal*, *17*(4), 1-4.

Cross, K. P. (1981). *Adults as learners*. San Francisco, CA

Doran, G. (1981). There's a SMART way to write management's goals and objectives. *Management Review*, *70*(11), 35. Retrieved from http://community.mis.temple.edu/mis0855002fall2015/files/2015/10/S.M.A.R.T-Way-Management-Review.pdf

Eberhardt, S. (2014). Improve handoff communication with SBAR. *Nursing, 44*(11), 17-20. https://doi.org/http://dx.doi.org.lib-proxy.jsu.edu/10.1097/01.NURSE.0000454965.49138.79

Gephart, S. (20*12*). The art of effective handoffs: What is the evidence? *Advanced Neonatal Care*, 12(1), 37-39. https://doi.org/doi:10.1097/ANC.0b013e318242df86

Gilboy, M. B., Heinerichs, S., & Pazzaglia, G. (2015). Enhancing student engagement using the flipped classroom. *Journal of Nutritional Education and Behavior*, *47*(1), 109-114. https://doi.org/10.1016/j.jneb.2014.08.008

Holly, C., & Poletick, E. (2014). A systematic review on the transfer of information during nurse transitions in care. *Journal of Clinical Nursing*, *23*(17/18), 2387-2396. https://doi.org/http://dx.doi.org.lib-proxy.jsu.edu/10.1111/jocn.12365

Hsu, L., Chang, W., & Hsieh, S. (2015). The effects of scenario-based simulation course training on nurses' communication competence and self-efficacy: A randomized controlled trial. *Journal of Professional Nursing*, *31*(1), 37-39. https://doi.org/http://dx.doi.org/10.1016/j.profnurs.2014.05.007

Institute for Healthcare Improvement. (2017). SBAR: Situation-Assessment-Background-Recommendation. Retrieved from http://www.ihi.org/resources/Pages/Tools/SBARToolkit.aspx

Institute for Healthcare Improvement. (n.d.). *Development of a culture of safety*. Retrieved from http://www.ihi.orgIIHLITopics/PatientSafety/MedicationSystems/Changes/Develop+a+Culture+of+Safety.htm

Judd, M. (2013). Broken communication in nursing can kill: Teaching communication is vital. *Creative Nursing*, *19*(2), 101-104. https://doi.org/http://dx.doi.org.lib-proxy.jsu.edu/10.1891/1078-4535.19.2.101

Kitson, A., Athlin, A., Elliott, J., & Cant, M. (2014). What's my line? A narrative review and synthesis of the literature on registered nurses' communication behaviours between shifts. *Journal of Advanced Nursing*, *70*(6), 1228-1242. https://doi.org/http://dx.doi.org.lib-proxy.jsu.edu/10.1111/jan.12321

Knowles, M. (1980). *The modern practice of adult education: Andragogy versus pedagogy* (Rev and updated ed.). Englewood Cliffs, NJ: Cambridge Adult Education.

Kohn, L., Corrian, J., & Donaldson, M. (1999). *To err is human: Building a safer health system*. Washington, DC: National Academy Press.

Kowalski, S., & Anthony, M. (2017). Nursing's evolving role in patient safety. *American Journal of Nursing*, *117*(2), 34-50.

Laskowski-Jones, L. (2015). Making the case for collaboration [Editorial]. *Nursing 2015*, *45*(11), 6. https://doi.org/DOI-10.1097/01.NURSE.0000472520.09610.04

Makic, M. F., & Bueno, E. (2016). Improving interprofessional communication through structured rounds. *Journal of PeriAnesthesia Nursing*, *31*(4), 340-342. https://doi.org/https://doi-org.lib-proxy.jsu.edu/10.1016/j.jopan.2016.05.001

McCroskey, J. C., & McCroskey, L. L. (1988). Self-report as an approach to measuring communication competence. *Communication Research Reports*, *5*, 108-113. https://doi.org/www.jamescmccroskey.com/measures/communication_competence.htm

McCroskey, J. C., & McCroskey, L. L. (2013). Self-Perceived Communication Competence Scale (SPCC) [Measurement Instrument]. Published instrument. Retrieved from www.midss.ie

National Academies of Sciences, Engineering, Medicine. (2015). *Improving diagnosis in healthcare.* Washington, DC: The National Academies Press. Retrieved from https://doi.org/10.17226/21794

Radtke, K. (2013). Improving patient satisfaction with nursing communication using bedside shift report. *Clinical Nurse Specialist - The Journal for Advanced Nursing Practice*, *27*(1), 19-25. https://doi.org/http://dx.doi.org.lib-proxy.jsu.edu/10.1097/NUR.0b013e3182777011

Riesenberg, L. A., Leitzsch, J., & Cunningham, J. (2010). Nursing handoffs: A systemic review of the literature. *American Journal of Nursing*, *110*(4), 24-34.

Shahid, S., & Thomas, S. (2018). Situation, background, assessment, recommendation (SBAR) communication tool for handoff in health care - A narrative review. *Safety in Health*, *4*(7), 2-9. https://doi.org/10.1186/s40886-018-0073-1

Streeter, A. R., & Harrington, N. G. (2017). Nurse Handoff Communication. *Seminars in Oncology Nursing*, *33*(5), 536-543. https://doi.org/http://dx.doi.org.lib-proxy.jsu.edu/10.1016/j.soncn.2017.10.002

Sylvia, M. L., & Terhaar, M. F. (2014). *Clinical analytics and data management for the DNP*. New York, NY: Springer Publishing.

The Joint Commission. (2015). *Root causes by event type: 2004-2014*.

U.S. Department of Defense. (n.d.). *Situation, Background, Assessment, Recommendation (SBAR) toolkit*. Retrieved from https://health.mil/Military-Health-Topics/Access-Cost-

Quality-and-Safety/Quality-And-Safety-of-Healthcare/Patient-Safety/Patient-Safety-Products-And-Services/Toolkits/SBAR-Toolkit

Weibell, C. J. (2011). Principles of learning: 7 principles to guide personalized, student-centered learning in the technology-enhanced, blended learning environment. Retrieved from https://principlesoflearning.wordpress.com/dissertation/chapter-3-literature-review-2/the-human-perspective/freedom-to-learn-rogers-1969/

Yu, S., & Ko, Y. (2017). Communication competence is a valuable resource for improving nursing performance. *Collegian*, *24*(5), 421-425. https://doi.org/https://doi.org/10.1016/j.colegn.2016.09.002

Appendix A

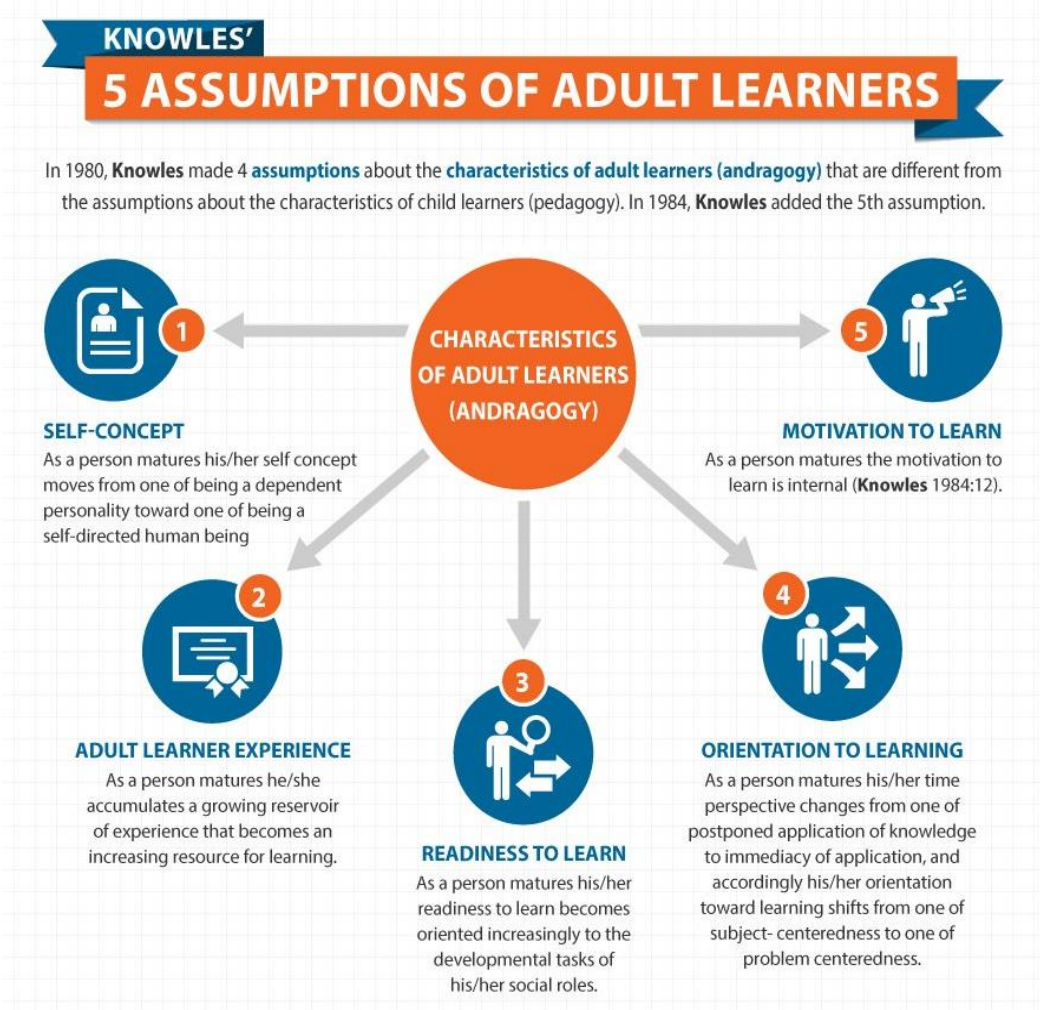



Figure 1: Knowles' Assumptions of Adult Learners

Reference

Knowles, M. (1980). *The modern practice of adult education: Andragogy versus pedagogy* (Rev and updated ed.). Englewood Cliffs, NJ: Cambridge Adult Education.

Appendix B

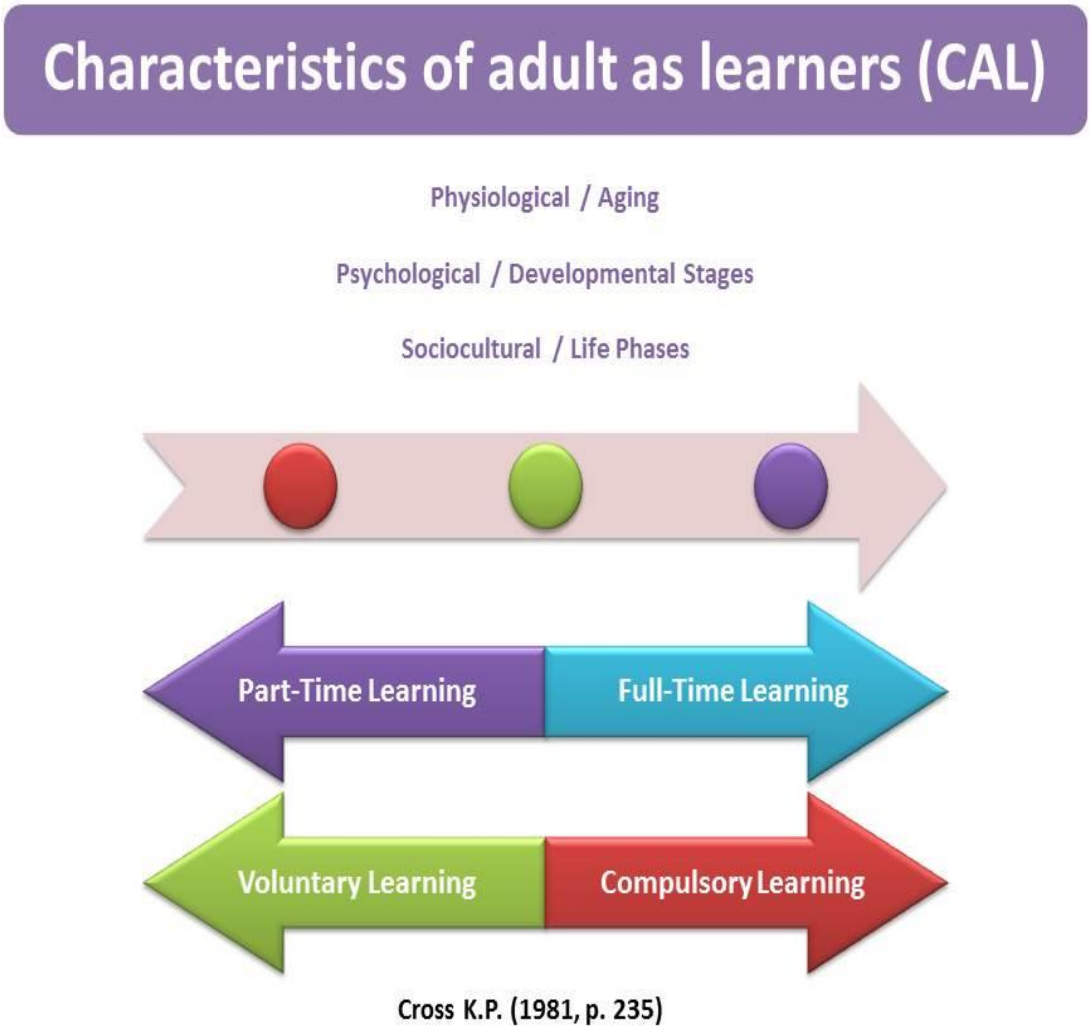



Figure 2: K. P. Cross Characteristics of Adult Learners (CAL)

Reference

Cross, K. P. (1981). *Adults as learners*. San Francisco, CA

# Appendix C

## Self-Perceived Communication Competency Scale (SPCC)

Directions: Below are twelve situations in which you might need to communicate. People's abilities to communicate effectively vary a lot, and sometimes the same person is more competent to communicate in one situation than in another. Please indicate how competent you believe you are to communicate in each of the situations described below. Indicate in the space provided at the left of each item your estimate of your competence.

Presume 0 = completely incompetent and 100 = competent.

_____1. Present a talk to a group of strangers.

_____2. Talk with an acquaintance.

_____3. Talk in a large meeting of friends.

_____4. Talk in a small group of strangers.

_____5. Talk with a friend.

_____6. Talk in a large meeting of acquaintances.

_____7. Talk with a stranger.

_____8. Present a talk to a group of friends.

_____9. Talk in a small group of acquaintances.

_____10. Talk in a large meeting of strangers.

_____11. Talk in a small group of friends.

_____12. Present a talk to a group of acquaintances.

Scoring: To compute the sub-scores, add the percentages for the items indicated and divide the total by the number indicated below.

| | |
|---|---|
| Public | 1 + 8 + 12; divide by 3. |
| Meeting | 3 + 6 + 10; divide by 3. |
| Group | 4 + 9 + 11; divide by 3. |
| Dyad | 2 + 5 + 7; divide by 3. |
| Stranger | 1 + 4 + 7 + 10; divide by 4. |
| Acquaintance | 2 + 6 + 9 + 12; divide by 4. |
| Friend | 3 + 5 + 8 + 11; divide by 4. |

To compute the total SPCC score, add the sub-scores for Stranger, Acquaintance, and Friend. Then, divide that total by 3.

| | Reliability | *Mean* | S.D. |
|---|---|---|---|
| Public | .72 | 68.8 | 17.8 |
| Meeting | .68 | 68.8 | 17.1 |
| Group | .67 | 76.1 | 14.6 |
| Dyad | .44 | 81.1 | 12.4 |
| Stranger | .87 | 55.5 | 23.6 |
| Acquaintance | .84 | 77.4 | 15.3 |
| Friend | .78 | 88.2 | 11.3 |
| Total | .92 | 73.7 | 13.8 |

| | | |
|---|---|---|
| Public | > 86 High SPCC | < 51 Low SPCC |
| Meeting | > 85 High SPCC | < 51 Low SPCC |
| Group | > 90 High SPCC | < 61 Low SPCC |
| Dyad | > 93 High SPCC | < 68 Low SPCC |
| Stranger | > 79 High SPCC | < 31 Low SPCC |
| Acquaintance | > 92 High SPCC | < 62 Low SPCC |
| Friend | > 99 High SPCC | < 76 Low SPCC |
| Total | > 87 High SPCC | < 59 Low SPCC |

Higher SPCC scores indicate higher self-perceived communication competence with basic communication contexts (public, meeting, group, dyad) and receivers (strangers, acquaintance, friend).

Reference

McCroskey, J. C., & McCroskey, L. L. (1988). Self-report as an approach to measuring communication competence. *Communication Research Reports, 5,* 108-113.

McCroskey, J.C., & McCroskey, L.L. (2013). Self-perceived Communication Competence Scale (SPCC). Measurement Instrument Database for the Social Science. Retrieved from www.midss.ie

# Appendix D

Name: _____ Room #: _____

Age: ___ y/o M / F Hospitalists / Trauma / CFP

Admitted: _____ FULL CODE / DNR

| | |
|---|---|
| **S**<br>Situation | **Invite patient / family to participate in bedside shift report**<br>**Access the electronic medical record in patient room**<br>**Conduct verbal report with patient / family in words they can understand** |
| **B**<br>Background | **PMH:** DM / CHF / HTN / CAD / PCI / HLD / PVD / GERD / COPD / Asthma / CKD / ESRD / Smoker / Drug Abuse / Psych / CVA / Dementia / Hypothyroid / CA /<br>**Tests:** MRI / X-Ray / CT / Echo EF: ____ / Endo / US / Cath |
| **A**<br>**Conduct a focused Assessment of the Patient**<br>**Inspect all wounds, incisions, drains, IV sites, IV tubing, catheters, etc.**<br>**Contact:**<br>MRSA<br>C-Diff<br>ESBL<br>Flu<br>Droplet<br>Neutropenic<br>**Need:**<br>Urine Cx<br>Resp Cx<br>Flu Swab<br>MRSA Swab<br>**Extras:**<br>Daily Weight<br>Strict I&Os<br>Fall Risk<br>Observation<br>1:1 Sitter<br>NPO @ Midnight | **IV:** #____ R / L SL **Date:** _____<br>**Site:** AC / FA / Hand / Wrist / UA<br>**Central:** IJ / PICC / Port / Trialysis<br>**IVF:** NS / ½ NS / D5 ½ / D5 NS / LR / Abx<br>**IV Rate:** _____ ml/hr / _____ u/kg/hr<br>**Drips:** Heparin / Blood / TPN / Dilt<br>**Neuro**<br>A & O x ___ / Confused<br>**Activity:** Up ad lib / 1 / 2 / Bed-rest<br>Walker / Cane<br>Neuro Checks / Restraints / Bed Alarm<br>**Pain**<br>Level:<br>Location:<br>Medication:<br>Frequency:<br>**Respiratory**<br>O2 @ ___ l NC / Room air / NRB / CPAP / BIPAP / **Trach:** _____<br>**Breath Sounds:** Clear / Diminished / Wheezing / Crackles / Coarse<br>**Treatments:** Nebs / IS / CPT **Cough:** Productive / Non-productive<br>**VS Trend**<br>HR Temp<br>BP RR<br>$O_2$<br>**Cardiovascular**<br>SB / NSR / ST / A-Fib / A-Flutter / A-Paced / V-Paced / PACs / PVCs<br>AICD / Murmur / Block<br>**Edema:** None / Gen / Trace / 1+ / 2+ / 3+<br>Pitting / Non-pitting R / L / Bilateral Arms / Legs<br>**Pulses:** DP Radial Dopplers / +1 / +2<br>**VTE Prophylaxis**<br>SCDs / Foot Pumps<br>Heparin / Lovenox<br>Coumadin / Xarelto<br>Eliquis / None Needed<br>Needs Order<br>**Gastrointestinal**<br>**Diet:** Reg / Clear / Full / AHA / ADA / Dysphagia I II III Soft / Renal / NPO<br>Hypo / Active / Hyper / Nausea / Vomiting / Diarrhea<br>G-tube ( LWS / Gravity ) / Ostomy **Last BM:** _____<br>**Genitourinary**<br>Voiding / Foley / Incontinence / Anuria<br>Clear / Cloudy Yellow / Amber / Bloody<br>BR / Urinal / Bedside Comm / Bedpan<br>Dialysis: M Tu W Th F Sa Su<br>**Musculoskeletal**<br>Weakness: RUE / LUE / RLE / LLE<br>Numbness: RUE / LUE / RLE / LLE<br>**Skin** (Wounds & Dressings)<br>**BG Monitoring** AC&HS / Q6° / Q___° \| **AC B** \| **AC L** \| **AC D** \| **HS**<br>**Drains**<br>Chest Tube / JP / Hemovac / Accordion / Wound Vac<br>( R / L ) Level: _____<br>Serosanguinous / Sanguineous<br>**Labs**<br>WBC K CKMB<br>Hgb INR BNP<br>Na Anti-Xa Trop<br>Plt Cr Lipase<br>$NH_3$ LFTs |
| **R**<br>Recommendation<br>**Review tasks that need to be done** | **Scheduled Procedures:** Cath / US / Stress / Echo / Dopplers / MRI<br>**Consults:** CM / PT / OT / GI / Cards / Neuro / Nephro / Wound / Ortho / Psych / Pulm / Surg<br>**Discharge to:** Home / Home Health / ALF / SNF / Rehab<br>**Identify patient / family needs or concerns** |

Adapted and used with permission from:
Nurse*janx*.com

Appendix E

RMC
Regional Medical Center

September 20, 2018

To Whom it May Concern:

I am writing in support of the Jacksonville State University (JSU) Doctor of Nursing Practice (DNP) Project, entitled Optimizing Intra-professional Communication at Patient Handover, being developed by graduate student, Ella Allison Crabtree.

Communication among healthcare providers has been identified as an integral part of patient care and safety, and a necessary component of care collaboration. Patient safety is a priority at Northeast Alabama Regional Medical Center (RMC) and efforts aimed at improving nursing processes and decreasing risks to patient safety directly support the mission of RMC.

RMC is committed to deliver the highest-quality medical care to the patients we serve. The administrative leadership team at RMC welcomes academic partnerships that allow our staff members to advance the RMC mission and purse our vision of remaining the region's premier choice for healthcare.

I believe implementation of this project here at RMC can have a positive impact and stimulate innovative ways to support our mission and values.

Warm Regards,

Elaine Davis, RN, BSN, MSN
CNO/Vice President Patient Services
Northeast Alabama Regional Medical Center
400 East 10th Street
Anniston, AL 36207

400 East Tenth Street • P.O. BOX 2208 • Anniston, AL 36202 • 256-235-5121 • www.rmccares.org

# Appendix F

## Recruitment Letter to Participants

January 25, 2019

Regional Medical Center
Observation Unit
400 East 10th Street
Anniston, AL 36202

Dear Nursing Colleague:

I am writing to let you know about an opportunity to participate in a research project examining nursing communication during the patient handover process. This study will examine the self-perceived communication competency of participating nurses. An educational workshop focused on nursing communication and a standardized process of patient handover will be offered on Feb. 22 and again on Feb. 25, 2019, at 8:00 am at RMC on the 7th floor. A flyer with details about the event is included in this letter. Continued education credit will be awarded for program completion, and a light breakfast will be served. This 1-hour hands-on workshop will consist of a presentation, group discussion, and a simulated patient handover using a standardized process.

A survey will be completed by participants and collected at the beginning of the workshop. The same survey will be re-administered after program participation. This brief, 12 question survey will be used to measure the difference in scores from pre-test and post-test course participation. The data collected from these surveys will be used for student research purposes to determine if there is a statistical significance in the self-perceived communication competency of nurses after participation in this educational offering.

You are being invited to participate in this project because you are a nurse employed on the site of implementation. Your name was provided by your unit manager as a potential participant, and no other private information other than your name was shared. As you may recall, a Needs Assessment Survey was recently conducted on the unit, of which you may have completed. The results of that survey were used to direct the educational workshop that you are now being invited to participate.

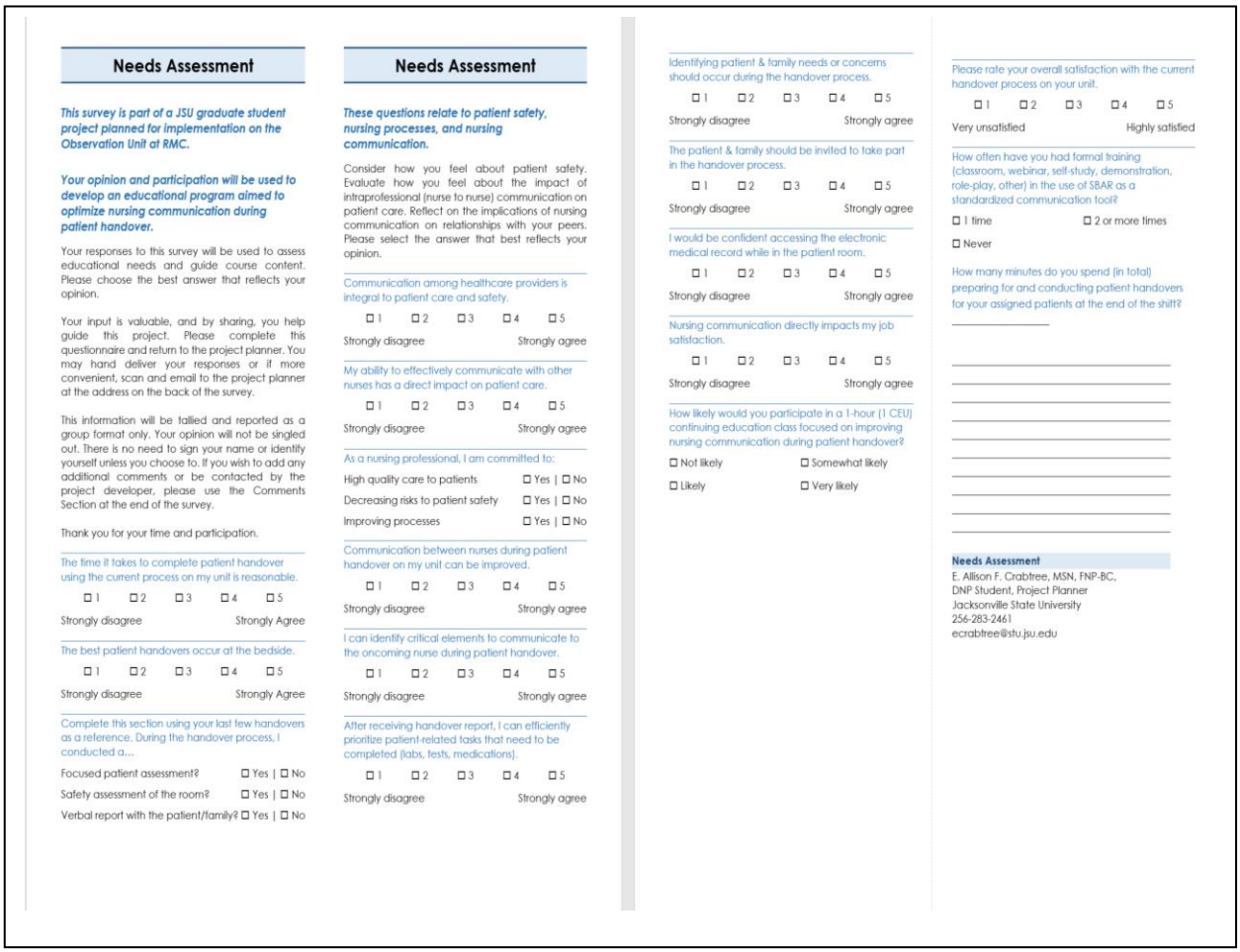
You many opt out of further contact at any time. If you have previously expressed interest in participating in this course, either by indicating so on the Needs Assessment or by verbal expression, it does not mean that you are enrolled in this study. Agreement to be contacted or a request for more information does not obligate you to participate in this study. If you have further questions about this project, you may contact the project planner listed below.

Thank you for considering participation in this research opportunity. Please contact me with any questions.

E. Allison F. Crabtree, MSN, CRNP
Jacksonville State University
700 E. Pelham Rd. N.
Jacksonville, AL 36265
ecrabtree@stu.jsu.edu
256-283-2461

# Appendix G

## Needs Assessment



**Needs Assessment**

***This survey is part of a JSU graduate student project planned for implementation on the Observation Unit at RMC.***

***Your opinion and participation will be used to develop an educational program aimed to optimize nursing communication during patient handover.***

Your responses to this survey will be used to assess educational needs and guide course content. Please choose the best answer that reflects your opinion.

Your input is valuable, and by sharing, you help guide this project. Please complete this questionnaire and return to the project planner. You may hand deliver your responses or if more convenient, scan and email to the project planner at the address on the back of the survey.

This information will be tallied and reported as a group format only. Your opinion will not be singled out. There is no need to sign your name or identify yourself unless you choose to. If you wish to add any additional comments or be contacted by the project developer, please use the Comments Section at the end of the survey.

Thank you for your time and participation.

The time it takes to complete patient handover using the current process on my unit is reasonable.

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly Agree

The best patient handovers occur at the bedside.

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly Agree

Complete this section using your last few handovers as a reference. During the handover process, I conducted a...

Focused patient assessment? ☐ Yes | ☐ No

Safety assessment of the room? ☐ Yes | ☐ No

Verbal report with the patient/family? ☐ Yes | ☐ No

**Needs Assessment**

***These questions relate to patient safety, nursing processes, and nursing communication.***

Consider how you feel about patient safety. Evaluate how you feel about the impact of intraprofessional (nurse to nurse) communication on patient care. Reflect on the implications of nursing communication on relationships with your peers. Please select the answer that best reflects your opinion.

Communication among healthcare providers is integral to patient care and safety.

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly agree

My ability to effectively communicate with other nurses has a direct impact on patient care.

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly agree

As a nursing professional, I am committed to:

High quality care to patients ☐ Yes | ☐ No

Decreasing risks to patient safety ☐ Yes | ☐ No

Improving processes ☐ Yes | ☐ No

Communication between nurses during patient handover on my unit can be improved.

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly agree

I can identify critical elements to communicate to the oncoming nurse during patient handover.

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly agree

After receiving handover report, I can efficiently prioritize patient-related tasks that need to be completed (labs, tests, medications).

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly agree

Identifying patient & family needs or concerns should occur during the handover process.

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly agree

The patient & family should be invited to take part in the handover process.

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly agree

I would be confident accessing the electronic medical record while in the patient room.

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly agree

Nursing communication directly impacts my job satisfaction.

☐1 ☐2 ☐3 ☐4 ☐5

Strongly disagree Strongly agree

How likely would you participate in a 1-hour (1 CEU) continuing education class focused on improving nursing communication during patient handover?

☐ Not likely ☐ Somewhat likely

☐ Likely ☐ Very likely

Please rate your overall satisfaction with the current handover process on your unit.

☐1 ☐2 ☐3 ☐4 ☐5

Very unsatisfied Highly satisfied

How often have you had formal training (classroom, webinar, self-study, demonstration, role-play, other) in the use of SBAR as a standardized communication tool?

☐ 1 time ☐ 2 or more times

☐ Never

How many minutes do you spend (in total) preparing for and conducting patient handovers for your assigned patients at the end of the shift?

_____

**Needs Assessment**
E. Allison F. Crabtree, MSN, FNP-BC,
DNP Student, Project Planner
Jacksonville State University
256-283-2461
ecrabtree@stu.jsu.edu

# Appendix H

RMC
Regional Medical Center

August 20, 2018

To whom it may concern:

The Institutional Review Board (IRB) at Northeast Alabama Regional Medical Center convened on August 6, 2018. The board members reviewed and approved the implementation and data collection for the Doctor of Nursing (DNP) project *Optimizing Intraprofessional Communication at Patient Handover* conducted by Allison Crabtree, MSN, CRNP and DNP student at Jacksonville State University. Approval for the protocol is effective from August 21, 2018 to August 1, 2019.

David Zinn, MD
Vice President of Medical Affairs
Northeast Alabama Regional Medical Center
PO Box 2208
Anniston, AL 36202
(256)235-5224
dzinn@rmccares.org

Appendix I

JSU | OFFICE OF THE VICE PROVOST
JACKSONVILLE STATE UNIVERSITY

September 28, 2018

Dear Ella Allison Crabtree:

Your proposal submitted for review by the Human Participants Review Protocol for the project titled: "Optimizing Intraprofessional Nursing Communication at Patient Handover ", has been approved as exempt. If the project is still in process one year from now, you are asked to provide the IRB with a renewal application and a report on the progress of the research project.

Sincerely,

Joe Walsh
Executive Secretary, IRB

JW/dh

201 Bibb Graves Hall
700 Pelham Road North
Jacksonville, AL 36265-1602
P. 256.782.5284
P. 800.231.5291
F. 256.782.5541
ejwalsh@jsu.edu
www.jsu.edu

Appendix J

## Consent Form

**Please read this consent agreement carefully before agreeing to participate in this project.**

**Title of project:** Optimizing Intraprofessional Nursing Communication at Patient Handover

**Purpose of the project:** This performance improvement project aims to increase the communication competency of nurses during intraprofessional interactions at patient handover.

**Location of project:** Northeast Alabama Regional Medical Center

**What you will do in this project:** You will complete a brief survey before participating in an educational course that involves a simulated nursing handover experience using a standardized communication tool (SBAR). After the course, you will be asked to complete the same survey again.

**Time Required:** The course will last 1 hour, and you will be eligible for 1.0 CEUs after participation and evaluation.

**Risks:** There are no anticipated risks associated with participating in this project.

**Benefits:** You will acquire real-life experience using a standardized process of patient handover, which may increase your communication skills and promote the efficiency of patient handover. These skills may improve job satisfaction and decrease safety threats to patients related to communication failures.

**Confidentiality:** Your participation in this project will remain confidential, and your identity is not be stored with data collected. Results will be reported in a group format only.

**Participation and Withdrawal:** Your participation in this project is completely voluntary, and you may withdraw from the project at any time without penalty.

**Contact:** If you have questions about this project, please contact Allison Crabtree, ecrabtree@stu.jsu.edu, or phone: 256-283-2461.

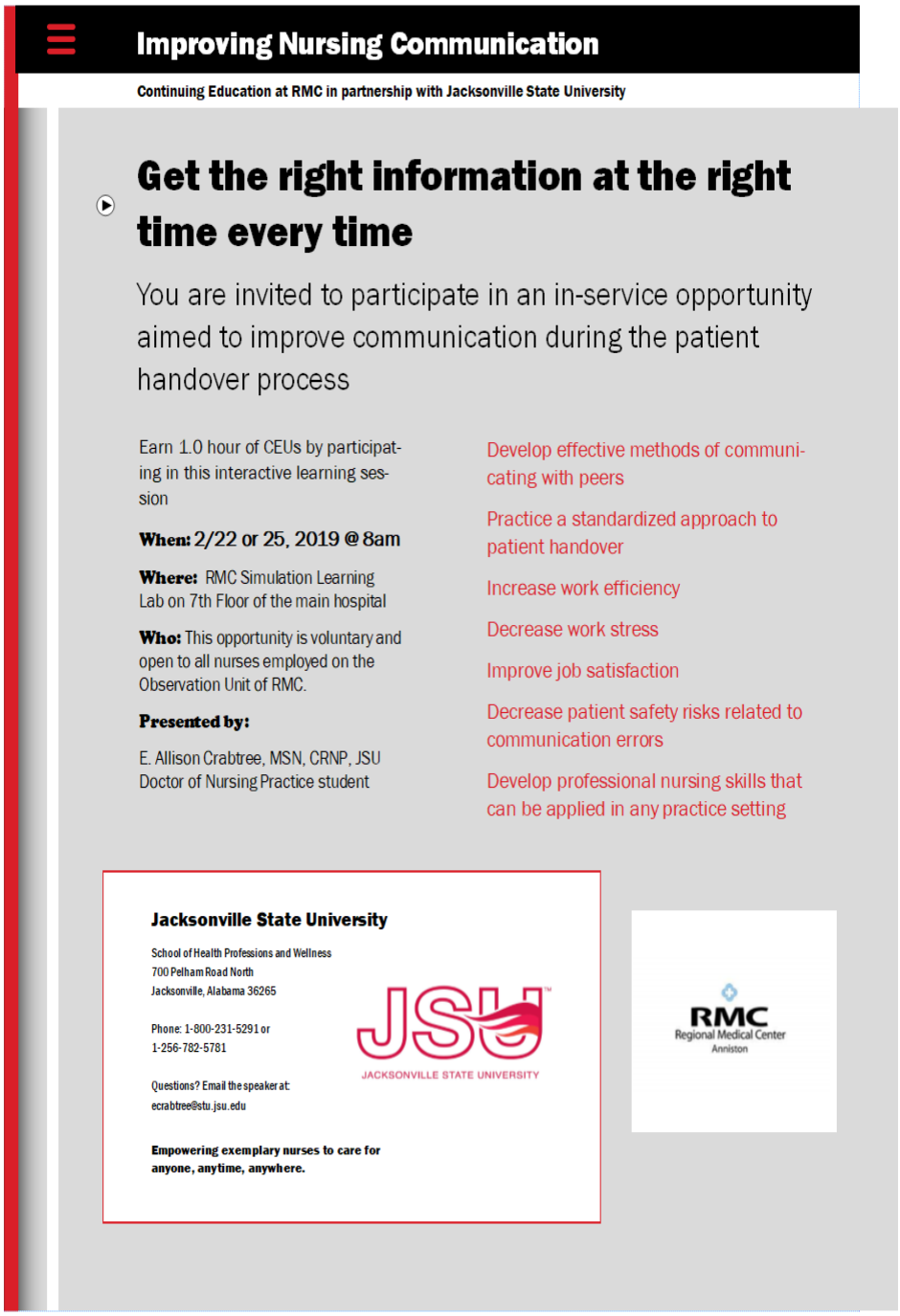
**Agreement:** The purpose of this project has been sufficiently explained, and I agree to participate in this project. I understand I am free to withdraw at any time without incurring any penalty.

**In signing this agreement, I also affirm that I am at least 18 years of age or older.**

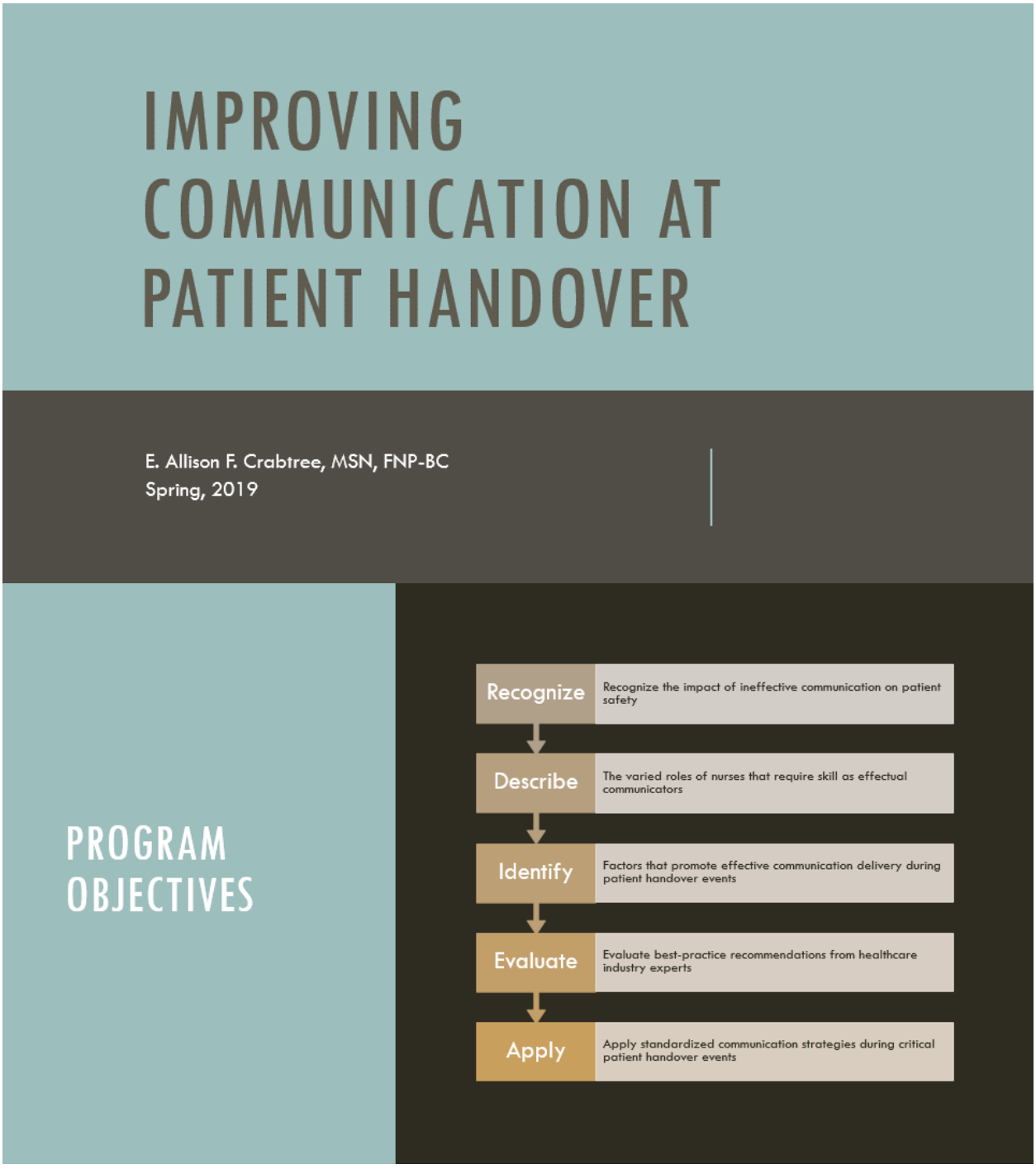
**Signature:**_____**Date:**_____

**Name (print):** _____

Appendix K



Appendix L
PowerPoint Presentation

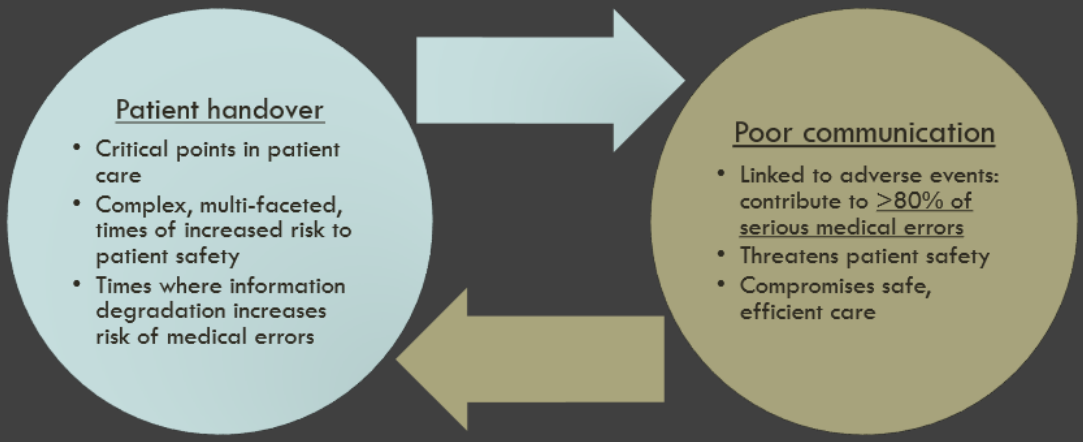


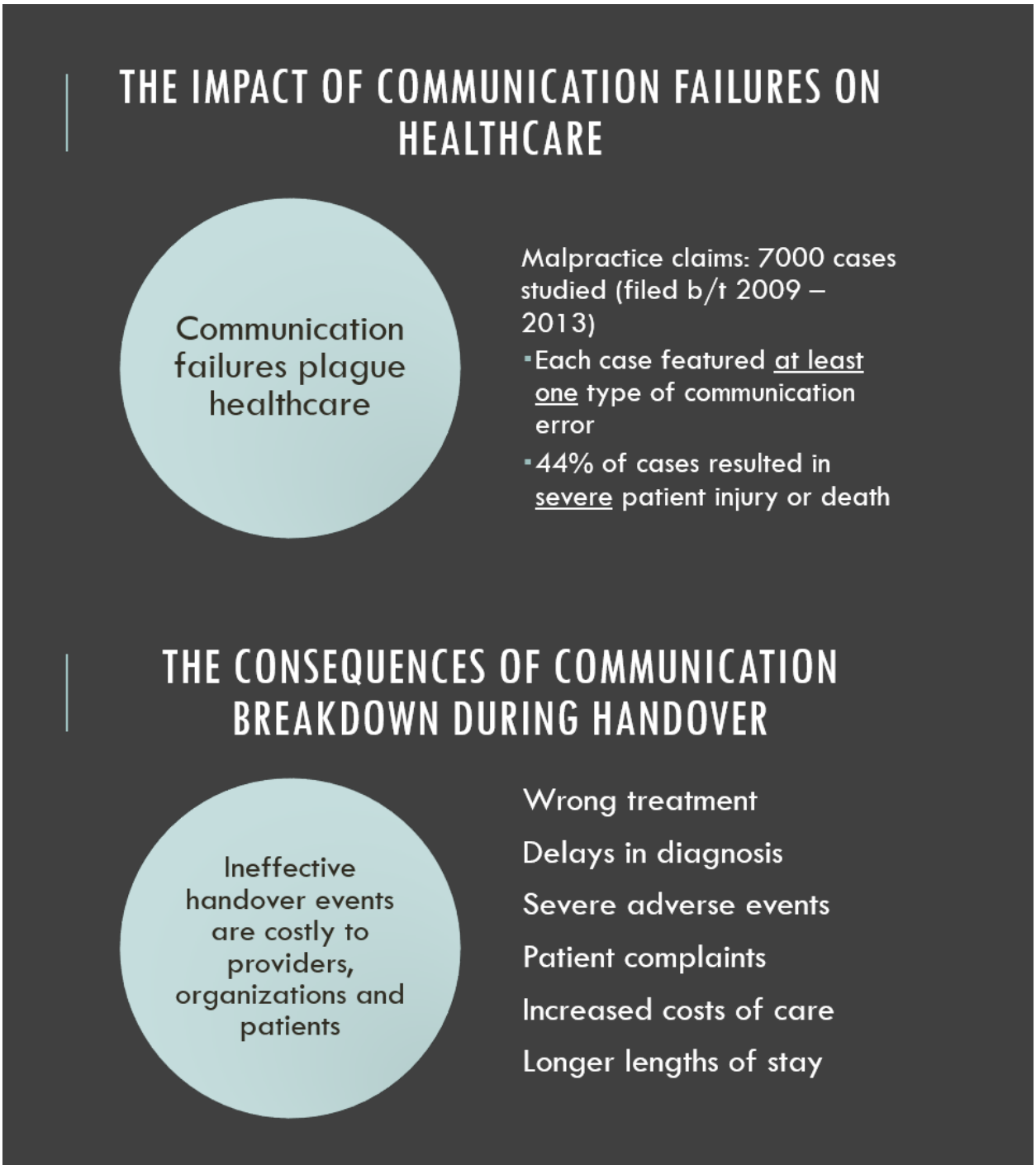
## WIIFE: WHAT'S IN IT FOR ME?

## CHANGE CAN BE A GOOD THING

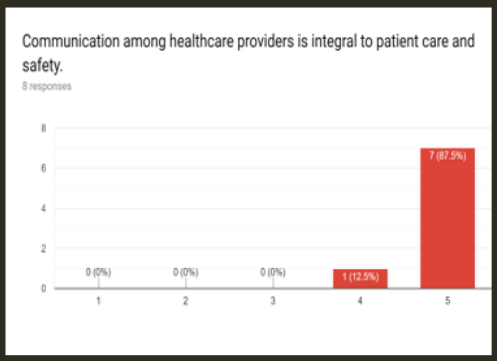
- Develop effective methods of communicating with peers
  - Improve teamwork & collaboration
  - Decrease patient safety risks
  - Increase work efficiency
  - Decrease work stress
- Increased involvement of the patient – family
  - Patient-centered care
  - Patient engagement
- Continuing education (1.0 hours credit)

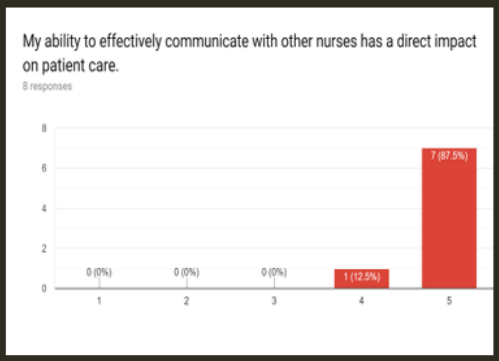
## THE IMPACT OF COMMUNICATION ON PATIENT SAFETY





## NEEDS ASSESSMENT SURVEY RESULTS




## COMMUNICATION PROBLEMS: LET'S TALK

How does this affect me?

What is my role here?

Can I make a difference in this problem?

## RESEARCH OPINION: THE ROLES OF THE NURSE

Key players in care delivery teams; Communicators

Primary providers of patient care in acute care settings (80%)

Frontline defenders of patient safety: a primary nursing goal since 1900's

Information gatekeepers

- Makes determination of what information to relay
- Makes determination of how to relay that information
- Makes determination to whom the information is relayed

## PUBLIC OPINION: THE ROLE OF THE NURSE


Honest

Ethical

Connect on a personal level

Good with people

Use communication (spoken & unspoken) to convey care

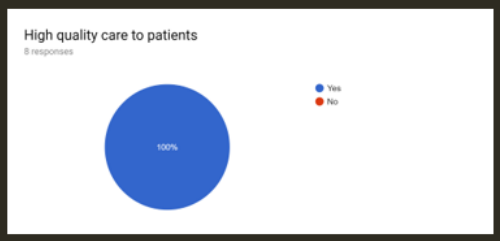
Trustworthy

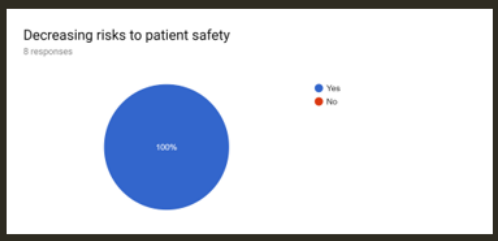
Balanced & Unbiased

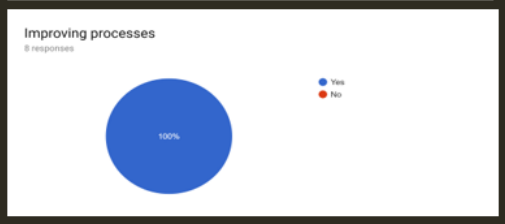
Patient Advocate

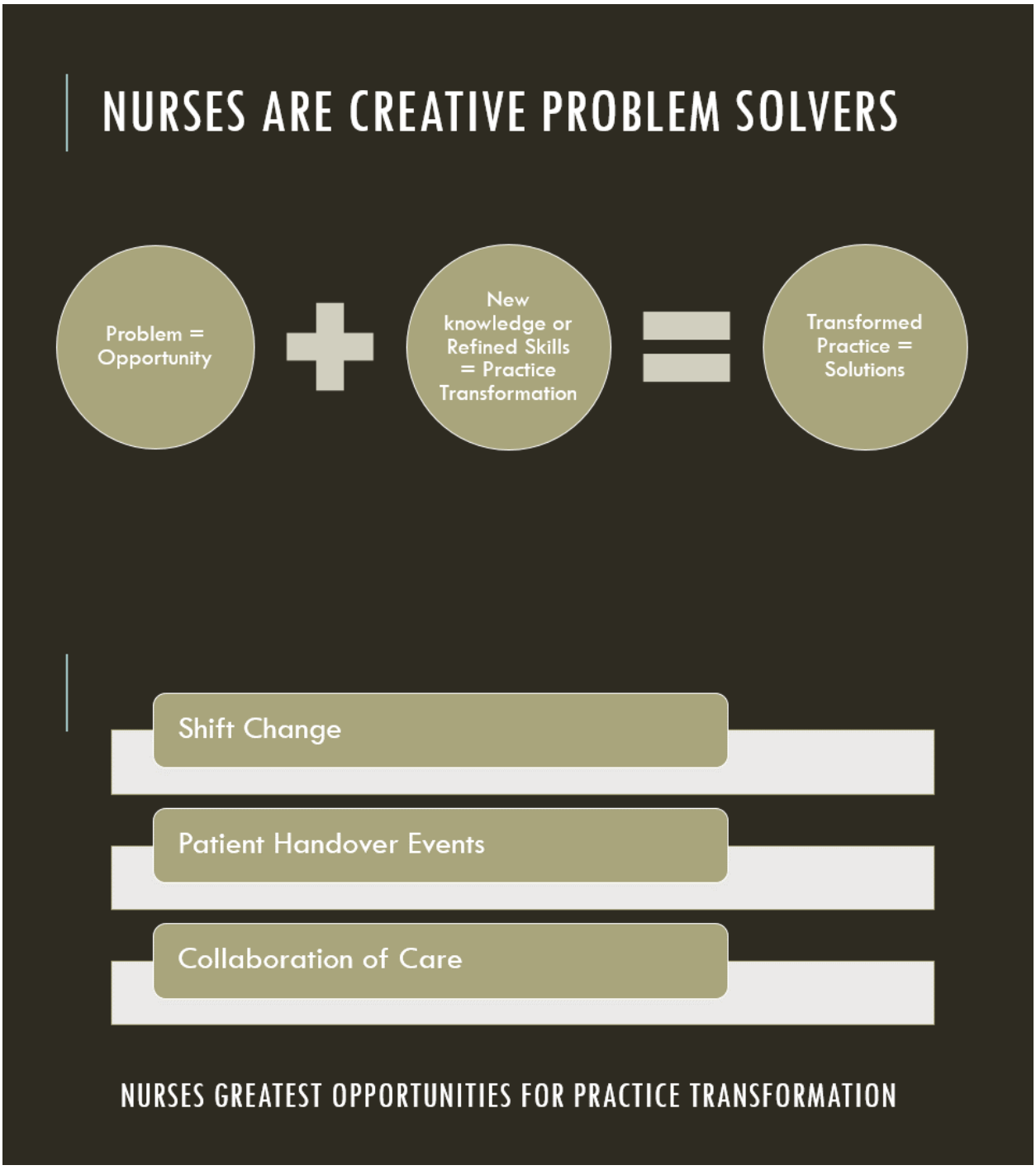
## NURSES CHANGE LIVES

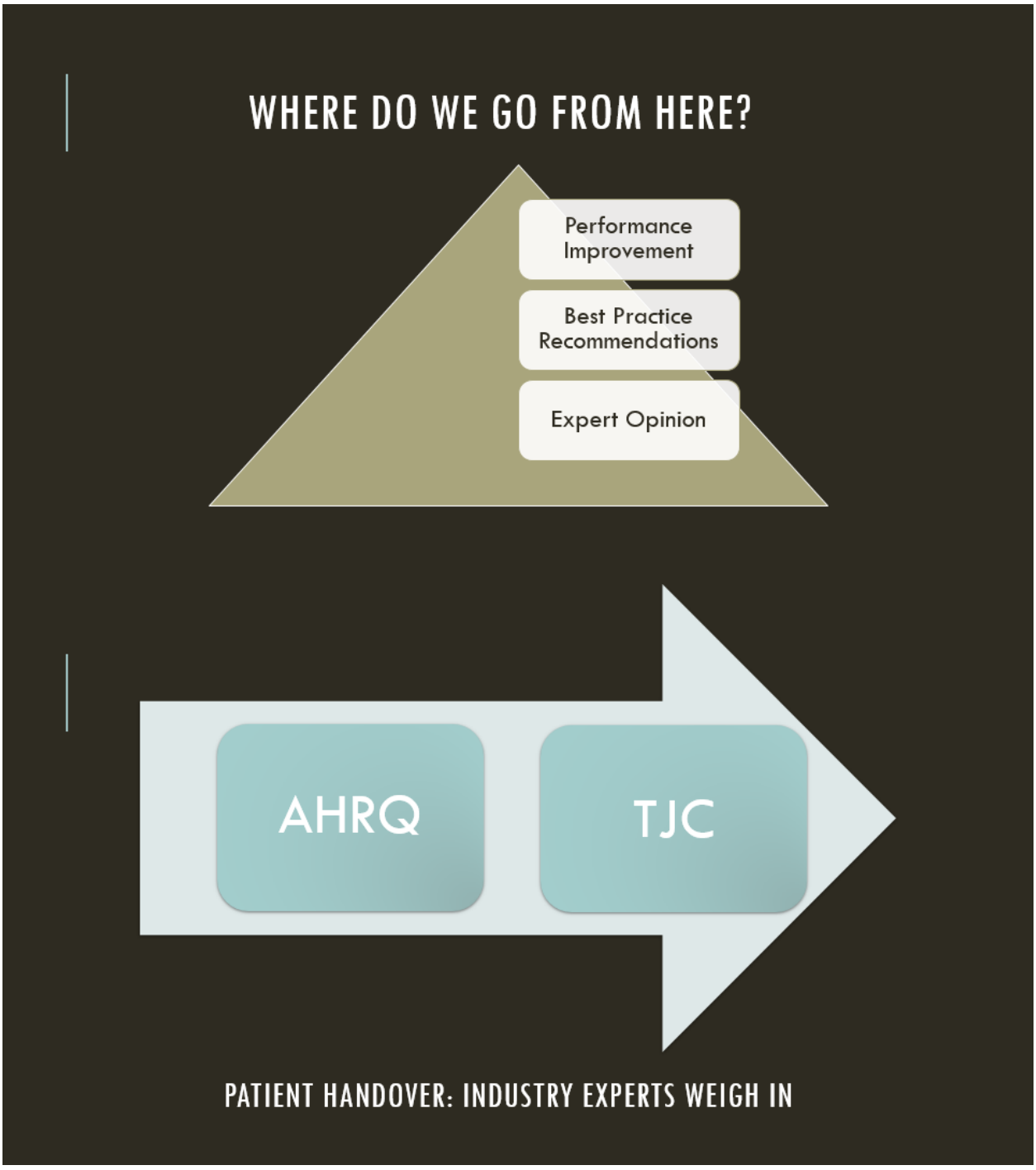

## SURVEY RESULTS: NURSES ON OBSERVATION ARE COMMITTED TO PATIENT SAFETY

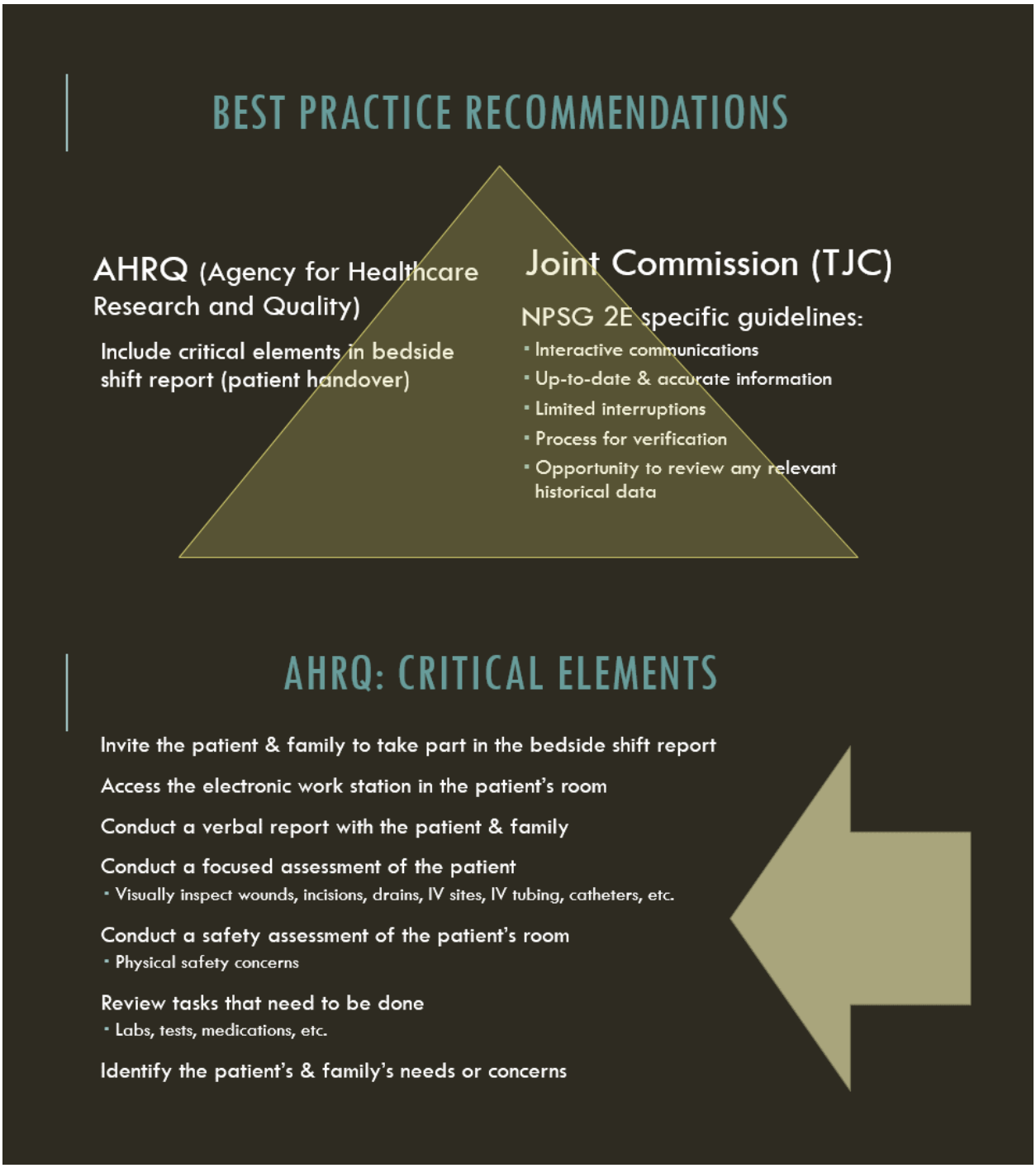


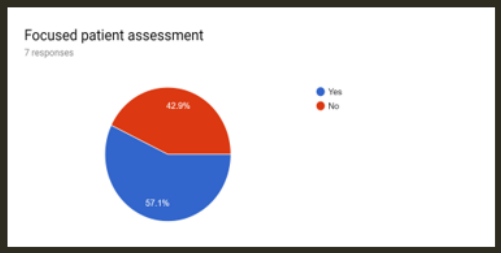



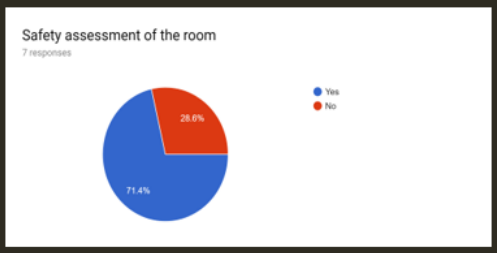


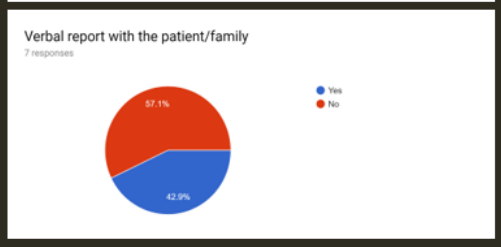




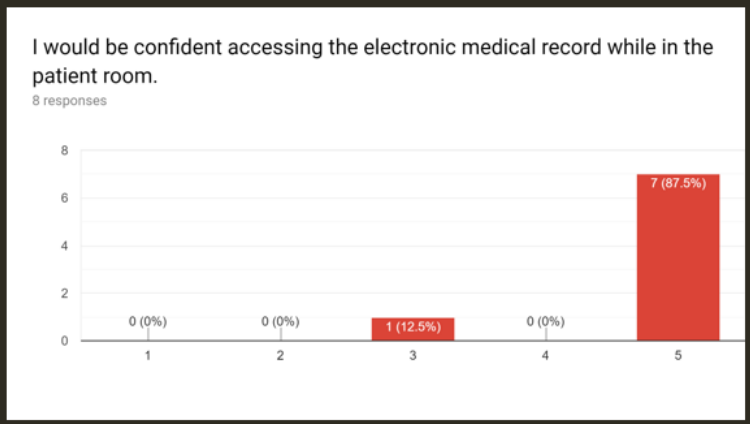
## SURVEY RESULTS ON OBSERVATION




## SURVEY RESULTS: ACCESSING THE ELECTRONIC MEDICAL RECORD WHILE IN PATIENT ROOM



## TJC : HANDOVER PROCESS

### Real-time Process

- Information relays from one caregiver to another
- Ensures continuity of care
- Promotes patient safety

### Opportunity to seek and answer questions

- Accurate information about patient care, treatment & services, current condition, any recent changes, anticipated changes

### Standardized Approach

- Each party knows what to expect
- Increases efficiency
- Provides consistency
- Decreases opportunities for omission of key information
- Decreases stress on team members
- Opportunity for skill development
- Supports consistent implementation across organization

## TJC: STANDARDIZE THE PROCESS

### Who?

Should be involved in the communication exchange (incoming/outgoing nurses)

### What?

Information should be communicated (diagnosis, allergies, labs, etc.)

Recent changes in condition or treatment

Anticipated changes in condition or treatment

What to watch for in the next interval of care

### Where?

Situations in which the standardized process is applied (ex. Shift change)

### How?

What technique to use (SBAR, I-PASS BATON)

What print or electronic information should be available

## NOW IS THE TIME

## IMPROVING COMMUNICATION: BUT WHY?

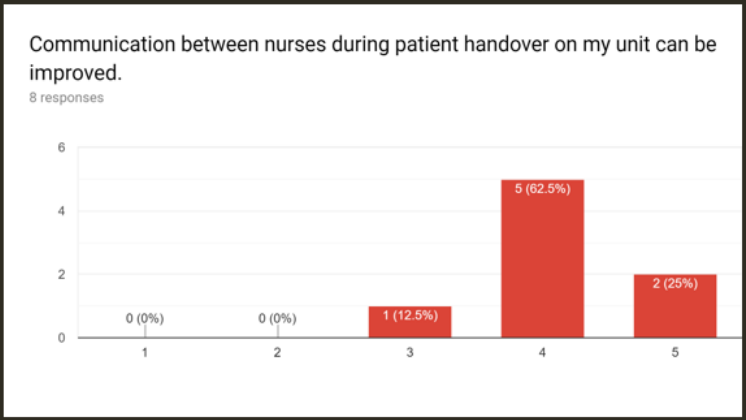
"Effective team communication is the bedrock for safer care."

G. Ross Baker, PhD

"Good people are set to fail in bad systems; let's figure out how to keep everyone safe."

Dr. Mike Leonard

## SURVEY RESULTS: IMPROVING COMMUNICATION ON OBSERVATION




## WE CAN AND MUST DO BETTER

### Improving Communication Across the System

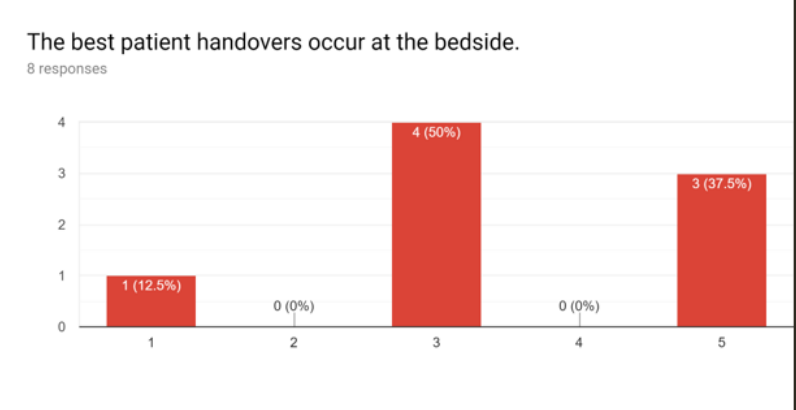
- Can be accomplished by intentional effort
- May require minimal changes to existing processes
- Should be tailored to needs of organization (or unit)
- Should include a broad range of participants
- Requires endorsement and support of leaders for success
- Plan for ongoing training and orientation for new staff

## WHAT NURSES WANT IN HANDOVER

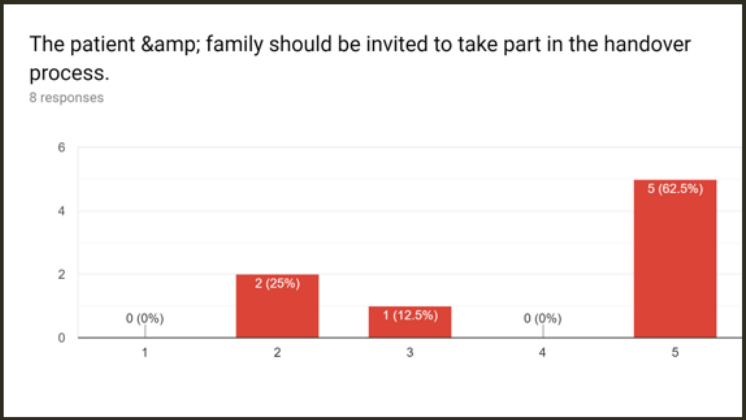
Concise delivery of pertinent information
- Calm, focused, professional manner
- Organized, detailed, comprehensive
- Consideration toward fellow nurses
- Efficient process
- Include key elements
- Eliminate non-essentials or known facts
- Succinct delivery

Face-to-face interactions
- Bedside defined as the ideal *
- Minimal distractions
- Opportunity to introduce incoming nurse
- Closes the loop on the care provided

## SURVEY RESULTS: IDEAL LOCATION FOR BEST HANDOVERS



## SURVEY RESULTS: INVITING PATIENT PARTICIPATION

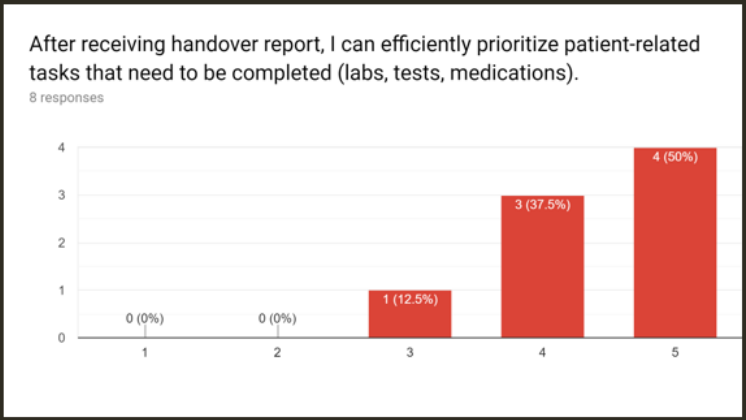



## WHAT NURSES RANK AS PRIORITIES

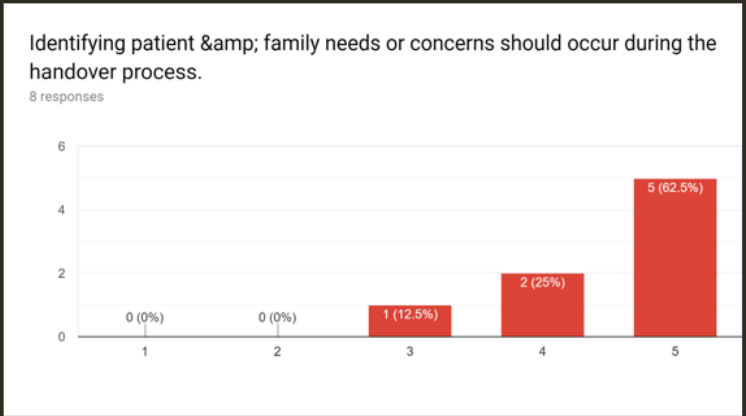
Include opportunities to:

- Seek and ask questions
- Verify information or seek clarification
- Collaborate with peers
- Increase nursing skill
- Address safety concerns
- Identify patient / family needs
- Review upcoming tasks
- Prioritize and anticipate needs during shift

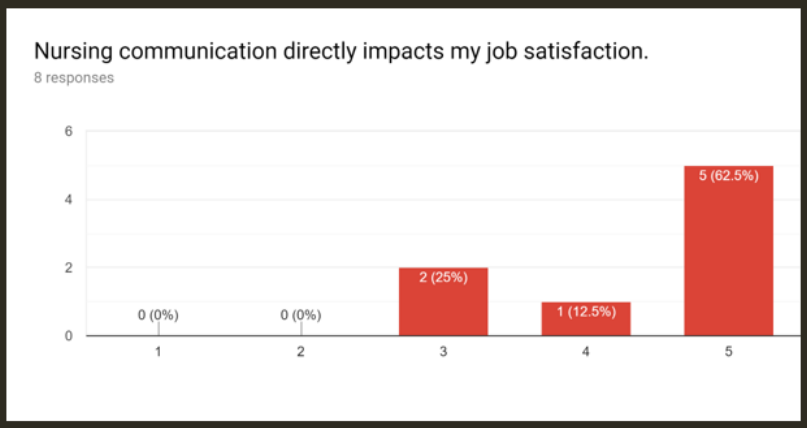
## SURVEY RESULTS: PRIORITIZING TASKS




## SURVEY RESULTS: IDENTIFYING PATIENT CONCERNS



## SURVEY RESULTS: JOB SATISFACTION

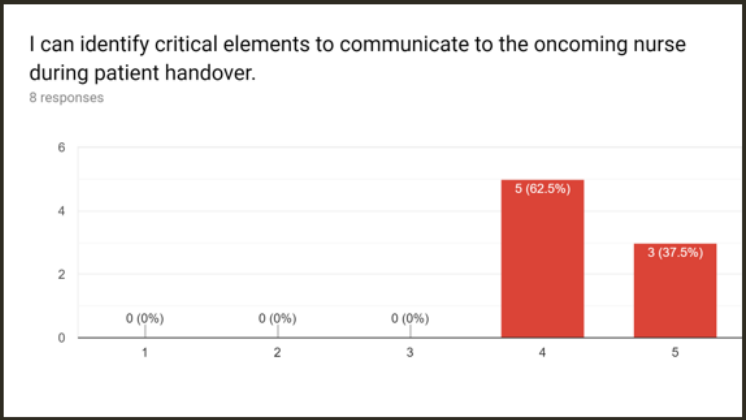



## STANDARDIZED COMMUNICATION TOOL

### SBAR (Situation, Background, Assessment, Recommendation)

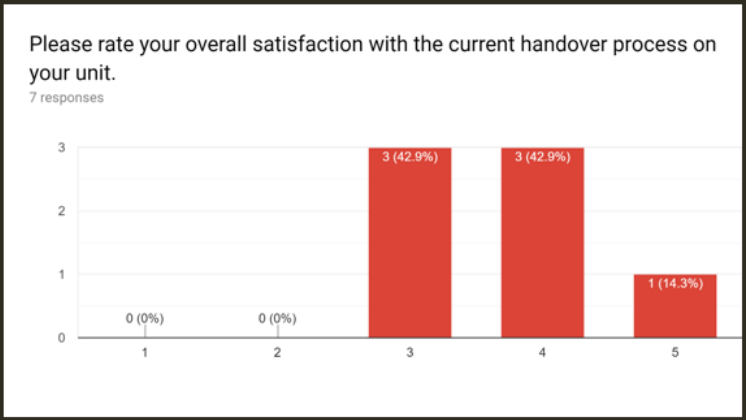
- Originally developed by the U.S. Navy to communicate critical information
- Kaiser Permanente of Colorado, one of the first hospitals to adopt SBAR approach and develop worksheet to outline format and guidelines
- Modified for use in healthcare to organize information in a logical, easily recalled pattern to expedite the handover process and reduce error
- Joint Commission recommended to guide handover communication
- Allows for a smooth, focused way to set expectations for what information is to be communicated
- Guides how to communicate among team members

## SURVEY RESULTS: IDENTIFYING CRITICAL ELEMENTS TO COMMUNICATE

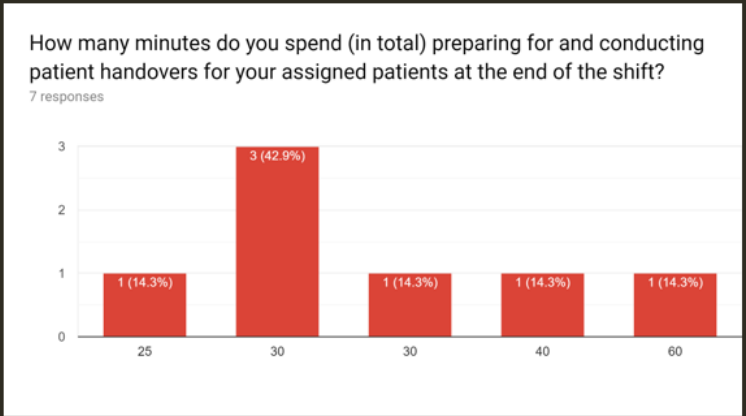



## SURVEY RESULTS: PRIOR SBAR TRAINING

## SURVEY RESULTS: SATISFACTION WITH CURRENT PROCESS




## SURVEY RESULTS: CURRENT TIME REQUIREMENTS FOR CURRENT PROCESS



## SBAR + AHRQ CRITICAL ELEMENTS

Invite the patient & family to take part in the bedside shift report

Access the electronic work station in the patient's room

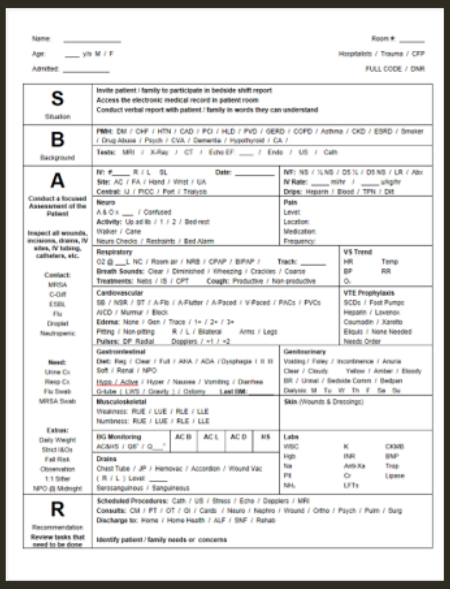
Conduct a verbal report with the patient & family

Conduct a focused assessment of the patient (inspect wounds, incisions, drains, IV sites, IV tubing, catheters, etc.)

Conduct a safety assessment of the patient's room

Review tasks that need to be done (labs, tests, medications, etc.)

Identify the patient & family's needs or concerns



Name: _____ Room # _____
Age: ___ y/o M / F Hospitalists / Trauma / CFP
Admitted: _____ FULL CODE / DNR

**S** Situation
Invite patient / family to participate in bedside shift report
Access the electronic medical record in patient room
Conduct verbal report with patient / family in words they can understand

**B** Background
PMH: DM / CHF / HTN / CAD / PCI / HLD / PVD / GERD / COPD / Asthma / CKD / ESRD / Smoker / Drug Abuse / Psych / CVA / Dementia / Hypothyroid / CA /
Tests: MRI / X-Ray / CT / Echo EF ____ / Endo / US / Cath

**A** Conduct a focused Assessment of the Patient
IV: #____ R / L SL Date: _____
Site: AC / FA / Hand / Wrist / UA
Central: IJ / PICC / Port / Trialysis
IVF: NS / ½NS / D5 ½ / D5 NS / LR / Abx
IV Rate: ____ ml/hr / ____ ug/hr
Drips: Heparin / Blood / TPN / Dtt
Neuro
A & O x ___ / Confused
Activity: Up ad lib / 1 / 2 / Bed rest
Walker / Cane
Neuro Checks / Restraints / Bed Alarm
Pain
Level:
Location:
Medication:
Frequency:
Respiratory
O2 @ ___L NC / Room air / NRB / CPAP / BiPAP /
Breath Sounds: Clear / Diminished / Wheezing / Crackles / Coarse
Treatments: Nebs / IS / CPT Cough: Productive / Non-productive
Trach: _____
VS Trend
HR Temp
BP RR
O2
Cardiovascular
SB / NSR / ST / A-Fib / A-Flutter / A-Paced / V-Paced / PACs / PVCs
AVD / Murmur / Block
Edema: None / Gen / Trace / 1+ / 2+ / 3+
Pitting / Non-pitting R / L / Bilateral Arms / Legs
Pulses: DP Radial Dopplers / +1 / +2
VTE Prophylaxis
SCDs / Foot Pumps
Heparin / Lovenox
Coumadin / Xarelto
Eliquis / None Needed
Needs Order
Gastrointestinal
Diet: Reg / Clear / Full / AHA / ADA / Dysphagia I II III
Soft / Renal / NPO
Hypo / Active / Hyper / Nausea / Vomiting / Diarrhea
G-tube / LWS / Gravity ↓ / Ostomy Last BM:
Genitourinary
Voiding / Foley / Incontinence / Anuria
Clear / Cloudy Yellow / Amber / Bloody
BR / Urinal / Bedside Comm / Bedpan
Dialysis M Tu W Th F Sa Su
Musculoskeletal
Weakness: RUE / LUE / RLE / LLE
Numbness: RUE / LUE / RLE / LLE
Skin (Wounds & Dressings)
Need: Urine Cx Resp Cx Flu Swab MRSA Swab
Extras: Daily Weight Strict I&Os Fall Risk Observation 1:1 Sitter NPO @ Midnight
EG Monitoring AC&HS / Q6° / Q___° AC B AC L AC D HS
Drains
Chest Tube / JP / Hemovac / Accordion / Wound Vac
( R / L ) Level: ____
Serosanguinous / Sanguineous
Labs
WBC K CKMB
Hgb INR BNP
Na Anti-Xa Trop
Pit Cr Lipase
NH3 LFTs
MRSA C-diff ESBL Flu Droplet Neutropenic Contact:

**R** Recommendation
Review tasks that need to be done
Scheduled Procedures: Cath / US / Stress / Echo / Dopplers / MRI
Consults: CM / PT / OT / GI / Cards / Neuro / Nephro / Wound / Ortho / Psych / Pulm / Surg
Discharge to: Home / Home Health / ALF / SNF / Rehab
Identify patient / family needs or concerns

## BARRIERS TO CHANGE

Taking longer to do shift report

- Should be quick – no more than 5 minutes
- Increased time management with continued use
- Prioritization of time allows increased efficiency

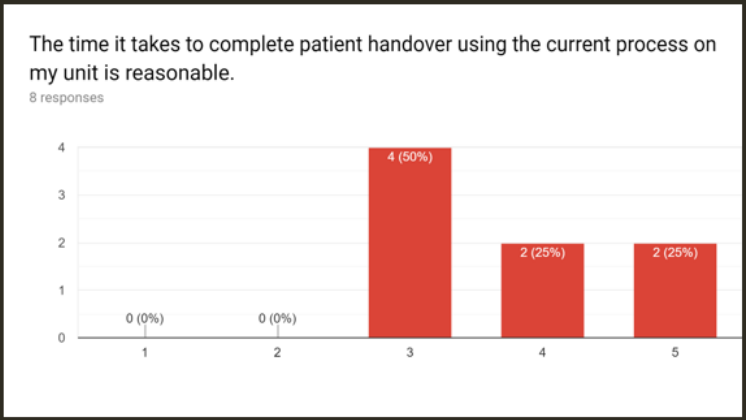
HIPAA violation concerns

- Bedside shift report does not violate HIPAA; is part of treatment & normal operations

Dealing with sensitive information

- Exchange sensitive information prior to entering the room or point to info on chart if needed

# NEEDS ASSESSMENT RESULTS




# BARRIERS TO CHANGE

Negotiating interactions with family members

- Clarify with patient which family or friends can participate in bedside shift report
- Ask others to step out

Not wanting to disturb the patient

- Use professional judgement or ask patient if they want to be awakened for shift report
- Continue to do visual checks if patient undisturbed

Fear of change

- Change is hard; Potential to save time, prioritize patient care, safety catches

# CONCLUSIONS

1

Implications for Practice

2

Implications for Future Research

# REFERENCES


Communication failures continue to plague patient care [Editorial]. (2016). *Patient Safety Monitor Journal*, *17*(4), 1-4.

Eberhardt, S. (2014). Improve handoff communication with SBAR. *Nursing*, *44*(11), 17-20. https://doi.org/http://dx.doi.org.lib-proxy.jsu.edu/10.1097/01.NURSE.0000454965.49138.79

Holly, C., & Poletick, E. (2014). A systematic review on the transfer of information during nurse transitions in care. *Journal of Clinical Nursing*, *23*(17/18), 2387-2396. https://doi.org/http://dx.doi.org.lib-proxy.jsu.edu/10.1111/jocn.12365

Institute for Healthcare Improvement. (2017). SBAR: Situation-Assessment-Background-Recommendation. Retrieved from http://www.ihi.org/resources/Pages/Tools/SBARToolkit.aspx

Institute for Healthcare Improvement. (n.d.). *Development of a culture of safety*. Retrieved from http://www.ihi.orgIIHLITopics/PatientSafety/MedicationSystems/Changes/Develop+a+Culture+of+Safety.htm

Kowalski, S., & Anthony, M. (2017). Nursing's evolving role in patient safety. *American Journal of Nursing*, *117*(2), 34-50.

Makic, M. F., & Bueno, E. (2016). Improving interprofessional communication through structured rounds. *Journal of PeriAnesthesia Nursing*, *31*(4), 340-342. https://doi.org/https://doi-org.lib-proxy.jsu.edu/10.1016/j.jopan.2016.05.001

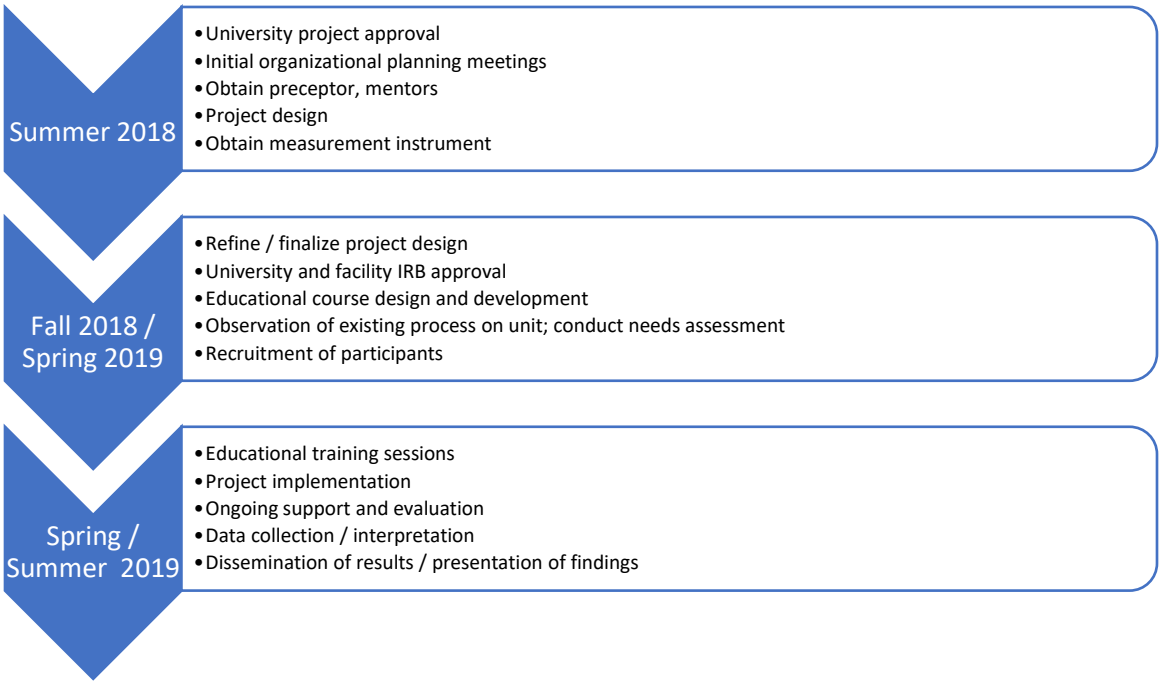
Streeter, A. R., & Harrington, N. G. (2017). Nurse Handoff Communication. *Seminars in Oncology Nursing*, *33*(5), 536-543. https://doi.org/http://dx.doi.org.lib-proxy.jsu.edu/10.1016/j.soncn.2017.10.002

The Joint Commission. (2015). *Root causes by event type: 2004-2014.*

U.S. Department of Defense. (n.d.). *Situation, Background, Assessment, Recommendation (SBAR) toolkit*. Retrieved from https://health.mil/Military-Health-Topics/Access-Cost-Quality-and-Safety/Quality-And-Safety-of-Healthcare/Patient-Safety/Patient-Safety-Products-And-Services/Toolkits/SBAR-Toolkit

# Appendix M

## Project Timeline



# Appendix N

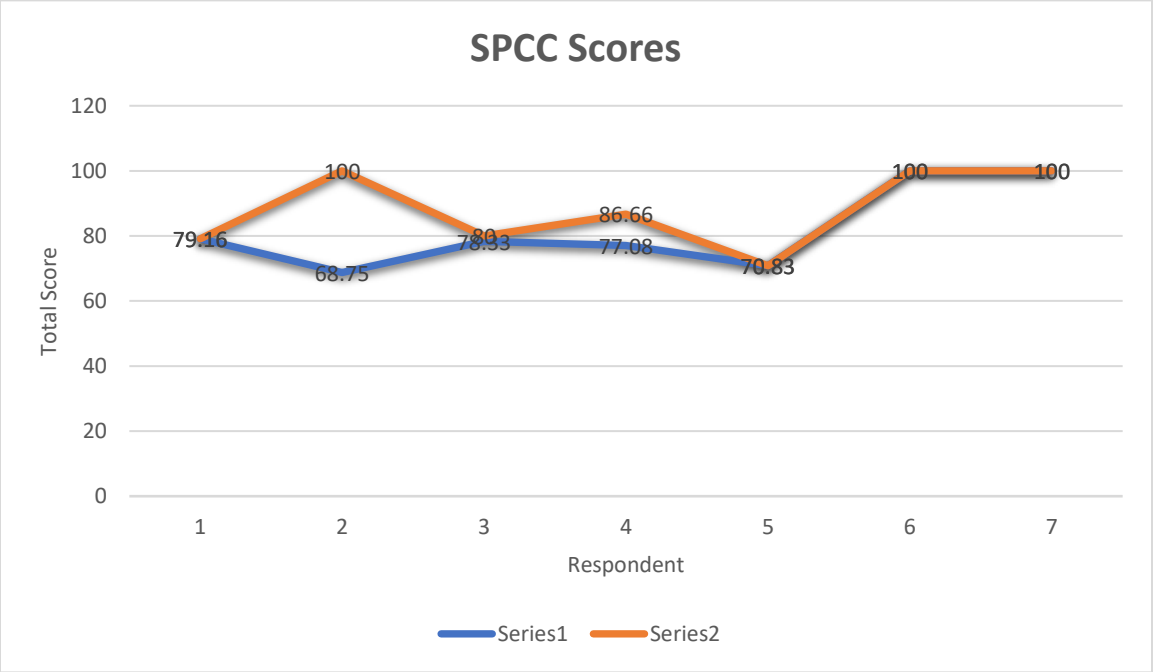
## Teaching Template

| | |
|---|---|
| **Student Name** | E. Allison F. Crabtree |
| **Agency of Practicum** | Regional Medical Center (RMC) |
| **Target Population** | Nurses on Observation Unit (RNs/LPNs) |
| **Issue of Concern** | Nursing communication at patient handover |
| **Overall Educational Goal** | To optimize intraprofessional nursing communication during a standardized process at patient handover |
| **Timeline for implementation** | Fall 2018 – Summer 2019 |
| **Resources you will need** | Instructional space, audiovisual equipment, instructional time, space to display recruitment poster, needs assessment survey, pre-test and post-test surveys of nurses' self-perceived communication competence, consent letter, recruitment flyers, PowerPoint presentation, participant study guide, peer evaluation survey for simulation exercise, administrative support, statistician consultation |
| **Barriers or Challenges Identified** | Possibly low recruitment numbers, small teaching space, lack of participant buy-in, low utilization of process after the educational session |

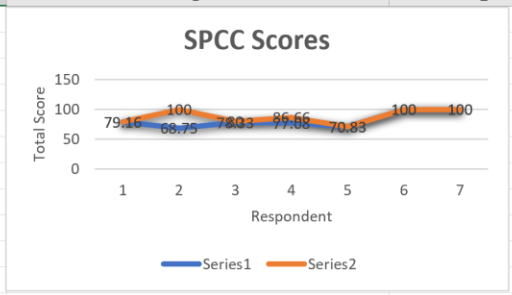
| Needs Assessment | Special Considerations | Educational Objectives | Content | Teaching Strategies | Written Material | Evaluation of Learning |
|---|---|---|---|---|---|---|
| Informal paper/pencil Likert-type survey with comments designed by project planner and completed by participant; direct observation by project planner; individual and small group interview/discussion between participant and project planner; project planner interview with unit manager<br><br>Goals of Needs Assessment:<br>1) Evaluate participant's understanding of impact of communication failure to adverse patient events; evaluate participant's understanding of the definition of intraprofessional communication and events where this is displayed<br>2) Evaluate participant's perception of elements of effective communication<br><br>3) Evaluate participant's self-perceived communication competence<br><br>4) Evaluate participant's prior use of and training in utilizing SBAR during patient hand-off<br><br>5) Evaluate participant's confidence in completing all elements of SBAR after patient assessment, including any recommendations and relaying these findings during patient hand-over | All written material and verbal instruction provided at the high school educational level; limited time for nurses' participation in continued education activities; fatigue of nurses participating after shift; distractions (intercom, noise level); low participation numbers, lack of motivation to change existing processes | Relate the threat of patient safety to communication failures. (knowledge)<br><br>Identify the impact of intraprofessional nursing communication on patient handover events. (comprehension)<br><br>Illustrate elements of effective communication. (application)<br><br>Compare effective communication strategies against personal philosophies and previously utilized skills. (analysis)<br><br>Develop proficiency in utilization of a standardized communication tool to guide handover events at shift change. (synthesis)<br><br>Demonstrate competence in handover communication strategies. (evaluation) | Statistics, research findings, patient safety goal, malpractice claims data<br><br>Literature review findings<br><br>Literature review: nurses' defined elements of "good handover"<br><br>Literature review: nurses' defined elements of "bad handover"; self-reflection<br><br>SBAR: example of blank form, example of properly completed form with all elements, example of poor prepared form | PP presentation combined with lecture: highlight risks/statistics of communication failure r/t patient safety; video (K. Helms link)<br><br>PP/lecture: define intraprofessional communication, highlight opportunities for intraprofessional information exchange at patient handover<br><br>PP: elements of effective handover; video demonstrations; role-play, simulation, possible effect on job performance<br><br>Peer-to-peer discussion, personal self-reflection activity, focus group discussion, video demonstrations, role-play simulation<br><br>Group activity: instruction and return demonstration of completing an SBAR with all required elements using an exemplar patient<br><br>Group activity, role-play, return demonstration | Participant study guide: fill-in-the-blanks: statistics, NPSG<br><br>Pre-test survey of self-perceived communication competence (SPCC tool); study guide with definition<br><br>Study guide; elements of good handover<br><br>Study guide: opportunity for self-reflection, evaluation of pre-test survey<br><br>Blank SBAR for demonstration, practice, and group activities<br><br>Post-survey of self-perceived communication competence (SPCC) | Participant will define statistics of adverse patient events related to communication failures. (completion of study guide)<br><br>Participant will explain events that require optimal intraprofessional nursing communication. (completion of study guide)<br><br>Participant will demonstrate effective communication during simulated patient handover. (return demonstration, Q&A, study guide)<br><br>Participant will compare contrast ineffective / effective communication strategies during simulated patient handover. (return demonstration, Q&A, study guide)<br><br>Participant will successfully complete an SBAR by completing all sections of form with key information. (return demonstration)<br><br>Participant will simulate patient handover with peer utilizing completed SBAR as guide, include all key elements on form, demonstrate effective communication strategies during information exchange. (return demonstration, role-play, simulation) |

# Appendix O

## Data Results




| A | B | C | D | E |
|---|---|---|---|---|
| **respondent** | **Pre-test SPCC Score** | **Post-test SPCC Score** | | |
| 1 | 79.16 | 79.16 | | |
| 2 | 68.75 | 100 | | |
| 3 | 78.33 | 80 | | |
| 4 | 77.08 | 86.66 | | |
| 5 | 70.83 | 70.83 | | |
| 6 | 100 | 100 | | |
| 7 | 100 | 100 | | |




t-Test: Paired Two Sample for Mea

| | *Variable 1* | *Variable 2* |
|---|---|---|
| Mean | 82.0214285714286 | 88.0928571428571 |
| Variance | 165.678180952382 | 145.11495714286 |
| Observations | 7 | 7 |
| Pearson Correlation | 0.565207799908911 | |
| Hypothesized Mean Difference | 0 | |
| df | 6 | |
| t Stat | -1.37989381584565 | |
| P(T<=t) one-tail | 0.108417593864637 | |
| t Critical one-tail | 1.9431802805153 | |
| P(T<=t) two-tail | 0.216835187729274 | |
| t Critical two-tail | 2.44691185114497 | |

# Appendix P

## Participant Demographics

1. Please indicate your current professional licensure:

More Details

| | |
|---|---|
| RN | 5 |
| Advanced Practice LPN | 1 |
| LPN | 1 |

2. How many total years of nursing experience do you have?

More Details

| | |
|---|---|
| 1 - 5 years | 0 |
| 5-10 years | 1 |
| 10 - 15 years | 2 |
| 15 - 20 years | 2 |
| 20+ years experience | 2 |

3. From the time you entered your professional nursing career until now, have you ever participated in health-care related communication training?

More Details

| | |
|---|---|
| Yes | 6 |
| No | 1 |

4. Since the time you became a licensed nurse until now, have you had any previous training in a standardized communication tool (SBAR, other) ?

More Details

| | |
|---|---|
| Yes | 6 |
| No | 1 |

5. How old are you?

More Details

| | |
|---|---|
| 20-30 years old | 0 |
| 31-40 years old | 2 |
| 41-50 years old | 3 |
| 51-60 years old | 1 |
| over 60 years old | 1 |

6. What is your highest nursing educational level?

More Details

| | |
|---|---|
| Associates degree | 4 |
| Bachelors degree | 1 |
| Master's degree | 2 |

7. Please select your gender

More Details

| | |
|---|---|
| Male | 0 |
| Female | 7 |
| Prefer not to answer | 0 |

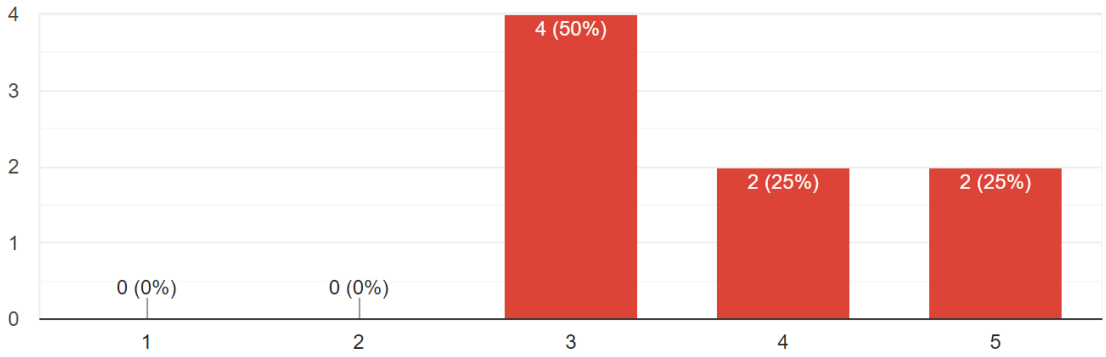
Appendix Q

Needs Assessment: Results

5-point scale (1= Strongly disagree to 5 = Strongly agree)

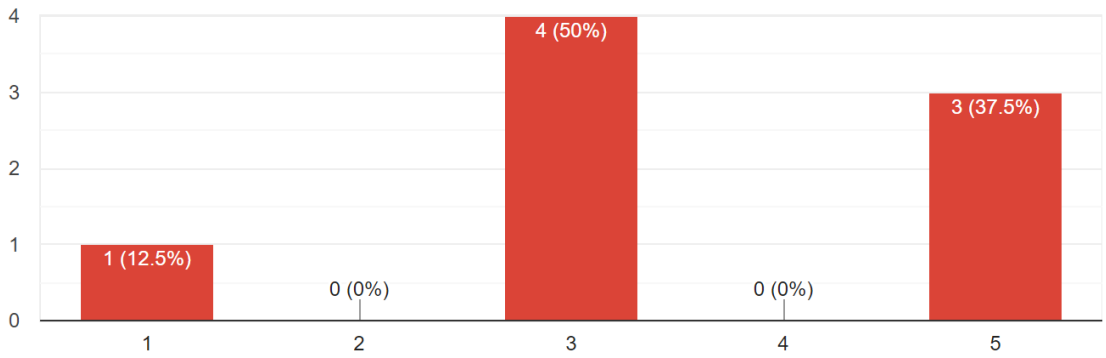
The time it takes to complete patient handover using the current process on my unit is reasonable.

8 responses




The best patient handovers occur at the bedside.

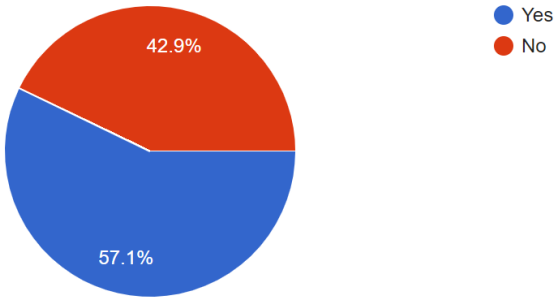
8 responses



Complete this section using your last few handovers as a reference. During the handover process, I conducted a ....

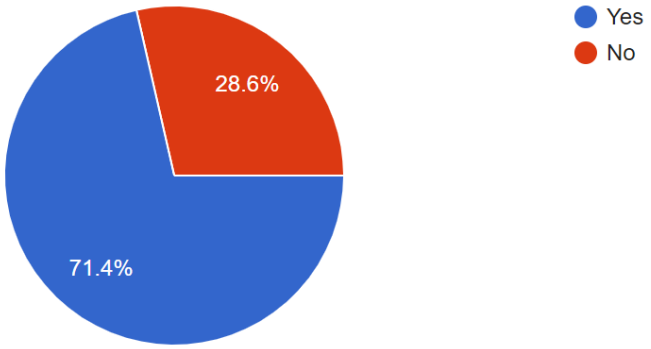
## Focused patient assessment

7 responses



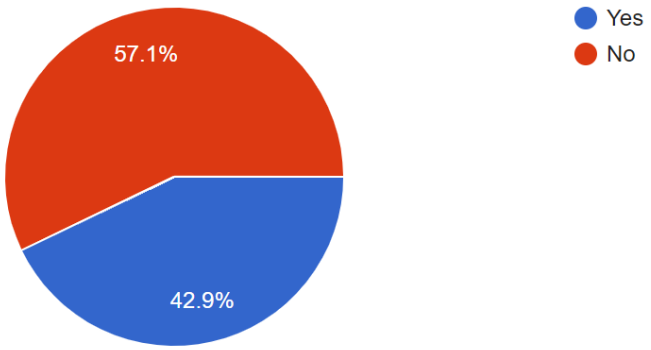
## Safety assessment of the room

7 responses




## Verbal report with the patient/family

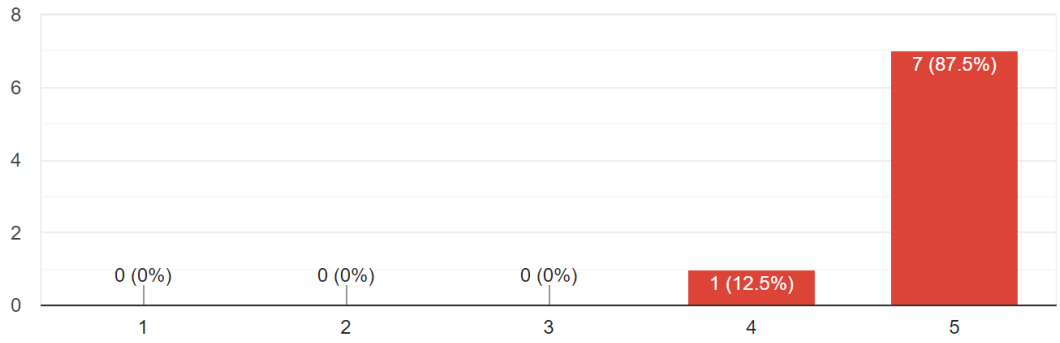
7 responses



These questions relate to patient safety, nursing processes, and nursing communication. Consider how you feel about patient safety. Evaluate how you feel about the impact of intraprofessional (nurse to nurse) communication on patient care. Reflect on the implications of nursing communication on relationships with your peers. Please select the answer that best reflects your opinion.

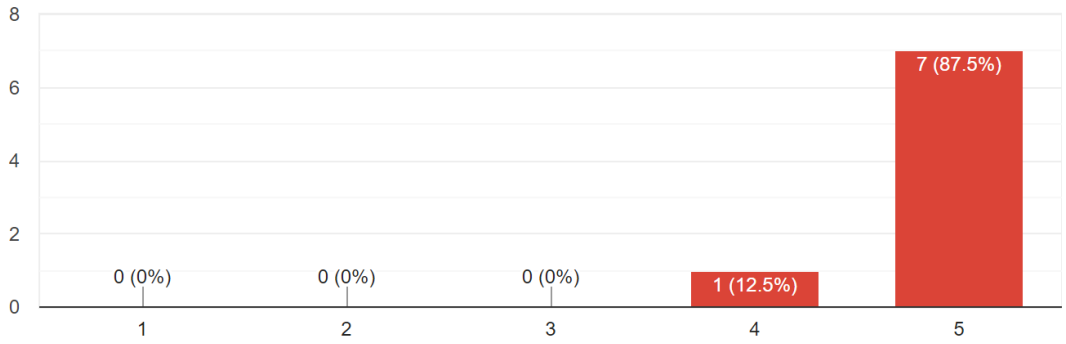
Communication among healthcare providers is integral to patient care and safety.

8 responses



My ability to effectively communicate with other nurses has a direct impact on patient care.

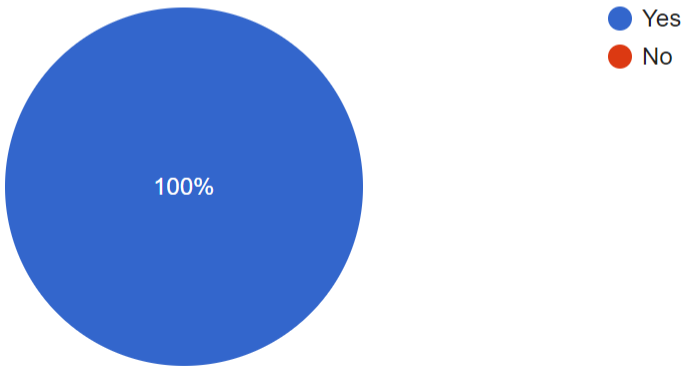
8 responses




As a nursing professional, I am committed to:

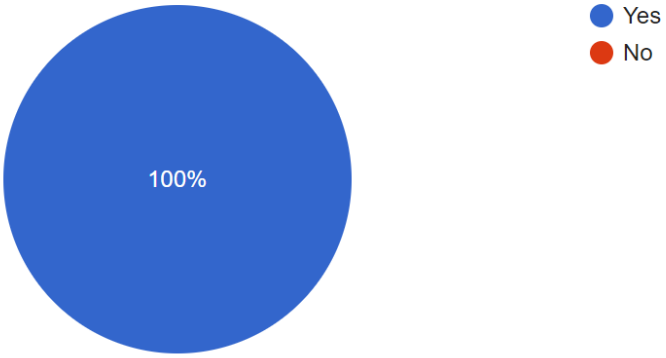
High quality care to patients

8 responses



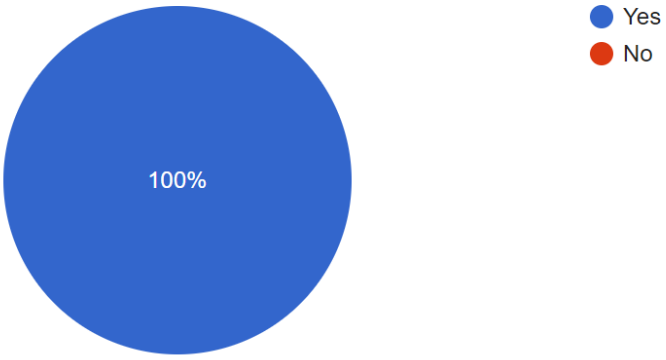
## Decreasing risks to patient safety

8 responses



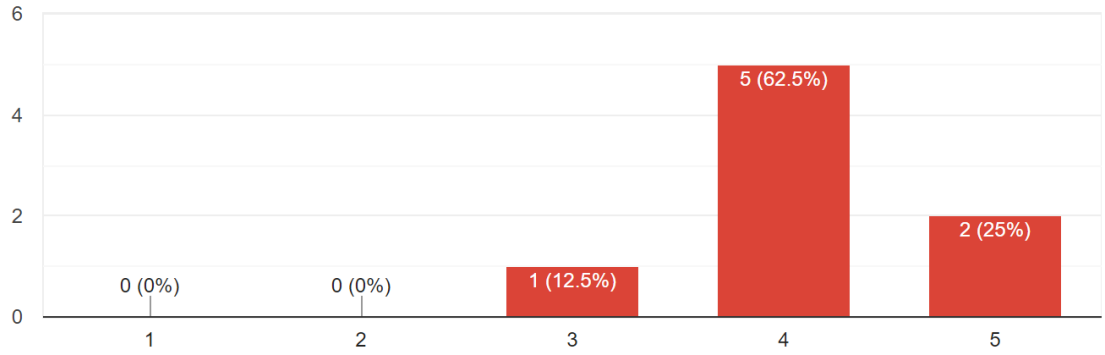

## Improving processes

8 responses



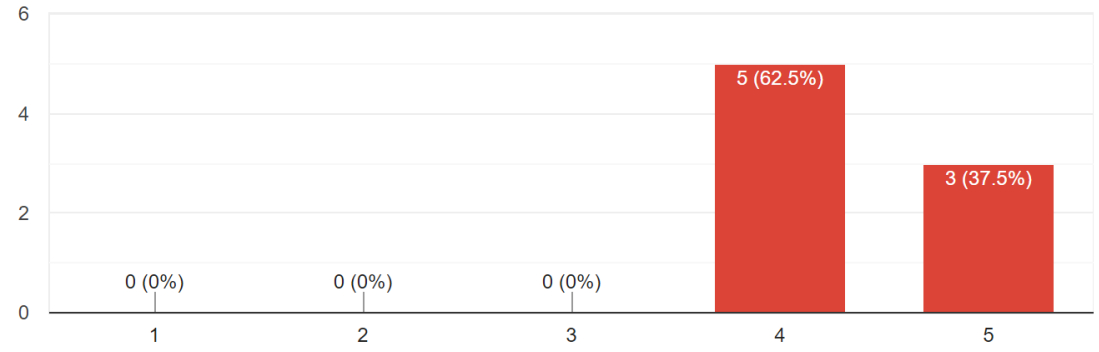
Communication between nurses during patient handover on my unit can be improved.

8 responses



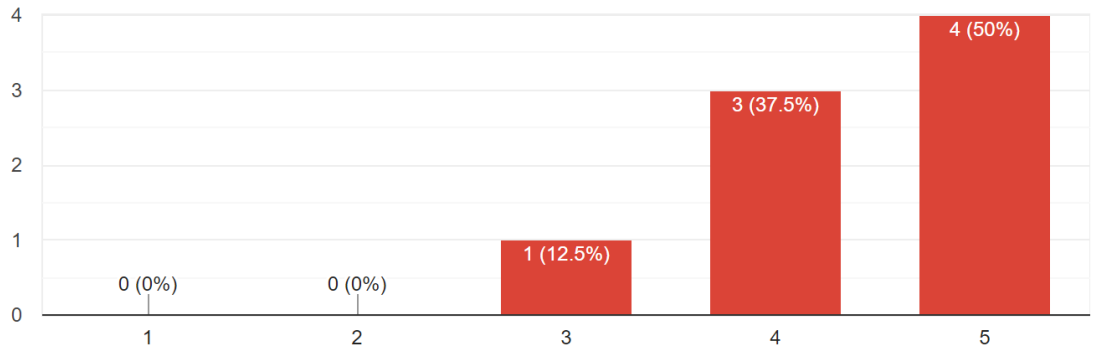

I can identify critical elements to communicate to the oncoming nurse during patient handover.

8 responses



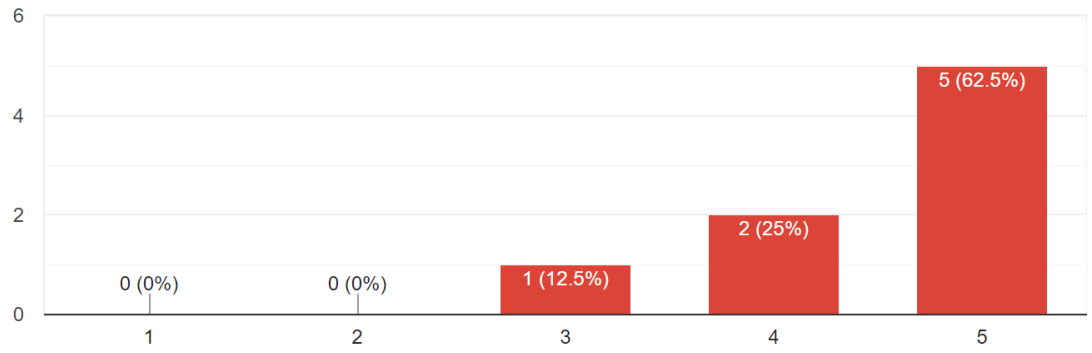
After receiving handover report, I can efficiently prioritize patient-related tasks that need to be completed (labs, tests, medications).

8 responses



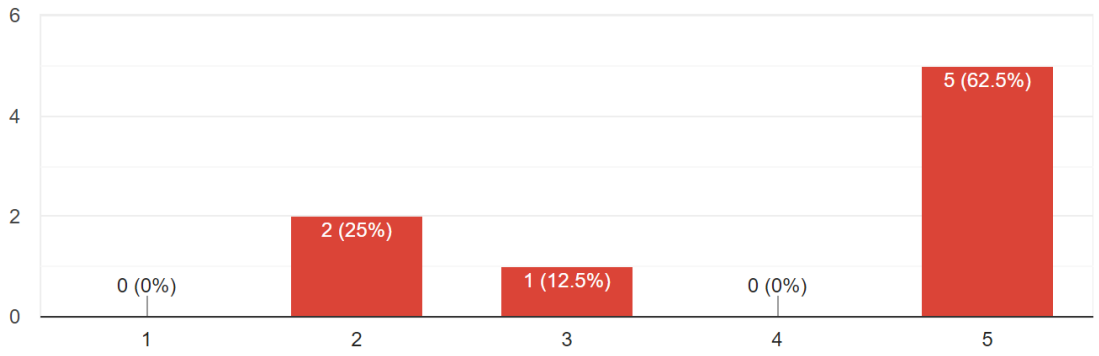

Identifying patient & family needs or concerns should occur during the handover process.

8 responses



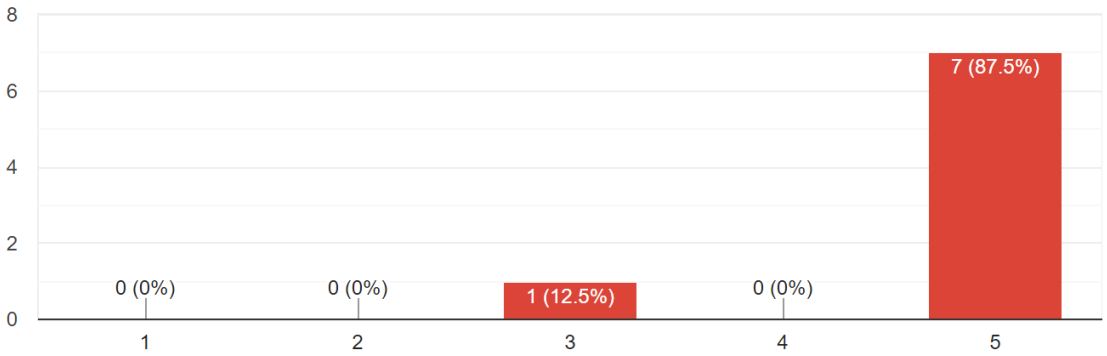
The patient & family should be invited to take part in the handover process.

8 responses



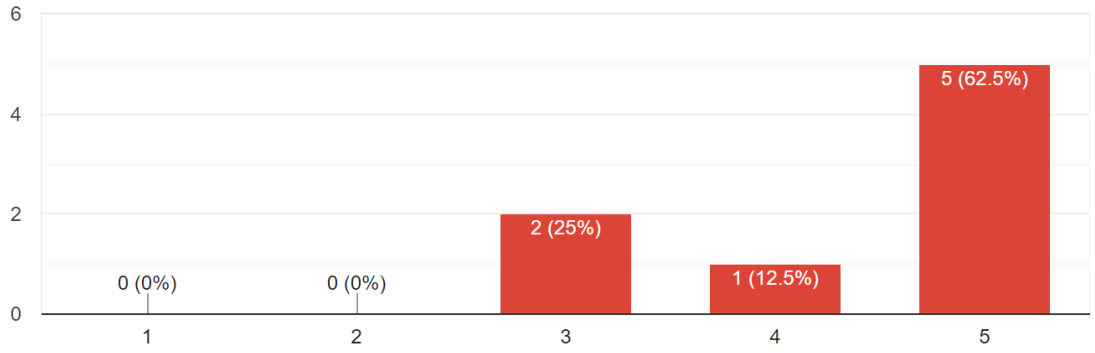

I would be confident accessing the electronic medical record while in the patient room.

8 responses



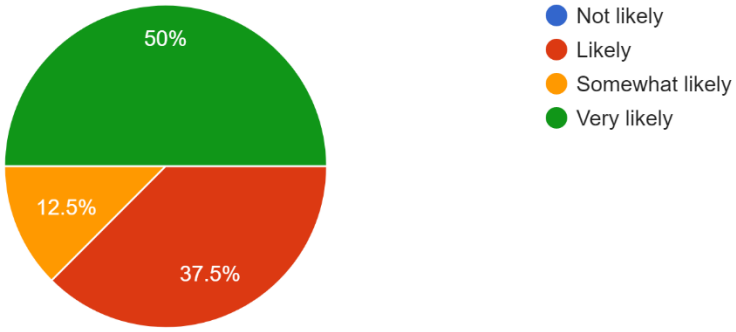
Nursing communication directly impacts my job satisfaction.

8 responses



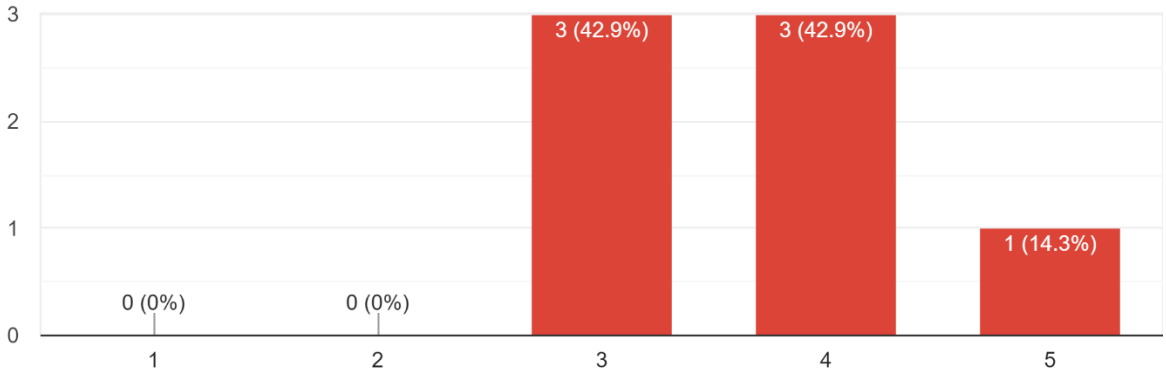

How likely would you participate in a 1-hour (1 CEU) continuing education class focused on improving nursing communication during patient handover?

8 responses



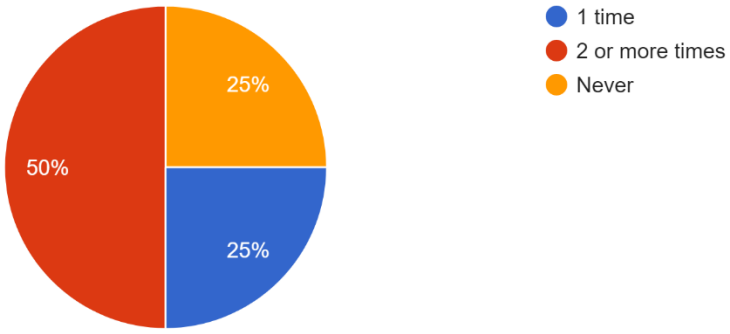
Please rate your overall satisfaction with the current handover process on your unit.

7 responses




How often have you had formal training (classroom, webinar, self-study, demonstration, role-play, other) in th... as a standardized communication tool?

8 responses



How many minutes do you spend (in total) preparing for and conducting patient handovers for your assigned patients at the end of the shift?

7 responses