

Importance of Relaying Pertinent Patient Information Post-Operatively

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DNP Scholarly Project Final Approvals

The DNP student Okechukwu Mubor and the Scholarly Project _____

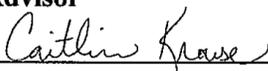
_____ meet all the requirements for the degree of Doctor of Nursing Practice at University of Saint Francis-Fort Wayne, IN.

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Abstract

Background: In the perioperative arena, effective communication between providers during the patient handoff process is crucial to patient safety. Relaying key patient information, such as comorbidities, medications, and changes in health status, to other providers and members of the perioperative team is an integral part of patient care. With such pertinent patient health information being passed on thoroughly, successive providers can make well-informed decisions about patient care. Evidenced based research advise that utilizing a standardized handoff tool can help ensure the safe and meticulous continuity of patient care.

Currently at Bluffton Regional Medical Center (BRMC), there is no standardized method for communicating patient information between providers, with many relying on memory, this leaves room for human error during the handoff process. Missing certain crucial patient details can have detrimental outcomes.

The aim of this DNP project was to implement the use of the PATIENT handoff checklist in the perioperative setting at BRMC, observe its usefulness in practice and gauge hospital staff perceptions, satisfaction, and willingness to use it.

Methodology: This project met the criteria for a Quality Improvement (QI) project. A Power-Point presentation on the purpose of the project and the importance of a handoff checklist was presented to the participants. The participants consisted of 11 health care providers that included eight post-operative care unit (PACU) nurses and three certified registered nurse anesthetists (CRNA). PACU nurses at Bluffton Regional Medical Center (BRMC) were provided copies of the PATIENT handoff tool to use while receiving report from anesthesia providers over the course of two weeks. Data was collected via three-point Likert scale perception questionnaires, and five-point pre- and post-satisfaction questionnaires.

Findings: results from the project displayed that 63.6% of participants agreed to being interested in utilizing a standardized patient handoff checklist when transferring patient care in the future, and 81.8% state that there is a benefit in utilizing such a tool. Of all the participants, 81.8% agreed that the PATIENT checklist is effective in organizing pertinent patient information, and 72.7% participants concurred that the PATIENT checklist lends itself to memory. Another outcome was that 70% of the PATIENT checklists were utilized post-implementation, compared to barely being used pre-implementation.

Conclusions/ Implications: Analysis of the data collected reflects that health care providers at BRMC believed that the PATIENT checklist led to improved communication, increased organization, decreased reliance on fallible memory, and improved patient safety. The facility has been positively impacted by the project and may be in consideration of adoption.

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Chapter 1: INTRODUCTION

Problem Statement

Communication is key to the human exchange of information. Ineffective communication can negatively impact interactions in various ways. Effective communication is especially important in the perioperative arena. Anesthesia providers continuously interact with patients, families, and other healthcare providers. According to Patient Safety Network (PSNet; 2014), anesthesia providers are responsible for the transfer of patient care to other health providers several times a day. Thus, it is incumbent that each provider is able to communicate effectively with the other provider during transfer in each phase of care. According to Saleem et al. (2015), patient handoff is a very important and necessary process required to maintain the continuity of patient care. Patient handoff is the transfer of the patient care and responsibility to another provider; the exchange of pertinent patient information is of high importance (Hughes, 2008).

Currently, there are no standards set on the transfer of patients and pertinent information after surgery. According to Gibney et al. (2017), despite a growing awareness that a standardized handoff tool is critical to providing safe and effective patient care, the transfer of care process between anesthesia providers and other members of the perioperative team is still undefined and not standardized. Consequently, as described by Smeulers and Lucas (2014), clinically relevant information that is not shared accurately in a timely manner may lead to adverse events as well as delays in treatment and diagnosis. Implementing a communication system by which all anesthesia providers would have to abide, would ensure that patient safety would be enhanced.

PICO Question

For all postoperative patients being transferred to the post-anesthesia care unit (PACU) at Bluffton Regional Medical Center (BRMC), does using the PATIENT checklist while relaying

pertinent patient information increase the complete reporting of important patient information and provider satisfaction as opposed to not utilizing a handoff checklist?

Background of the Problem

During the perioperative phase, communication errors are prevalent. At times, vital patient information is not conveyed, resulting in compromised patient safety. The Joint Commission (2012) reported that approximately 80% of serious medical errors were due to communication failures during patient transfer. The fast-paced environment of the operating room (OR) and the PACU is a major factor contributing to this predicament. Communication errors have resulted in preventable accidents. An integral component in developing situation awareness in the OR environment is the safe and efficient exchange of essential information (Wright, 2013). Surgery affects each individual in a different manner; relaying all the relevant information to whomever is assuming care for that patient is paramount to patient safety.

According to the Joint Commission (2017), due to the lack of mandatory guidelines, there is inconsistency in the transfer of care between providers thus increasing the potential for error and patient harm. Starmer et al. (2014) claimed that in the United States, miscommunication during patient handoff is a major cause of adverse effects and medical errors. The use of a handoff tool during the transfer of patient care to another provider can lead to less omission of pertinent information if used appropriately (Starmer et al., 2014). According to McCook (2011), there were improved patient outcomes when a handoff protocol was implemented, and all providers abided by it. Implementation of a handoff protocol was associated with a decrease in medical errors and did not have an impact on workflow process (Starmer et al., 2014). Pertinent patient information should include all information required for the receiving individual to safely care for the patient. Segall et al. (2013) analyzed a systemic review of 31 studies based on usage of a PACU handoff. They concluded that, at minimum,

pertinent patient information should include anesthesia information, surgical information, current status, and care plan (Segall et al., 2013).

The Doctor of Nursing practice (DNP) project was implemented at BRMC located in Bluffton, Indiana. The project manager's focus was on the surgical unit. Based upon the project manager's observation and conversations with healthcare providers, it was evident that anesthesia providers at this facility relayed pertinent patient information from memory and did not utilize a specific process or handoff tool. These patient handoffs varied depending on the provider; the kind of information considered to be pertinent was usually subjective. There were no specific methods or protocols in place on how patient handoff should occur and what information should be conveyed.

Needs Assessment/ Practice/Knowledge Gap

The project manager spent 24 days observing the post-operative handoff communication between anesthesia providers and PACU nurses at BRMC. It was evident that no handoff checklist was utilized during this time. Providers could be seen giving a quick summary of patient information from memory to the PACU nurses. This communication tended to be more one-sided than interactive. The receiving nurses did not always have enough time to ask questions or to review information given.

Relevant patient information that should be relayed during handoff includes but is not limited to care given, medications, changes in status, and any treatment during the perioperative phase (Canale, 2018). Best practice for patient handoff states that the use of a structured checklist promotes effective transfer of pertinent information. Berger et al. (2012) states there should also be a chance for interactive communication between the providers so that all questions can be answered. Best practice also entails an opportunity for the receiver to review

and verify information with minimum distraction and interruptions (The Joint Commission, 2017).

DNP Project Overview

Scope of Project

The purpose of this DNP project included providing education on the importance of utilizing a handoff checklist postoperatively, implementing the checklist, and gauging staff satisfaction with it. Studies such as those previously mentioned have shown the efficacy of using a handoff checklist such as the PATIENT checklist while transferring care. The educational presentation provided to the healthcare providers aimed to further increase their knowledge on current evidence-based practice (EBP) related to safe patient transfer. By collecting information prior to and after implementing a checklist, the health care providers will be able to understand the benefits of using a checklist and will experience satisfaction with its use. BRMC has highly trained Certified Registered Nurse Anesthetists (CRNAs) and PACU nurses so adopting such a practice that improves patient safety and patient outcomes will not only benefit the patient population, but the organization as well. According to Randmaa et al. (2015), adequacy of anesthesia handoff is equally as important as provider proficiency in relation to patient safety.

There was no risk or compensation for participants involved in this project. This project did not cost the facility any resources, financially or otherwise.

Stakeholders

Stakeholders for this project included the project manager, Okechukwu Gubor, BSN, RN, DNP-CRNA student; project advisor Dr. Caitlin Krouse DNP, FNP-BC, RN; academic advisor Dr. Gregory Louck DNP, CRNA; and practice mentor Brenda Arter DNP, CRNA. One of the major stakeholders was the patients, as research supports improved care when using standard procedures. Other stakeholders included the University of Saint Francis nursing faculty, the OR

director/educator, and the chief surgeon. Positive reinforcement from leadership was influential in gaining support from the surgical staff. The cooperation of all the stakeholders was necessary in order to promote a culture of safety in the surgical care unit.

Budget and Resources

Cost and Description of Resources

Most of the cost for this project was covered by the University of Saint Francis as well as BRMC. This included presentations, advising, and tutoring. The healthcare providers at the facility also volunteered their time to help the project come to fruition. There were some direct costs incurred by the project manager. \$22 was spent on printed handouts/stationary supplies and \$40 for the laminated PATIENT handoff tool. Approximately \$300 was allocated for the transit to and from BRMC several times, and a \$100 was allocated for a statistician to review data collected from the project. Refer to Appendix A.

A PowerPoint presentation created by the project manager was presented at BRMC on information regarding the importance of utilizing a handoff checklist and the PATIENT checklist itself. Paper copies of the handoff checklist perception questionnaires and pre-implementation satisfaction surveys were distributed prior to the educational presentation. A post-implementation satisfaction survey was provided afterwards. The PACU nurses were supplied paper copies of the PATIENT checklist as well.

Process and Outcomes

General Timeline

The project began in the Fall of 2019, when the project manager identified a possible problem at the facility and devised a problem statement. This topic of implementing a handoff checklist was discussed with the project advisor for initial approval in January of 2020. Upon approval, EBP articles were collected to support the project. The DNP faculty met to review the

project's reasoning and process before it was approved. The Collaborative Institutional Training Initiative (CITI) training was completed between February and April of 2020 (Appendix B). BRMC was contacted in April as well to gain approval to conduct the project at their facility (Appendix C). Between the months of May through July of 2020, risk assessment, gap analysis, timeline, and budget plan were devised. In August of 2020, questionnaires and surveys were created. This project met the criteria for a Quality Improvement (QI) project. In the DNP Project I course, IRB approval was received from the University of Saint Francis and BRMC to progress with the project (Appendix D, & E respectively). During the DNP Project II course, the project was implemented over a two-week period, and data was collected in February of 2021. During DNP project III course, result analysis was concluded, and dissemination was presented to key stakeholders and DNP faculty.

Project Setting and Target Population

As aforementioned, the DNP project was implemented at BRMC located in Bluffton, Indiana. This is a 79-bed facility that offers inpatient, outpatient, diagnostic, medical, surgical, and emergency care. Procedures ranging from colonoscopies to extensive abdominal surgeries are scheduled at this hospital. This facility is accredited by The Joint Commission and is a member of the Lutheran Health Network (LHN). Anesthesia at this site is governed by Midwest Anesthesia Associates. The project manager's specific focus was on the perioperative area.

The participants included three CRNAs and eight PACU nurses involved in the exchange of patient information. Only the individuals that held these roles were included. Demographic information was collected on these participating healthcare providers (Appendix F). Exclusion criteria included health care professionals not in one of the aforementioned roles, and non-English-speaking. Additional exclusion criteria for the CRNAs included those not legally

permitted to provide anesthesia in Indiana and those not currently providing anesthesia at BRMC.

Expected Outcomes

This project was expected to yield several outcomes. First and foremost, was to increase healthcare providers' knowledge on the importance of utilizing a standardized checklist during patient transfer. Therefore, this would lead to increased use of a checklist and, in turn, enhanced patient outcomes. Second was an increase in healthcare providers' satisfaction and perception with the use of PATIENT checklist as evidenced by the pre- and post-intervention questionnaires, as well as the perception questionnaires. The expectation is that the healthcare providers at BRMC will utilize the PATIENT checklist during patient transfer to ensure all pertinent patient information is communicated.

Risk Analysis

This project posed no risk for the participants. The participants were able to opt out at any time. There was no risk associated with watching the presentation or filling out the questionnaires. The project manager was responsible for storing the data. Surveys and questionnaires collected from healthcare providers were de-identified and stored in the project manager's private locked safe and then transferred to google drive on a password-protected computer with adequate storage capacity. The participants were neither compensated nor required to pay for anything. The guidelines and expectations were presented clearly and thoroughly; deception was avoided. The only potential discomforts that may have been associated with this study were the time requirements for completing the questionnaire and utilizing the tool. Informed consents were distributed, and the participants were allowed to

participate only after it was received by the project manager (Appendix G). A force-field analysis was completed for BRMC as well (Appendix H).

CHAPTER 2: SYNTHESIS of SUPPORTING EVIDENCE/LITERATURE and PROJECT FRAMEWORK

Relevant Theory and Concepts

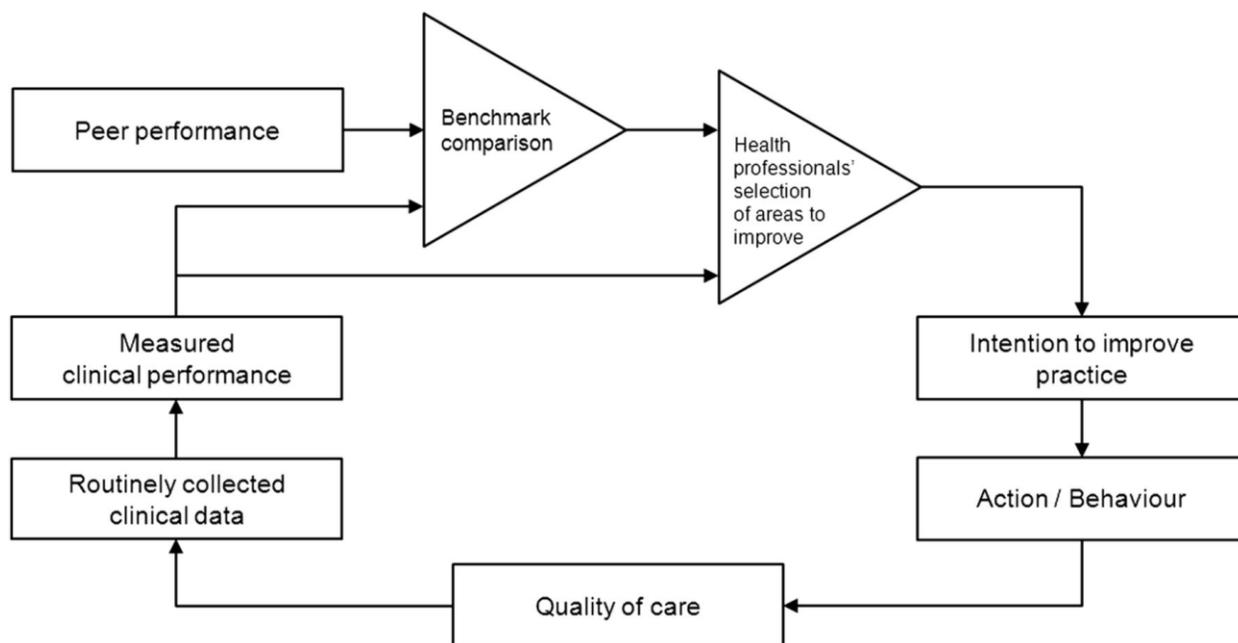
The Audit and Feedback concept provided the theoretical foundation for this DNP project. According to Ivers et al. (2014), the audit and feedback method is a frequently used strategy to promote the implementation of evidence-based practices. This framework focuses on the healthcare professional and helps in discerning whether their practice methods are optimal for the patient. According to Flottorp et al. (2010), healthcare professionals are more inclined to change their current clinical practice methods if they receive feedback that it is inconsistent with the accepted guidelines and with the standards followed by their peers. The Audit and Feedback concept provides a standardized means of evaluation and assessment of practitioners' patient care practices, through collecting and evaluating data. With the collection of data on routine practice, these providers would be able to be audited, thus receiving feedback to understand what needs to be done differently. After they receive feedback and implement it, another audit is performed. This feedback loop is used to improve overall performance, and audit is repeated afterward to ensure effectiveness (White, Dudley-Brown & Terhaar, 2016).

The Audit and Feedback framework is a cyclical process involving five steps. These include (1) preparing for audit; (2) selecting criteria; (3) measuring performance; (4) making improvements; and (5) sustaining improvements (Jamtvedt et al., 2006). To utilize this tool, a process for data collection, analysis, and reporting must be developed and then implemented (Jamtvedt et al., 2006). The project manager implemented a handoff checklist that was used by

the anesthesia provider while reporting to the PACU nurse taking over care of the patient. Data was collected and analyzed on the pertinent information relayed or omitted during patient handoff. The provider is then given feedback on performance and educated on what adjustments to make to better their practice.

If a process is being reformed, it is best practice to ensure that the changes being adopted are effective. Collection of summaries and objectives of performance data allows for valuable and tailored feedback to be given to providers, who can then utilize it to adjust their care practices (White et al., 2016). The aforementioned steps illustrate the importance of audit; adjustments can be made for improvement of the process of patient care, aiding in the overall success of the implementation. Figure 1 displays the Audit and Feedback process. When it is effective, the revisions in practice are generally small to moderate. The absolute effects of audit and feedback are more likely to be larger when baseline adherence to recommended practice is low. The overall goal of this project is to enhance healthcare quality and safety by promoting the utilization of a handoff checklist.

Figure 1



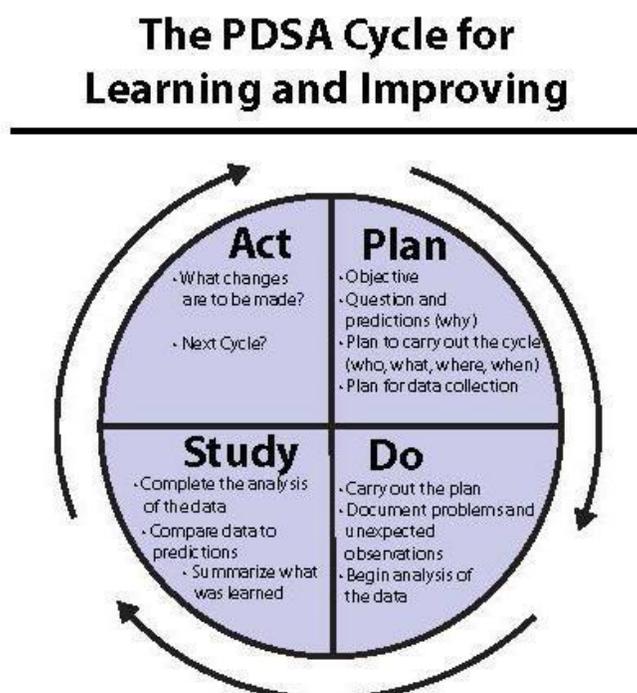
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Model

The project manager utilized the Plan-Do-Study-Act (PDSA) methodological model of the QI design. According to the Institute for Healthcare Improvement (2017), the PDSA was developed based on the foundation of assisting organizations' work through quality-improvement problems. This model is simple, yet very clear and concise, thus making it easy to understand and utilize in testing out new changes in a system. In this case, implementing the use of a handoff checklist and gathering staff perception of its use. Noted in the name of this model, it consists of four main steps: (1) "plan" in order to pinpoint the specific objective of the test and map out steps for a tactical plan; 2) "do" initial trials of the test and make observations on how it works in the field of study; (3) "study" and analyze the results of the test, giving consideration to what was learned; and (4) "act" by making any informed revisions to the test to allow for better future trials (Institute for Healthcare Improvement, 2017). Figure 2 display the PDSA process.

With regard to the project at hand, this model is very generalizable to quality improvement because it facilitates change, which this manager aimed to achieve. The structure of the model is cyclical, meaning it allows for a continuous problem-solving approach. Using the PDSA methodological model, the project manager was able to continuously pinpoint and troubleshoot any areas of concern in the test process. If one aspect of the initiative is not effective, it can be revised to better work towards the goals at hand. According to Speroff and O'Connor (2004), the importance of this model for QI with PDSA is that it allows for the coordination of clinical, operational, educational, and research disciplines to bring research and practice together. This project manager used this model to plan, execute, and then revise the planned initiatives. With this model, there is continuous reevaluation to determine if the project initiative is effective in the healthcare setting, specifically in anesthesia practice.

Figure 2



Adapted from

<http://www.ihl.org/resources/Pages/ImprovementStories/QandAonQISixQuestionsForIHIMprovementAdvisor.aspx> copyright 2020

Supporting Evidence and Literature

Forty-five articles were collected from databases such as Proquest, Emcare, CINAHL and MEDLINE. Keywords and searched terms utilized included “post-anesthesia and handoff,” “anesthesia and communication,” “post-anesthesia and patient care,” “aesthesia and handoff and communication,” “post-anesthesia and patient safety,” “post-anesthesia care unit,” and “handoff and patient safety”. The articles selected were chosen based on the relevancy of the information and how recently the study was conducted, with a focus only on data collected within the last 10 years. Table 1.1 displays some of these search results.

Table 1.1- Database Results

Unfiltered or Raw Article Databases	Used (Yes/No)	Search Date Range (years)	Number of Results for Each Key Word	Key Words Used
CINAHL Plus (USF Library)	Yes	No range	21	-Post-anesthesia and handoff.
			122	Anesthesia and communication.
			407	-Post-anesthesia and patient care.
			56	-Anesthesia and handoff and communication.
			1628	-Post-anesthesia and patient safety.
			959	-Post- anesthesia care unit, handoff and patient safety.
EBSCO Biomedical Reference Collection (USF Library)	Yes	No range	128	-Post-anesthesia and handoff.
			26	-Post-anesthesia and communication.

			79	-Post-anesthesia and patient care.
			115	-Anesthesia and handoff and communication
			240	-Post-anesthesia and patient safety.
			2	-Post- anesthesia care unit, handoff and patient safety.
Emcare (Ovid) (USF Library)	Yes	No range	17,698	Post anesthesia and handoff.
			20,741	- Anesthesia and communication
			10,918	-Post anesthesia and patient care.
			10,057	-Anesthesia and handoff and communication
			16,145	-Post anesthesia and patient safety.
			10,149	-Post-anesthesia care unit, handoff and patient safety
Proquest Nursing and Allied Health (USF Library)	Yes	No range	248	-Post-anesthesia and handoff.
			13,330	- Anesthesia and communication.
			44,689	-Post-anesthesia and patient care.
			321	-Anesthesia and handoff and communication.
			44,951	-Post-anesthesia and patient safety.
			1,961	-Post- anesthesia care unit, handoff and patient safety.
PubMed (Medline) (USF Library)	Yes	No range	16	Post-anesthesia and handoff.
			258	- Anesthesia and communication

			5,067	-Post-anesthesia and patient care.
			45	-Anesthesia and handoff and communication.
			7,282	-Post-anesthesia and patient safety.
			129	-Post- anesthesia care unit, handoff and patient safety.

The National Guideline Clearing House, Psycinfo, and the Cochrane Library were also searched utilizing the aforementioned keywords. Few results were found using these sources, which, upon scrutinization, which did not relate to the topic at hand, so these were excluded.

Synthesis of Supporting Evidence

Intraoperative Transfer and Adverse Outcomes

Intraoperative patient transfers happen often and are a necessary part of patient care. With the frequency of handoffs, important patient information can sometimes be omitted, resulting in various issues including, but not limited to, delays, inefficiencies, suboptimal care, and even patient harm (Saager et al.,2014). In the same study, information was collected and tested from the records of 138,932 adult surgical patients in care at the Cleveland Clinic. The results displayed that transition of care in anesthesia was remarkably associated with higher odds of experiencing any major in-hospital mortality/morbidity. In the study, the total number of intraoperative handovers among anesthesia providers was correlated with a composite of postoperative mortality and serious complications. There was found to be an eight percent increase in morbidity and/or mortality during transfer of care. Findings by Saager et al. (2014) also concluded that there was not much difference in the level of the complication occurrences

whether the providers were attending anesthesiologists, residents, or CRNAs, making this a concern of anesthesiology as a whole.

Hyder et al. (2016), suggested that the number of in-room providers (defined as anesthesia residents and nurse anesthetists) was directly associated with postoperative complications among patients. This study is similar to Saager et al.'s in the fact that both associate inadequate handoff of patient care with increased rates of mortality/morbidity intraoperatively. The main difference in these two studies was that Hyder et al. (2016) suggested that anesthesia transitions are not care neutral, proposing that differences in skill level or experience do in fact contribute to patient complications and outcomes, as opposed to the contrary claims by Saager et al. (2014).

Contributing Factors. Surgery affects each individual differently, so it follows that, as described by Pinto et al. (2016), surgical complications can also vary depending on the patient. Complications may be minor and can be attended to with medications or simple interventions, or they can be more serious and life-threatening. Relaying all the relevant information to whomever is assuming care for that patient is paramount to follow-up care in order to prevent complications further down the line. According to Wright (2013), human errors, such as low awareness of the situation at hand, has been tied to poor patient outcomes. Poor situation awareness has been associated with preventable accidents. An important aspect of increasing and improving the situation awareness in the operating room environment is the safe and efficient exchange of essential information (Wright, 2013). By paying careful attention to the patient and the environment, the provider will be better equipped to relay pertinent patient information.

Various factors can lead to omission of pertinent patient details during transfer of care. The PACU can be filled with distractions and interruptions that can divert the attention of

providers caring for the patient during handoff. At times, different care providers take over care of the patient. The stringent schedules that must be maintained during the perioperative stage can also lead to miscommunication during transfer of care (Robinson, 2016). Another possible contributor to ineffective patient reporting during transfer is the use of more than one anesthesia provider during a case. Depending on the facility and schedule, an incoming anesthesia provider may relieve an outgoing anesthetist for circumstances such as breaks, meals, and the end of a scheduled work shift (Wright, 2013). Important information can be accidentally missed at this time, even before the patient's arrival at PACU.

Communication Breakdowns. Surgical outcomes can be affected by many factors during perioperative care, such as a patient's pre-existing condition, complexity of a procedure, comorbidities (Greenberg, Regenbogen, & Studdert, 2007). As stated before, due to lack of data/evidence on the topic of patient transfer and communication, difficulties arise in creating a solution to this problem. Greenberg et al. (2007) conducted an observational study of 60 general surgery cases, over the duration of which 81 communication breakdowns were observed. Most of the breakdowns involved one transmitter and one receiver. The researchers noted that 43% of the communication breakdowns occurred with handoffs upon transfer. While this example only involved a small number of cases, it suggests that the implementation of a proper, standardized information handoff tool could reduce issues and increase patient safety (Greenberg et al., 2007).

Handoff Tool to Facilitate Communication. The lack of a standardized handoff process creates the potential for error during transfer of care. Patient safety is optimized with the use of an effective and standardized means of communication such as a handoff checklist to ensure that all necessary steps and notes are taken as the patient transitions between providers. A properly devised handoff checklist can aid in facilitating patient safety, while allowing the

provider to anticipate and limit complications. A well-structured tool establishes guidelines and standardizes the communication of pertinent content during handoff (Robinson, 2016).

Medical checklists can be used to enhance the memory and attention during transfer of care, thereby reducing complications. According to Gawande (2010), due to the diverse and ambiguous nature of current anesthesia transfer-of-care processes, the development and institution of a checklist mechanism aimed at improving these processes is necessary and worthy of study. Facilities should have a structured communication process during patient hand-off communication between providers, and the content should be tailored according to the facility's needs. There are various types of generic hand-off communication tools available. These include the SBAR (Situation, Background, Assessment, and Recommendation) communication tool and the PATIENT checklist.

Anesthesia providers should accurately report the patient's condition and all essential information in a manner that promotes patient safety and continuity of care to another qualified healthcare provider (American Association of Nurses Anesthetists [AANA], 2013). Literature supporting the use of a patient handoff checklist is prevalent in various areas of healthcare; however, literature is scarce in studies specifically looking at such tool utilization in the field of anesthesia. One such tool that focuses on anesthesia providers as they transfer patient care post-operatively is the PATIENT checklist. As previously mentioned, the PATIENT checklist was developed by Wright (2013) to be used specifically by anesthesia providers during patient handoff.

Summary of Supportive Evidence. The perioperative phase is very complex and patient safety is paramount. It is imperative that all pertinent patient information is relayed to whomever assumes care of the patient. There are many contributing factors that can cause

miscommunication and handoff errors. This includes the patient being cared for by multiple providers, the dynamic post-operative environment, communication styles, and lack of a handoff standardization. All evidence supports the fact that patient safety is at risk during exchange of patient care and a standardized checklist can decrease this risk. Utilizing a handoff checklist while transferring the care of the patient can prove to be very beneficial by limiting complications and increasing patient safety.

CHAPTER 3: PROJECT DESIGN

Methodology

Project Design Plan

The project was a QI design. QI provides contextual data that can inform EBP initiatives and project development improvements (Moran et al., 2020). To utilize a QI approach, there has to be a gap in care or outcome issue (McDonald, 2007). Having a design that provides contextual data is imperative. In regards to this manager's project, there was a gap in care due to the fact that the anesthesia providers are not utilizing a handoff checklist while transferring care of patients to the PACU nurses. A well-structured tool establishes guidelines and standardizes the communication of pertinent content during handoff (Robinson, 2016). QI is an ongoing improvement approach that continues to be monitored and screened for iterative improvements (Moran, Burson, & Conrad, 2020). This project aim was to incorporate a handoff checklist while transferring patients, so it was crucial that the process was monitored to ensure it was being utilized appropriately and consistently.

The first aim was to evaluate the change in healthcare professionals' perceptions of utilizing a standard communication tool, the PATIENT checklist, during post-operative handoff. The expected outcome was that 50% of healthcare professionals will have a more positive

perception of the PATIENT checklist while communicating patient information to the PACU nurses after the educational presentation and the two-week implementation phase. Another outcome was that at least 75% of healthcare professionals will report that the PATIENT handoff checklist helped them organize thoughts and expedite the handoff during patient transfer after the two-week implementation phase compared to prior practice.

The second aim was to implement the utilization and adoption of the PATIENT standardized checklist by anesthesia providers and PACU nurses at the selected healthcare facility. An expected outcome was that there would be an 80% increase in the rate of utilization of the PATIENT standardized handoff checklist by the healthcare providers during the implementation phase. Another potential outcome was that following the educational presentation and implementation of the intervention, willingness to adopt the PATIENT handoff checklist would be increased by 50% among clinicians in the surgery unit.

Ethical Considerations

It was imperative that participants involved in the study were protected and treated with respect. The project manager is morally responsible for ensuring this. The participant was informed of every aspect of the project prior to signing the informed consent. They were told they would not be compensated financially nor would they be required to pay for anything. There were no risks involved with participating in this study, and all personally information was de-identified. IRB approval from University of Saint Francis and BRMC were granted prior to commencement of the study. The purpose of an IRB review to protect human subjects. CITI training was completed as well.

Project Schedule and Work Breakdown

The project manager identified a problem at BRMC and discussed this with the project advisor. The CITI training was completed between February and April of 2020 (Appendix A), and BRMC was contacted to acquire permission to conduct the study (Appendix B). Literature reviews, risk assessment, gap analysis, timeline, and budget plan were devised. The project manager was granted IRB approval from the University of Saint Francis and BRMC (Appendix D and E). The project manager was then able to implement the intervention at the facility and collect data. Results were analyzed and dissemination was presented to key stakeholders and DNP faculty (Refer to Appendix I for project schedule).

Implementation Methods

The intervention began after IRB approval from the University of Saint Francis and through Lutheran Health Network who oversees BRMC. The participants were emailed with the date and time of the presentation and information session. This email included steps to take if unable to attend. On January 27th, 2021, a week prior to the commencement of the intervention, the PACU nurses were provided with copies of the PATIENT checklist (Appendix J) to use while receiving the report from the anesthesia providers. They were given a quick synopsis on the project and why they are collecting data prior to implementation. The PACU were told to check each box of the PATIENT checklist corresponding with the information relayed to them. This step was a baseline to determine type of information relayed during patient handoff. On February 4th, 2021, the project manager delivered an hour-long presentation in the education room to management, anesthesia providers, and PACU nurses at BRMC. This took place in the education room at BRMC. It was anticipated to have approximately 20 participants. This presentation included information on the benefits of a using a standardized patient checklist, the PATIENT checklist itself, and research on improved patient outcomes with its use. An overview

of the project was provided along with the opportunity for questions and answers. For healthcare professionals that were not in attendance for the presentation, paper copies of the PowerPoint presentation as well as a brief summary were provided.

Written consent was obtained from all healthcare providers, and the participants were provided with a perception questionnaire as well as a pre-intervention satisfaction questionnaire. The participants were then provided a laminated copy of the PATIENT checklist to attach to their badges and were asked to use it during each patient transfer. The CRNAs were informed to utilize the laminated copy of the PATIENT checklist while reporting off to the PACU nurses (Appendix K). The PACU nurses were given paper copies of the PATIENT checklist (Appendix J). They were to use these to confirm that the various aspects of the checklist were being addressed while receiving report from the CRNAs. The PACU nurses were to place these completed checklists in a designated location in the PACU. These were used to determine if the PATIENT checklist was used and to what extent. Copies of the questionnaires and the PATIENT checklist were placed in the mailboxes of the participants not in attendance on the day of implementation. Post-intervention satisfaction questionnaires were distributed and collected after the two-week intervention period.

Measures/Tools/Instruments

The project manager utilized demographic questionnaires, perception questionnaires, pre and post satisfaction questionnaires, and the PATIENT checklist as tools for this project. The PATIENT checklist was developed by Wright (2013) to be used specifically by anesthesia providers during patient handoff. The mnemonic PATIENT stands for patient, airway, temperature, intravenous, end-tidal carbon dioxide, narcotics, and twitches. Each category is more complex than the mnemonic promotes as seen in Appendix H. To assess the effectiveness,

Wright (2013) disseminated a survey that was completed by 30 CRNAs who used the checklist. According to the survey, all the respondents agreed that the checklist incorporated pertinent patient information in a well-organized manner, and 90% agreed the content and length of the checklist were appropriate (Wright, 2013).

The project manager received permission from Wright (2013) to utilize the checklist (Appendix L). A copy of the tool itself and the accompanying questionnaire is attached in Appendix H. The perception questionnaire and pre-post satisfaction surveys were developed by the project manager specifically for BRMC (Appendix M, and N respectively), and they were reviewed by experts for validity prior to use. To ensure confidentiality and maintain anonymity, each questionnaire was assigned a specific number linked to the participant, which was only known to the project manager. This information was kept in a safe under lock and key. The PowerPoint presentation was reviewed by all stakeholders prior to display for quality assurance.

Evaluation Plan

Evaluation for this DNP scholarly project involved comparing final aggregate mean results from the questionnaires to baseline results. For the questionnaires, participants were given a specific assigned Identification number to compare pre- and post-implementation questionnaire results. The perception questionnaire was a three-point Likert scale where 1= disagree, 2= neutral, and 3= agree. The pre- and post-satisfaction questionnaires included a five-point Likert scale in which 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, and 5=strongly agree.

Data from the PATIENT checklist saved by the PACU nurses after handoff reports was collected and analyzed. These results were also compared to pre-presentation/intervention PATIENT checklist data collected by the PACU nurses.

For analysis, it was critical to collect the same number of surveys pre- and post-implementation. The project manager was the only one able to identify participants. The paper data was stored by the project manager under lock and key, and digital data was stored on one drive on a password-protected computer. This data was kept until the completion of the DNP project and discarded once advised by faculty at the University of Saint Francis. Feedback was disclosed to stakeholders and participants upon project completion. There was no need for manipulation due to this project being non-experimental.

Methods for Collection of Data

Data was collected employing three different collection tools. These included three-point Likert scale perception questionnaires and a five- point Likert scale pre/ post-satisfaction questionnaires (Appendix M and N respectively). The questionnaires were administered via the Survey Monkey software during week one before implementation and then again post-implementation at week three. The PATIENT handoff checklist was used as a way to checkoff information during patient report and as a way to identify the percentage of compliance and completion. This checklist was employed daily and placed in a designated box located in the PACU.

Data Analysis Plan

The outcomes measured by the project manager included healthcare professionals' perception/satisfaction with using a standardized handoff checklist, as well as compliance/completion rate of the PATIENT checklist. The perception questionnaire was a three-point Likert scale whereas the pre- and post-satisfaction questionnaires included a five-point Likert. Questionnaires were developed by the project manager. Healthcare professionals' perception and satisfaction were measured comparing questionnaire responses from the first week and the third

week after implementation to assess for any change. Compliance/completion rate of the PATIENT checklist was measured by reviewing all the checklists that the PACU nurses were asked to use while receiving patient reports from 0700 to 1700 daily. Data was analyzed employing Survey Monkey, Microsoft Excel and descriptive statistics. These statistics were evaluated as dichotomous variables comparing the pre/post-implementation data.

Dissemination Plan

Plan for USF Presentation

Results from this DNP Project were presented to faculty and peers at the University of Saint Francis in June of 2021. Participants were provided with a summary as well as an outline of findings and all that transpired. A PowerPoint presentation was provided displaying each step of the project and accompanying outcomes. Implications of the study, significant findings, and limitations were shared with participants. Additionally, time was allocated to answer any questions and to clarify any misunderstandings.

Verbal or Written Executive Summary to DNP Project Site/Stakeholders. A written executive summary was provided to key stakeholders, and the clinical coordinator of the anesthesia group at BRMC. This contained explicit results and details of the project that will be beneficial in the case that they plan to adopt the PATIENT checklist tool.

CHAPTER 4: RESULTS AND OUTCOMES ANALYSIS

Data Collection Techniques

A convenience sample of PACU nurses and CRNAs employed at BRMC participated in this DNP project. The sample size was (n=11); there was 100% participation in the educational presentation and pre- and post- questionnaires. in 100% participation for the educational presentation and completion of the questionnaires. Participation in this DNP project involved

completing the perception questionnaires and intervention satisfaction questionnaires, as well as listening to the presentation. Paper forms of the aforementioned questionnaires were administered to the participants on February 4, 2021, and again two weeks later. The participants were also provided with extra paper copies of the PATIENT checklist and the PowerPoint presentation. The PATIENT checklist copies were placed on a table in the PACU easily accessible to the participants.

Measures/Indicators

The formal measures utilized for this DNP project included the pre-and post- intervention satisfaction questionnaires (Appendix N) created by the project manager. The pre- and post-implementation perception questionnaires (Appendix M) were utilized to gain the participants' perceptions on using the handoff checklist. Although not a formal measure, the frequency of use of the PATIENT checklist (Appendix J) distributed was assessed. Google Forms was used to develop charts, and the data was analyzed quantitatively.

There were several outcomes the project manager intended to achieve with this project, which were incorporated into different aspects of the various questionnaires administered to participants.

Outcome 1 of the first aim was to evaluate the change in healthcare professionals' perceptions of utilizing a standardized communication tool, the PATIENT checklist, during post-operative handoff. The project manager expected that 50% of healthcare professionals would have a more positive perception of the PATIENT checklist compared to pre- implementation. This was measured based on the responses from questions 6 and 7 of the perception questionnaires (Appendix M).

For question 6 of the perception questionnaires, seven of 11 (63.6%) participants agreed that they were interested in utilizing a standardized patient handoff tool when transferring patient care in the future, compared to the baseline four of 11 (36.4%) who agreed initially. See Table 1 (Appendix P) for sample characteristics.

For question 7 of the perception questionnaires, nine of 11 (81.8%) stated that there was a benefit in utilizing a patient handoff checklist, compared to the baseline of four of 11 (36.4%) that agreed initially. See Table 1(Appendix P) for sample characteristics.

Outcome 2 of the first aim of the project was that at least 75% of healthcare professionals will report that the PATIENT handoff checklist helped them organize thoughts compared to prior practice. The results of this outcome were determined based on the responses from question 11 of the pre- and post-intervention satisfaction questionnaires

Nine of 11 (81.8%) participants agreed that the PATIENT checklist was effective in organizing pertinent patient information compared to the baseline three of 11 (27.3%) of participants that agreed on this initially. See Table 2 and 3 (Appendix Q, R) for sample characteristics.

Outcome 1 of the second aim of the project was that following the educational presentation and implementation of the intervention, satisfaction with and willingness to adopt the PATIENT handoff checklist would be increased by 50% among clinicians in the surgery unit. Question 9 and 10 of the pre- and post-intervention satisfaction questionnaires (Appendix N) were used to measure this outcome. Question 9 determined that nine of 11 (81.8%) participants perceived the formalized handoff checklist as important compared to the baseline of six of 11 (54.5%) that agreed on this initially.

Question 10 determined that eight out of 11 (72.7%) participants concurred that the PATIENT checklist lends itself to memory compared to the baseline of four of 11 (36.4%) that agreed to this notion pre-intervention. See Table 2 and 3(Appendix Q, R) for sample.

Another expected outcome was that there would be an 80% increase in the rate of utilization of the PATIENT standardized handoff checklist by the healthcare providers during the implementation phase compared to prior. Although not a formal measure for this project, this was evaluated by analyzing the number of completed PATIENT checklists (Appendix J) that were distributed to the PACU nurses for use while receiving report. The PACU nurses were to place a check on each aspect of the PATIENT checklist that was covered during patient transfer. See Table 4 (Appendix S) for sample. Forty-two of 60 (70%) of the PATIENT checklists were utilized post-implementation compared to eleven of 60 (18.33%) that were completed pre-implementation. Although the project manager assessed use of the PATIENT checklist one week prior to implementation for baseline compared to two weeks of the implementation period, the application of the checklist during the implementation period was significantly higher.

Data Analysis Inferences

Based on comparisons of the data collected, the outcomes were met due to the increase of positive perceptions of the healthcare professionals about the utilization of the PATIENT checklist compared to before project implementation. The majority of HCPs agreed that they would be willing to utilize the PATIENT checklist in the future. This supports the goal of this project; the participants perceived the checklist as being useful during patient handoff.

The objectives of this DNP project were met within the projected timeframe. Evaluation of the intervention satisfaction and perception questionnaires was completed, and data was analyzed accordingly. The results correlated directly with the responses of the participants.

Gaps

The only potential gap the project manager noted was that the completion of the various questionnaires could have been influenced by external factors such as the presence of the project manager.

Unanticipated Consequences

An observation that the project manager witnessed was that at times, the most experienced HCPs were reluctant to utilize the PATIENT checklist. This could be due to many reasons; one conjecture is that they had been participating in patient transfer for some time, and thus did not believe they would need a handoff checklist to assist in their work.

Expenditure

The expenditure correlated with the anticipated expenses described in Appendix A. BRMC and University of Saint Francis covered the majority of the cost which included use of the venues for implementation and presentation of the DNP Project, as well as advising, and tutoring. Direct cost consisted of \$300 for transit to and from BRMC several times. \$22 was spent on printed handouts/stationary supplies and \$40 for the laminated PATIENT handoff tool.

CHAPTER 5: LEADERSHIP and MANAGEMENT of the PROJECT

Organization Culture

The culture of an organization can be regarded as its personality. This culture is a set of guiding beliefs, values, and understandings that govern an organization and is shared by its members (White et al., 2016). According to Draft (2007), corporate culture consists of the

norms, values, and unwritten rules of conduct of an organization. This also includes management styles, priorities, beliefs, and interpersonal behaviors that prevail. Organizational culture influences the way members plan and communicate their process of decision-making, including both formal and informal methods used in developing a strong culture that produces desirable results (Draft, 2007). The success of any organization heavily depends on its culture; it is one of the most important and predictable aspects, but is also the hardest to change (White et al., 2016).

Before one can attempt to change an organization's culture, one has to take into consideration the impact it may have on the organization's mission, goals, and objectives. Organizations, by their very nature, are governed by key essential, intrinsic goals that are built into the system and reflected in the protocols and procedures (White et al, 2016). The organization itself would have to decide if this change would be beneficial, effective, and efficient. Any decisions or changes made should aim not to conflict with the organization's culture. According to White et al (2016), positive changes are instituted to align with the accepted goals to benefit the organization. Disruption occurs when changes are out-of-sync with the desired outcome, which is reflected in less than optimal morale. To initiate a change, one has to be able to understand the major elements and the existing processes constituting the organization. According to Ingersoll et al (2000), organizational readiness to change is influenced by the organization's existing orientation toward innovation; if the implementation of innovative processes was successful in the past, acceptance is more likely. To ensure a smooth transition, there has to be full employee education and cooperation at all levels. Lack of engagement indicates poor morale and fosters an unhealthy environment (Austin & Ciaassen, 2008).

Adopting evidence-based practice (EBP) to an already developed practice constitutes a transformational change. Healthcare is a setting that warrants new processes and changes. According to Cook (1998), EBP is the conscientious and judicious use of the best current evidence, in conjunction with clinical expertise and patient values, to guide healthcare decisions. Change in practice is not only reliant on the strengths and benefits of the evidence, but also on the practice environment and facilitation of the process. It is important to understand the organization's readiness for EBP implementation- otherwise, the culture will either impede or facilitate the adoption (Thiel & Ghosh, 2008). A supportive organization would have a culture with an impetus to not only display readiness but also to drive change. For EBP change to take place, it is paramount that the organization's culture is open to and accepting of it.

Among the potential barriers to EBP engagement are “lack of EBP knowledge and skills, unsupportive organizational cultures, a paucity of administrative support, lack of EBP mentors, and absence of tools and resources to assist implementation of EBP” (Melnyk et al, 2010, p. 305). Especially in healthcare, organizational readiness is critical for the successful implementation of transformational change and innovation. Innovation is fundamental for healthcare systems to progress. Innovative solutions can make a difference in the lives of patients, organizations, communities, and the profession (Joseph, 2015). Willingness to accept changes and innovations is the first step required to begin exploring other ideas. Organizational readiness refers to organizational members' change commitment and change capacity to implement organizational change (Weiner et al, 2008). The inability to establish sufficient readiness can lead to unsuccessful transformational change efforts.

Change Strategy

The Burke-Litwin Model, also known as the Causal Model of Organizational Performance and Change, was developed in 1992 by two organizational change consultants (Burke & Litwin, 1992). This model is utilized to understand the organizational change process, putting into practice what is known from research and theory. According to Burke and Litwin (1992), this model provides a framework to assess organizational and environmental dimensions that are keys to successful change and demonstrates how these dimensions should be linked causally to achieve a change in performance. This model offers a complex yet relevant framework that organizations could utilize to make changes. The model not only discusses how different dimensions link with each other but also addresses how the external environment affects the different dimensions of an organization (Burke & Litwin, 1992). Within this model, the external environment impacts organizational change the most, by changing the transformational factors within an organization. These factors include the organization's culture, leadership, mission, and strategy. With changes to transformational factors, changes in transactional factors can occur, and these are the more-functioning factors of the organization (Burke & Litwin, 1992).

The Burke-Litwin Model is constructed around twelve variables that act as a feedback loop. These variables are linked and any change in one variable can elicit change in the others. These variables/dimensions include the external environment, mission and strategy, leadership, organizational culture and structure, management practices, work unit climate, task and individual skills, individual needs and values, motivation, and individual and organizational performance (Burke & Litwin, 1992). The project manager uses this model and its various dimensions to analyze the culture of Bluffton Regional Medical Center (BRMC) in which the Doctor of Nursing Practice (DNP) project took place.

External Environment

The external environment includes any outside influences/drivers that can impact the organization (Burke & Litwin, 1992). BRMC can be influenced by the United States legislature, as any new laws related to providing healthcare can change specific procedures. This organization can also be affected by insurance companies, Medicare, and Medicaid because these systems affect the methods of reimbursement for healthcare services provided. Also, since BRMC is a part of the Lutheran Health Network (LHN), any changes to the main facility will more than likely affect this facility as well.

Mission and Strategy

This aspect of the model is what management believes is the organization's mission, strategy, vision, and employees' perception of the mission (Burke & Litwin, 1992). LHN's mission statement is to positively impact the communities they serve through the improvement of health and wellness (LHN, 2020). LHN strives to benefit the community by addressing issues and concerns that affect overall community health (LHN, 2020). BRMC is committed to building a workforce reflective of its diverse community. It is a taxpaying, integrated healthcare delivery system that provides the highest levels of choice, support, care, and patient experience in the region (LHN, 2020). The project manager completed an 8-week clinical rotation at BRMC, and this organization's mission and vision were clearly evident in its inner workings and functioning. The surgery center, especially, exemplified this-- they made it a point to attend to the surgical needs of the members of their community, rendering it unnecessary for them to seek care elsewhere.

Leadership

The leadership section of the Burke-Litwin Model describes the overall direction of the organization, the style of leadership, and the leadership team (Burke & Litwin, 1992). The CEO of BRMC is Brent Parsons, who serves as the public face of the organization is a democratic leader. With the collaboration of other members of leadership, providers, and staff, they created a great working culture, planned strategically, and made decisions on how to better care for their patients. This was displayed by the various policies in place including the open-door policy that was promoted throughout the facility. This leadership committee worked together to ensure that the facility was in optimal working order, resources were allocated appropriately, and that patient experience were optimized.

Organizational Culture and Structure

The organizational culture and structure section of the Burke-Litwin Model are the customs and principles that guide not only organizational behavior but also the hierarchy of different levels and areas of responsibility (Burke & Litwin, 1992). As aforementioned, the surgery department at BRMC operates under a very positive organizational culture, and it is articulated by the employees throughout the facility. They support a philosophy of transparency and thrive off the involvement of the staff members. The surgical unit especially fosters a strong sense of community and culture and seeks ways to continue growing. Based on personal experience, the organization was committed to building a workforce that reflects diversity. The employees are recognized for their accomplishments and display job satisfaction and trust in their organization.

Systems

The systems section of the Burke-Litwin Model are the organization's policies and procedures, including systems for reward and performance appraisal, management information,

HR, and resource planning (Burke & Litwin, 1992). At BRMC, more specifically the surgical unit, there are many policies set in place to protect the patient and staff. Policies are set in place for every aspect including equipment management, and procedural requirements. Steps are also taken to ensure that all relevant patient information is collected and documented, consents are signed, and the patients are aware of all the risks and benefits of both the surgery and anesthesia. Staff members are awarded employee of the month and all the benefits of the title based on merit and performance.

Management Practices

The management practices dimension of the Burke-Litwin model deals with management styles and how they use human and material resources to carry out the organization's strategy (Burke & Litwin, 1992). The surgery manager at BRMC has the primary responsibility of managing the daily operations of the department to streamline patient care. She communicated with the surgeon and other staff to ensure the patient were receiving the best care possible. Her other responsibilities included managing the budget, attending board meetings, implementing new practice regulations, and devising work schedules. She is well-respected by the staff, and they trust her leadership.

Work Unit Climate

The work unit climate section of the Burke-Litwin Model is the collective impressions, expectations, and feelings of the staff (Burke & Litwin, 1992). The surgery manager and staff members at BRMC had a collaborative working relationship. Interpersonal communication was commonplace and staff members were able to voice their ideas. Staff members were uplifted and recognized for their hard work, they were acknowledged and provided accolades for meeting milestones. The project manager recognized how the staff members worked energetically daily.

They willingly addressed challenges, accepted innovations, and took the steps necessary to achieve set objectives.

Task and Individual Skills

The team and individual skills section of the Burke-Litwin Model area refers to the task requirements and the individual skills, abilities, and knowledge needed for task effectiveness (Burke & Litwin, 1992). Individuals at BRMC's surgery unit are assigned tasks based on their skills and education. Ranging from the surgical technicians to the surgeon, each staff member is confident in their job description and what is required for them to perform their job effectively.

Individual Needs and Values

Burke and Litwin (1992) define the individual needs and values as psychological factors that enhance staff members' desire to enrich their jobs and increase job satisfaction (Burke & Litwin, 1992). At BRMC, the staff appeared to attain fulfillment by coming to work and being surrounded by their coworkers. They smiled, laughed and joked all while being productive and working efficiently. They behaved more like family than coworkers, and most of the staff had tenure at that facility. They valued their relationships, autonomy, financial stability, and personal growth.

Motivation

The motivation section of the Burke-Litwin Model refers to behavioral tendencies to move towards goals and take the action necessary to achieve the organization's strategies (Burke & Litwin, 1992). Staff members appeared to be genuinely satisfied with their jobs and were open to changes that could benefit the patients as well as their organization. An example was their willingness to participate in this project, this is yet another reason the project manager decided to implement the DNP project at this location.

Individual and Organizational Performance

The individual and organizational performance section of the Burke-Litwin Model refers to the outcome or result, as well as the indicator, of effort and achievement (Burke & Litwin, 1992). The surgery department at BRMC, the organization and staff alike have the same vision and priorities. They discussed this during the morning huddles on various occasions while the project manager was there. They strived to positively impact not just the organization but also the community in which they serve. High standards are set and expected to be met by each member. Performance and productivity are appraised, and amendments are made where it is needed. This organization welcomes innovation and any change that would further strengthen the establishment (LHN, 2020).

Leadership Style

To be a great leader, one has to be able to guide, motivate, direct an organization or a certain group so as to achieve a common goal (Marquis and Huston, 2012). The organization's leadership was democratic, fair and just overall superb as aforementioned. The project manager and practice mentor identified most as transformational leaders. We were both organizational conscious, proactive, inspirational, visionaries and were willing to listen/accept new ideas. Transformational leaders have to be capable of managing not only other individuals but also vast resources and information. They aid others in identifying and pursuing a vision that would serve to benefit the organization. According to Marquis and Huston (2012), transformational leaders usually adopt a democratic approach and share responsibility with their followers; as leaders, they gain trust through developing relationships, listening, responding, and empathizing.

The project manager and practice mentors' aim were not only to increase patient safety but to increase staff satisfaction with the patient handoff process. This was accomplished by

clearly explaining to the participants of the project all that it entailed, their responsibilities and listening to any concerns. Satisfaction questionnaires were distributed after the project implementation to gauge this. The project manager presented via PowerPoint and provided information on why the change was needed and the benefits of utilizing the PATIENT checklist. This provided the participants with education on the topic and garnered their stance on the subject matter. The participants were very receptive of the project and understood that this would inevitably lead to an efficient working environment and positive patient outcomes.

Interprofessional Collaboration

Interprofessional collaboration is highly important in healthcare today. Delivering quality healthcare requires professionals from different groups to come together, share ideas/information and collectively reach agreements. It is a widely accepted fact that there are improved patient outcomes and increased accessibility to quality healthcare when healthcare providers collaborate (Martin et al, 2010). For interprofessional collaboration to occur effectively, factors such as patriarchy, gender, professional power, and hierarchy has to be nonexistent so as not to create any barrier to communication (Martin et al, 2010).

The interprofessional collaboration at the surgery department at BRMC was worthy of emulation. The surgeons, anesthesia providers and nurses all worked collectively and displayed mutual respect for the tasks each professional had to accomplish. They valued each other's input and took into consideration the concerns of one another. They all strived to ensure that each patient was optimized and that they were well prepared to undergo surgery safely. The project manager witnessed how each healthcare provider wanted to see to the success of the project. They listened attentively during the presentation, asked relevant question and supported the fact that although utilizing the PATIENT handoff might slow down their turnover rate, it could prove

to be beneficial. The project manager was not aware of any instance in which there was a lack of interprofessional collaboration. The teamwork at BRMC was practical and efficient; various ideas circulated the unit and everybody believed their input was important, especially when it involved patient safety.

Conflict Management

In healthcare, like in any other field, conflict is prone to occur from time to time, at least on some scale. This could take many forms, providers may disagree with each other on a patient's needs and care, not be in support of new systems set in place by management. Healthcare is a dynamic system, with different levels of hierarchy, shaped by individuals of diverse philosophies and ways of thinking. However, for the sake of smooth and efficient patient care, and the functioning of the entire department or hospital as a whole— it is the onus of all providers and treatment team members to learn how to manage conflicts when they arise. This requires effective communication skills, intentional strategizing, and collaborative attitudes. More often than not, the need for conflict resolution comes in times of potential change (Martin et al, 2010).

Whenever a situation arose, it was acknowledged, the individuals involved could express their feeling, an agreement/solution was adopted. For example, there was a change in the OR director at BRMC a few weeks before the implementation of the DNP project. The new director was not aware of all the project entailed or that the project manager already had permission to implement at that facility. This was remedied after she was provided with all the information required but it did delay the project implementation timeframe as she reviewed the information. She was also as enthusiastic of the project implementation as the previous director. Additionally, the project manager had initially placed paperwork pertaining to the project in a location that

invaded the workspace of the PACU nurses; once this was brought to his attention, he discussed it with the team and moved the paperwork accordingly. Beside these isolated incidents, no other conflicts occurred that were brought to the project managers attention.

CHAPTER 6: DISCUSSION

Impact of Project

Efficient communication during the perioperative stage is paramount in promoting patient safety and positive outcomes. The implementation of this DNP project served to raise awareness on the effectiveness of a checklist and improve the transitional process from pre-surgical preparation to post-surgical recovery. Based on evidence-based research, this project proposed the use of a standardized checklist; applied this strategy to clinical practice; following which, gauged staff perception and satisfaction. Results garnered from this DNP project support that the majority of participants perceived that the use of a standardized checklist may prove beneficial. Analysis of the data collected reflected that HCPs at BRMC believed that the PATIENT checklist led to improved communication, increased organization, decreased reliance on fallible memory, and improved patient safety. Considering the aforementioned responses and results, the facility was positively impacted by the project and may be in consideration of adoption.

Decisions and Recommendations

The continued use of the PATIENT checklist should be encouraged and incentivized in order to ensure the optimization of patient safety strategies through EBP. It may be challenging for HCPs to consistently utilize the PATIENT checklist following the conclusion of this pilot without support from leadership. Thus, leadership at BRMC, especially in the surgical unit, must remain engaged in these efforts, obtain frequent updates, and monitor the checklists' use in routine practice. Additionally, leadership should continue to seek feedback from staff on areas of improvement, incorporate the suggestions, employ progressive revisions, and ultimately

standardize a patient handoff checklist. The PATIENT checklist is intended to provide a framework to guide the development of a checklist tailored to the facility's needs.

Limitations of the Project

This DNP project had several notable limitations. The small sample size (n=11), the short time period between participants' completion of the pre-and post-intervention questionnaires (two weeks), and the HCPs' time constraints served as the major limiting factors. A longer timeframe for implementation may have allowed more handoff opportunities and thus more time to monitor compliance and educate providers. The time commitment required to appropriately use the PATIENT checklist and complete questionnaires may have resulted in potential shortcuts and undermined the reliability of the questionnaires and by extension the PATIENT checklist itself. Pressure stemming from other providers may have possibly limited the HCPs' ability to accurately use the checklist as reported by several participants. The HCPs may have hastily completed the various forms to preserve a quick workflow. In hindsight, a possible improvement to the methodology of this project would be the utilization of a web-based survey tool with sufficient time for participants to complete it at their convenience. Revising the PATIENT checklist to make it more user friendly as well as finding more champions at the facility to assist with compliance could have proved beneficial.

Application to Other Settings

While for the purposes of this project, the PATIENT checklist was specific to the perioperative unit, it may benefit other medical/surgical units within the same organization. During several verbal correspondences, the Operating Room Director had shared that surgical HCPs at the facility have had challenges relaying information during intra-departmental patient handoffs. The OR Director concurs with the assessment that using the PATIENT checklist could be a solution, with a few adjustments. While BRMC differs from other LHN facilities, they are

within the same organization. Thus, this change in practice can be extended to the other facilities within the organization, adopted, and tailored to fit the various sub-systems.

Strategies for Maintenance and Sustainment

The project manager met with the practice mentor at BRMC upon completion of the project to share results in hopes that the project manager will eventually meet with the organization's leaders. The sustainability of the PATIENT checklist is significantly increased with constructive feedback from the HCPs and the engagement of leadership. With greater stakeholder buy-in, there would be a greater chance of standardization of this checklist in the facility. If required, revisions can be made to better suit the work-culture preferences of each target facility. Expansion of this quality improvement project throughout the LHN organization will serve to sustain this practice and achieve a standardization of an effective, patient-centered, safety strategy amongst all participant facilities.

Lessons Learned

As mentioned previously, this DNP project yielded outcomes of improved provider communication, increased organization, decreased reliance on memory, and improved safety mechanisms. The success of this project was in direct correlation to the organization's culture, surgical unit HCP buy-in, and engagement of leadership. Understanding staff's perception and satisfaction with any element of change in practice is an essential step before attempting to enforce it. While EBP research and supportive literature may suggest a change, the change method must be able to complement the organization's culture rather than conflict with it. Implementation of a handoff checklist does not guarantee long-term standardization. Sustained practice efforts will have to be made by the organization itself to establish a change in methodology and adoption in clinical practice.

This DNP project incorporated several DNP essentials defined by the American Association of Colleges of Nursing (AACN) (2006) and the University of Saint Francis. DNP Essential I refer to the scientific underpinnings for practice (AACN, 2006). By implementing and utilizing the PATIENT checklist at BRMC, the project manager was able to evaluate EBP material, appraise/synthesize literature, and incorporate nursing science into an already developed practice. DNP Essential III refers to the clinical scholarship and analytical methods for EBP (AACN, 2006). This pertains to this DNP project due to the fact that after evidence was gathered on the importance of utilizing a standardized handoff checklist, the study was implemented, data was collected, analyzed and findings were disseminated.

Prior to Implementing the DNP project at BRMC, the project manager consulted with a project advisor, facility mentor, and the DNP project team in person. A University librarian was consulted and aided the project manager in literature search. A subject matter expert, Dr. Suzanne Wright was also consulted; she provided valuable input on the topic at hand and permitted the project manager to utilize the PATIENT checklist she developed. This fulfilled DNP Essential VI: Interprofessional Collaboration for Improving Patient & Population Health Outcomes (AACN, 2006). Finally, DNP Essential VIII entails advancing the practice of nursing (AACN, 2006). The project manager provided the HCPs with educational information based on rigorous evidence-based research with the intention of promoting best practice and overall advancement of the profession.

CHAPTER 7: CONCLUSION

Potential Project Impact on Health Outcomes Beyond Implementation Site

The perioperative unit is a complex, fast-paced environment and human error is inevitable. A standardized communication checklist is necessary to ensure all pertinent patient information is relayed. The standardization of a perioperative handoff checklist is supported by

evidence-based research and recommended by healthcare governing bodies (Berger et al., 2012). Utilizing a tool such as the PATIENT checklist during handoff enhances communication while improving patient safety and outcomes (Berger et al., 2012)

The results from this DNP project supports that HCPs were satisfied with the use of the PATIENT checklist and perceived it would be beneficial to adopt such a tool into their practice. Not only would the use of the checklist enhance information retention, but it will also provide an organized, comprehensive method of reporting patient information. This DNP project promoted the early stages of change. For this to continue, leadership at the facility and organization will have to sustain the change. This project may not only impact the perioperative arena, but the profession of nursing through the promotion of patient safety strategies, cohesion through the continuum of care, and overall clarity of professional communication between HCPs.

Health Policy Implications of Project

Implementation of the PATIENT checklist during the limited timeframe of this pilot at BRMC is not synonymous with standardization. Introducing the checklist was just the first stage in the standardization process. Leaders of the surgical unit, as well as leaders at the facility, will have to make further efforts, enforce participation, receive feedback from the HCPs, and revise the checklist to tailor it to the organization's culture. For this to become policy, the facility will have to desire it and find utility with a handoff checklist.

Proposed Future Direction for Practice

In summary, the data collected from the participants on their perception, satisfaction and utilization of the PATIENT checklist suggest that the implementation of a standardized handoff checklist was beneficial at BRMC. There was also observed increase in the awareness on the importance of using a handoff checklist in general. As aforementioned 63.6% of participants agreed that they were interested in utilizing a standardized patient handoff tool when transferring

patient care in the future, and 81.8% stated that there was a benefit in utilizing a patient handoff checklist. Of all the participants, 81.8% agreed that the PATIENT checklist was effective in organizing pertinent patient information, and 72.7% participants concurred that the PATIENT checklist lends itself to memory. Another outcome was that 70% of the PATIENT checklists were utilized post-implementation compared to Less than 20% being used pre-implementation.

The implications for this DNP project center around the potential spread to other units at BRMC as well as other facilities in the LHN network. Each facility will be able to revise the PATIENT checklist to fit their practice. As long as a standardized checklist is being used, each facility will be assured that they are doing what is best for their patients according to evidence-based research.

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Appendix A

Budget for DNP Project

Anesthesia Communication checklist Budget				
	Legend	Direct Costs (USD)		
		Indirect Costs (USD)		
		In-Kind Costs (USD)		
Project Expenses				
Salaries and Wages	Description	2020	2021	Total
Statistician's Wages	Consultation per hour x4	100	0	100
HCP provider wages		0	0	0
				0
				0
Total Salary Costs		100	0	100
Startup Costs	Description	Year 1	Year 2	Total
EBP Project Information staff Training	Conference room rental	0	0	0
	Survey monkey	250	0	250
Total Start Up Costs		250	0	250
Supplies and Materials	Description	Year 1	Year 2	Total
Information Handouts/Stationary supplies	500 copies	20	0	20
Laminated Handoff Tool	\$5 per tool	40	0	40
Survey at 2 months post implementation	25 copies	2	0	2
Total Supplies and Materials		62	0	62
Capital Costs (costs >2,000)	Description	Year 1	Year 2	Total
Travel	\$50 per visit X6 to and from facility	300	0	300
				0
				0
Total Capital Costs		300	0	300
Total Expenses		712	0	712
Project Revenue	Description	Year 1	Year 2	Total
Patient Visits		0		0
				0
				0
				0
Total Project Revenue		0	0	0
Project Benefit/Loss				
Total Revenue		0	0	0
Less Expenses		712	0	712
Total Project Benefit/Loss		-712	0	-712

Appendix B

Evidence of Training in Human Subject Protection



Completion Date 14-Apr-2020
Expiration Date 14-Apr-2023
Record ID 35914689

This is to certify that:

Okechukwu Gubor

Has completed the following CITI Program course:

Public Health Research (Curriculum Group)
Public Health Research (Course Learner Group)
1 - Basic (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

University of Saint Francis



Verify at www.citiprogram.org/verify/?w8ad9de69-f4be-447f-a540-ef1fbee398ce-35914689



Completion Date 07-Apr-2020
Expiration Date 07-Apr-2023
Record ID 35914688

This is to certify that:

Okechukwu Gubor

Has completed the following CITI Program course:

GCP – Social and Behavioral Research Best Practices for Clinical Research (Curriculum Group)
GCP – Social and Behavioral Research Best Practices for Clinical Research (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

University of Saint Francis





Completion Date 15-Apr-2020
 Expiration Date N/A
 Record ID 35914686

This is to certify that:

Okechukwu Gubor

Has completed the following CITI Program course:

Information Privacy Security (IPS) (Curriculum Group)
Researchers (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

University of Saint Francis

CITI
 Collaborative Institutional Training Initiative



Completion Date 17-Apr-2020
 Expiration Date 17-Apr-2023
 Record ID 35914687

This is to certify that:

Okechukwu Gubor

Has completed the following CITI Program course:

Social and Behavioral Responsible Conduct of Research (Curriculum Group)
Social and Behavioral Responsible Conduct of Research (Course Learner Group)
1 - RCR (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

University of Saint Francis

CITI
 Collaborative Institutional Training Initiative



Completion Date 16-Apr-2020
Expiration Date 16-Apr-2023
Record ID 35914685

This is to certify that:

Okechukwu Gubor

Has completed the following CITI Program course:

Social & Behavioral Research - Basic/Refresher (Curriculum Group)
Social & Behavioral Research (Course Learner Group)
1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

University of Saint Francis



Appendix C

Permission to conduct DNP Project at Facility

LP

Lori Pagan <lori.pagan@midwest-aa.com>

Mon 6/29/2020 1:34 PM

To: Gubor, Okechukwu C

WARNING: This email originated from outside of USF. Do **NOT** click links or attachments unless you recognize the sender and know the content is safe.

Good afternoon,

I will take this to our executive board on 7/8 and let you know their decision. Thank you!

Be safe and stay well,
Lori Pagan
Vice President of Operations
Midwest Region



10315 Dawsons Creek Suite A | Fort Wayne, IN 46825
 (260)436-7875 | www.phymed.com

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential, proprietary, and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you receive this in error, please contact the sender and delete the material from all computers.

LP

Lori Pagan <lori.pagan@midwest-aa.com>

Mon 7/13/2020 10:14 AM

To: Gubor, Okechukwu C

WARNING: This email originated from outside of USF. Do **NOT** click links or attachments unless you recognize the sender and know the content is safe.

Good morning,

I have spoken to our physician VP of Ops, Dr. Hollingsworth. Please feel free to move forward with your project. Good luck and let us know the results of your project!

Have a great week!

Be safe and stay well,
Lori Pagan
Vice President of Operations
Midwest Region



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Appendix D

USF IRB Approval

**University of Saint Francis
Institutional Review Board
Human Subjects Review Committee/ACUC/IBC Institutional
Review Board Approval Form**

Protocol Number: 16037387206-HSRC

Review by (underline one): HSRC ACUC IBC

Date Reviewed: 11/09/2020 **Principal Investigator:** Okechukwu Gubor **Faculty Advisor:** Caitlin Krouse

Protocol Title: Importance of relaying pertinent patient information post-operatively **Study Site(s):** Bluffton Regional Medical Center

Type of Proposal:

- Original research
- Replication or extension of previous research
- Quality Improvement/Evidence-Based Practice Project

Items submitted for review:

- CITI Certificate
- Initial protocol
- Abstract
- Informed Consent Form (if applicable)
- Approval letter from outside institution
- Other – explain: Data collection tools, permission to use tool

Type of Review:

- Full Review
- Expedited Review
- Exempt Review

Approval:

- Approval granted on ~~11/09/2020~~ _____
- Approval granted on _____ for a period of one year.
- Conditional approval* granted on _____ for a period of one year.
- Not approved*

IRB approval is not required:

Other

*Comments:

The committee performing this review is duly constituted and operates in accordance and compliance with local and federal regulations and guidelines.

Stephanie Oetting	<i>Stephanie Oetting</i>	11/09/2020
Printed Name (Chair or designee)	Signature	Date

Appendix E

Facility's IRB

Lutheran Health Network

Institutional Review Board (IRB) Expedited Approval Letter

November 13, 2020

Okechukwu Gubor DNP-CRNA Student

3430 Academic Place

Apartment 103

Fort Wayne, IN 46835

Re: LHN File: 20-572

Study Name: Importance of relaying pertinent information Post
operatively

Submission: Protocol Version 1, Date Sept 24, 20
Informed Consent

Dear Mr. Gubor

Enclosed is the expedited Approval Form of the Lutheran Health Network Institutional Review Board (IRB) for the above referenced study.

Should you have any questions or require any additional information, please do not hesitate to contact me at 260-435-7718.

Sincerely,



Gordon Bokhart Pharm D, Director
of Research
Lutheran Hospital Fort
Wayne, IN 46804

enclosure

<p>Lutheran Health Network Institutional Review Board IRB Approval Form</p>

IRB Name: Lutheran Health Network Institutional Review Board

IRB Address: 7950 W. Jefferson Blvd.

Fort Wayne, IN 46804

Principal Investigator: Okechukwu Gubor

Study Site(s): Bluffton Regional Medical Center
303 S. Main Street
Bluffton, IN 46714

Protocol Title and Number: Importance of relaying pertinent information Post operatively

Date Received **Expedited Review** By IRB: Nov 13 2020

The items below have been submitted for review (check all that apply):

original Protocol Version 1, Date Sept 24, 2020

Protocol Revision: Dated _____

Investigator Brochure: Dated _____

Informed Consent Form (indicate one or all that apply):

Version number 1

Date Sept 24, 2020

IRB stamp or notation with approval date of Nov 13 2020

No clinical trial personnel, who are IRB members, deliberated or voted on this protocol.

Subject Advertisements, Recruiting Materials, and Written Information — specify:

Other documents — specify:

Approval: _____ on 11/13/2020 to 11-12-2021

Approval granted on _____ from _____ to _____

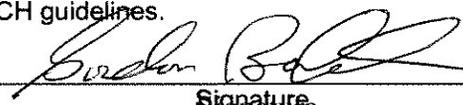
C] Conditional approval* granted on Not approved*

*Comments:

The IRB performing this review is duly constituted and operates in accordance and compliance with local and federal regulations and ICH guidelines.

Gordon Bokhart Pharm D.

Printed Name
(IRB Chair or designee)



Signature

11-13-2020

Date

of
Signature

Appendix F

Demographic questionnaire

Demographic Information

1. **Age** 20-30 31-30 41-50 51+

2. **What is your gender?**
 - a. Male b. Female

3. **What is your ethnic origin?**
 - a. White
 - b. Hispanic
 - c. Asian, Pacific Islander, Native Hawaiian
 - d. Black, African, African American
 - e. American Indian or Alaskan Native

2. **Years at BRMC**
 - 0-5 6-10 11-15 16+

3. **What is your role?**
 - a. Certified Registered Nurse Anesthetist
 - b. PACU nurse

4. **Years providing anesthesia or working as PACU nurse?**
 - a. Less than 1 year
 - b. 1-5 years
 - c. 5-10 years
 - d. 10-20 years
 - e. 21-30 years
 - f. 31-40 years

3. **How many hours per week do you spend providing anesthesia or patient care?**
 - a. Less than 36 hours b. More than 36 hours

Appendix G

Informed Consent Form

INFORMED CONSENT FORM

Importance of Relaying Pertinent Patient Information Post-operatively

Introduction:

You are being invited to participate in a DNP scholarly project conducted by Okechukwu Gubor, a graduate student at the University of Saint Francis. This project will be supervised by Dr. Caitlin Krouse DNP, FNP-BC, RN, a professor at the University of Saint Francis.

Effective patient handoff after surgery is necessary to maintain the continuity of patient care. Patient handoff can be regarded as the transfer of patient care and responsibility to another provider. The exchange of all pertinent patient information post-operatively is paramount to ensure patient safety. Utilization of a handoff checklist among anesthesia providers and PACU nurses is best practice for conveying pertinent patient information and is an effective means of communication.

Purpose of the project:

To enhance patient safety by implementing a patient handoff checklist to be used postoperatively and to increase health care provider's perception/satisfaction with utilizing this checklist.

Procedure:

As a perioperative health care provider, you are asked to incorporate the PATIENT handoff checklist during patient reports. If you choose to take part in this project, you will be asked to participate in a pre-assessment survey, participate in a live presentation, and complete a post-assessment survey. Each survey should take no more than five minutes to complete. Additional time requirements for this project are estimated to be approximately five minutes after each surgical case, during which time the PATIENT handoff checklist will be utilized. This project will occur for a two-week duration. A total of approximately 12 perioperative health care providers are invited to participate in this study.

Risks and benefits of the project:

There are no foreseeable risks associated with participating in this project. The only potential risks/discomforts are the time requirements utilizing this checklist. There will be no compensation for your participation nor will it cost you. We expect the project to benefit participants by not only enhancing patient safety during patient transfer but also by increasing provider's satisfaction with utilizing evidence-based checklist supported.

Confidentiality:

Any data collected during this project will be completely anonymous. No participant's identity will be revealed on any reports, presentations, or publications.

Information collected from each individual participant in this research study will be kept confidential and identifiable information will be removed. The information you provide will be stored under lock and key and retained for six months. After that time, all information will be shredded. If information from the study is made available to other researchers for future studies, it will not contain any identifiable information of individual participants.

Freedom to withdrawal:

Please understand that participating in this project is voluntary. You have the right to refuse to answer any questions at any time. You also have the right to cease participation or withdraw your consent at any time without penalty.

Offer to answer inquires:

Upon completion of the study, results will be shared with you and the facility. If you have any questions, feel free to contact me at:

Okechukwu Gubor

(203) 449 2175

Guboroc@cougars.sf.edu

If at any time during this study you have any complaints or feel you are not being treated accordingly, please call or write:

IRB Chairperson

University of Saint Francis

2701 Spring Street

Fort Wayne, IN, 46808

(260) 399-7700

I have received an explanation of this study and agree to participate. I understand that my participation in this study is strictly voluntarily.

Name _____

Date _____

Appendix H

Force Field Analysis

Forces		
Driving Forces (For)	Restraining Forces (Against)	Actions to be taken
Positive organizational culture supports implementation of DNP project.	Anesthesia providers patient's turnover time might increase causing delay in surgeries.	Educate staff on EBP and why using a communication tool during patient report is best practice.
Increase in patient safety with use of communication tool, less likely patient will take legal action against organization.	Employee's belief that existing organizational methods and protocols are being threatened.	Ensure organization that changes would only serve to benefit the facility.
Teaching opportunity for staff at the organization from a DNP student with a focus on EBP.	Employees set on current protocols and method of doing things.	Provide resources that display benefits of innovations and transformational changes.
Leadership supportive of implementing innovative changes to previous protocols.	With any change, there is always going to be resistance. Some individuals want things to stay the same.	Encourage leadership to communicate to staff the importance of transformational change.
Communication tool will allow for better time management while giving patient report.	Limited resources might prevent optimization of EBP.	Establish fundraisers to gather required funds for project.

Appendix I

Project Schedule

Activity timeline (End-beginning)	Start date	End Date
Dissemination of project	6/18/2021	6/19/2021
Survey of staff	3/22/2021	4/2/2021
Results, analysis and conclusion	3/15/2021	3/20/2021
Implementation of Project	1/15/2021	2/15/2021
IRB Approval	09/02/2020	11/22/2020
IRB Application and proposal	8/27/2020	9/18/2020
Executive Summary submission	8/8/2020	8/22/2020
Evaluation plan	8/15/2020	8/22/2020
Collection of post-off handoff patient information	8/15/2020	8/22/2020
Stakeholder's meeting	8/8/2020	8/15/2020
Interviews with anesthesia providers on handoff tool concerns	8/1/2020	8/8/2020
Plan intervention/delivery model	7/25/2020	8/1/2020
Anesthesia handoff tool creation	7/18/2020	7/25/2020
Instruments Identification, Methods for measuring outcomes	7/11/2020	7/18/2020
Aims, outcomes & indicators submission	7/4/2020	7/11/2020
DNP Timeline creation	6/21/2020	6/27/2020
Project Budget creation	6/14/2020	6/21/2020
Organizational Assessment	5/24/2020	5/31/2020
SWOT Analysis	5/24/2020	5/31/2020
Stakeholder Identification	4/11/2020	4/18/2020
Project Team agreement	3/4/2020	3/11/2020
CITI Training	4/19/2020	4/27/2020
First draft of Informed Consent	2/19/2020	2/26/2020
Gap Analysis and Purpose	2/12/2020	2/19/2020
Second draft of synthesis of literature	2/5/2020	2/12/2020
Evidence results	1/29/2020	2/5/2020
First draft of synthesis of Literature	1/22/2020	1/29/2020
Academic advisor meeting for project approval	1/15/2020	1/22/2020

Appendix J

PACU Nurses' Checklist

Patient Handoff Checklist For Pacu Nurses

	Check (✓) if relayed to you. Comment if any aspect omitted.
P= Patient (preoperative assessment and current condition) and positioning	
A= Airway (level of difficulty, current management), antibiotics, allergies, and type of anesthetic	
T= Temperature (including type of monitoring and warming and/or cooling adjuncts)	
I= Intravenous (including type of access, invasive lines, infusions, blood products) and intake and output	
E= End-tidal carbon dioxide (including ventilatory parameters such as respiratory rate, peak inspiratory pressure, oxygenation, and ventilation mode), Emesis prevention	
N= Narcotics (including those administered as well as those that the oncoming anesthetist is responsible for reconciling)	
T= Twitches (including type of neuromuscular monitoring and degree of paralysis)	

Appendix K

PATIENT Handoff Checklist

PATIENT handoff checklist

P= Patient (preoperative assessment and current condition) and positioning

A= Airway (level of difficulty, current management), antibiotics, allergies, and type of anesthetic

T= Temperature (including type of monitoring and warming and/or cooling adjuncts)

I= Intravenous (including type of access, invasive lines, infusions, blood products) and intake and output

E= End-tidal carbon dioxide (including ventilatory parameters such as respiratory rate, peak inspiratory pressure, oxygenation, and ventilation mode), Emesis prevention

N= Narcotics (including those administered as well as those that the oncoming anesthetist is responsible for reconciling)

T= Twitches (including type of neuromuscular monitoring and degree of paralysis)

Appendix L

Permission to Use PATIENT Checklist



Suzanne Wright <smwright@vcu.edu>
Wed 7/29/2020 9:21 PM
To: Gubor, Okechukwu C



WARNING: This email originated from outside of USF. Do **NOT** click links or attachments unless you recognize the sender and know the content is safe.

Good evening, Okechukwu.

Thank you for your interest in exploring the transfer of care event. This is a critical time during any anesthetic but I am afraid it gets overlooked as a significant vulnerability.

Feel free to use the protocol in any way you feel will keep the next patient safe.

Keep me posted of your progress.

Best wishes,

Suzanne M. Wright, PhD, CRNA
Herbert T. Watson Professor and Chair
Department of Nurse Anesthesia
College of Health Professions
Virginia Commonwealth University
PO Box 980226
Richmond, VA 23298
804 828 9808 office
804 955 8438 cell
[Zoom](#)
www.anesthesiaanonymous.org
"Our Passion is Making Patient Safety Real"

....

Appendix M

Participants' Perception Questionnaire

Perception questionnaire

	Disagree	Neither	Agree
I am familiar with the purpose of using a standardized patient handoff checklist.			
My current site offers a standardized handoff checklist or tool.			
My current site mandates that anesthesia providers utilize a handoff checklist.			
My current site mandates that anesthesia providers utilize a handoff checklist, but I do not use the handoff checklist.			
I have utilized a standardized patient handoff checklist or tool in the past			
I am interested in utilizing a standardized patient handoff tool when transferring patient care in the future			
I feel there is little benefit in utilizing a patient handoff checklist or tool.			

Appendix N

Satisfaction Questionnaire

Pre- and post-intervention satisfaction questionnaire

	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
I'm satisfied with the current postoperative handoff process?					
I'm satisfied with the current handoff checklist if any					
I'm satisfied with usefulness of handoff checklist					
I feel all relevant patient was relayed during handoff					
I feel included in handoff and comfortable asking questions					
I feel all questions answered during handoff					
I feel too busy with routine activities to participate in handoff					
I utilize current formalized handoff checklist often					
I perceive current formalized handoff checklist as important					
The PATIENT checklist lends itself to memory					
The PATIENT checklist is effective in organizing pertinent patient information					

Appendix O

Project Approval



UNIVERSITY of
SAINT FRANCIS™

DNP Scholarly Project Proposal Initial Approval

To: Okechukwu Gubor, DNP-NAP Student
From: Dr. Susan Lown, Course Coordinator NURS 715
Re: DNP Project Proposal Review Council Endorsement
Date: 12-1-2020

DNP Scholarly Project Title: Importance of Relaying Pertinent Patient Information Post-Operatively

DNP Scholarly Project Review Council:

DNP Project Advisor
Signature:

Dr. Caitlín Krouse, DNP, FNP-BC, RN and Assistant
Professor of Nursing

DNP Project Proposal
Review Council
Member Signature:

Dr. Gregory Louck, Assistant Professor Division of Nursing
and Director Nurse Anesthesia Program

DNP Project Proposal
Review Council
Member Signature:

Dr. Susan Lown, Associate Professor of Nursing

Date of initial approval by DNP Scholarly Project
Review Council: 11-12-2020 pending approval to
implement from Lutheran Health Network. Approval
received 11-13-2020.

- 1 - Student File
- 2 - Attached to Proposal

2701 Spring Street
Fort Wayne, Indiana 46808

Phone: 260-399-7999
Fax: 260-399-8156
sf.edu



Appendix P

Perception Questionnaire

	Baseline (N=11)	Post-implementation (N=11)
Questions	N (%)	N (%)
1. I am familiar with the purpose of using a standardized patient handoff checklist.	Disagree 7(63.6%) Neither 1(9.09%) Agree 3(27.3%)	Disagree 3 (27.3%) Neither 0 (0%) Agree 8 (72.7%)
2. My current site offers a standardized handoff checklist or tool.	Disagree 6(54.5%) Neither 5(45.5%) Agree 0(0%)	Disagree 6(54.5%) Neither 5(45.5%) Agree 0(0%)
3. My current site mandates that anesthesia providers utilize a handoff checklist.	Disagree 5(45.5%) Neither 6(54.5%) Agree 0(0%)	Disagree 2(18.2%) Neither 9(81.8%) Agree 0(0%)
4. My current site mandates that anesthesia providers utilize a handoff checklist, but I do not use the handoff checklist.	Disagree 7(63.6%) Neither 4(36.4%) Agree 0(0%)	Disagree 6(54.5%) Neither 5(45.5%) Agree 0(0%)
5. I have utilized a standardized patient handoff checklist or tool in the past	Disagree 6(54.5%) Neither 2(18.1%) Agree 3(27.2%)	Disagree 1(9.1%) Neither 0(0%) Agree 10(90.9%)
6. I am interested in utilizing a standardized patient handoff tool when transferring patient care in the future	Disagree 7(63.6%) Neither 0(0%) Agree 4(36.4%)	Disagree 4(36.4%) Neither 0(0%) Agree 7(63.6%)
7. I feel there is little benefit in utilizing a patient handoff checklist or tool.	Disagree 7(63.6%) Neither 0(0%) Agree 4(36.4%)	Disagree 2(18.2%) Neither 0(0%) Agree 9(81.8%)

Appendix Q

Pre-intervention Satisfaction Questionnaire

	SA, A N (%)	Neutral N (%)	D, SD N (%)
1) I am satisfied with the current postoperative handoff process?	4(36.4%)	5(45.5%)	2(18.2%)
2) I am satisfied with the current handoff checklist if any	2(18.2%)	8(72.7%)	1(9.1%)
3) I am satisfied with usefulness of handoff checklist	4(36.4%)	5(45.5%)	2(18.2%)
4) I feel all relevant patient was relayed during handoff	5(45.4%)	0	6(54.5%)
5) I feel included in handoff and comfortable asking questions	10(90.9%)	1(9.1%)	0
6) I feel all questions answered during handoff	7(63.6%)	1(9.1%)	3(27.3%)
7) I feel too busy with routine activities to participate in handoff	0	1(9.1%)	10(90.9%)
8) I utilize current formalized handoff checklist often	0	3(27.3%)	8(72.7%)
9) I perceive current formalized handoff checklist as important	6(54.5%)	5(45.5%)	0
10) The PATIENT checklist lends itself to memory	4(36.4%)	6(54.5%)	1(9.1%)
11) The PATIENT checklist is effective in organizing pertinent patient information	5(45.5%)	5(45.5%)	1(9.1%)

SA=Strongly Agree; **A**=Agree; **D**=Disagree; **SD**=Strongly Disagree

Appendix R

Post-intervention Satisfaction Questionnaire

	SA, A N (%)	Neutral N (%)	D, SD N (%)
1) I am satisfied with the current postoperative handoff process?	5(45.5%)	4(36.4%)	2(18.2%)
2) I am satisfied with the current handoff checklist if any	5(45.5%)	4(36.4%)	2(18.2%)
3) I am satisfied with usefulness of handoff checklist	4(36.4%)	7(63.6%)	0
4) I feel all relevant patient was relayed during handoff	7(63.6%)	3(27.3%)	1(9.1%)
5) I feel included in handoff and comfortable asking questions	10(90.9%)	1(9.1%)	0
6) I feel all questions answered during handoff	8(72.7%)	2(18.2%)	1(9.1%)
7) I feel too busy with routine activities to participate in handoff	11(100%)	0	0
8) I utilize current formalized handoff checklist often	6(54.5%)	3(27.3%)	2(18.2%)
9) I perceive current formalized handoff checklist as important	9(81.8%)	2(18.2%)	0
10) The PATIENT checklist lends itself to memory	10(90.9%)	1(9.1%)	0
11) The PATIENT checklist is effective in organizing pertinent patient information	10(90.9%)	1(9.1%)	0

SA=Strongly Agree; **A**=Agree; **D**=Disagree; **SD**=Strongly Disagree

Appendix S***PATIENT Checklist Utilization***

PATIENT checklist utilization	Baseline N (%)	Implementation N (%)
	11(18.3%)	42(70%)