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Nursing Staff Education on Enhanced Recovery after Surgery Related to Nurse-Patient Pain Communication

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Walden University

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Walden University

College of Nursing

This is to certify that the doctoral study by

Kathleen Ranne

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2024

Abstract

Nursing Staff Education on Enhanced Recovery after Surgery Related to Nurse-Patient
Pain Communication

by

Kathleen Ranne

MSN/Ed, University of Phoenix, 2007

BS, Seton Hall University, 1976

Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University

May 2024

Abstract

Perioperative pain is a significant challenge in terms of care of surgical patients which requires effective communication by nurses to improve patient outcomes and satisfaction. The communication component of the Enhanced Recovery after Surgery protocol is a foundation for improved patient outcomes and pain management. The problem that was identified in this Doctor of Nursing Practice project was lack of staff education during the perioperative period related to nurse-patient communications regarding pain management. Using the analysis, design, development, implementation, and evaluation model of instructional design, the purpose of this DNP project was to plan, implement, and evaluate a staff education program on pain communication for perioperative staff nurses. A booklet accompanied by an online pretest/posttest and program evaluation was presented to 15 nurses. Eight completed the tests and four completed the course evaluation. Evidence to answer practice-focused questions was generated by addressing changes in knowledge of participants between pretest to posttest and evaluation of the program by participants regarding objectives. Data were analyzed using descriptive statistics resulting in pretest/posttest mean scores. The range for correct answers on the pretest was 12 to 15 with a mean of 13.5, while the range on the posttest was 13 to 15 with a mean of 14.3, showing an increase in knowledge. Using a dichotomous scale, participants evaluated all six objectives as having been met. This study is transferable to other nursing units outside of surgical services since surgical patients are admitted to all nursing units. This project supports social change related to improving patient outcomes and satisfaction during perioperative care and pain management.

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Dedication

This work is dedicated to my family for their constant support throughout the course of my program and to my cousin Maureen O'Malley-Nave, RN, MSN, PhD who died in 2020, but who inspired me to complete my Doctorate degree program.

Acknowledgments

I would like to thank God for giving me the strength to complete my Doctorate degree during a pandemic. I am so grateful to my sister, Ginny, and my daughter Christin for their support and editorial assistance throughout this project. I offer a special thank you to Dr. Joan Moon who mentored me from start to finish. Thank you to all of my instructors at Walden University, and the academic support staff for their guidance and encouragement.

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Section 1: Nature of the Project

The enhanced recovery after surgery (ERAS) protocol in the United States is a multidisciplinary perioperative care pathway and surgical care improvement process that can reduce hospital length of stay, postoperative complications, and hospital costs (Altman et al., 2019). ERAS was gradually introduced in the US beginning in 1997 and consists of 21 components (Liu et al., 2017). Five of these components were implemented in the clinical setting where this Doctor of Nursing Practice (DNP) project was completed during the corporate-designated program titled Enhanced Surgical Recovery (ESR). Initial implementation in 2018 was designated for orthopedic/neurology patients as the focus group who were scheduled for elective surgery. In 2020, the ESR protocol was expanded to include all surgical procedures, excluding endoscopy, cystoscopy, and bronchoscopy. The ESR program includes nutrition, fluid management, pain management, early mobilization, and patient satisfaction. Currently, patient-staff communication on perioperative pain management is below the facility requirement for this measurement. Effective communication about pain can impact the quality of patient care and satisfaction (Shindul-Rothschild et al., 2017).

The multimodal pain management component of the ESR protocol involves improving pain management and reducing opioid requirements postoperatively (Liu et al., 2017). Effective pain relief is accomplished through effective assessment, caregiver responses to patient pain, and greater communication skills and effects of pain intervention (Schroeder et al., 2016). This staff education project on pain communication was presented incorporating empirical knowledge that has been tested as well as esthetic

knowledge that was gathered from personal experiences in a surgical patient environment to improve nurse understanding of the importance of quality pain communication.

There was a lack of structured approaches to support nurse-patient communication about pain in the perioperative area. This supports the need for this DNP project to improve staff knowledge and provide an opportunity to improve patient outcomes related to perioperative pain communication. Improvements to patient outcomes will lead to positive opportunities for social change and customer loyalty within the community where the DNP project was conducted.

Problem Statement

The problem in this DNP project was lack of staff education related to nurse-patient communication regarding pain management during the perioperative period. Enhancing nurses regarding communication about pain is justified because of low satisfaction scores involving pain management and treatment expressed by patients participating in the ESR protocol as reported by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). Clinical data analysis at the local hospital is shared on a dashboard and compares all hospitals within the corporate system. The department director and the clinical manager of the operating room (OR) reported patient perioperative pain management scores during 2024 provide opportunities for improvement. I noted perioperative nurses were not knowledgeable about ESR protocol management measures for perioperative pain and did not consistently communicate pain management to patients. Nurses do not consistently communicate to certified registered nurse anesthetists (CRNAs) patient assessments and pain management goals. Therefore,

there is a need for perioperative staff education on pain management communication to improve patient outcomes related to perioperative pain.

Prior to the start of the COVID-19 pandemic, preoperative practice in the organization regarding pain communication between patients and nurses consisted of a PowerPoint presentation that was provided preoperatively to patients who were scheduled for elective orthopedic and neurological (ortho/neuro) surgical procedures at the hospital. Education related to communication including guidelines, protocols, and hospital policies demonstrates improved staff response and increased knowledge regarding best practices (Hermis et al., 2017). This is significant to the field of nursing because effective pain management and quality patient-centered communication processes are relevant to all hospitalized patients undergoing surgical intervention since pain that results is acute and treatable (Glowacki, 2015).

Purpose

There is a lack of formal structured nurse-patient communication process and content related to pain management during the perioperative period. Educating nursing staff about best practices for improving such communication can be effective in terms of providing patient care and improving patient experiences (Shindul-Rothschild et al., 2017). This gap in practice was identified for surgical patients undergoing elective procedures including ortho/neuro, general, gynecological, podiatry, vascular, and plastic patient populations using ESR protocol for their care.

To fill the gap in practice, the purpose of this DNP project was to plan, implement, and evaluate a staff education program on pain communication (SEPC) for

perioperative staff nurses during the perioperative period. The SEPC was focused on effective communication related to pain management that includes the ESR multimodal pain management process and EBP regarding protocols. Perioperative nursing staff include those nurses working within surgical services including preadmit testing (PAT), preop holding, the OR, and post anesthesia care unit (PACU). The practice-focused questions guiding this project are:

RQ1: What evidence in the literature supports effective nurse-patient communication regarding postoperative pain?

RQ2: Will a SEPC increase nurses' knowledge of the ESR protocol and postoperative pain communication for patients as evidenced by pretest/posttest scores?

RQ3: How will program participants evaluate the program related to the curriculum objectives?

Implementing an effective program regarding communication about pain supports improved staff knowledge, thus filling the gap in practice. The nurse-patient communication process regarding pain management is essential to observe improvements in patient satisfaction scores (Glowacki, 2015). The aim of this staff education project was to provide perioperative nurses with education about effective communication to improve pain management within the perioperative period for patients. This project has the potential to improve patient satisfaction related to pain management. Optimizing patient understanding of pain control through communication regarding multimodal pain management is necessary for ESR protocol (Liu et al., 2017). Nurse-patient pain management communication can be improved with staff education involving establishing

trust, effective listening, and patient-centered customized care (Haverfield et al., 2017). Reducing barriers to effective nurse-patient communication can improve communication effectiveness (Amoah et al., 2019).

Nature of the Doctoral Project

Sources of Evidence

An extensive literature search supported the need for standardized communication protocols and consistent processes to enhance patient care related to communication about pain. A literature search was conducted using Medline, CINAHL, Embase, and Ovid for peer-reviewed journals. Literature published between 2014 and 2024, except for seminal work, was used to provide the most current and up-to-date evidence. The ESR protocol, as implemented by the corporate organization, consisting of five components guided the education project. Of the five components (nutrition, fluid management, early mobilization, patient satisfaction, and multimodal pain management), multimodal pain management was my focus. Patient education via verbal communication about pain management as well as other elements of the ESR protocol can demonstrate improved patient outcomes.

The American Society for Pain Management Nursing has made recommendations for the management of procedural pain that includes preparing patients and families, education by discussion, written materials, and video, and ongoing staff education regarding procedural comfort management (Czarnecki et al., 2011). These recommendations, along with extensive EBP in the literature support the effectiveness of

improved nurse-patient communication related to pain management in the postoperative period. This answers “yes” to RQ1.

Approach

The five phases of the analyze, design, develop, implement, and evaluate (ADDIE) model of instructional design were used to frame the project and incorporated into planning, implementation, and evaluation. The ADDIE model is introduced in Section 2.

Planning

The planning phase must be formal, identify key stakeholders, and encourage ownership among stakeholders (Jeffery et al., 2016). The project stems from patient satisfaction scores as reported through anonymous patient exit surveys and information from the literature review. Early planning required consultations with my chair at Walden University, meetings with organizational leadership verifying verbal commitment from the organization, and identification of content experts to review the education project curriculum and pretest/posttest. After much consideration, I believe the best way for me to conduct this SEPC project is to provide perioperative staff nurses who agreed to participate with a home study booklet that contains educational content. Planning activities that follow include formulating learning objectives, goals, development of the program, professional production of the home study booklet, and ethics approval through the Walden University Institutional Review Board (IRB).

An extensive literature search was used for the project. The project has a curriculum including course objectives, curriculum content, evidence, methods of

instruction, and a pretest/posttest for staff followed by an evaluation of the program. Formative review occurs with evaluation of the curriculum and content validation of pretest/posttest items by content experts. My DNP practicum preceptor with expertise in assessment advised on test item construction.

Implementation

Implementation begins with preparing teachers and students for learning requirements (Branch, 2009). Implementing a staff education program can improve nurses' knowledge about pain management (Issa et al., 2019). Pain management staff education can also improve patients' pain experiences while hospitalized (Germossa et al., 2019). The implementation step began with approval of the staff education program plan by organization leadership. The organization where this program was implemented has evidence-based resources that are provided through the corporate web site for the ESR protocol. ESR protocol implementation is a corporate initiative that is supported by the clinical setting, and evidence-based resources were provided and incorporated into this staff education program. Staff recruitment was conducted within the surgical services department. Impact evaluations of the program by participants occurred after the presentation via assessing changes in knowledge from pretest to posttest.

Evaluation

Special considerations were given to evaluating whether learning activities alleviate the needs and goals of the program.

Evidence generated for this project as provided by the content expert through formative evaluation of the curriculum and content validation of pretest/posttest items

was analyzed. Participants of the staff education program generated impact evaluations through program evaluation and results of changes in knowledge from pretest to posttest. Finally, content experts completed a summary evaluation of the project, process, and my leadership.

Significance

Stakeholders

Stakeholders include perioperative staff nurses, surgeons, the surgical services department director, clinical nurse manager, anesthesiologists, CRNAs, the organization, and surgical patients. This doctoral education project was developed and implemented for perioperative nurses at the local hospital site and has the potential to increase nurses' knowledge regarding application of the ESR protocol and communication related to patient pain management during the perioperative period. Patient outcomes and satisfaction may be improved with this project. Administrative Surgical Services and the hospital may see improvements in patient satisfaction scores over time in terms of perioperative staff education on pain management and patient-staff communication. Within the organization, there is potential transferability of educational content to other nursing units, since surgical patients are admitted to all nursing units, and education about pain management is significant for quality patient care during the postoperative period. This improved knowledge has the potential to impact quality nursing care focusing on postoperative pain management and improved patient pain experiences for local stakeholders.

Social Change

This DNP project will lead to social change related to improving patient satisfaction involving perioperative care and pain management. Improvements result when patients' trust in their healthcare professionals increases (Birkhäuser et al., 2017). For hospitalized patients, satisfaction scores can impact hospitals positively or negatively through public reporting of clinical outcomes (Centers for Medicare and Medicaid Services, 2019). From a financial perspective, the hospital has much to lose when public opinion does not approve of care that is provided to the patient population.

Summary

Section 1 included a discussion of the problem statement, gap in practice, project purpose, significance to nursing practice, and implications for social change. The problem identified in this DNP project is lack of staff education related to nurse-patient communications regarding pain management during the perioperative period. There is no formal structured nurse-patient communication process and content related to pain management during the perioperative period, and literature shows educating nursing staff on best practices for improving such communication can be effective in terms of providing patient care and improving patient experiences. The purpose of this DNP project was to plan, implement, and evaluate a SEPC for perioperative staff nurses during the perioperative period. The goal of this SEPC is to improve pain communication for patients and effectively equip providers with knowledge that is necessary to provide high-quality pain management communication that is patient focused. Section 2 includes a discussion of the ADDIE model of instructional design, relevance to nursing practice,

context and local background, my role as the DNP student, and role of the content experts.

Section 2: Background and Context

The problem in this DNP project is the lack of staff education related to nurse-patient communication regarding pain management during the perioperative period. This DNP project involved answering the following research questions:

RQ1: What evidence in the literature supports effective nurse-patient communication regarding postoperative pain?

RQ2: Will a SEPC increase nurses' knowledge of the ESR protocol and postoperative pain communication for patients as evidenced by pretest/posttest scores?

RQ3: How will program participants evaluate the program related to the curriculum objectives?

The purpose of this DNP project was to plan, implement, and evaluate a SEPC program for perioperative staff nurses during the perioperative period. Section 2 includes a discussion of the ADDIE model of instructional design, relevance of this project to nursing practice, context and local background, my role as a DNP student, and role of the content experts.

ADDIE Model of Instructional Design

The five phases of the ADDIE model framed the project and were incorporated into planning, implementation, and evaluation steps (see Appendix A). The ADDIE model for instructional design was developed for the U.S. military in 1975. The model is a systematic approach to instructional design that has been used by many different organizations and a variety of disciplines. The model is used for a standardized approach to translate research into practice in clinical settings (Jeffery et al., 2016).

Within this DNP project, the term perioperative means the surgical services department. Perioperative staff includes registered nurses in preadmitting testing and preoperative holding, circulating nurses or scrub nurses in the OR, and endoscopists in the PACU. Perioperative nurses include both bedside and administrative staff nurses.

Relevance to Nursing Practice

Brief History of ESR Protocol

The ESR protocol involves improving patient outcomes related to decreased hospital length of stay, reduced surgical complications, and improved pain management (Liu et al., 2017). Research thus far supports improved patient outcomes for surgical patient populations, especially colorectal surgery, which is associated with improved recovery, decreased morbidity, and reduced hospital length of stay (Soffin & YaDeau, 2016). Kehlet (1997) argued if stress is reduced, surgical outcome improves. ESR practice guidelines represent interventions that can be implemented and thus reduce stress on the human body due to surgical interventions, allowing for quicker patient recovery.

Nursing Practice and the ESR Protocol

The hallmark of the ESR protocol is a multimodal approach to reduce surgical stress responses (Soffin & YaDeau, 2016). Effective communication between nurses and patients supports improvements in patient experiences from patients' perspectives (Grocott & McSherry, 2018). Understanding the importance of patient-centered pain management through structured conversations between nurses and patients can have a positive impact on patient experiences (Haverfield et al., 2018).

Successful implementation of the ESR protocol requires a shift in surgical dogma (Zoog et al., 2018, p. 801). This change in practice and nursing science exists for nursing staff also. Effective ESR protocols include multidisciplinary team approaches and a strong focus on quality perioperative nursing care (Tanious et al., 2017). Standardized processes of care are a critical component of successful program implementation. Barriers to system-wide implementation from the nursing perspective include insufficient ESR protocol orientation, time restrictions on preoperative patient teaching by staff, and lack of staff education related to nursing roles during protocol implementation (Tanious et al., 2017; Zoog et al., 2018).

Nurse-patient discussions about pain management as a critical component of patient-centered surgical care are expanding to include multimodal pain management as part of the ESR protocol. Liu et al. (2017) said multimodal pain management involves focusing on opioid-sparing pain management including multimodal analgesia preoperatively and postoperatively via acetaminophen, anti-inflammatory medication including Toradol (ketorolac), and peripheral nerve blocks. The ESR multimodal protocol at the clinical setting where this DNP SEPC project was conducted also includes Neurontin (gabapentin) for neuropathic pain and Zofran (ondansetron) for prevention of nausea. Multimodal analgesia protocol for pain management has demonstrated reductions in postoperative opioid consumption for many different surgical procedures, including total joint arthroplasty and spinal fusion (Arumugam et al., 2016; Haffner et al., 2019). Communication education that focuses on multimodal pain management is essential for

perioperative staff nurses. Balfour et al. (2019) claimed nurses' roles in the ESR protocol include staff training and continued staff education on ESR and the role of nurses.

Local Background and Context

Relevance of Problem

For hospitalized patients, satisfaction scores can impact hospitals positively or negatively in terms of public reporting of clinical outcomes (Centers for Medicare & Medicaid Services, 2019). From a financial perspective, hospitals have much to gain or lose when public opinion does not approve of care that is provided to patient populations (Richter & Muhlestein, 2017). Structured communication education for nurses makes this program significant and important for the community the hospital serves.

This DNP project was conducted in a 220-bed acute care hospital setting focused on surgical services located in the Southeastern United States. Surgical services consist of preadmitting testing, preoperative holding, the OR PACU, and endoscopy unit. Surgical services are comprised of 10 operating rooms, two endoscopy suites, six preop holding bays, 10 PACU bays, and four overflow PACU bays. There is a preadmit office where up to three nurses work daily. Approximately 25 nursing staff nurses were invited to participate in this DNP project, but data was collected from only 10 nurses. This project was conducted in a community hospital setting where there was administrative support for continuing education within surgical services.

Role of the DNP Student

Professional Context

My role as a certified nurse in the operating room supports my area of focus for this DNP project. As an active member of the Association of periOperative Registered Nurses (AORN), I feel confident that my 30 years of nursing experience and my involvement and educational advancement in both perioperative and bedside nursing has prepared me well for completion of my DNP degree program. Recent completion and certification in surgical services management (CSSM) has expanded my skill set to include staff education, management, human resources, organizational structure, process improvement, evidence-based practice (EBP) translation into the surgical services clinical area, improving the patient experience and customer services for physicians, nurses, and patients. My Master of Science in Nursing/Nursing/Health Care Education (MSN/Ed) has prepared me for my developing role as a nurse educator. I have been successful in my professional development that includes experience as an adjunct instructor for the local community college. These experiences have contributed to my confidence in my role as staff educator for surgical services and project lead for this DNP degree project.

Surgical services offer many opportunities for nurse leaders to assess and identify the need for continued staff education for perioperative nursing practice. Through data analysis, policy review, clinical practice guideline review as described by the *AORN Perioperative Standards and Recommended Practices: For Inpatient and Ambulatory Settings* Association of periOperative Registered Nurses (AORN), 2021), and input generated from staff evaluations of clinical practice, staff education programs can be

developed and implemented. My practicum experiences have reinforced my acquired knowledge since starting my DNP program and I feel confident in my role as team leader, advisor, and mentor for staff, to play an integral role in analysis development, design, implementation, and evaluation of SE programs in surgical services.

Role in DNP Project

The AACN supports the role of DNP prepared nurses as health professionals who are “...educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement, and informatics; and, that the best prepared senior level nurses should be in key leadership positions and participating in executive decisions” (American Association of Colleges of Nursing (AACN), 2006, p. 6). My role in this DNP project is to “translate scientific evidence into practice in a timely fashion” (Moran Burson & Conrad, 2017, p.39). This role includes my leadership of the project, curriculum development, pretest/posttest development, establishing working relationships with content experts, incorporating the ADDIE Model into the planning, implementation, and evaluation steps, and analyze and synthesize the evaluations once the project is completed.

Any potential bias on my part can only come from my experience at the institution where this project was conducted. I feel confident that my 30 years of nursing experience and my involvement and educational advancement in both perioperative and bedside nursing has prepared me well for completion of my DNP degree program. I feel connected to the organization, my peers, and the community where I live and practice as a professional nurse.

Role of Project Team

The Walden University DNP Process Guide describes a DNP team that includes the organizational leader or partner site representative, a project mentor or organizational representative who works with the DNP student, a DNP project faculty advisor who oversees the DNP project completion, along with the project committee member, the DNP student as team leader, and stakeholders at the organization who have project vested interest.

Over the course of this DNP project, I worked diligently with this team, especially with my project mentor at the organization where this DNP project was completed, my immediate supervisor in my work area for the organization, and my CE, a surgeon, who was most involved in the formative and iterative review during the project. Informal discussions were held often, with the exchange of ideas supporting the project with modifications as needed. Information was exchanged during scheduled meetings with my clinical preceptor as the project developed through completion. Her support and insight were invaluable. Some stakeholders, namely the staff in the department, were included in informal discussions as needed during all phases via the Unit Practice Council meetings which occurred monthly.

CEs provided formal feedback regarding this SEPC project submitted timely to me including the Curriculum Plan Evaluation by Content Experts (see Appendix D), Pretest/Posttest Content Validation by Content Experts (see Appendix G), and the Evaluation of the Staff Education Project, Process, and My Leadership by Content Experts (see Appendix N). The project participants submitted feedback with the

Summary of the Evaluation of the Staff Education Program by Participants (see Appendix L). This feedback will be discussed further in Section 3.

The timeline and responsibilities of team members to review and provide feedback on doctoral project results was a limitation for this project. This is discussed in Section 4. It was challenging to solicit responses from staff and CEs in a timely manner, despite my best efforts to keep the project moving forward. This I except as part of my learning in team management, technology overload, and time constraints in place in an acute care hospital setting.

Role of Content Experts

The U.S. Office of Personnel Management (OPM) describes content experts or subject matter expert as individuals who possess the knowledge and understanding of the project subject matter and who have direct, up-to-date experience (OPM, n.d.). In this case, the content experts were knowledgeable in perioperative nursing practice, familiar with all the tasks associated with communication on pain management and possessed a firm understanding of the ESR protocol with multimodal analgesia to improve the patient experience. For this project, the content experts validated the literature review matrix, the curriculum plan, evaluated the curriculum plan, validated the pretest/posttest, and prepared the content validity for the pretest/posttest.

Content Experts

My plan for the content experts included my clinical preceptor, my department director who is certified in perianesthesia nursing practice through the American Board of Perianesthesia Nursing Certification (ABPANC), and an orthopedic surgeon familiar with

the ESR protocol and currently working in the hospital where this DNP project was implemented. This orthopedic surgeon has a full understanding of the multimodal analgesia protocol that is an accumulation of 3 years' experience with the ESR protocol, electronic ESR order sets for preoperative patient care, and postoperative patient care in addition to thirty years surgical experience with orthopedic surgery. He is Board Certified by the American Board of Orthopedic Surgery, a Fellow of the American College of Surgeons, and the American Academy of Orthopaedic Surgeons. Formal evaluation of required documents was conducted anonymously via packeted submissions within a designated timeline established by me as the project moves forward.

Summary

Section 2 included discussions of the ADDIE model for instructional design, project relevance to nursing practice, local background and context, role of content experts, and my role as the DNP student. Section 3 includes a discussion of practice-focused questions in relation to the local problem, sources of evidence, and analysis and synthesis of evidence.

Section 3: Collection and Analysis of Evidence

The problem in this DNP project is the lack of staff education related to nurse-patient communications regarding pain management during the perioperative period. The purpose of this DNP project was to plan, implement, and evaluate a SEPC for perioperative staff nurses during the perioperative period. I addressed planning, implementation, and evaluation of this SEPC program during the perioperative period, thus filling a gap in practice. Section 3 includes a review of practice-focused questions, sources of evidence supporting this project, and analysis and synthesis of evidence.

Practice-Focused Questions

There is a lack of a formal structured nurse-patient communication process and content related to pain management during the perioperative period. Educating nursing staff on best practices for improving such communications can be effective in terms of providing patient care and improving patient experiences (Shindul-Rothschild et al., 2017). Practice-focused questions guiding this project were:

RQ1: What evidence in the literature supports effective nurse-patient communication regarding postoperative pain?

RQ2: Will a SEPC increase nurses' knowledge of the ESR protocol and postoperative pain communication for patients as evidenced by pretest/posttest scores?

RQ3: How will program participants evaluate the program related to the curriculum objectives?

The purpose of this DNP project was to plan, implement, and evaluate a SEPC program for perioperative staff nurses during the perioperative period, thus filling the gap

in practice regarding lack of a formal structured nurse-patient communication process and content related to pain management during the perioperative period. This SEPC project, supported by extensive EBP literature, provided the necessary foundation for staff education, thus promoting a change in staff knowledge and understanding of pain communication that can impact their clinical practices in surgery.

Within this DNP project, the term perioperative is used for those staff nurses who work in the surgical services department which includes nursing staff in preadmitting testing, preoperative holding, the OR as a circulating nurse or a scrub nurse, PACU, and endoscopy suite. Perioperative nurses includes both bedside and surgical administrative staff nurses.

Sources of Evidence

Evidence Generated to Support the Project

Evidence from literature was used to answer practice-focused questions supporting the project. The literature review was organized via the literature review matrix using Melnyk and Fineout-Overholt's tool (see Appendix B), including types of evidence.

EBP in literature and multimodal pain management have been implemented by the hospital where this DNP project was implemented in the form of clinical evidence regarding ESR programs for cesarean delivery, colorectal/major abdominal, and gynecological surgical procedures. The clinical evidence in literature regarding ERAS programs document was reviewed for application of curriculum for staff education. These are corporate resources supported by EBP in literature which were applied to this DNP

project for staff education. These corporate resources, along with sources of evidence that were identified using an extensive and comprehensive literature search were reviewed in detail with the literature matrix tool to provide necessary EBP for this project to answer practice-focused questions. A literature search was conducted using Medline, CINAHL, Embase, and Ovid for peer-reviewed journals. Literature published between 2014 and 2024, except for seminal work, was used to provide for the most current up-to-date EBP.

Evidence Generated by the DNP Project

Sources of evidence for this project came from the curriculum plan (see Appendix C), curriculum plan evaluation by content experts (see Appendix D), pretest posttest (see Appendix F), and pretest/posttest content validation by content experts (see Appendix G), pretest/posttest change in knowledge by participants (see Table 1) and evaluation of the staff education program by participants (see Appendix K).

Participants

There were two sets of participants. The first were content experts who provided evaluation of curriculum and content validity for pretest/posttest items. The second group of participants were 25 nurses within surgical services who were extended invitation to participate in this educational program. The staff education home study included the required consent form for anonymous questionnaires (see Appendix O) which all participants were required to read and have full understanding of. They were provided with an evaluation of the program regarding course objectives and participated in pretests and posttests to ascertain if there were changes in knowledge. Since the ESR protocol is a corporate initiative, the expectation is for all perioperative nurses to be knowledgeable

and unified in their approach to pain communication between nurses and patients they serve.

Procedures

This SEPC project is supported by templates that were developed to collect and evaluate evidence which were prepared by my Walden University project chair. These standardized templates assisted with project alignment with university degree requirements, which I found beneficial during my proposal preparation. Templates do not require validity testing since they were guides for presentation of project content only (see Appendix B).

SEPC Design

I believed the best way for me to conduct this SEPC project was to provide perioperative staff nurses who agreed to participate with a home study booklet that contains educational content. I arrived at this conclusion following extensive contemplation and reflection on how to best implement the project for nurses who have limited time during the workday for education. I conducted an informal inquiry of 10 nurses for one day and found 70% of them preferred to complete a home study compared to coming to the hospital on a weekend day for one hour to participate in this project.

I prepared the home study booklet using PowerPoint, with notes to elaborate on slide content. I prepared copies, one for each participant, anonymously distributed, identified by number only, and returned to me, by way of a volunteer to protect staff identity, at the end of the study. I used an electronic survey vendor (Microsoft Forms) to

prepare the Pretest/Posttest and the Evaluation of Staff Education Program by Participants located following the posttest.

Content Validity Index Calculation

Curriculum content for the pretest/posttest items was rated by content experts via the Content Validity Index (CVI; see Appendix H.). Additionally, content validation included I-CVI for each pretest/posttest items following the degree of relevance scale (1 = not relevant, 2 = somewhat relevant, 3 = relevant, 4= very relevant).

Content Experts Packet

I developed the content expert packet and after approval by my chair, each content expert received a packet containing all pertinent information to the CE role which included:

I made sure that the packet materials are collated and identified by number only.

Content Expert Letter

I prepared a letter of introduction for each CE that included my sincere thanks for their participation, a list of the documents that were included in the packet, along with instructions for completing each form. I provided assurances that all work will be kept anonymous, with only a number on each form. Instructions included my contact information within the hospital for their convenience and my office and on-duty hours at the hospital. I included my signature, telephone contact information, and my email address (see Appendix I).

Evaluation of the Staff Education Program by Participants

After completion of the home study program for this SEPC project, participants were asked to evaluate the program using the Evaluation of the Staff Education Program by Participants template (see Appendix K). This evaluation was attached to the posttest and collected by the electronic survey vendor. The posttest included instructions on completing the evaluation at the end of the test electronically.

Pretest/Posttest Change in Knowledge by Participants

This SEPC project included an EBP-guided pretest and posttest, which I developed. The test was submitted to the electronic survey vendor, which provides support and data analysis, along with the evaluation of the Staff Education Program by Participants. I assumed all financial responsibility for education supplies, survey vendor fees, and any other cost of materials required to successfully complete my SEPC project. Staff understanding of effective pain communication within the ESR protocol was assessed with the pretest results and compared to their understanding after this SEPC program implementation.

Evaluation of the Staff Education Project by Content Experts

In addition to the content expert packet documents identified earlier, the CEs will also be asked to complete a summative evaluation of the staff education project, process, and my leadership (see Appendix M). This evaluation was recorded anonymously with the instructions for completing the evaluation, along with the timeframe for completing the form and submitted electronically via the survey vendor. The instructions were included in a letter, along with a note of thanks for their participation in my DNP project.

Protection

Maintaining the anonymity of all participants is paramount. Every attempt was made to protect participant information, maintain the integrity of all documents, and record data electronically to safeguard participant privacy. All documents are kept secure in my office, or at home, while the education is being conducted, and will be saved, locked, for 5 years, at which time they will be shredded. The booklet will contain instructions as follows:

- Do not write in the booklet.
- Please read the Consent Form for Anonymous Questionnaires (see Appendix P) prior to the Pretest
- Scan the quick response (QR) code and enter your responses.
- When provided with the home study booklet, complete the study for knowledge advancement related to communication about pain for surgical ESR patients, please, within 5 days.
- Following the educational offering, please scan the QR code provided for the Posttest, and enter your responses.
- Finally, scan the QR code for the program evaluation.
- Submit all data, the pretest, posttest, and program evaluation through Microsoft Forms®

Staff were given instructions with QR codes for the electronic survey vendor. The questionnaires were anonymously submitted and evaluated by me only by the date when data was completed.

Data collected by the electronic survey vendor is stored, secured, and retained by the vendor for as long as I, in my role of “Creator” have an active account with the vendor. Once I no longer have an active account, the data will be destroyed by the privacy policy of the vendor. I will have the data and survey responses deleted 60 days following the completion of my SEPC project and completion of my DNP degree program. The steps for application of IRB approval were followed according to the Walden University DNP project process guide and completion of Form A for DNP project ethics review. Following successful submission of Form A for DNP project ethics review, the approval number is 05-16-22-0978272, included in my final project document submission. This ethics review was initiated following approval by my chair of my oral proposal defense. Problems encountered one year following the initiation and approval for my IRB were remedied through application for an extension of my IRB and correction of the process for notifying participants of the university requirements related to obtaining participant consent.

Analysis and Synthesis

This SEPC project was electronically recorded data collected by the survey vendor, along with paper documentation completed by the CEs. Data collected was recorded, organized, and monitored for completeness by me throughout my project. The electronic survey vendor offers data export to portable document format (PDF) and Excel spreadsheets (XLS), which were used, where applicable, throughout the analysis and synthesis phase as indicated.

Curriculum Plan Evaluation by Content Experts Summary

Once completed, the curriculum plan was submitted for review by the CEs and included in the CE packet. The Curriculum Plan Evaluation by Content Experts (see Appendix D) was recorded on paper and once completed, returned to me along with the other documents included in the CE packet. The individual objectives of the curriculum plan were evaluated by an objective statement and CE response of “met” or “not met”, using a dichotomous key for each objective were met =1 and not met =2. I reviewed the results and presented the summary (see Appendix E). The descriptive statistical analysis of this summary was reported as to overall rating of each objective by percentage, met or not met average and mean score.

Pretest/Posttest CVI Scale Analysis

The CVI is the most common approach for instrument development (Rodrigues et al., 2017). Each Pretest/Posttest Content Validation by Content Experts form was analyzed by me using the Pretest/Posttest Content Expert Validity Index Scale Analysis (see Appendix H). The validation information for each question in the pretest/posttest was recorded in this validation template, and is listed as 1= not relevant, 2= somewhat relevant, 3= relevant, and 4= very relevant for each question demonstrating representation of the course objectives. Test items with a rating of 0 or 1 received a 0 for the analysis while a rating of either 3 or 4 received a 1.

The item for CVI (I-CVI) is calculated “as the number of experts giving a rating of “relevant” and “very relevant” for each item divided by the total number of experts” (Rodrigues et al., 2017, p. 3). Values generated in the calculation of the I-CVI range

between 0 and 1. The scale level CVI, or S-CVI is the calculated average derived from the sum of the I-CVIs and divided by the total number of items. A calculated S-CVI value >0.79 indicates that the item is relevant. Items that measure between 0.70 and 0.79 should be considered for revision and items <0.70 should be eliminated (Rodrigues et al., 2017). I completed these calculations and reported the findings in Pre/Posttest Content Expert Validity Index Scale Analysis (see Appendix H).

Summary Evaluation of the Staff Education Program by Participants

The Summary of the Evaluation of the Staff Education Program by Participants (see Appendix L) was analyzed by me at the completion of the evaluation process. This impact evaluation will help identify opportunities for improvement of my teaching/program development style and success/failure of my meeting program objectives, as stated in my curriculum plan (see Appendix C). Data collected by the electronic survey vendor for the participant evaluation of the program was analyzed and summarized and presented in Appendix L.

Pretest/Posttest Change in Knowledge by Participants

The Pretest/Posttest Change in Knowledge by Participants results were determined by review of the test data collected by the electronic survey vendor. The data was reported by table as determined by the most suitable format according to the results and best suited for visual effectiveness.

Summary Evaluation Results of the Staff Education Project by Content Experts

The Summary Evaluation Results of Staff Education Project by Content Experts (see Appendix N) was analyzed by me at the conclusion of this SEPC project. Feedback

from the CEs will help identify areas of my leadership skills that might benefit from improvement, along with better engagement methods when seeking content expert opinion.

Summary

Section 3 contained procedures associated with presentation of evidence generated for and by this SEPC project. The clinical evidence regarding ESR program, supported by the ESR protocol, along with corporate resources supported by EBP in literature, were applied to this DNP project for staff education, since they are standards for care within the organization. These corporate resources, along with sources of evidence that were identified through extensive literature search were reviewed in detail with the literature matrix tool to provide necessary EBP for this project to answer the practice-focused questions.

I outlined specific steps to complete the SEPC project. This SEPC project included identification and participation of CEs who were clinical resources and generated data for this project, pretests and posttests for perioperative nurse volunteers in surgical services who also generated data for this project, development of a curriculum evaluated by CEs, and a presentation of a staff education program via a home study format. Summative and impact evaluations by CEs and participants were analyzed and summarized throughout the project. All CE and participant information and responses will be held in strictest confidence and collected anonymously while following all ethical guidelines throughout this project.

Analysis and synthesis of project data was conducted and presented following standardized templates that were provided by my project chair to assist with university degree requirements and analysis and synthesis. Once this project is completed, I hope to submit this SEPC project for publication and continuing education unit (CEU) credit through HealthStream.

Section 4 includes findings and recommendations. I discuss findings and implications, recommendations, contributions by CEs, and strengths and limitations of the project.

Section 4: Findings and Recommendations

The problem identified in this DNP project is lack of staff education related to nurse-patient communication regarding pain management during the perioperative period. There is a lack of a formal structured nurse-patient communication process and content related to pain management during the perioperative period. Educating nursing staff on best practices for improving such communications can be effective in terms of providing patient care and improving the patient experience. The practice-focused questions which guided this project were:

RQ1: What evidence in the literature supports effective nurse-patient communication regarding postoperative pain?

RQ2: Will a SEPC increase nurses' knowledge of the ESR protocol and postoperative pain communication for patients as evidenced by pretest/posttest scores?

RQ3: How will program participants evaluate the program related to the curriculum objectives?

The goal of this SEPC was to improve pain communication for patients and effectively equip providers with knowledge to provide high-quality pain management communication that is patient focused.

Sources of Evidence

Sources of evidence for this project included evidence from literature (see Appendix B). Evidence generated by this DNP project includes the pretest/posttest change in knowledge by participants (see Table 1) and evaluation of the staff education program by participants (see Appendix K). Data were obtained for pretests and posttests

electronically for all participant submissions via Microsoft Forms. For evaluation of the program by participants a dichotomous scale was used (1 = Met and 2 = not met). Data were analyzed and expressed as ranges and means for each question.

Findings and Implications

Pretest/Posttest Change in Knowledge

Analysis of data indicated participants had a better understanding of educational material than expected. This was a positive outcome of this SEPC project (see Table 1). The pretest average score was 90% and the posttest average score was 95%, demonstrating an improvement in staff knowledge related to their understanding of the importance of communication about pain for postoperative surgical patients. The range for correct answers on the pretest was 12 to 15; for the posttest, it was 13 to 15. An improved range resulted. The mean score for the pretest is 13.5, while for the posttest it is 14.3, which also demonstrates improvement in terms of staff understanding of SEPC content, meeting course objectives as outlined in the curriculum plan (see Appendix C), and answering “yes” to RQ2.

Table 1*Pretest Posttest Change in Knowledge*

Student #	Pretest Score	Pretest Percent	Posttest Score	Posttest Percent
1	13	87%	15	100%
2	14	93%	14	93%
3	14	93%	14	93%
4	14	93%	14	93%
5	14	93%	14	93%
6	13	87%	15	100%
7	14	93%	13	87%
8	12	80%	15	100%
Pretest Average		90%	Posttest Average	
Pretest Range		12-15	Posttest Range	
Pretest Mean		13.5	Posttest Mean	

Although RQ2 can be answered in the affirmative there are considerations to be made related to the pretest average score of 90%. Studies in educational psychology describe factors that can impact “pretesting effect” (Pan & Carpenter, 2023) which can impact learning assessments. In this case, the research questions were developed in 2019 when the need assessment for the participants demonstrated a lack of staff knowledge related to ERAS and multimodal pain management. At the time of the posttest, in 2023, it is possible that the staff knowledge improved with everyday work conversations and other learning activities within surgical services. The 90% pretest average might demonstrate a lack of need for this program in general. The point to consider is that many other factors can impact pretest/posttest program design including individual participants previous knowledge of the subject matter, participants who were less knowledgeable in

the ERAS/multimodal pain management content who elected not participate in the program, and other learning activities that impacted the pretest average score of 90%.

Summary Evaluation of the Staff Education Program by Participants

Following analysis of submitted evaluations by participants (see Appendix L), I observed not all participants submitted evaluations. I acknowledge that technological overload and stress related to demands of surgical nursing played a significant role in this process. Of the four participants who responded to the evaluation, all four found the six objectives of the program were met. The average score for each objective was one, indicating it was met. Responses of four participants to dichotomous questions were “yes” for all objectives. There were no comments offered by participants. Participants had opportunities to offer suggestions for improvement which could be helpful to the project manager. The nature of the dichotomous scale can lead to clear responses to yes or no questions but can also contribute to technological overload which can result in participants answering in the positive just to complete the task at hand. Finally, general scores for meeting objectives were met by all four respondents for all six objectives. I accept this outcome as positive for this SEPC project, and positive affirmation in meeting RQ3.

Summary Evaluation Results of the Staff Education by Content Experts

Only one CE involved in my DNP project responded to my request for a program evaluation. My invitation to evaluate this project was provided via Microsoft Forms in a short answer format with a QR code for anonymous submission (see Appendix N). According to participants, they claimed I was effective in terms of planning, welcome

and useful, capable of offering suggestions, and able to explain and review materials. They had respect for my leadership role.

. The evaluation included a “Comments” section which was analyzed by me to identify future areas of need for staff education, along with my effectiveness as a team leader and my own professional growth. The comment that I appreciated most came from Evaluator A, when they offered “the student is thoughtful, diligent and enjoys a solid reputation at our hospital as a leader”.

Limitations

The greatest limitation of this SEPC project was the small sample size. Contributing factors which affected level of participation by staff nurses include the fast-paced nature of surgical nursing in acute care hospital settings, lack of time allotted to complete the pretest and posttest while on duty, lack of interest in the subject matter, and the computer-based methodology that was selected for this SEPC project. Collins (2020) described the potential for cognitive overload that can arise due to the constant flow of calls, texts, alarms, complex information, alerts, and technology in the workplace. The computer format of the pretest and posttest and evaluation required by staff may have had a negative impact on participation rates for this project. Microsoft Forms® was problematic in that staff did not follow through with directions. The home study booklet contained a QR code for the pretest and posttest.

As mentioned in the findings section, the pretest/posttest methodology contains elements to consider related to the pretest program subject matter knowledge of the participants and changes in this knowledge level between the formation of the research

questions and the administration of the learning activity with the posttest. I believe that there was a need for the educational program in 2019, but factors entered into the change of knowledge when you consider the pretest average of 90% and the posttest average of 95%.

During the planning phase, I considered many methods of conducting staff education for OR staff nurses. My decision to adopt a home study method might not have been the best choice. Technology overload, the fast-paced nature of the OR, along with the inability of staff to get away from their duties while at work, and restrictions placed on staff due to the COVID-19 pandemic made the home study method seem more effective at the time of my initial planning. Retrospectively, I must consider if in-person methods might not have been more successful.

Implications

OR nurses who participated in this SEPC project received valuable EBP education which enabled them to incorporate their new knowledge into their nursing practice, thus enhancing their role as a professional nurse.

Individual Implications

Related to patient care, the ESR protocol is an individualized care plan implemented for each patient. Understanding of the ESR protocol and effective communication about postoperative pain on the part of the professional nurse can help improve patient outcomes. This staff education provided understanding for the nurse of its' importance and encouraged effective transfer of this new knowledge to the patient.

Community Implications

This SEPC project was conducted at a for-profit, community hospital where services are provided to many residents. Staff education to improve nursing care for the community has a significant impact on the quality of life for all patients. Effective communication regarding post-surgical pain utilizing the ESR protocol for pain management within the multimodal medication utilization can impact the requirements of opioids. The opioid abuse problem can have a significant impact on the community and individuals. With better understanding of the ESR protocol and effective pain management through better communication between the nurse and the patient, change can take place.

Institution and System Implications

This SEPC project, when implemented on other units within the hospital, can potentially help to have a greater impact on the hospital and systems, such as Medicare. Reduction of opioid use, through staff education on effective pain management can impact the hospital readmission rate due to opioid use disorder.

Social Change Implications

Staff education and the transfer of knowledge from professional nurses to patients and their families can initiate social change when dealing with better understanding of multimodal pain relief. This multimodal pain relief, in the form of non-pharmacologic methods, along with pharmacologic methods, when necessary, can help reduce the need for controlled substances during the postoperative period which could lead to a reduction in substance use disorders within the community and society.

Recommendations

Recommendations identified from this SEPC project include presenting the staff education at the new staff orientation held at the hospital monthly. Also, a yearly review of effective communication about pain, within the ESR protocol, can be presented during the unit skills documentation review session for surgical services. The educational materials and tools generated for this SEPC project can be utilized for both activities within the hospital organization.

Contribution of the Doctoral Project Team

For this SEPC project, the CEs reviewed the Curriculum Plan (see Appendix C) and Pretest/Posttest (see Appendix F) relative to the literature. Finally, the role of the CE included completion and submission of the Evaluation of the Project, Process, and My Leadership by Content Experts (see Appendix N). The responses from the evaluation contributed to the development of the final recommendations from this project. As discussed previously in Section 2, the project team contributed to the planning, implementation, and evaluation of the project through formative and iterative dialogue and feedback. I found this very helpful and contributed greatly to my understanding of effective team management.

Strengths and Limitations of the Project

Strengths

The staff who participated in the SEPC project were engaged and demonstrated improvement in their knowledge related to effective communication about pain within the ESR protocol. Strengths also include the development of the staff education booklet

which can be used in ongoing staff education. The use of Microsoft Forms as a test/survey method can be very useful for future educational programs now that familiarity with the platform has improved. Revisions to the educational format, related to home study and computer testing may prove beneficial as a teaching method.

Limitations

The methodology for this SEPC project could have been more effective if the project included a blend of written and electronic data collection. Participation might have been improved if the educational offering was given on-site, during work hours, so that more nurses had the opportunity to participate.

One of the CEs who initially agreed to assist with this project ultimately did not complete the responsibilities described in the Content Expert letter. During this project multiple attempts were made to solicit data from this individual to no avail. I would consider this challenge a limitation to the project, and I would have valued her input. Also, the request for submission of the summary evaluation of the staff education project by content experts was submitted to the CEs twice. In the end, only 1 CE responded at the time of this document submission which was a limitation of my project.

Summary

Section 4 includes research findings and recommendations for the future. Findings of this DNP SEPC project was used to answer practice-focused questions. Section 4 includes findings and implications of results, recommendations for the future, contributions of CEs, and strengths and limitations of the project. Thus far, the answer to RQ1 is there is EBP support in literature supporting staff education related to

communication about pain for nurses in this clinical setting, and there are changes in knowledge following this staff education program focusing on improving communication about pain for surgical nurses. Section 5 includes a dissemination plan of findings.

Section 5: Dissemination Plan

The SEPC has been disseminated to the perioperative nursing unit where the project was conducted. Since postoperative pain is a condition affecting patient populations throughout the hospital, the plan for dissemination extends to obstetrics, nursing units receiving postoperative patients, and patients coming to the hospital for outpatient surgical procedures. Additionally, the SEPC will be offered at new nurse orientation programs in surgical services and other departments. In the future, results and findings can be presented at local, state, and national perioperative nurse meetings.

Analysis of Self

Practitioner

As a perioperative nurse, I interact with patients daily. I feel fortunate to be able to practice nursing in a setting where positive patient outcomes are the norm. Throughout this project, I have had the opportunity to speak to patients, surgeons, and staff regarding the importance of communication about pain. As a patient advocate, and because of my DNP education, I feel better equipped to speak about issues related to communication about pain with more confidence. I am better prepared to transfer new knowledge to patient care every day.

Scholar

My knowledge base has increased because of my studies at Walden University. My engagement in extensive evidence-based literature and conversations with other nursing professionals helped fortify my current understanding of the ESR protocol and

communication about pain. I feel better prepared to confidently transfer evidence-based research into clinical settings by analyzing data and findings through research.

Project Manager

For this DNP SEPC project, my role included planning, implementation, and evaluation of the project as manager. I developed the curriculum, project methodology, pretest/posttest, and evaluations. Additionally, I prepared, distributed, and collected data for the staff education program home study booklet.

Project Completion

As discussed previously, challenges involving completion of this project involved stresses placed on surgical nurses and identifying the best methods for staff education. I believe technology overload contributed to the low participation rate and issues with following directions as outlined in my program booklet. In completing the project and considering challenges, I discovered the most difficult part of the project manager's role was engaging staff and department director to participate. It was particularly challenging, and I would like to learn more about effective ways to engage my peers in the future. I have new insights regarding best practices for staff education in the perioperative setting because of this project. This will help me formulate future staff education programs for staff and improve staff engagement.

Summary

The practice-focused questions proposed in Section 1 have been answered. Prior to this DNP project, there was a lack of a structured approach to support nurse-patient communications about pain in the perioperative area. This gap was filled via this SEPC

and DNP project, which improved staff knowledge. This improved knowledge will provide an opportunity to improve patient outcomes related to perioperative pain communication, followed by dissemination to other nursing units within the organization.

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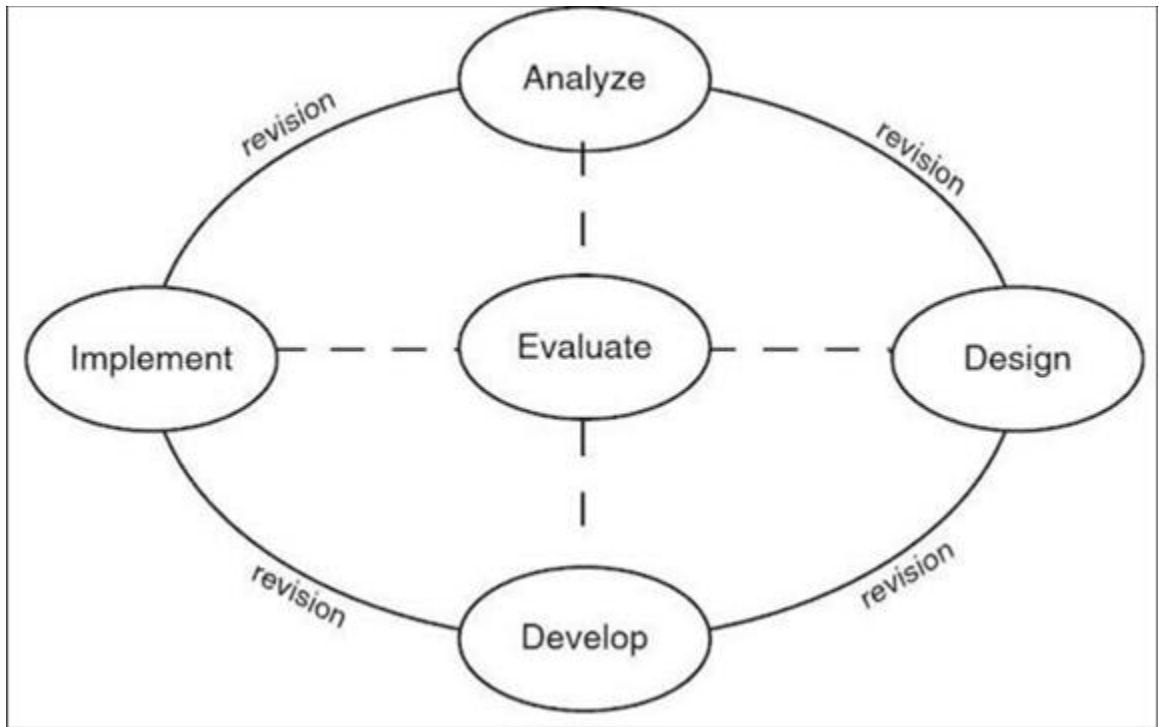
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Appendix A: ADDIE Model



(Branch, 2009)

Appendix B: Literature Review Matrix

	Author (Year)	Theoretical/ Conceptual Framework	Research Questions /Hypothesis	Research Methodology	Analysis & Results	Conclusions	Grading the Evidence
1	Ab Latif & Mat Nor (2020)	Concept mapping as a learning strategy	Instructors can validate the Rusnani concept mapping (RCM) with the ADDIE model for teaching learning concepts to students	Mixed-method qualitative and quantitative sequential exploratory design	Reliability coefficient of 0.70 or greater instrument measures are acceptable	Concept mapping following ADDIE model supports active learning	Delphi Technique Level 5
2	Amoah Anokye Boakye Acheampong Budu-Ainooson Okyere Kumi-Boateng Yeboah Afriyie (2019)	Unstructured interview guide	What are the barriers to effective therapeutic communication among patients and nurses?	Exploratory study design Qualitative approach	Thematic content analysis	Patient-related, nurse-related, and environmental characteristics are barriers to effective communication	Qualitative Level 3 Descriptive
3	Arumugam, Lau & Chamberlain (2016).	Comprehensive Literature search	What is the impact of Gabapentin use perioperatively on opioid consumption?	Meta-analysis	PO opioid use /c gabapentin was reduced by -1.35, 95% confidence interval (CI)	Preoperative gabapentin reduced consumption of opioids during initial 24 hours PO	Meta-analysis Randomized Control Trials (RCTs) Level 1
4	Balfour, Burch Fecher-Jones & Carter (2019)	Investigative	What are the common aspects of the ERAS nurse role and similar roles?	Modified Delphi technique	Development of 6 consensus statements Consensus verified if response + by >90%	4 consensus statements were voted on and agreed upon	Modified Delphi technique Level 5

5	Barocas Kulahalli Ehrenfeld Kapu Penson You Weavind Dmochows (2014)	Investigative	Is there a comparison between department event rate associated with its volume and acuity?	Logistic regression models to predict rapid response team (RRT) activation	O/E computation baseline for variability among services	The O/E RRT use ranged from 0.31 to 2.82 across all services	Observational Level 5
6	Berl Collins Melson Mooney Muffley Wright-Glover (2015)	Lewin's Change Model	Can clinical patient outcomes R/T alcohol withdrawal be improved with staff education following Lewin's Change Model?	Pretest/posttest design survey data collection with staff education in between	Analysis for change in nurse knowledge R/T IWA-Ar assessment tool Electronic chart review N=61 4thQ CIWA administered= 59 (94%) N=62 2ndQ CIWA administered =61 (98%)	Staff education R/T CIWA-Ar assessment tool, electronic assessment filing, and ability to care for patients /c alcohol withdrawal impacted care positively	Observational Level 5
7	Birkhäuser Gaab Kossowsky Hasler Krummenacher Werner Gerger (2017)	Random effects Meta-analysis	Is patients' trust in healthcare professionals associated with health outcomes?	Comparison trust in healthcare professional (HCP) associated with health outcomes (HO)	Moderate correlation between trust and HO ($r=0.24$, 95%CI: 0.19-0.29) Moderate correlation between trust and self-rated subjective HO ($r=0.30$, 0.24-0.35)	Patients reported beneficial health behaviors, less symptoms, and higher quality of life with higher trust in HCP Positive correlation	Meta-analysis Level 2
8	Daniels (2016)	Joanna Briggs Institute's Practical Application	Can patient satisfaction be improved by implementin	Observational, Mixed method	Nurse rounding improved 34%-59% day shift	Nurse rounding can improve patient satisfaction	Direct observation Level 5

		of Clinical Evidence System and Getting Research into Practice audit tool	g purposeful nurse rounding?		42%-75% night shift HCAHPS ¹ Pain management modest improvement 62% to 73% (sub-category scores for <i>pain controlled</i> at 68% and <i>pain help</i> at 77%).	and patient safety outcomes Organized approach to improvement is effective	
9	Germossa Helleso Sjetne (2019)	Pretest/Posttest approach Brief Pain Inventory questionnaire American Pain Society Patient Outcome Questionnaire	Can a nurse-based pain management program implementation impact patient perception of pain intensity?	Quasi-experimental Nurse-based pain management training System-wide monitoring of patients pain	Data collected at baseline (Survey 1), 6 weeks after educational program (Survey 2), and 4 months after nurse rounding (Survey 3).	Nurse-based pain management staff education help reduce patients' reported pain intensity	Observational Level 5
10	Gillis Gill Marlett MacKean GermAnn Gilmour Nelson Wasylak Nguyen Araujo Zelinsky Gramlich (2017)	Focus Groups Narrative interviews Participatory Grounded Theory Patient-driven grounded theory	Does implementation of the ERAS program have an impact on the patient experience?	Qualitative Patient-led study	Iteratively	Patients desired to be partners in their care Patients wanted to understand what needed to be done R/T ERAS, so they could do it	Qualitative Descriptive Level 3
11	Grocott McSherry (2018)	Patient narrative Friends and Family Test (FFT) survey tool	What issues influence the effectiveness of communication on patient experience? What are the attributes of meaningful	Quantitative	Likert scale Narrative content analysis	Staff attributes high scores: Professional kind, friendly, caring, helpful	Observational Level 5

			communication from the patient perspective?			Communication needs work	
12	Haffner Saiz Jr. Nathe Hwang Migdal Klineberg Roberto (2019)	Single-institution chart review	Preop dosing with celecoxib plus gabapentin can reduce postop narcotic consumption	Retrospective review	24 hour morphine equivalent consumption Visual analog scale (VAS) pain scores, postoperative day to ambulate, postoperative day to clear physical therapy	24 hour morphine equivalent consumption Lower /c celecoxib plus gabapentin (p=.004) Lower mean VAS scores (p=.002) and earlier mobility (p=.012)	Retrospective review Level 3
13	Haverfield Giannitrapani Timko Lorenz (2018)	Semi-structured interviews	Can discussions about pain management improve the patients' perspective of patient-centered care communication?	Constant comparison method to identify themes	Qualitative analytic software ATLAS	Establish a patient-provider relationship Reciprocation is essential Themes identified: Judgement, openness, trust, listening, preferences, solution-oriented, longevity	Observational Level 5
14	Hermis Huekel Rodgers (2017)	Plan Do Study Act (PDSA) Model for quality care improvement (CQI) American Heart Association Rapid Response protocol	Education module on management of medical emergencies can have a positive impact on management activities of staff	Education Model Intervention Survey before and after intervention	Survey data collection via web-based software Qualtrics (Provo, UT) Knowledge /attitude questions based on Likert scale	49 eligible individuals Knowledge increase following education by 15%, attitudes increased by 13%	Observational Level 5

15	Issa Awajeh Khraisat Rasheed Amirah Hussain Alharthy (2019)	Knowledge and Attitudes Survey Regarding Pain tool	Pain management staff education can impact nurses' knowledge and attitude toward management and assessment of patients' pain	Pretest- posttest experimenta l study Paper-based questionnaire Longitudinal research design	Mean score pain measureme nt increased from 89 to 131.4 Attitudes toward pain increased from 71.82 to 142 following intervention	Significant improvement in nurses' knowledge and attitude about pain assessment and management	Observation al Level 5
16	Kehlet (1996)	Review of current techniques associated with postop outcomes and postop dysfunction	Multimodal interventions can lead to unwanted patient outcomes R/T surgical injury and reduce postop patient morbidity	Review current practice of managing surgical stress and physiology	Presentatio n of multimodal interventio ns controlling the postop period	Multimodal approach to interventions can impact patient outcomes	Observation al Level 5 Foundational evidence
17	Liu Rosas Hwang Cain Foss-Durant Clopp Huang Lee Mustille Kipnis Parodi (2017)	Enhanced Recovery After Surgery (ERAS) program implementati on	Patient outcomes can improve following the implementati on of an ERAS program for colorectal and fractured hip patient populations	Pre/post difference- in- differences study	Data presented as mean (SD), median (interquartile range), and number (%). Comparison based on unpaired, 2- tailed t-tests, Wilcoxon rank sum tests, or χ^2 tests	ERAS implementatio n showed improved outcome Early ambulation 22.3% to 56.5% Early nutrition 13.0% to 39.2%. Total dose morphine decreased in both colorectal and hip patient groups. Hospital LOS decreased for both groups	Observation al Level 5
18	Lyons Edelson Churpek (2018)	Review for current state of rapid response systems (RRS)	What are the benefits of a rapid response team?	Literature review	Literature search identified barriers to implementi ng RRS and RRTs	Literature review did not conclusively identify benefits and improved	Literature review Level 5

						patient outcomes	
19	Nicholas-Hess Greer (2016)	Application of instructional design into teaching practices Literature review	Can the ADDIE model be used to achieve literacy instruction?	ADDIE instructional design model	ADDIE supports intentional, iterative, and summative evaluation processes for learning success	Analyze learning solution Design objectives Develop resources Implement learning resources Evaluate resources addressing needs	Literature review Level 5
20	Richter Muhlestein (2017)	Data review as reported to Centers for Medicare & Medicaid Services (CMS) and HCAHPS	Is a more positive patient experience associated with hospital profitability?	Generalized estimating equation	Positive patient experience Hospital profitability Negative patient experience Decreased profitability	Positive patient experience is associated with increased profitability	Observational Level 5
21	Rodrigues Adachl Beattle MacDermid (2017)	Alternative Theory of Planned Behavior Social Cognitive Theory	Can a personalized exercise questionnaire help determine the facilitators, barriers, and preference to exercise for people /c osteoporosis ?	Quantitative (content validity) and qualitative (cognitive interviewing)	Index of content validity (CVI) Content validity ratio (CVR)	Content validation of the PEQ was achieved for multiple domains R/T barriers/benefits of patient exercise programs	Expert panel Level 5
22	Schroeder Hoffman Fioravanti Poskus Medley Zullo Tuite (2016)	Quality improvement	Can nurse knowledge improvement have a positive impact on patient satisfaction with pain management ?	Single group pretest/posttest design Focus group methodology	Data analysis via SPSS Chi-square values for continuity correction Pearson chi-square values Independent samples t-test	HCAHPS scores for patient satisfaction R/T pain management no significant change (70.3 pre and 72.9 post implementation) Nurse knowledge	Observational Level 5

						on pain management mean total score ($t = -3.7, df = 45, p = .001$)	
23	Shindul-Rothschild Flanagan Stamp Read (2017)	Secondary analysis HCAHPS	Does the patients' perception of pain control differ between a nurse, hospitalist, physician, and resident?	Cross-sectional study	Correlation, analysis of variance, independent t tests, and stepwise linear regression analysis /c IBM SPSS Version 21 (IBM, 2012)	Patients perception of pain control improved /c \uparrow RN staff ($p = .045$) Patient perception with pain control \downarrow with more residents and interns	Secondary analysis Level 5
24	Soffin YaDeau (2016)	Development of ERAS pathway following knee/hip arthroplasty	Can the ERAS pathway be applied effectively to those patients undergoing total hip/knee surgery?	Systematic review	Review of evidence	Pathways are not standardized across organizations Pathway elements that show the most improvement include: Multimodal pain management Early mobilization Patient education	Expert opinion Level 5
25	Zoog Simon Stanley Moore Lorenzo-Rivero Shepherd Gao Nelson (2018)	Use of evidence-based guidelines	Can the barriers to implementation of the ERAS protocol be identified in order to maintain protocol compliance over time?	Quantitative observational comparative effectiveness	Data collected retrospective Descriptive statistics Chi-squared test Student t -tests P-value < 0.05 considered statistically significant	Protocol compliance (PC) impacts LOS PC is improved after educational interventions	Observational Level 5

Appendix C: Curriculum Plan

Title of Project: Improving Communication about Pain with Enhanced Surgical Recovery Staff Education

Student: Kathleen Ranne, MSN/Ed, CNOR, CSSM

Problem: The need for staff education related to nurse-patient communication regarding pain management during the perioperative period.

Purpose: The purpose of this DNP project is to plan, implement, and evaluate a staff education program on pain communication (SEPC) for perioperative staff nurses during the perioperative period.

Practiced Focused Questions: The practice-focused questions guiding this project are (a) what evidence in the literature supports effective to nurse-patient communication regarding postoperative pain and (b) will a staff education program for perioperative nurses increase the nurses' knowledge of the ESR protocol and postoperative pain communication for patients as evidence by a pretest/posttest situation?

Objective Number and Statement	Detailed Content Outline	Evidence (from Literature Review Matrix) – Article #	Method of Presenting	Method of Evaluation P/P Item
At the conclusion of this DNP educational project the participant will be able to: 1. Understand the importance of effective nurse-patient communication regarding postoperative pain	<ol style="list-style-type: none"> 1. Introduction: Effective communication 2. Use of effective, patient-centered language 3. Describe key terms in enhanced surgical recovery protocol including: <ol style="list-style-type: none"> a. Fluid management b. Early ambulation c. Pain management d. Diet management postoperatively. e. Patient experience 4. Verify patient understanding by: <ol style="list-style-type: none"> a. Two-way conversation /c patient b. Verbalize understanding. c. Allow time for patients to ask questions. d. Clarify important concepts 	2, 7, 9, 14, 16, 22, and 29 4, 13, 20, 23, 25,32, and 33	<p>Patient education pamphlet</p> <p>Power Point (PP) for patient education when the on-site classes resume.</p> <p>Staff education booklet</p>	Pretest/posttest comparison scores for staff understanding. Question #1, 3, 4, & 5
2. Identify the elements of the enhanced surgical recovery	<ol style="list-style-type: none"> 1. Introduction: ESR protocol <ol style="list-style-type: none"> a. ESR within the organization b. Evidence-based practice results reductions in: 	4, 13, 20, 23, 25, 32, and 33	Staff education	Pretest/posttest comparison scores for

<p>(ESR) protocol in place at the clinical setting where the nurse practices.</p>	<ul style="list-style-type: none"> i. Length-of-stay- ii. Blood loss iii. Time-to-ambulation iv. Complications v. Improved patient experience <p>2. EBP supported by research and literature:</p> <ul style="list-style-type: none"> a. Clear liquids up to 2 hours Pre-Op (maintenance of hydration) <ul style="list-style-type: none"> i. Carbohydrate loading 2 hours before surgery. b. Multi-modal pain management <ul style="list-style-type: none"> i. Minimize opioids. c. Goal-directed fluid management d. DREAM- DRink, EAt, Mobilization within 24 hrs postop 		<p>n booklet</p> <p>Corporate posters/flyers displayed at work.</p>	<p>staff understanding.</p> <p>Questions # 2, 6, & 14</p>
<p>3. Demonstrate knowledge of the components of multimodal pain management for enhanced surgical recovery patients.</p>	<ul style="list-style-type: none"> 1. Introduction: Multimodal pain management <ul style="list-style-type: none"> a. Variety of analgesic medications to treat intra/post operative pain in combination for a synergistic effect. b. Can reduce opioid use following surgery. c. Several medications act on different receptors. 2. Use of local anesthetic for surgical procedures on the extremities, abdomen and thorax is encouraged. 3. Education related to the multimodal components in place in the clinical setting where staff practice including: <ul style="list-style-type: none"> a. Regional block 	<p>3, 12, 15, and 21</p> <p>8, 10, 19, 29, 30, and 31</p>	<p>Staff education booklet</p> <p>Corporate posters/flyers displayed at work.</p>	<p>Pretest/posttest comparison scores for staff understanding.</p> <p>Questions #9, 10, & 11</p>

	<ul style="list-style-type: none"> b. acetaminophen c. ketamine d. gabapentin e. dexamethasone f. opioids as necessary <p>4. Importance of follow-through postoperatively in PACU and upon transfer to the nursing unit following surgery</p>			
4. Understand and contribute to the continuum of nursing care for ESR patients' pain management throughout the perioperative experience.	<ol style="list-style-type: none"> 1. Introduction to continuum of care for pain management with: <ul style="list-style-type: none"> a. Patient teaching of multimodal pain management concepts b. Pain assessment uniform to all nursing units in the clinical setting 2. Initiation of the patient education process during Preadmit and follow-thru to discharge from the PACU (to the nursing unit if patient is admitted) 3. Include major pain management concepts in the discharge planning and teaching to include. <ul style="list-style-type: none"> a. Multimodal elements b. Non-pharmacological pain relief practices 	6, 18, and 23 3, 12, 15, and 21	Staff education booklet Corporate posters/flyers displayed at work.	Pretest/posttest comparison scores for staff understanding. Questions #1, 3, 4, & 5
5. Improve knowledge of therapeutic, patient-centered communication related to pain management for ESR patients.	<ol style="list-style-type: none"> 1. Introduction: Patient-centered communication about pain management <ul style="list-style-type: none"> a. Individually tailored program b. Perioperative treatment options c. Patient engagement in treatment options 2. Discuss the pain assessment tool utilized by the clinical setting used on all nursing units. 	3. 7. 9, 14, 16, 22, 29	Staff education booklet Corporate posters/flyers displayed at work.	Pretest/posttest comparison scores for staff understanding. Question # 7, 8, & 9

	<p style="text-align: center;">Pain Scales Combined: NRS + FACES</p> <p style="text-align: center;">C</p>	8, 10, 19, 29, 30, and 31		
6. Demonstrate understanding of multimodal pain management importance to the patient experience.	<ol style="list-style-type: none"> 1. Introduction to the relationship between pain management and its' impact on the patient experience including: <ol style="list-style-type: none"> a. Establishing patient trust in nursing care b. Present a knowledgeable impact on patient-centered care. c. Individualized care for each patient 2. Support for a positive patient experience through competent care by nursing staff. 3. Minimize patient discomfort throughout the patient experience which can contribute to a positive experience 	17, 11, and 27	Staff education booklet Corporate posters/flyers displayed at work.	Pretest/posttest comparison scores for staff understanding. Question # 10, 11 & 15

Appendix D: Curriculum Plan Evaluation by Content Experts

Date: October 15, 2023

Student: Kathleen Ranne, MSN/Ed, CNOR, CSSM

Content Expert Letter: A

Products for Review: Curriculum Plan, Literature Review Matrix

Instructions: Please review each objective related to the curriculum plan, content, and matrix. The answer will be a “met” or “not met” with comments if there is a problem, understanding the content or if the content does not speak to the objective, At the conclusion of this educational experience, the participant will be able to:

Objective Number	Objective Statement	Met = 1	Not Met = 2	Comment
1.	Understand the importance of effective nurse-patient communication regarding postoperative pain			
2.	Identify the elements of the enhanced surgical recovery (ESR) protocol in place at the clinical setting where the nurse practices			
3.	Demonstrate knowledge of the components of multimodal pain management for enhanced surgical recovery patients.			
4.	Understand and contribute to the continuum of nursing care for ESR patients' pain management throughout the perioperative experience.			
5.	Improve knowledge of therapeutic, patient-centered communication related to pain management for ESR patients.			
6.	Demonstrate understanding of multimodal pain management importance to the patient experience.			

Appendix E: Summary Curriculum Plan Evaluation by Content Experts

Met = 1 Not Met = 2

At the conclusion of this educational experience, learners will be able to:

Objective Number and Statement	Evaluator A	Evaluator B	Evaluator C	Average Score
1. Understand the importance of effective nurse-patient communication regarding postoperative pain	1	1		1
2. Identify the elements of the enhanced surgical recovery (ESR) protocol in place at the clinical setting where the nurse practices	1	1		1
3. Demonstrate knowledge of the components of multimodal pain management for enhanced surgical recovery patients	1	1		1
4. Understand and contribute to the continuum of nursing care for ESR patients' pain management throughout the perioperative experience.	1	1		1
5. Improve knowledge of therapeutic, patient-centered communication related to pain management for ESR patients.	1	1		1
6. Demonstrate understanding of multimodal pain management importance to the patient experience	1	1		1

Moon/August 2019

Appendix F: Pretest Posttest

Improving Kathleen Ranne, MSN/Ed, CNOR, CSSM
 Communication About Walden University
 Pain with Enhanced
 Surgical Recovery Staff

Education

Pretest/Posttest

This is the Pretest for participants to enter via the survey vendor electronically. The test is to be completed anonymously with numerical identification through the survey vendor.

- 1
1. The elements of effective communication include:
- (A) a message (B) a sender and receiver
 (C) a channel (D) feedback
 (E) all of the above
- 1
2. The cornerstones of Enhanced Surgical Recovery (ESR) include:
- (A) Evidence-based perioperative care (B) Multidisciplinary and multi-professional approach
 (C) Teamwork (D) Reduced patient satisfaction
 (E) A, B, and C (F) A, C, and D
3. The steps in the effective communication process are: (B)
- (A) and Introduction, maintenance and Announcment, integration, conclusion continuance
 (C) Meeting, greeting, and send-off (D) Conversation, exchange, and understanding
3. The patients' responsibility to the nurse in the communication process include:

-
- (A) Being truthful
 - (B) Provide a full medical history
 - (C) Participate in independent self-care directions
 - (D) Comply with health care
 - (E) All of the above



5. At HCA Florida St Lucie Hospital we follow the pause, acknowledge, introduce, duration, explanation and thank you (PAIDET) protocol for effective patient communication.

- (A) True
- (B) False

6. The Enhanced Recovery After Surgery (ERAS) guidance for perioperative patient care consists of 15 to 25 different care items. At HCA Florida SLH the ESR tactics followed are:

- (A) Fluid optimization
- (B) Nutrition
- (C) Pain management
- (D) Early mobilization
- (E) Patient satisfaction
- (F) All of the above

7. Controlling postsurgical pain is less effective when using a combination of pharmacologic agents.

- (A) True
- (B) False

— 8. Literature supports the key benefits of preoperative education including all of the

following EXCEPT:

- (A) Reduced anxiety
- (B) Improved satisfaction
- (C) More pain
- (D) Improved outcomes
- (E) Patient compliance in the ESR pathway

9. The essential areas of focus within preoperative educational content should include:

- (A) Pain goal setting preoperatively and pain postoperatively management.
- (B) Limiting patient education on pain postoperatively management.
- (C) Information on surgical and anesthetic procedures
- (D) A and C
- (E) All of the above

10. Multimodal analgesia focuses on reducing the use of opioids since opioids can:

- (A) Cause nausea and vomiting
- (B) Opioids are less effective in treating moderate-to-severe postoperative pain
- (C) Contribute to pruritus
- (D) Contribute to increased opioid requirements
- (E) Have inconsistent absorption causing variable efficacy
- (F) A, C and E
- (G) All of the above

11. Options for components of multimodal analgesia for commonly performed surgeries are:

- (A) Site specific regional block non-steroidal anti-inflammatory (NSAIDs) such as acetaminophen
- (B) Gabapentin or pregabalin
- (C) Opioids
- (D) All of the above

12. Management of postoperative nausea and vomiting (PONV) can be complicated by use of 1 which of the following during the intraoperative period?

Inhalational anesthesia is used for

- A Use of a multimodal approach to patient care
 B maintenance
- C Use of antiemetic drugs used as single
 D Dexamethasone dose ideally given prevention following anesthesia induction.

13. Multimodal analgesia is defined as the use of a variety of analgesic medication and techniques that target different mechanisms of action in the peripheral and central nervous system.

- A True
 B False

14. The ESR pathway at HCA Florida St Lucie Hospital identifies the following elements for 1 success, supported by evidence-based practice (EBP):

- Clear liquids up to 2 hours Pre-Op (maintenance of hydration)
- Multi-modal pain analgesic regimen minimizing opioids
- Goal-directed fluid therapy to maintain euvolemia intra-op
- DREAM–DRinking, Eating, & Mobilization within 24 hours post-op
- Patient Education

- A True
 B False

15. Implementation of the ESR program has demonstrated all of the following EXCEPT:

1

- | | |
|---|---|
| <input type="radio"/> A Reduction in patient length of stay (LOS) | <input type="radio"/> B Improved time to ambulation |
| <input type="radio"/> C Decreased patient satisfaction | <input type="radio"/> D Blood loss |
| <input checked="" type="radio"/> E C and D | <input type="radio"/> F A, B, and C |

Appendix G: Pretest/Posttest Content Validation by Content Experts

Title of Project: Improving Communication About Pain with Enhanced Surgical
Recovery Staff Education

Student: Kathleen Ranne, MSN/Ed, CNOR, CSSM

Respondent No. (A, B, C)

Accompanying Packet: Curriculum Plan, Pretest/Posttest with answers, Pretest/Posttest
Expert Content Validation Form

INSTRUCTIONS: Please check each item to see if the question is representative of the
course objective and the correct answer is reflected in the course content.

Test Item # 1 2 3 4

1 Not Relevant __ Somewhat Relevant__ Relevant___ Very Relevant__

Comments:

2 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments:

3 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments:

4 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments:

5. Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments:

6 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments:

7 Not Relevant__ Somewhat Relevant__ Relevant ___ Very Relevant__

Comments:

8 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments:

9 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments

10 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments

11 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments

12 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments

13 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments

14 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments

15 Not Relevant__ Somewhat Relevant__ Relevant___ Very Relevant__

Comments

Appendix H: Pretest/Posttest Content Expert Validity Index Scale Analysis

Table 2*Rating on 16-Item Scale by Three Experts on a 4-Point Likert Scale*

1= Not relevant, 2= somewhat relevant, 3= quite relevant, and 4= highly relevant.

Pretest/Posttest Items	Expert 1	Expert 2	Expert 3	Total rating	Item I-CVI
1	3	4		7	1
2	3	4		7	1
3	3	4		7	1
4	3	4		7	1
5	2	4		6	.5
6	3	4		7	1
7	3	4		7	1
8	3	4		7	1
9	3	4		7	1
10	3	4		7	1
11	3	4		7	1
12	2	4		6	.5
13	3	4		7	1
14	4	4		8	1
15	3	4		7	1
Total	44	60		104	14
Proportion Relevant				S-CVI	.93

I-CVI, item-level content validity index.

S-CVI/UA, scale-level content validity index, universal agreement calculation method

Adopted from Polit, D. F., & Beck, C. T. (2006). The content validity index.

A calculated S-CVI value >0.79 indicates that the item is relevant. Items that measure between 0.70 and 0.79 should be considered for revision and items <0.70 should be eliminated (Rodrigues et al., 2017). After completing these calculations by CEs, S-CVI of 0.93 indicates relevance of the items for this Pretest/Posttest content.

Moon/August 2019

Appendix I: Content Expert Letter



November 6, 2022
Kathleen Ranne, MSN/Ed, CNOR, CSSM
Doctor of Nursing Practice (DNP) Candidate
Walden University

Dear Content Expert,

First, thank you for agreeing to assist me as I strive to complete my doctoral studies at Walden University as a content expert for my doctoral project titled *Improving Communication about Pain with Enhanced Surgical Recovery Staff Education*. I value your opinion and appreciate your expertise, which will contribute greatly to the success of my project.

Second, I would like to describe the contents of this package and provide some brief instructions on how these forms are to be completed. Included in the packet please find:

1. Literature Matrix Review
2. Curriculum Plan
3. Evaluation of Curriculum Plan by Content Experts
4. Pretest/Posttest
5. Pretest/Posttest Content Validity Content Validity by Content Experts

The instructions for completing each form can be found at the top of the form. Once the forms that require your input are completed, simply place them in the envelope provided and return the envelope to the mailbox located on my office door at the front of my office. You may also put the forms in the mail if that is easier for you. The packet with the documents are numbered so that anonymity is maintained.

Finally, I would like to say “thank you” again for your support, guidance, and assistance as I complete this DNP project. I feel confident that my skill and knowledge as a professional nurse will be enhanced with the completion of my doctoral studies. I will bring this knowledge and skill to my work area for the betterment of the patients in my care and the staff I am privileged to serve beside.

With respect,

A handwritten signature in purple ink that reads "Kathleen Ranne".

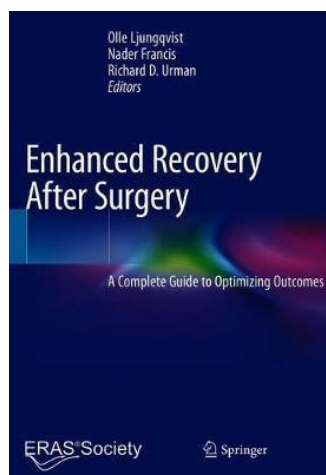
Kathleen Ranne, MSN/Ed, CNOR, CSSM
kathleen.ranne@hcahealthcare.com
772-722-0375 Mobile

772-335-4000 Ext 2995 Office

Appendix J: Staff Education Program

Staff Education about Pain with Enhanced Surgical Recovery

Kathleen Ranne, MSN/Ed, CNOR, CSSM
Walden University April 26, 2023



Enhanced Recovery After Surgery (ERAS)

- ▶ Evidence-based care for surgical patients
- ▶ Proven outcomes of clinical care and cost effectiveness
- ▶ Value-based care in surgery (Scott, et al., 2017)
- ▶ Introduced in US in 1997
- ▶ 21 components

Enhanced Surgery Recovery (ESR): Evidence-based Practice (EBP)

- ▶ The ESR protocol is evidence -based perioperative care
- ▶ Focuses on teamwork and a multidisciplinary approach
- ▶ Pain management with multimodal pain control
- ▶ Utilizes a combination of pharmacologic agents for pain control to reduce opioid consumption
- ▶ Relies on preoperative patient and staff education (Thiel et al., 2015; Liu et al., 2017)

ESR: Evidence-based Practice, cont.

- ▶ Five used by our hospital titled Enhanced Surgical Recovery (ESR)
- ▶ Describe key terms in enhanced surgical recovery protocol including:
 - a. Fluid management
 - b. Early ambulation
 - c. Pain management
 - d. Diet management postoperatively
 - e. Patient experience

ESR: Evidence-based Practice, cont.

- ▶ Five used by our hospital titled Enhanced Surgical Recovery (ESR)
- ▶ Describe key terms in enhanced surgical recovery protocol including:
 - a. Fluid management
 - b. Early ambulation
 - c. Pain management
 - d. Diet management postoperatively
 - e. Patient experience

ESR: Evidence-based Practice, cont.

- ▶ Five used by our hospital titled Enhanced Surgical Recovery (ESR)
- ▶ Describe key terms in enhanced surgical recovery protocol including:
 - a. Fluid management
 - b. Early ambulation
 - c. Pain management
 - d. Diet management postoperatively
 - e. Patient experience

ESR: Evidence-based Practice, cont.

- ▶ Five used by our hospital titled Enhanced Surgical Recovery (ESR)
- ▶ Describe key terms in enhanced surgical recovery protocol including:
 - a. Fluid management
 - b. Early ambulation
 - c. Pain management
 - d. Diet management postoperatively
 - e. Patient experience

ESR: Evidence-based Practice, cont.

- ▶ Five used by our hospital titled Enhanced Surgical Recovery (ESR)
- ▶ Describe key terms in enhanced surgical recovery protocol including:
 - a. Fluid management
 - b. Early ambulation
 - c. Pain management
 - d. Diet management postoperatively
 - e. Patient experience

Multimodal Pain Management: Effects

- ▶ Multimodal pain management can reduce the opioid requirement postoperatively which helps reduce complications for the patient including:
 - ▶ constipation
 - ▶ nausea/vomiting
 - ▶ sedation
 - ▶ pruritus

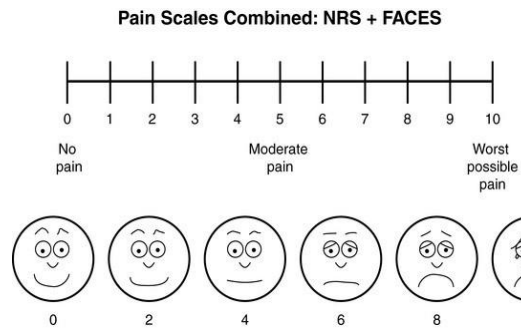
Offering the patient scheduled nonopioid agents within the multimodal pain management pathway can be very helpful in decreasing unwanted side effects of opioids.

Multimodal Pain Management: Patient Experience

- ▶ Establishing trust in nursing care
- ▶ Present a knowledgeable impact
- ▶ Individualized care for each patient
- ▶ Support a positive patient experience
- ▶ Minimize patient discomfort

Wong-Baker FACES Pain Numeric Rating Scale and Numeric Pain Scale (NPS)

- Public domain
- May be duplicated



Communication: Perioperative Pain

- ▶ Effective communication includes a message, a channel, a sender and receiver, along with feedback
- ▶ The steps in the effective communication process include the introduction, maintenance, and the conclusion
- ▶ Effective communication uses language that is patient-centered

Communication: PAIDET, cont.

- ▶ Two-way conversation is one that is:
 - ▶ Based on objective data gathered related to the patient
 - ▶ Utilizes open-ended questions
 - ▶ Uses paraphrase to verify understanding
 - ▶ Understanding that the conversation includes subjective information specific to the patient
 - ▶ Summarizing key concerns briefly to verify understanding

Communication: Pause, Acknowledge, Introduce, Duration, Explain, Thank You (PAIDET): Model for Effective Communication



(Boyd et al., 2020)

Communication: PAIDET, cont.

- ▶ **P** Pause for a minute
 - ▶ Stop what you are doing
 - ▶ Take time to gather your thoughts
- ▶ **A** Acknowledge the patient, family
 - ▶ Ask for permission to visit
 - ▶ Ask can speak in front of family
- ▶ **I** Introduce Wish them well yourself
 - ▶ Tell who you are
 - ▶ Tell what your role is
- ▶ **D** Duration of your visit
 - ▶ How long you will be there
- ▶ **E** Explain what you will be doing
 - ▶ Explain procedure
 - ▶ What to expect
- ▶ **T** Thank you
 - ▶ Thank them for their time

Communication, cont.

▶ Nurse Role: Pain Management Communication

- ▶ Patient-centered approach - active participant in care
- ▶ Individually tailored program
- ▶ Pain assessment - quality duration, character
- ▶ Perioperative treatment options
- ▶ Patient engagement in treatment options

Communication, cont.

- ▶ Patient's Role
 - ▶ Be an active participant
 - ▶ Active participants are more likely to follow directions
 - ▶ Be truthful with medical history
 - ▶ Should actively participate

“Passive patients, who simply sit and listen, rarely make a conscious effort to restore and maintain health; they rely on their healthcare providers to do it for them” Boyd et al., 2020,p. 1).

Communication, cont.

- ▶ Nurse Role: Verify understanding
 - ▶ Provide conversation that is two-way
 - ▶ Check patients' understanding
 - ▶ Allow time for asking questions
 - ▶ Clarify important concepts as necessary
 - ▶ Make conversations clear, concise, appropriate language the patient can understand
 - ▶ Avoid misunderstanding.

Communication: Nursing Continuum of Care, cont.

- ▶ Pain management of critical importance to the ESR pathway. The continuum includes:
 - ▶ Nursing staff education
 - ▶ Preop patient teaching
 - ▶ Intraoperative patient teaching
 - ▶ Postoperative patient teaching
 - ▶ Patient teaching that transfers to the nursing unit following surgery

Patient Education: Nursing Continuum of Care

- ▶ Includes patient teaching of multimodal pain management concepts
- ▶ Pain assessment uniform in all surgical areas.
- ▶ Education begins in Preadmit and continues from PACU to nursing unit
- ▶ Include major pain management concepts in discharge plan
 - Multimodal elements
 - Non-pharmacological pain relief practices

Thank You



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Appendix K: Evaluation of the Staff Education Program by Participants

Objective Statement	Were the objectives met? Please circle.	
1. Understand the importance of effective nurse-patient communication regarding postoperative pain.	Yes No	
2. Identify the elements of the enhanced surgical recovery (ESR) protocol in place at the clinical setting where the nurse practices.	Yes No	
3. Demonstrate knowledge of the components of multimodal pain management for enhanced surgical recovery patients.	Yes No	
4. Understand and contribute to the continuum of nursing care for ESR patients' pain management throughout the perioperative experience.	Yes No	
5. Improve knowledge of therapeutic, patient-centered communication related to pain management for ESR patients.	Yes No	
6. Demonstrate understanding of multimodal pain management importance to the patient experience.	Yes No	

Comments		
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Appendix L: Summary of the Evaluation of the Staff Education Program by Participants

Table 3*The Responses of Participants to Dichotomous Questions*

Objective	Yes	No	N = Number Valid Responses
1. Understand the importance of effective nurse-patient communication regarding postoperative pain.	4	0	4
2. Identify the elements of the enhanced surgical recovery (ESR) protocol in place at the clinical setting where the nurse practices	4	0	4
3. Demonstrate knowledge of the components of multimodal pain management for enhanced surgical recovery patients.	4	0	4
4. Understand and contribute to the continuum of nursing care for ESR patients' pain management throughout the perioperative experience.	4	0	4
5. Improve knowledge of therapeutic, patient-centered communication related to pain management for ESR patients.	4	0	4
6. Demonstrate understanding of multimodal pain management importance to the patient experience.	4	0	4

Appendix M: Evaluation of the Staff Education Project, Process, and My Leadership by

Content Experts

Title of Project: Improving Communication about Pain with Enhanced Surgical Recovery

Staff Education

Student: Kathleen Ranne, MSN/Ed, CNOR, CSSM

Thank you for completing the Summary Evaluation on my project. Please complete and send anonymously via interoffice mail to:

I. Content Expert Approach

- a. Please describe the effectiveness (or not) of this project in terms of communication, and desired outcomes etc.
- b. How do you feel about your involvement as a content expert member for this project?
- c. What aspects of the content expert process would you like to see improved?

II. There were outcome products involved in this project including an educational curriculum and pre/ posttest.

- a. Describe your involvement in participating in the development/approval of the products.
- b. Share how you might have liked to have participated in another way in developing/approving the products.

III. The role of the student was to be the leader of the project.

- a. As a leader how did the student direct you to meet the project goals?
- b. How did the leader support you in meeting the project goals?

IV. Please offer suggestions for improvement.

Appendix N: Summary Evaluation Results of the Staff Education Project by Content

Experts

Title of Project: Improving Communication About Pain with Enhanced Surgical Recovery Staff Education

Student: Kathleen Ranne, MSN/Ed, CNOR, CSSM

Thank you for completing the Summary Evaluation on my project. Please complete and send anonymously via interoffice mail to:

I. Content Expert Approach

- a. Please describe the effectiveness (or not) of this project in terms of communication, and desired outcomes etc.

Evaluator A	Evaluator B	Evaluator C
The program demonstrated effectiveness in planning and outcome		

- b. How do you feel about your involvement as a content expert member for this project?

Evaluator A	Evaluator B	Evaluator C
Welcome and useful		

- II. There were outcomes products in this project including an educational curriculum and pre/posttest.

- c. Describe your involvement in participating in the development/approval of the products.

Evaluator A	Evaluator B	Evaluator C
I personally reviewed the content and offered suggestions		

- d. Share how you might have liked to have participated in another way in developing/approving the products.

Evaluator A	Evaluator B	Evaluator C
My role was sufficient		

- III. The role of the student was to be the leader of the project.

As a leader how did the student direct you to meet project goals?

Evaluator A	Evaluator B	Evaluator C
The student is thoughtful, diligent and enjoys a solid		

reputation at our hospital as a leader		
---	--	--

How did the leader support you in meeting the project goals?

Evaluator A	Evaluator B	Evaluator C
She explained and reviewed materials		

IV. Please offer suggestions for improvement.

Evaluator A	Evaluator B	Evaluator C
That's outside my area of expertise		

Appendix O: Consent Form for Anonymous Questionnaires

You are invited to take part in an evaluation for the staff education doctoral project that I am conducting.

Questionnaire Procedures: If you agree to take part, I will be asking you to provide your responses anonymously, to help reduce bias and any sort of pressure to respond a certain way. Staff members' questionnaire responses will be analyzed as part of my doctoral project, along with any archival data, reports, and documents that the organization's leadership deems fit to share.

Voluntary Nature of the Project: This project is voluntary. If you decide to join the project now, you can still change your mind later.

Risks and Benefits of Being in the Project: Being in this project would not pose any risks beyond those of typical daily professional activities. This project's aim is to provide data and insights to support the organization's success.

Privacy: I might know that you completed a questionnaire, but I will not know who provided which responses. Any reports, presentations, or publications related to this study will share general patterns from the data, without sharing the identities of individual respondents or partner organization(s). The questionnaire data will be kept for a period of at least 5 years, as required by my university.

Contacts and Questions: If you want to talk privately about your rights in relation to this project, you can call my university's Advocate via the phone number 612-312-1210. Walden University's ethics approval number for this study is 05-16-22-0978272.

Before you start the questionnaire, please share any questions, or concerns you might have.

Sincerely,

Kathleen Ranne, MSN/Ed, CNOR, CSSM
A00978272

