TIMING OF LABOR EPIDURAL INFORMED CONSENT PROCESS PROMOTES PATIENT SAFETY AND UNDERSTANDING: RECALL OF RISKS, BENEFITS, AND ALTERNATIVES

by

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Timing of Labor Epidural Education Promotes Patient Safety and Understanding of Informed Consent: Recall of Risks, Benefits, and Alternatives

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Abstract

Obtaining informed consent from the parturient requesting a labor epidural requires the Certified Registered Nurse Anesthetist (CRNA) to communicate to the parturient information regarding the risks, benefits, and alternatives involved with the invasive procedure and expectations prior to the parturient signing a consent form. When an epidural is requested, the parturient may be experiencing excruciating pain to the point where they cannot focus, sit still, or comprehend the information the CRNA is verbally presenting to them. This increases the risk of injury to the parturient. Internal factors such as the pain experienced by the parturient can influence the decision-making capacity of the parturient who readily agrees to consent to the procedure prior to receiving all the essential information from the CRNA. This project improves the informed consent process for placing a labor epidural. Initiating the informed consent conversation with the parturient about labor epidural placement, the risks involved, the benefits, and alternatives shortly after admission to the labor and delivery (L&D) unit when pain scores are low promotes patient safety and understanding of the epidural procedure, its expectations, along with the ability of the parturient to recall the risks, benefits, and alternatives of the procedure. Using a pre-recorded epidural video decision-aid, viewed by the parturient and family when pain scores are low, affords the parturient the ability to recall risks, benefits, and alternatives of having a labor epidural placed as measured by a post-informed consent questionnaire.

Keywords: consent, labor, parturient, epidural, risks, benefits, alternatives, postpartum

Table of Contents Example

Timing of Labor Epidural Informed Consent Process Promotes Patient Safety and Understanding: Recall of Risks, Benefits, and Alternatives

Chapter One: Introduction and Overview

CRNAs often place a labor epidural for the requesting parturient to help manage labor pain. The invasive procedure only begins upon the request from the labor and delivery registered nurse (RN) after the parturient requests it. Following a review of the parturient's medical record, the CRNA greets them at the bedside to begin the verbal communication portion of the consent process for the procedure. Their medical information is reviewed with them, information regarding a labor epidural placement is reviewed, along with the associated risks, benefits, and alternatives of having a labor epidural placed. Any further questions the parturient may bring forth are answered before they sign the legal consent form for the procedure.

During advanced stages of labor, when the parturient is experiencing extreme amounts of pain, it becomes difficult to conduct the informed consent conversation with the parturient regarding epidural placement and obtain proper consent for the procedure. This situation creates an increased risk of injury to the parturient due to the CRNA being rushed to place the labor epidural and the parturient being unable to remain still for the epidural placement. The parturient often tells the CRNA, “Just put it in already,” as they quickly agree to the procedure and consent process even before receiving all the pertinent information, such as the procedure's risks, benefits, alternatives, and expectations.

This project will focus on improving the current process of initiating the informed consent process for the parturient population who desire a labor epidural for labor pain management shortly after admission to the L&D unit during the early stages of labor (as opposed to advanced stages of labor) when pain scores are minimal. The parturient and family will view a

nine-minute epidural video and be able to comprehend the information provided in a relaxed state of mind. This will allow the parturient the ability to recall the information, risks, benefits, and alternatives of placing a labor epidural.

Background of the Project

Informed consent is a legal document and process between a medical professional and their patient. The patient voluntarily signs it before any medical or surgical invasive procedure. After a patient has signed a consent form, full knowledge of the possible risks, benefits, and alternatives of the medical or surgical procedure is validated, indicating that the patient fully understands the information presented. Both medical ethics and healthcare law encompass this legal doctrine (Annas, 2017). Informed consent is also described as an "informed choice," which describes the fiduciary relationship between a healthcare provider and their patient, according to Annas (2017). It is known that patients desire and are willing to build a trusting relationship with their medical provider. The provider is responsible for presenting treatment and procedural options with alternatives and discussing any risks and benefits associated with the procedure (Annas, 2017). Informed consent should uphold the patient's dignity, promote a rational decision-making capability, and uphold the ethical practice of medicine (Annas, 2017).

When the CRNA communicates information and obtains consent from the parturient for a labor epidural, and they are too uncomfortable to retain any information the CRNA provides, it raises the question of valid informed consent. According to Huschke (2021), to obtain valid consent, the parturient must receive all pertinent procedural information including the purpose, risks, benefits, and alternatives, in an understandable fashion to the parturient. It must be voluntary and it must be understood that they make the decisional choice without the threat of coerced consent (Huschke, 2021). CRNAs have expressed concern about the parturient's

capacity and capability to provide consent during the late stages of labor due to a lack of mental competence caused by her labor pain (Wada et a1., 2018). Pain is an internal factor affecting a person's decision-making capability regarding the consenting process for a medical or surgical procedure (Wada et a1., 2018). There are four criteria that identify psychological abilities required for proper decision-making capacity. The patient must: 1) comprehend the information provided, 2) understand how the information applies to oneself, 3) negotiate the information and be able to choose a different pathway, and 4) be able to communicate their choice voluntarily (Wada et a1., 2018). Consent must be free from undue influences in making an autonomous decision. Internal factors such as pain and anxiety, along with external factors such as clinical personnel and familial influences, may constitute undue influences (Wada et a1., 2018).

Studies have reported that of 291 anesthesia providers, 70 percent stated that consent for the parturient was compromised due to being in the late stages of labor (Wada et al., 2018). Inadequate disclosure of risks and the lack of being able to discuss the risks, benefits, and alternatives thoroughly were among the other reported information that would compromise adequate consent (Wada et a1., 2018).

Statement of the Problem

A labor epidural for labor analgesia is considered an elective invasive procedure, not a requirement. It, therefore, is not mandatory for a parturient to receive an epidural to help ease their labor pain. There are multiple situations in which a parturient may not receive a labor epidural. Situations include the parturient being anti-coagulated, if they have complex spinal anatomy such as severe scoliosis or have surgical hardware in place from previous back surgery to such a degree that it prevents placement of a labor epidural. Other reasons a parturient may not

receive a labor epidural include imminent delivery of the fetus or if the mother desires a natural/unmedicated delivery.

The informed consent process for a labor epidural placement encompasses multiple risks associated with the procedure. These include a failed block, necessitating the need to repeat the epidural, infection, bleeding, epidural hematoma, nerve damage, decreased blood pressure, nausea, vomiting, leg weakness, dural puncture headache, a one-sided block where the parturient may feel comfortable on one side of their abdomen, but uncomfortable on the opposite side, fever, meningitis, pruritis, prolonged labor, fetal heart rate abnormalities, heart rhythm disturbances, allergic reaction to the epidural medications, trouble breathing due to a high epidural level, and seizure (Wada et al., 2018). Gyi et a1. (2021) report epidural anesthesia can also increase the second stage of labor, increase the risk for vaginal instrumented birth, increase blood loss, and lower the Appearance, Pulse, Grimace, Activity, and Respiration (APGAR) score in the fetus of the parturient with an epidural versus no epidural. When the parturient requests a labor epidural during the late stages of labor, they are at risk for any of these complications. Although epidural placement is considered a safe procedure, the parturient must be appropriately informed of these serious complications for which they may be at risk. Benefits of having an epidural placed include having decreased pain during labor, and alternatives include intravenous or oral routes of pain medication administration or inhaled nitrous oxide.

Adopting a practice change to initiate the informed consent process to the parturient during the early stages of labor when they are comfortable enhances the ability of the parturient to retain the information. It decreases many of the risks mentioned above. This also allows the parturient to recall the risks, benefits, and alternatives of placing a labor epidural and make an informed, voluntary decision.

Purpose of the Project

This DNP quality improvement project is an EBP framework guided by interest, personal experience, and professional anesthesia background to initiate the informed consent process for epidural placement shortly after admission to the L&D unit when pain scores are low. The parturient and family will view a pre-recorded nine-minute labor epidural video detailing the procedure, expectations, risks, benefits, and alternatives, promoting patient safety, understanding, and voluntary informed consent.

PICOT Question

Does initiating the informed consent process for parturient patients on admission to the labor and delivery unit when pain scores are low instead of later in the admission when pain scores are higher related to advanced stages of labor increase the information retained during the informed consent conversation?

P- Parturient patients admitted to the labor and delivery unit

I- Initiating the informed consent process on admission when pain scores are low

C- Instead of later when pain scores are higher related to advanced stages of labor

O- Increase the information retained during the informed consent conversation

T- Over seven weeks

Theoretical Framework

CRNAs are frontline healthcare professionals who spend their time providing care for all populations across the lifespan. Providing services to the obstetric (OB) population is considered a specialized area of anesthesia. Providing OB care is standardized amongst all anesthesia providers, but there are many ways in which a task or procedure can be done safely and

effectively. Individual procedural preferences typically evolve from the anesthetist's initial training and ongoing education.

Many CRNAs consider their profession to be theory and practice-based by helping to clarify their values and beliefs about human health processes and the continuous drive to seek out innovative patient care approaches (Younas & Quennell, 2019). Nursing theories aid nurses in anticipating and evaluating their vital roles in evolving care settings. Because of this, nurses must value evidence-based practice (EBP) and the Nursing Theory-Guided Practice (NTGP) theoretical framework due to the relationships between theory, research, and practice environment, which is pivotal for knowledge development (Younas & Quennell, 2019).

NTGP is a nursing theory that helps describe, predict, and explain the phenomena of the nursing profession and allows nurses to recognize the complexities of nursing practice (Younas & Quennell, 2019). It also provides nurses with the tools for self-examination, reflection, critical thinking, reasoning, and effective decision-making capabilities. These characteristics of the NTGP facilitate the guidance of enhanced nursing knowledge and practice, which become essential for improving patient care outcomes (Younas & Quennell, 2019).

NTGP is a human health service to all populations based on the discipline-specific knowledge expressed in nursing frameworks and theories. It reflects the philosophical perspectives in the processes that mold nursing's ethical approaches to human health (Younas & Quennell, 2019). Instead of traditional nursing practices, which are void of innovative ideas or process improvements, nurses should guide their EBP and research through nursing theories rather than theories of medicine and social science (Younas & Quennell, 2019). NTGP is indispensable for continuously advancing nursing innovation and discipline to improve the

quality of nursing care. It also provides a voice for nurses to articulate what they do for their patients and families and why (Younas & Quennell, 2019).

Integrating EBP with my clinical expertise in OB anesthesia along with the parturient preferences and values regarding an epidural placement for labor analgesia drives innovative process improvement for patient safety, better communication, a better understanding of the risks, benefits, and alternatives, and a voluntary informed consent free of internal or external influences (Anderson et a1., 2015).

Adopting the NTGP theoretical framework for this DNP project helps improve practice by positively influencing the parturient population's health, safety, and quality. My process improvement project will further describe my nursing care, guide my nursing practice, and provide an innovative intervention for clinical decision-making regarding how and when to inform the parturient about their labor epidural procedure and promote positive outcomes.

Significance of the Project

The physiological effect of giving birth is an extreme, intense, transformative psychological experience that promotes a sense of empowerment for the parturient. Outcomes for successful natural childbirth include physical, emotional, and social support that enhances the belief in the parturient's ability to give birth and not disturb their physiological process unless necessary (Olza et al., 2018).

During this physiological process, the parturient can no longer cope with their choice of having a natural or un-medicated vaginal childbirth and changes their birth plan to request a labor epidural for labor analgesia. This often occurs during the late phases of labor when pain scores are high, the parturient is very anxious, unable to sit still, and is not interested in receiving

a verbal conversation from the CRNA, which is required for the labor epidural consent and placement.

The decision-making capacity of the parturient is now potentially compromised, and providing legal consent for the procedure can be invalid, increase the chances of potential litigation, and become an ethical issue. CRNAs are now faced with the dilemma of determining if the parturient can give informed consent and whether placing a labor epidural for pain management without valid informed consent is ethically justified (Rafla-Yuan et al., 2021). In general, primary ethical challenges in these situations include: 1) does the parturient have the capacity to make their own medical decisions, 2) how should a surrogate decision-maker be identified when family members are unavailable, and 3) are interventions that follow OB standards of care ethically justified in the parturient who lack decisional capacity due to extreme pain (Rafla-Yuan et a1., 2021). As stated earlier, epidural analgesia is an elective invasive procedure and is not required. Other forms of pain control may be necessary, such as intravenous or oral routes of pain medication administration and nitrous oxide.

Epidural analgesia is a safe and effective pharmacological technique CRNAs use to manage labor pain. The procedure involves injecting an anesthetic into the lower back to minimize the sensation of pain caused by labor contractions (Alakeely et a1., 2018). Of the four million women who give birth annually in the United States, 1.6 million usually request epidural analgesia for labor pain (Alakeely et a1., 2018). Decisions that drive the request for an epidural during labor include factors such as the woman's and family's cultural background, knowledge about epidurals, financial status, and educational level. Variations in women's acceptance of obtaining a labor epidural include medical and social misconceptions of the procedure and spiritual or religious reasons (Alakeely et al., 2018). Higher incomes and exceptional knowledge

of epidural analgesia positively affected the parturient choice for using an epidural during labor. According to Alakeely et a1. (2018), antenatal education regarding epidural analgesia when pain scores are zero to minimal is the best time to educate the parturient about pain relief methods during labor. With early awareness and education, individuals can understand the information presented and make a voluntary informed decision when requesting a labor epidural for pain (Alakeely et a1. 2018).

Anesthesia professionals are vital in explaining the procedure's risks, benefits, expectations, and alternatives of a labor epidural. Study findings are consistent with increased epidural analgesia requests among individuals educated antenatally or during the early phases of labor regarding the epidural procedure. A review of information in the third trimester of pregnancy is also recommended, along with reassessing the parturient decision to request epidural analgesia for labor pain (Alakeely et a1., 2018).

Definition of Terms

Parturient: a woman about to give birth; in labor

Postpartum: the time after childbirth

Certified Registered Nurse Anesthetist (CRNA): an advanced practice registered nurse (APRN) who administers anesthesia.

Labor epidural: a numbing medicine given by inserting a needle and a catheter into the lower part of a woman's back.

Informed consent: a principle in medical ethics, medical law, and medical studies that a patient must have sufficient information and understanding before making decisions about their medical care.

Nursing theory-guided practice (NTGP): practice nursing theories that are situation-specific, narrow in scope, and focus on a specific patient population at a particular time. They provide frameworks for nursing interventions and suggest outcomes or the effect of nursing practice.

Labor and delivery ***(L&D):*** the type of room that some hospitals and almost all birth centers use for care.

Evidence-based practice (EBP) is the idea that occupational practices should be based on scientific evidence.

Neuraxial anesthesia: the placement of local anesthetic in or around the central nervous system (CNS).

Postpartum is when the physiologic changes related to pregnancy return to the nonpregnant state after birth.

Post-Anesthesia Evaluation (PAE): the required anesthesia follow-up to any anesthesia-related procedure or surgical case.

Barriers to the Project

Perceived barriers to this project include the convenience sampling method of parturient patients. Will the parturient be captured shortly after admission to the L&D unit, and will they be able to view the epidural video during the early phases of labor when pain scores are low? The plan for this project is to work closely with the L&D RNs and be able to view the status board when the parturient is admitted. Another potential barrier is that the epidural video is only in English, so any parturient who cannot speak or understand English will not be included in this study. The L&D units have twelve electronic devices donated to the unit for educational purposes. A potential barrier will be if none of the electronic devices are available during the time of need. A solution to this problem is that the video is accessible on any device (personal

iPhone or laptop) that can connect to the hospital's Wi-Fi service. The epidural video is on the anesthesia group's website homepage and will be readily available for viewing from personal devices without a unit-supplied electronic device. Another potential barrier is the lack of participation of the L&D RN in providing the electronic device or video in a timely fashion, allowing the parturient time to view the video. The refusal of a parturient to watch the video early differentiates them because these parturients will undergo the informed consent process verbally upon request for their labor epidural. This will lead to the second portion of the project of verbally consenting the parturient during advanced stages of labor, refusing to watch the video, or being unable to watch the video for any reason. Before signing the consent form, these parturient patients must still receive information regarding epidural placement, including the risks, benefits, alternatives, and expectations. Another potential barrier is having a single CRNA facilitating this project and capturing all the data with the OB RNs' help. The sample size could potentially be small. There are no foreseen cost issues as the electronic devices for reviewing the video have already been donated to the unit, nor any connectivity issues because the hospital provides Wi-Fi services.

Using numerical data in a survey design is known to have limitations (Stratton, 2019). The questionnaire consists of a numeric pain rating scale (0-10) eliciting the parturient's pain level when they underwent the informed consent process, and three open-ended questions regarding the recall of the risks, benefits, and alternatives of labor epidural placement discussed during the video. The results will be measured based on the recall of the risks, benefits, and alternatives mentioned during the informed consent process between parturients who undergo the informed consent process during the early phases of labor when pain scores are low and those parturients who undergo the informed consent process during the later stages of labor when pain

scores are higher. The questionnaire will be conducted during the required post-anesthesia evaluation following delivery of the newborn.

There are times when the post-anesthesia evaluation gets delayed closer to discharge. According to Stratton (2019), the more time that passes after the application of informative videos, the more knowledge gained and concepts could be lost. The goal would be to complete closer to the delivery of the newborn rather than just before discharge.

Another perceived barrier is the ability to capture data on the questionnaire. Failing to capture the patient's responses to the informed consent questionnaire during the post-anesthesia evaluation (PAE) would result in no data being collected for these patients.

Proposed DNP Essentials

DNP Essential I: Scientific Underpinnings for Practice

Implementing this project of initiating the informed consent process for labor epidural placement shortly after admission to the L&D unit through the use of a pre-recorded nine-minute video that explains the epidural procedure, its expectations, the risks, benefits, and alternatives to the procedure; enhance the knowledge base of the parturient and promotes safe/quality care, affording them the ability to make a voluntary informed decision, free of internal or external influences for epidural placement. This directly integrates nursing science with knowledge from ethics, utilizes science-based theories and concepts to promote the significance of health and healthcare delivery, and advances strategies to enhance healthcare delivery phenomena and evaluate outcomes. This project evaluated new practice approaches in the L&D unit based on nursing theories in collaboration with change agents and allowed science to be translated into practice (Anderson et a1., 2015).

DNP Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking

Improving patient and healthcare outcomes is directly consistent with promoting the parturient population's health and safety. Involving organization and systems leadership will translate this practice change throughout the healthcare system. This project advances nursing practice, ongoing improvement of health outcomes, and enhances patient safety. The goal is to facilitate organization-wide changes in practice delivery throughout each L&D unit within the healthcare system (Anderson et a1., 2015).

DNP Essential III: Clinical Scholarship and Analytical Methods for EBP

This project was recognized prior to starting the DNP journey. Practice change on the L&D unit was warranted. The current practice of initiating the informed consent process for labor epidural placement to the parturient is unsafe and unethical. The project priority is to promote a practice change that affords the parturient time to be informed so they can easily absorb and understand the information presented to them and make an informed decision free of internal or external influences regarding epidural analgesia for labor pain. Integrating this new knowledge and practice change excites the entire L&D unit, patients, and staff(Anderson et a1., 2015).

DNP Essential V: Health Care **Policy for Advocacy in** Health Care

This project seeks to change practice within the healthcare system and to become policy throughout each L&D unit. Advocating for the parturient population directly impacts practice regulation, safety, and quality (Anderson et a1., 2015).

DNP Essential VIII: Advancing Practice Nursing

Advanced practice nurses are forever learners. Nurses are top-tiered professionals geared to design, implement, and evaluate therapeutic interventions based on the applications of EBP within their specialty. Nurses owe it to themselves, our patients, and the community being served to seek to advance nursing practice and continue advancing each one's skillset. Advanced practice nurses owe it to one another, our healthcare systems, communities, and patients to provide evidence-based care to continuously improve patient outcomes (Anderson et a1., 2015).

Conclusion

The background of this project focused on improving a process that will positively impact the quality of care for the parturient population. A doctorate in nursing allows one to use EBP to make a practice change within healthcare systems. With the support of the hospital, L&D unit, and unit change agents, implementing this project will change to initiating the informed consent process for labor epidural placement for the parturient shortly after being admitted to the L&D unit when labor pain scores are low. Rather than initiating the informed consent process for labor epidural placement at the point in time when pain levels are high and consent for a labor epidural becomes questionable, they will undergo the informed consent process early when pain levels are low and they are in a more comfortable state.

The use of a pre-recorded nine-minute epidural video will be viewed once they are settled on the L&D unit. When the parturient is ready for their epidural, they will request it through the L&D RN, and the RN will inform the CRNA that the parturient is ready for their epidural. The CRNA will greet the parturient at the bedside, review any pertinent medical history, answer any questions the parturient may have regarding the epidural video, obtain signed consent, and proceed to place the epidural.

Once the pamirient has delivered the newborn, and before being discharged home, they will complete a short post-informed consent questionnaire based on pain scores at the time they underwent the informed consent process and the recall of the risks, benefits, and alternatives of having a labor epidural placed. This data will be compared to the parturient patients who did not watch the epidural video shortly after admission when pain scores were low but who underwent the informed consent process at the time of their epidural request by the CRNA. This scenario usually occurs when pain scores are high, there is no time to watch the video, the patient refuses to watch the video, or an imminent delivery takes place. Nonetheless, the informed consent process must be complete, and a signed consent must be documented prior to epidural placement. The problem and purpose of this project were addressed in the PICOT question and the chosen theoretical framework of this project. The terms' definitions and any perceived barriers to implementing this project were listed and explained. This chapter closes by explaining what DNP essentials correlate with this project. The next chapter will delve into the literature review.

Chapter 2: Literature Review

A comprehensive literature review of the related topic was performed. The databases PUBMED, CINAHL, MEDLINE, the Cochrane Library, and ProQuest Central were searched using labor, epidural analgesia, parturient, informed consent, timing, pain, recall, risks, benefits, alternatives, and decision-making. The search was limited to peer-reviewed articles written in English and published between January 2015 and January 2023. Studies were selected based on their relevance to the project topic, which includes promoting early rather than late education to the parturient regarding labor epidural placement, which will enhance understanding and recall of the procedure's risks, benefits, and alternatives. This will allow the parturient to make an

autonomous decision and written consent void of internal or external factors that may otherwise influence their decision.

Related Studies-Education and Informed Consent

Widmer et a1. (2020) conducted a secondary analysis of the studies in the Cochrane review entitled "Uterotonic agents for preventing postpartum hemorrhage: a network meta-analysis." The aim was to describe practices of informed consent. Informed consent is the foundation of ethical practice. By obtaining consent from parturient women, researchers ensure that the rights and well-being of the parturient are protected. The International Confederation of Harmonization (ICH) establishes informed consent as "a process by which a subject voluntarily confirms his or her willingness to participate in a particular trial, after having been informed of all aspects of the trial that are relevant to the subject's decision to participate" (Widmer et a1., 2020). It is documented through a written, signed, and dated informed consent document encompassing three significant elements: information, comprehension, and voluntariness.

Information includes all procedures being conducted, the purpose of the study, risks, benefits, and a statement providing the participant the opportunity to withdraw from the study at any time (Widmer et a1., 2020). Comprehension ensures that the participant can adequately understand the information presented, and voluntariness means that the participant has decided to participate voluntarily, freely, uncoerced, and without undue influence or intimidation (Widmer et a1., 2020). To comply with these three essential elements, one must consider the appropriate time for the participant to be informed and provide consent so they can make a responsible and autonomous decision. Optimal times for consent during the intrapartum period remain controversial because some authors believe informed consent should be taken during the antenatal period when the parturient patients are free from undue influences related to internal

factors such as pain (Widmer et a1., 2020). In this study, informed consent was most frequently obtained upon admission for childbirth.

Epidural analgesia is the gold standard for pain relief during labor (Chin et a1., 2020). The stress, pain, and psychological factors associated with the late stages of labor can make obtaining informed procedural consent challenging for the parturient upon request of a labor epidural. It also increases the risk of injury to the parturient when placing a labor epidural during this time. Placement of a labor epidural requires significant participation from the parturient during their decision-making process. Still, the parturient may not have or understand the full knowledge of the risks, benefits, or alternatives. A discreet choice experiment (DCE) was conducted to quantify how the parturient who received a labor epidural would alter the use of their epidural plan with the understanding of the risks, benefits, and alternatives. The study results concluded that a need remains to refine and tailor current patient education, expectations, and practices to promote patient safety, understanding of informed consent, and the expectations and functioning of a labor epidural (Chin et a1., 2020).

Huschke (2022) utilized qualitative interviews that focused on women's involvement in decision-making during pregnancy and birth. The study occurred in Ireland, where informed choice during labor and delivery is heavily medicalized instead of individualized, patient-driven care (Huschke, 2022). The study aimed to gather women's subjective experiences of mental health and well-being during their pregnancy, intrapartum, and postpartum periods. It aimed to increase equality within the Irish maternity system, create more choices, and harbor respect for those giving birth. The study aimed to explore issues of autonomy, choice, or equality related to the care and interaction with healthcare professionals in Ireland. The research found that most interactions between healthcare professionals did not promote women's empowerment or

autonomy. These interactions left women disappointed, disrespected, disempowered, angry, and traumatized. The change would require a top-down approach and offer women a more comprehensive range of better options for their birthing experience. International best practice guidelines recommend that pregnant people should have the opportunity to develop trust with their care team and enhance a sense of autonomy and empowerment, which would increase their decision-making capability. More options with care providers and more places to deliver were also recommended. Home-birth services and the establishment of stand-alone midwifery-led units were recommended (Huschke, 2022).

Rafla-Yuan et a1. (2021) conducted a case study involving a 25-year-old pregnant woman. Paramedics brought the patient to the emergency department due to wandering in a neighborhood with altered mental status. Without identifying documentation or belongings, the patient could state their name and report being eight months pregnant, but otherwise was disorganized. A fetal non-stress test was performed to determine fetal well-being, and the initial findings raised the possibility of fetal distress. The patient refused to cooperate with further fetal monitoring and repeatedly removed the external monitoring devices. The patient could not participate in discussions regarding the care of the fetus or oneself. A capacity assessment by a psychiatrist determined that the patient did not have decision-making capabilities or capacity (Rafla-Yuan et al., 2021). The ethical issues that arose from this case study resolved that physicians are faced with the dilemma of deciding if they can give informed consent and whether specific interventions for maternal and or fetal benefit in the absence of informed consent are legally or ethically justified. The ethical challenges presented in this case study included whether the patient can make informed decisions for oneself or the fetus. How should a surrogate decision-maker be identified when family members are unknown, and are interventions that

follow OB guidelines ethically justified in a pregnant patient who lacks decisional capacity secondary to psychiatric illness? In this case, the bioethics committee recommendations agreed with the psychiatrist's assessment that the patient did not have the decision-making capacity and recommended that the patient receive antipsychotic medication to avoid restraining the patient and hasten her recovery and decision-making capacity (Rafla-Yuan et a1., 2021). Evaluation of decisional ability is the initial step necessary in determining an appropriate treatment course for a pregnant patient who cannot provide informed consent.

Litvack et al. (2022) conducted a study to improve the epidural consent process for laboring women. Recalling the risk of having a labor epidural placed was the aim. Questions were scored using a Likert scale, and parturients were asked to recall the risks of epidural placement. The results included using a decision aid such as a video, PowerPoint presentation, or animated infographic to help visualize the risks of having a labor epidural placed to improve the epidural consent process (Litvack et a1., 2022).

The mixed method research design focused on communication interventions with parturient women by improving education and communication skills for labor epidural informed consent. According to Schmiedhofer et a1. (2022), providing safe and clear communication contributes to avoiding medical errors, increasing patient safety and satisfaction, and decreasing preventable risk or injury during labor epidural placement (Schmiedhofer et al., 2022).

Cherel et a1. (2022) conducted a prospective sequential study. They concluded that information provided to the parturient is often incomplete, making it diffieult for them to make appropriate choices for control of labor pain. Effective communication and information sessions given by CRNAs regarding epidural analgesia were associated with improved satisfaction of the parturient with their delivery. Having CRNAs be responsible for conducting

education/information sessions and correctly informing the parturient about epidural analgesia, the risks, benefits, and alternatives allows the parturient to make an appropriate choice for their delivery (Cherel et a1., 2022).

A nonrandomized control trial conducted by Shishido et a1. (2020) promoted using a decision aid to evaluate the effect on pregnant women's decision to use a labor epidural for vaginal delivery. The goal of using a decision aid in this study was to inform the parturient about the risks, benefits, and alternatives of different delivery options and ensure they align with the parturient patient's values. Categories of the decision aid included decision conflict, current knowledge of epidural analgesia, satisfaction with decision-making, and choice of epidural analgesia. The study concluded that the knowledge of epidural analgesia and satisfaction of the parturient with their ability to make a voluntary informed decision scored significantly higher than those who did not use a decision aid for the informed consent process.

Alakeely et a1. (2018) conducted a cross-sectional study to traverse the factors contributing to the parturient women's decision to labor epidural placement and to understand the benefit of implementing an education program geared toward labor epidural analgesia. Education geared specifically for labor epidural analgesia was an essential factor that increased the parturient patient's likelihood to request a labor epidural to minimize labor pain. This study also concluded that the best time for this education was antenatal when there is no labor pain. With this awareness ahead of time, the parturient has a better decision-making capacity and can then make a voluntarily informed decision about their delivery plan.

Information that pregnant women receive in antenatal classes can vary immensely. These classes are a valuable way to inform them about pregnancy, labor pain management, birth, and the postpartum period (Newman et a1., 2017). Proper education for the parturient contributes to

their ability to be informed about their decision. This study aimed to explore the personal, social, cultural, and institutional influences of parturient women who make decisions about the use of epidural analgesia during labor (Newman et a1., 2017). The design was ethnography and took place in a tertiary hospital. The study's findings included that women were not given full disclosure of practice and that their midwives tailored the information provided based on institutional policies rather than evidence (Newman et a1., 2017). Women in this study report that they did not understand epidural labor analgesia's risks, benefits, alternatives, or side effects. This study also noted the discursive practices of the consent process, focusing on the fact that when the anesthesia provider is called at the parturient request for a labor epidural to be placed, it was given verbally and hastily. The parturient would likely not weigh their options and decide against the procedure. The initial parturient request for the labor epidural was considered part of the consent process, reflecting competence and voluntariness (Newman et a1., 2017). Parturient women also described that they remember signing a form. They noted that the anesthesia provider was talking, but they do not remember what was being said during the consent process prior to initiating the procedure. The conclusions of this study identified that parturient women prefer all information regarding risks, benefits, and alternatives of having a labor epidural placed. They felt that they were not being given enough information by the healthcare provider during the consent process.

The subsequent study assessed the ability of anesthesia residents to acquire and retain the knowledge necessary to obtain informed consent from the parturient for labor epidural placement. The study's primary outcome was the acquisition and retention of knowledge required to obtain informed consent. It assessed how well knowledge was translated to the resident's clinical ability by assessing the verbal consent process during the interaction with the

parturient. The methodology included twenty anesthesia residents randomized to a didactic or simulation group. Each resident was presented with patient scenarios and was required to document an informed consent process based on the given scenario as they usually would do as a pre-test. The didactic group then reviewed an informed consent presentation, while the simulation group conducted interviews with simulated patients. All residents then read another patient scenario and documented their informed consent process as a post-test. Six weeks later, all residents were interviewed and consented to a parturient woman who requested a labor epidural for pain management. This study concluded that the didactic teaching method proved to be better than the simulation teaching method in helping residents acquire and retain the knowledge required to obtain informed consent for the placement of a labor epidural (Antoniou et al., 2018).

O'Riordan et al. (2021) introduced the need for informed consent education for placing a labor epidural, which should be provided in various formats, including an online patient education video on epidural analgesia. The study was conducted to assess the knowledge uptake of the parturient and how they receive, process, and understand information regarding the placement of an epidural and to assess the preferred timing of epidural information delivery. The methodology included surveying postpartum women receiving epidurals for labor pain management. It was a questionnaire-based study with participants being recruited by convenience sampling. Data was analyzed by using Google Sheets. Study results noted discrepancies between current practice and patient preference for the epidural education and consent process. The online video information tool proved to be beneficial to the parturient population and was well-liked. The video has been highlighted on the hospital's social media sites, advertised in the anesthesia clinics, and viewed during antenatal classes and outpatient

appointments. Further studies recommended assessing whether the video influenced the women's decision on labor analgesia (O'Riordan et a1., 2021).

The following study is a mixed-method systematic review investigating the views of women of child-bearing age regarding experiences and decision-making for epidural analgesia in labor. The purpose of the review was to systematically review the psychosocial aspects of women's use of epidural analgesia based on evidence-based practices (Borrelli et a1., 2020). Findings recommended that healthcare providers should discuss epidural placement, risks, benefits, and alternatives with the parturient and their partners during the second or preferably the third trimester of pregnancy prior to painful contractions. Parturient women in the study report that information provided by the healthcare professional as part of the informed consent process could not be remembered due to the labor pain experienced. In contrast, the information was being presented and there was an inability to concentrate on the conversation about the epidural placement (Borrelli et a1., 2020). Factors influencing the parturient patient's choice of labor pain control include pain scores, coping mechanisms, the timing of epidural placement or alternative pain control methods, and length of labor. The patient should be continuously reassessed and evaluated. Antenatal discussions about epidural analgesia were also recommended. The onset of painful contractions and prior attendance at antenatal classes were associated with increased use of epidural analgesia (Borrelli et al., 2020). Women who felt informed about their epidural procedure, risks, benefits, and alternatives were satisfied with their pain management choice. Provisions for further discussion of remaining labor and birth plans should also be available (Borrelli et a1., 2020).

According to The American College of Obstetricians and Gynecologists (ACOG), in the absence of a medical contraindication, a maternal request for pain management is a sufficient

indication for pain relief during labor (ACOG, 2019). Decisions regarding labor pain management should be closely coordinated between the obstetrician-gynecologist (OB/GYN), the anesthesia provider, the Registered Nurse (RN), the patient, and any skilled support personnel. Obtaining an anesthesia consultation to discuss labor pain management options, including a labor epidural, preferably during the prenatal period, is appropriate. This should be a collaborative effort between the OB/GYN and the CRNA. Affording this early education session antenatally can help the patient make an informed decision about which types of analgesia techniques are best suited for themselves based on their medical history, personal preference, and discussion of the risks, benefits, and alternatives to each pain control method/interventions (ACOG, 2019).

Abuhammad & Alholi (2021) report that childbirth pain is the most extreme pain a parturient may ever experience in their lifetime. Epidural anesthesia is one of the most effective ways to control pain during labor. Obtaining informed consent by the parturient for epidural analgesia is interwoven with many ethical responsibilities. The informed consent practice can be improved by emphasizing antenatal education regarding labor epidural placement, the risks, benefits, and alternatives (Abuhammad & Alhholi, 2021). Having suitable timing to provide critical information enhances patient understanding and the ability to make an informed decision. The study found that the parturient needs verbal and written information from the anesthesia provider before childbirth to make an informed decision regarding a labor epidural (Abuhammad & Alholi, 2021). It remains the responsibility of the healthcare team to provide adequate information about pain relief options during childbirth, empowering patients to make an informed choice (Abuhammad & Alholi, 2021). Changes to existing practices of informed

consent will be helpful to the parturient population to better adhere to the legal standards of obtaining informed consent.

Sanders & Cozier (2018) conducted a meta-synthesis study to enhance the understanding of the factors that influence women's decision-making capabilities outside of their professional healthcare team during pregnancy. Informal information sources such as social media, friends, and family can strongly influence women's choices regarding their birth plans. The study offers the opportunity to remodel the healthcare-professional relationship and bridge the women's knowledge base gap. By facilitating trust, the cultural and individual background of each woman's ideations of motherhood must be explored and understood (Sanders & Crozier, 2018).

Various forms of media will continue to provide birth narratives through the lens of drama. They will continue to be an ongoing issue in the era of expanding technology and access to birth-related media. Healthcare professionals need to provide evidence-based and individualized information to women and empower them to make informed decisions with professional knowledge (Sanders & Crozier, 2018).

Shared Decision Making (SDM)

The following five studies discuss the importance of SDM when it comes to informed consent. This topic is important because it incorporates the patient, their family, and their healthcare team in decision-making.

Cheng et al. (2020) conducted a prospective before-and-after cohort study involving SDM. Conventionally, methods of providing epidural education along with risks, benefits, and alternatives are conducted by an anesthesia provider verbally at the bedside upon the request of the parturient after labor pain has begun. Due to the distraction of labor pain, the decision to receive an epidural for pain control is made by their family member/husband instead of the

parturient. The study hypothesized that the parturient would be more satisfied with the pain service if education and discussion were provided before her labor pain began (Cheng et a1., 2020). The study compared the satisfaction and the level of comprehension of epidural analgesia between the parturient who received the conventional practice of consenting a parturient for a labor epidural and those who received prenatal SDM. Questionnaires were developed from the Pregnancy and Maternity Care Patients' Experiences Questionnaire (PreMaPEQ), Satisfaction Scale (P-BESS), and Women's View of Birth Labor Satisfaction Questionnaire (WOMBLSQ), all of which are available to the public and are proven valid and reliable. The adapted questions were then modified to fit the current study specific to epidural analgesia. Establishing an earlier epidural analgesia education protocol before labor pain is in progress affords the parturient enough time to discuss individual concerns with their family and anesthesia provider before making an informed decision (Cheng et a1., 2020). The SDM program is suitable for pregnant women because SDM requires people to have enough comprehensive ability to understand the medical processes involved to communicate their desired interventions (Cheng et a1., 2020).

Cheng et al. (2020) also used a video-assisted education program. This benefit described the labor epidural placement procedure in detailed steps, the video was more realistic than pictures, the video relieved the anesthesia provider from time-consuming repeated explanations, and the film can be paused and re-played at any time according to the needs of the parturient and family. Prenatal SDM interventions supported by online educational videos contribute to patient safety, maternal and family understanding, and satisfaction with epidural labor analgesia. Every concerned family member can participate in the decision-making process (Cheng et al., 2020).

Van der Pij1 et a1. (2020) conducted a qualitative social media content analysis study that also empowered the use of SDM. The study described incidences of ineffective communication,

loss of autonomy, and lack of informed consent and confidentiality among the parturient population. The five themes that emerged from the study include 1) lack of informed consent, 2) the parturient not being taken seriously, 3) the parturient being disregarded and not listened to, 4) a lack of compassion towards the parturient, and 5) use of force. Disrespect and abusive care may lead to neglecting the psychological and emotional needs of the parturient during labor and birth, which are extremely important to the parturient (Van der Pij1 et a1., 2020). Of note, the most prevalent types of disrespect and abuse during labor and birth were lack of privacy, performing procedures in a harmful way, providing inadequate information regarding care, lack of informed consent, and denying the parturient their choice of birthing position. Women felt their trauma could have been reduced or eliminated by adequate communication and support from the healthcare providers. Recommendations following the study were promoting women's control during labor and birth, being seen and heard, and being provided with help from family and healthcare providers. SDM allows the parturient to communicate their choice with familial input, better decision-making capabilities, and higher patient satisfaction (Van der Pij1 et a1., 2020).

In their meta-synthesis design study, Olza et a1. (2018) describe SDM and parturient empowerment. It was noted that giving birth is a physiologically intense and transformative psychological process that generates a sense of empowerment in the parturient. The maximum benefit of this process can be achieved through physical, emotional, and social support for the parturient, elevating their belief in their ability to give birth and not disturbing the physiological process unless necessary (Olza et al., 2018). When the parturient encounters negative caregivers who do not incorporate emotional needs and respect into their care, they feel disrespected, mistreated, or abused. These growing concerns give rise to the over-application of medicalized

care practices rather than individualized care. Parturient women's psychological experience of physiological childbirth is strongly influenced by the family members and caregivers surrounding them at birth. Parturient women with their husbands, significant others, close relatives, or mothers present during the birthing process enhanced their decision-making capabilities through SDM, confirming that human birth is a social event (Olza et al., 2018).

Shahveisi et a1. (2022) conducted an interventional study using an intervention and control group in a ratio of 1:1 using blocked randomization. The intervention group received SDM about the risks, benefits, and alternatives of labor analgesia methods, and the control group received routine care. The SDM theory confirms that informed consent is more than the patient signing a legal document; it also incorporates the exchange of information between the patient, healthcare provider, and family based on the patient's values, beliefs, and preferences in decisions associated with their birth plan. SDM is essential in patient-centered care to provide high-quality, evidence-based care (Shahveisi et a1., 2022). Having the parturient participate in their treatment and decision-making in the maternity care model of the World Health Organization (WHO) is paramount since a component of care during childbirth is incorporating the mother's decisions into the birth plan (Shahveisi et a1., 2022). An essential issue of SDM during labor and delivery is the parturient participation in choosing their type of labor analgesia.

Having pain controlled during labor leads to higher satisfactory experiences of childbirth; however, most women have little knowledge about the various modalities of pain control during labor, and some women have incorrect information and expectations regarding pain control methods during labor. Because women can suffer from severe pain, severe anxiety, and communication barriers during childbirth, some medical providers avoid expressing the risks of labor analgesia when performing labor epidurals (Shahveisi et a1., 2022). The care team should

always disclose accurate solutions, risks, benefits, and alternatives to labor pain management and procedures and create a satisfying childbirth experience for the parturient and their family. Parturient labor pain relief leads to quality improvement of treatment procedures, better patient cooperation, higher satisfaction scores, and better treatment results (Shahveisi et a1., 2022).

ACOG Committee Opinion number 766 (2019) describes approaches to limit intervention during labor and birth. This study incorporates SDM into its recommendations. Creating a plan involving SDM enhances self-care activities and coping techniques. Admission during the latent phase of labor could be necessary for reasons including pain management or maternal fatigue. In addition to regular nursing care, continuous one-on-one emotional support provided by support personnel such as family and care providers is associated with improved outcomes for women in labor (ACOG Committee Opinion Number 766, 2019).

Recall of Risks, Benefits, and Alternatives of Labor Epidural

Burkle et a1. (2017) conducted a single-centered, nonrandomized study with the objective of information exchange between the anesthesia provider and the parturient regarding labor epidural analgesia risk, benefits, and alternatives. The study examined whether the presence of labor pain impacted the level of recall of information provided to the parturient during the education and consent process by the anesthesia provider. Following admission to the L&D unit, the parturient was given an informational pamphlet describing labor epidural analgesia techniques for labor pain. An anesthesia resident also greeted them at admission to review medical history, obtain prior reports of difficulties with anesthesia, perform an airway exam, and gather informed consent for neuraxial anesthesia options for labor pain management. Pain scores were also obtained using a numeric rating scale of 0-10. Results of the study revealed that the parturient recall of risks, benefits, and alternatives of labor epidural placement did not differ

based on labor pain, and those with pain reported greater satisfaction with the informed consent process (Burkle et a1., 2017). Further studies regarding the recall of the risks, benefits, and alternatives of labor epidural placement were recommended.

Labor Epidural Risk

Magtoto (2022) reports that neuraxial anesthesia has been a long-standing option to relieve pain for women in labor. Placing a labor epidural is dependent on the availability of the CRNA to insert a needle into the epidural space, insert an epidural catheter through the needle into the epidural space, and deliver local anesthetics or opioid medication that works on the CNS to block the transmission of painful stimuli from a contracting uterus (Magtoto, 2022). A systematic review suggested no advantage to offering a combined spinal/epidural (CSE) over an epidural, except for a more rapid onset of pain relief with a CSE. The review suggested epidural analgesia provides adequate pain coverage and higher maternal satisfaction for the parturient during labor compared to non-epidural analgesia. A meta-analysis comparing the effect of low concentrations versus high concentrations of local anesthetics for labor analgesia found that using lower concentrations reduces the incidence of instrumented-assisted vaginal delivery (forceps delivery). A prospective study suggested that more prolonged exposure to epidural analgesia during labor can predict the risk of non-spontaneous birth in both primiparous and multiparous women, which can lead to having a cesarean section performed. A systematic review compared the effectiveness and safety of early initiation to late initiation of epidural analgesia, and evidence did not show any difference between early and late epidural initiation on outcomes such as the risk of instrumented-vaginal birth, duration of the second stage of labor or one-minute Apgar score less than seven (Magtoto, 2021). Epidural analgesia is associated with increased length of the second stage of labor and increases the need for oxytocin. This increase

in the length of labor did not appear to have any adverse outcomes for the infant. Side effects, including low blood pressure, dense motor blockade, fever, or urinary retention, are more likely found in the parturient who requests labor analgesia (Magtoto, 2021).

Sarkar et a1. (2022) describe rare peripartum neurological complications presented in two case studies. Two OB patients with no comorbidities received uneventful labor epidurals. They both presented with rare peripartum neurological complications (Sarkar et a1., 2022). Case study one demonstrated a 34-year-old primigravida in active labor who requested a labor epidural for pain. The patient delivered vaginally eight hours later with a forceps-assisted application for baby extraction. The patient could not move the left upper and lower limbs the following morning. Right cortical venous thrombosis (CVT) was found in the patient's posterior high frontal region of the brain. Magnetic resonance imaging (MRI) spine and echocardiography were normal. A thrombotic workup was completed before initiating anticoagulation and physiotherapy and being discharged on Warfarin to maintain INR2-3. A thrombotic workup repeated three months after stopping anticoagulation for two weeks was expected, and six months later, the patient had no residual deficits.

Case study two involved a 26-year-old primigravida who delivered normally after receiving a single attempt, uncomplicated labor epidural. On day three following discharge from the hospital, the patient developed a severe occipital headache, which worsened upon sitting up. Her symptoms worsened, which prompted imaging. MRI of the brain showed bilateral subdural blood collections, the right greater than the left. The MRI spine was done to visualize the dural puncture from the labor epidural causing the cerebrospinal fluid (CSF) loss. It surprisingly revealed a caudal descent of cerebellar tonsils (7mm) through the foramen magnum, suggestive of Arnold Chiari Malformation (ACM) and normal lumbar spine (no dural puncture). A post-

dural puncture headache (PDPH) diagnosis was made and managed according to standard practice. The patient was managed appropriately with anti-edema measures and prone positioning, which improved symptoms within five days. Conclusions: case study one did not have a headache throughout the hospital stay, MRI spine post-procedure did not show any loss of CSF, and CVT was most likely caused by dehydration in a hypercoagulable state. Case study two found an incidental ACM that could have manifested due to the epidural bolus altering CSF flow. Unrecognized dural puncture could not be ruled out in either case, making it necessary for the anesthetist to understand rare peripartum neurological implications for labor epidural placement (Sarkar et a1., 2022).

Ismail & Raza (2020) conducted a prospective observational study on 500 patients, collecting data on the number of attempts of epidural insertion and the factors associated with the multiple attempts, such as patient demographics, cervical dilation, anatomical grading of the spine according to visibility and palpation of the spinous process and vertebral interspace, the experience level of the anesthetist, patient satisfaction, and pain score during labor. The results were the number of attempts averaged between one and five; the anatomical grading of the spine was the only factor significantly associated with multiple attempts at placing an epidural. Patient satisfaction was negatively affected by the numerous attempts at placement. The average pain difference at different time points during labor was insignificant between one and multiple attempts. The conclusion of this study reveals that determining the anatomical grade of the spine is the most reliable method for predicting the difficulty of placing a labor epidural that may require more than one attempt at insertion (Ismail & Raza, 2020).

Effective Labor Pain Management

Woodall (2019) reports that a labor epidural is a multi-modal analgesia technique that can be used alone with a local anesthetic or combined with an opioid or other medications to target different pain pathways that enhance acute pain management. The affected body area depends on the insertion site (caudal, lumbar, and thoracic regions) and the location of the catheter tip. Local anesthetics used in an epidural include amino ester local anesthetics and amino amide local anesthetics. Both drugs have a quick onset of action. They work by preventing the conduction of nerve impulses and blocking pain signals to the central nervous system. Opioids commonly used in an epidural include fentanyl, hydromorphone, and morphine (Woodall, W.G., 2019).

Harper et a1. (2022) report that when obtaining consent for a labor epidural, it can be challenging to clarify the needs of the parturient. Parturient women may attach significant importance to the risk of having a labor epidural placed but be unaware of any alternative methods and accept the risk (Harper et a1., 2022). Another option for labor pain management discussed in this article includes the use of remifentanil patient-controlled analgesia (PCA) rather than a labor epidural. This should be mentioned during the consent process as an alternative to placing a labor epidural. This study's methods included electronic surveys sent out to anesthesia providers who use the remifentanil PCA service at their facility. Supporting patient autonomy and not making assumptions regarding the parturient's wishes were the study's aims. Remifentanil should be discussed as an alternative option to having a labor epidural for managing labor pain to avoid litigation should an epidural-related complication occur (Harper et a1., 2022).

Pietrzak et a1. (2022) conducted a multicenter cross-sectional survey study measuring pain intensity using a numeric rating scale (range 0-10) and measuring the parturient satisfaction

with pain control during labor using a five-point Likert scale. Using both pharmacological and non-pharmacological methods of pain control resulted in a significant reduction of labor pain. Factors that substantially impact labor include physiological, psychological, and social factors (Pietrzak et a1., 2022). The chosen method of labor pain management should involve the patient/family, the OB/GYN, the CRNA, and the Nurse Midwife and ensure that it is a safe modality for both the parturient and fetus. Appropriate analgesia technique is also essential because pain elevates the levels of circulating catecholamines in the body and can impair perfusion to the uterus (Pietrzak et al., 2022). The goal is to alleviate the physical perception of pain and prevent suffering by improving labor management's psychological and mental aspects (Pietrzak et a1., 2022).

Harding et al. (2022) conducted a cross-sectional study identifying parturient preference for labor epidural analgesia and determining the importance of various epidural outcomes to antenatal and postpartum patient populations. Achieving the desired level of pain relief during labor was the most significant labor epidural analgesia-related outcome preference for antenatal and postpartum patients. Pain relief outcomes were of greater importance to the parturient who had a labor epidural placed rather than any side effect of a labor epidural.

Yang et a1. (2020) conducted a prospective, case-control study in the OB and radiology departments. The study used MRI technology to survey the neural networks of pain during labor and its relief by labor epidural analgesia. Analysis using dynamic causal modeling and functional connectivity to explore network connections and spatial activity of labor pain with and without epidural analgesia (Yang et a1., 2020). During the first stage of labor, a pain score was documented using the numerical rating score (0-10) and repeated thirty minutes after imaging was complete. Six regions of interest of the brain with activated clusters and literature were

selected for causal modeling to include 1) primary somatosensory cortex, 2) secondary somatosensory cortex, 3) anterior cingulate cortex, 4) middle frontal gyrus, 5) insula, and 6) the lentiform. Functional connectivity was then calculated from selected sensory and effective regions. Results showed that labor pain causes activations within distributed brain pathways. Pain relief from epidural analgesia revealed a reconfigured functional connectivity of the activated clusters, which was most prevalent in the cingulo-frontal system of the brain. The study concluded that labor pain relief using epidural analgesia accompanied changes through the anterior cingulate cortex (ACC) and additional nodes across pain pathways. Because pain relief may be caused by the interaction of sensational and perceptional components, expectations from the study participants may also donate to the effects of epidural analgesia (Yang et a1., 2020). Future studies recommend using a paired statistical analysis in a double-blind study to highlight the full impact of epidural analgesia.

Conceptual Framework

As healthcare continues to evolve with the technological advancement of procedures, equipment, and medications, change becomes inevitable. Almost two-thirds of all change projects fail for reasons such as unmotivated staff, inadequate planning, poor communication, or rapid/frequent changes all at once (Barrow et a1., 2022). All healthcare providers play a significant role in ensuring the transition is influential. Providers who use evidence-based practices obtained from change theories will help facilitate the successful implementation of process improvement (Barrow et a1., 2022).

Lewin's Theory of Planned Change incorporates three change stages: 1) understanding that change is needed (Unfreezing), 2) the process of initiating the change (Change), and 3) establishing a new status quo (Refreezing). Lewin's Theory of Planned Change was utilized in

this project to change the current practice of educating and consenting parturient women who request a labor epidural for pain management. According to Barrow et a1. (2022), change initiative occurs in three stages: pre-change, change, and post-change. Working as a change agent, one would choose actions that match their change theories. A critical aspect of the pre-change planning stage involves getting all stakeholders on board with identifying the problem, setting appropriate goals, and formulating an action plan (Barrow et a1., 2022). Having key stakeholders involved in the process increases the buy-in of staff members, and when you have buy-in from all the staff, including those working nights and weekends, you create peer change champions for all shifts (Barrow et al., 2022).

Change agents must also comprise a force field analysis to involve change facilitators and address any barriers in the unit where the change occurs. Working to reduce the obstacles through open dialogue and promoting education, along with strengthening facilitators through staff recognition, enhances the success of any process improvement project (Barrow et a1., 2022). A crucial mistake when implementing change is failing to validate staff members promoting your process improvement. Change agents must continuously engage stakeholders and staff while executing modifications to increase the project's success. Sharing short-term wins with stakeholders and teams will help maintain forward movement (Barrow et al., 2022).

Once the successful change has become part of the unit's culture, the change agent must continue to validate unit processes and solicit feedback from stakeholders and staff. Periodic spot-checks and data monitoring will help solidify the new change in the unit's status quo. Celebrate success and continue to share the evidence in staff meetings and with the unit's communication boards (Barrow et a1., 2022). Using change champions on every shift, applying

force field analysis, and soliciting regular effective communication with stakeholders and staff increases the chances of successful process change.

Methodological Framework

This DNP project used an evidence-based quality-improvement framework incorporating numerical data and statistical analysis to test hypotheses and draw conclusions. This involves the collection of structured data using a post-informed consent questionnaire. The steps involved with such framework include 1) establishing the improvement project focus, 2) selecting the appropriate improvement methodology, 3) developing the project design, 4) identifying data collection methods, 5) identifying data analysis techniques, 6) considering any ethical issues, 7) identifying any limitations, 8) considering the significance and implications of the project on clinical practice and patient outcomes, and 9) refining the framework (Hassan, 2022).

Conclusion

A total of sixteen studies were included that were relevant to the education and informed consent process of a labor epidural; five studies encompassed research articles describing Shared Decision Making (SDM), one study detailed information regarding the recall of information regarding risks, benefits, and alternatives of a labor epidural, three studies provided relevant information of the risks involved with having a labor epidural placed, five studies included information regarding effective labor pain management, two studies described my conceptual framework using Lewin's Theory of Planned Change, and one web-based page provided information regarding the use of an evidence-based quality-improvement framework for my DNP project and its related components involved in developing that framework.

Chapter 3 Methodology

This project aimed to improve the informed consent process for the parturient population requesting a labor epidural for pain management. Initiating the informed consent process and obtaining a signed consent voluntarily by a patient who undergoes any medical or surgical procedure is required by health law. Current practice for initiating the informed consent process for labor epidural placement includes a verbal conversation with the parturient when they request an epidural, often when labor pain scores are high. After the patient has signed a consent form, full knowledge of the procedure's possible risks, benefits, and alternatives is validated, indicating that the patient fully understands the information presented (Annas, 2017). When the parturient requests a labor epidural during the late stages of labor, they increase their risk of injury or complications during placement of the labor epidural secondary to labor pain. During this stage, the parturient often has difficulty sitting still for the procedure. Usually, they quickly agree to the procedure and consent process even before receiving all the pertinent information regarding the risks, benefits, and alternatives of placing a labor epidural. This situation raises the question of valid informed consent.

The parturient may have difficulty listening to and retaining any of the information provided to them by the CRNA. According to Huschke (2021), to obtain valid consent, the parturient must receive all pertinent procedural details including the purpose, risks, benefits, and alternatives, in an understandable fashion to the parturient. It must be voluntary and it must be understood that they make the decisional choice without the threat of coerced consent (Huschke, 2021). This DNP project is an EBP framework guided by Lewin's Theory of Planned Change, recognizing that change is needed, incorporating the process of initiating a difference and establishing the improved process system-wide. According to Barrow et a1. (2022), change

initiative occurs in three stages: pre-change, transition, and post-change, which aligns with Lewin's Theory of Planned Change. This project is guided by the interest of promoting a safer method of providing education and consent for the parturient wanting a labor epidural to manage their labor pain. A practice change to educate parturient patients during the early phases of labor regarding labor epidural using a pre-recorded nine-minute educational video detailing the procedure, expectations, risks, benefits, and alternatives will promote patient safety and voluntary, uncoerced written consent. This process improvement will allow the parturient to retain the educational information presented.

Project Design

This project was an evidence-based quality improvement intervention seeking to facilitate a system-wide process change and improve health care outcomes of parturient patients. The purpose of this project is to close the identified gap, enhance patient safety, and provide a standardized approach to initiate the informed consent process for the parturient population desiring a labor epidural for labor pain management. Incorporating an epidural informative video as a decision-aid to be viewed by the parturient and family shortly after admission to the L&D unit will describe in detail the process of receiving a labor epidural and the procedure's risks, benefits, and alternatives. During this time, the parturient is usually comfortable and able to retain the vital information presented to them. The Shared Decision Making (SDM) theory will be incorporated to allow concerned family members to participate in the decision-making process (Cheng et a1., 2020). An early SDM intervention that provides sufficient information using a video increased the patient's comprehension and satisfaction with epidural analgesia (Cheng et a1., 2020). A convenience sampling method was used in this project. The project will compare data regarding the recall of the risks, benefits, and alternatives of a labor epidural

placement between the parturient population that underwent the informed consent process shortly after admission when pain scores were low to those parturients who underwent the informed consent process at the time of their epidural request when pain scores were higher.

Before discharge home following delivery of the newborn, the CRNA must complete a post-anesthesia evaluation (PAE) on all postpartum patients who received a labor epidural. During the PAE, the CRNA reviews any complications that may have occurred related to the placement of the epidural, how well it worked to control their labor pain if they have regained sensory and motor function of their lower extremities (up walking), voiding normally, and able to tolerate food/fluid intake. If all is okay, the CRNA documents the PAE accordingly and closes the anesthesia chart. This PAE time allows asking the parturient the project improvement post-informed consent questions regarding the information provided during the informed consent process upon admission to the L&D unit. The post-informed consent questions will encompass the questions mentioned under the following instrumentation section. The follow-up questionnaire will be completed by verbally asking the postpartum patient questions. One question eliciting the parturient's pain level when they underwent the informed consent process, and three open-ended questions specific to the recall of the risks, benefits, and alternatives of having a labor epidural placed will encompass the post-informed consent questionnaire. The aim is to measure the ability of the postpartum patient to recall the information provided during the informed consent process between parturients who underwent the informed consent process shortly after admission when pain scores are low to those parturients who underwent the informed consent process during the later stages of labor when pain scores were higher. Data will be compared between the two groups of parturients.

Instrumentation

The project improvement question: Does initiating the informed consent process for parturient patients on admission to the labor and delivery unit when pain scores are lower instead of later in the admission when pain scores are higher related to advanced stages of labor increase the information retained during the informed consent conversation?

A post-informed consent information questionnaire (ICIQ) was the instrument selected for data collection, which was modified from the Informed Consent Comprehension Assessment (ICCA) used by Afolabi et a1. (2018). The ICIQ questionnaire is a validated tool to assess a participant's recall and understanding of the information provided during an informed consent process. This tool has been widely used and has demonstrated good reliability and validity for collecting women's experiences during pregnancy. The ICIQ consists of a numeric pain rating scale (0-10) eliciting the participant's pain level when the informed consent process was initiated. The following three open-ended questions elicit responses to the recall of the risks, benefits, and alternatives of a labor epidural placement discussed during the informed consent process. According to Afolabi et a1. (2018), questionnaires with open-ended items are better for testing comprehension. The epidural video mentions ten risks, one benefit, and three alternatives. Scoring these open-ended questions is based on how many of the risks, benefits, and alternatives that are mentioned during the epidural video can be recalled by the parturient and measured based on the pain score (0-10) the parturient experienced at the time they watched the epidural video. The higher the score of recalled items represents the level of understanding and comprehension of the informed consent process and the pain level each parturient experienced as the informed consent process was initiated. The higher the score, the better the recall and comprehension of the information provided. The project will compare scores of those parturients

who underwent the informed consent process during the early stages of labor shortly after admission to those parturients who underwent the informed consent process during the later stages of labor when pain scores were higher. The goal of implementing this project is to have the parturients who underwent the informed consent process early score higher on the ICIQ than those who did not. See Appendix B for ICIQ.

Data Collection

Collecting data from parturient patients who requested a labor epidural to manage labor pain will be initiated after the baby's delivery. The CRNA will visit the postpartum patient before discharge home to have a PAE completed. As mentioned above, during the PAE, the CRNA will add a cursory discussion and document several questions regarding the epidural information they received during the informed consent process. Data will be compiled based on how each postpartum patient responds to the questions with the aim that the parturient who viewed the video in a relaxed state with minimal pain will be able to recall the risks, benefits, and alternatives greater than those who underwent a verbal informed consent process just before placing their labor epidural when pain scores were higher. The questionnaire is void of all patient identifiers and will be completed by the CRNA at the patient's bedside. The director of the women's unit has granted site permission and authorization. Once the data is collected, the questionnaires will be stored in a locked cabinet inside the closed anesthesia office. The project improvement lead is the only individual with this key. Once all data is collected and analyzed, all questionnaires, void of all patient identifiers, will be shredded.

Data Analysis Methods

Data analysis methods will include compiling all the questionnaire answers and comparing the parturient who underwent the informed consent process shortly after admission

when pain scores were low to those who verbally consented at the time of their labor epidural placement. The comparison of the data that represents a statistically significant difference in recollection of the risks, benefits, and alternatives of having a labor epidural placed mentioned during the informed consent process will be used to accept or reject the hypothesis of the process improvement question: Does initiating the informed consent process for parturient patients on admission to the labor and delivery unit when pain scores are lower instead of later in the admission when pain scores are higher related to advanced stages of labor increase the information retained during the informed consent conversation?

Ethical Considerations

Protecting the parturient population is paramount to this project and will be a priority. Pregnant women are considered a vulnerable population, so the appropriate level of review for this project must be determined by the Institutional Review Board (IRB). No patient identifiers will be used in any data collection methods or analysis, and no cross-table talk regarding any participants will be conducted.

Improving upon the current process of initiating the informed consent process for labor epidural placement consists of verbally informing and securing consent when parturients request their epidural. During the late phase of labor, the parturient experiences tremendous amounts of pain, which influences how they receive and process pertinent information regarding the labor epidural procedure, risks, benefits, and alternatives. The process improvement for this project is to initiate the informed consent process to the parturient during the early stages of labor when they are more relaxed and not in pain. This allows them to understand the information presented and make a voluntary, informed decision regarding labor epidural placement without undue

influences such as pain. This project poses no risk, harm, or discomfort to the parturient requesting a labor epidural.

Conclusion

This quality improvement project aimed to improve the informed consent process for the parturient population requesting a labor epidural for the management of their labor pain. This is an EBP framework guided by Lewin's Theory of Planned Change. This evidence-based quality improvement intervention is sought to adopt system-wide change. Instrumentation for this project consists of an informed consent information questionnaire obtained post-delivery to collect measurable data for the QI project. Pregnant women are considered a vulnerable population and the IRB will determine the approval level of review for this project. For this quality improvement project, there was no risk, harm, or discomfort to the parturient requesting a labor epidural for labor pain management.

Chapter 4: Results and Discussion of Findings

This quality improvement project focused on initiating the informed consent process for the parturient population who requested a labor epidural for labor pain management during the early stages of labor when pain scores were lower rather than the later stages of labor when pain scores were higher so that they would be able to understand and retain the information presented during the informed consent process. The intervention provided the parturient the opportunity to understand, process, and retain the vital information to make an informed choice without the undue influence of pain. The intervention was warranted because the current practice of initiating the informed consent process to this population was non-standardized and often at a time when the parturient was experiencing profound labor pain, which increased the risk of injury to the patient and bordered on unethical informed consent.

Initiating the informed consent process for a labor epidural during the later stages of labor, when pain scores are high, increases the risk of injury due to the CRNA being rushed to place the epidural. The parturient may not be able to sit still during the procedure due to the amount of pain they are experiencing. The validity of proper informed consent was also in question because the parturient was not well-informed of the procedure and was unable to recall the risks associated with having a labor epidural placed. This created a situation where the parturients mental capacity to make an adequate informed choice was in question due to her level of pain.

CRNAs have voiced concern about the parturient's capacity and capability to provide consent during the late stages of labor due to a lack of mental competence caused by their labor pain (Wada et a1., 2018). According to Huschke (2021), the parturient must understandably receive all pertinent procedural information, including the procedure's purpose, risks, benefits, and alternatives, to obtain valid consent. It must be voluntary, and it must be understood that they make the decisional choice without the threat of coerced consent (Huschke, 2021). Criteria that identify the psychological abilities required for proper decision-making capacity include: 1) the patient must comprehend the information provided, 2) understand how the information applies to oneself, 3) can negotiate the information and be able to choose a different pathway, and 4) be able to communicate their choice voluntarily and free of undue influences such as pain (Wada et a1., 2018).

Summary of Methods and Procedures

The Nursing Theory-Guided Practice (NTGP) theoretical framework and Lewin's Theory of Planned Change were used for this DNP project due to the relationships between theory, research, and the practice environment. NTGP helps to describe, predict, and explain the

phenomena of the nursing profession and allows nurses to recognize the complexities of nursing practice (Younas & Quennell, 2019). It also provides nurses with the essential tools for self-examination, reflection, critical thinking, reasoning, and effective decision-making capabilities.

Lewin's Theory of Planned Change helped me to recognize that a change was necessary in how our labor and delivery (L&D) unit and anesthesia providers conducted the informed consent process for our parturient population. Incorporating a new innovative process that initiated a change in the L&D unit is the beginning of a system-wide improvement. Integrating EBP into clinical expertise in OB anesthesia, along with parturient preferences and values, drives innovative process improvements for patient safety, an improved process for initiating an informed consent process, and provides better recall of the risks involved with having a labor epidural placed.

All participants in the quality improvement project self-presented to the L&D unit in labor. The change agents communicated effectively using the hospital-provided voalte system, which is a phone that receives text messages or a direct phone calls. The process change was to initiate the informed consent process early, shortly after admission to the L&D unit, when pain scores were low. Parturients watched a nine-minute epidural video that explains what an epidural is, how it is placed, its expectations, and the risks, benefits, and alternatives of having one placed. Ten risks were mentioned in the epidural video. Although not mandatory, all parturients were asked to view the nine-minute video regardless of whether they were planning to have an epidural for labor pain management or not. Numerous parturients opted for unmedicated labor but would then change their mind when labor pain increased. Once the parturient was ready for their epidural, the L&D RN would call or text the CRNA and notify them that the patient was

ready. This allowed the CRNA to review the epidural information with them and answer any questions they may have prior to placing the epidural.

Following the delivery of the newborn and before discharge home, a required post-anesthesia evaluation (PAE) of the epidural was conducted. This afforded the opportunity to capture the data using the informed consent information questionnaire (ICIQ) pertaining to their pain score on a 0-10 numerical pain rating scale at the time the informed consent process was initiated, along with the recall of the ten risks mentioned during the epidural video.

Results

Over seven weeks, the project lead captured fifty-five parturient patients who requested a labor epidural to manage their labor pain. All these patients watched the same nine-minute epidural video. A Microsoft Excel spreadsheet was used to analyze the data. Data analysis confirmed the hypothesis of the PICOT question: Does initiating the informed consent process for parturient patients on admission to the labor and delivery unit when pain scores are low instead of later in the admission process when pain scores are higher related to advanced stages of labor increase the information retained during the informed consent conversation?

Parturients who underwent the informed consent process during the early stages of labor when pain scores were lower, were able to recall more of the risks associated with the placement of a labor epidural, greater than those parturients who underwent the informed consent process during the later stages of labor when their pain scores were higher. Because most parturients were able to answer the benefit (decreased pain) and alternatives (unmedicated, medicated, nitrous oxide gas) regardless of their pain level, these findings were eliminated from the data analysis and focused on the recall of the risks associated with having a labor epidural placed.

A total of fifteen parturients underwent the informed consent process with a numeric pain rating scale of 0-2. Parturients who reported pain levels of 0-2 were able to recall an average of 5.6 of the ten risks mentioned during the epidural video. A total of six parturients underwent the informed consent process with a numeric pain rating scale of 3-5. Parturients who reported pain levels of 3-5 were able to recall an average of 3.8 of the ten risks mentioned during the epidural video. A total of twenty parturients underwent the informed consent process with a numeric pain rating scale of 6-8. Parturients who reported pain levels of 6-8 were able to recall an average of three of the ten risks mentioned during the epidural video. Lastly, there were a total of fourteen parturients who underwent the informed consent process with a numeric pain rating scale of 9-10. Of those participants, they could recall an average of 1.2 of the ten risks mentioned during the epidural video. See Appendix B for data analysis.

The literature review determined that initiating the informed consent process utilizing a decision aid such as the epidural video, PowerPoint presentation, or animated infographic to help visualize the risks of having a labor epidural placed resulted in better recall of the information provided during the informed consent process. It also determined that initiating this process during the antenatal period or the early stages of labor when pain scores are lower, afforded the parturient the ability to recall the risks of the procedure greater than those parturients who underwent the informed consent process during the later stages of labor when their pain scores were higher.

Implications for Nursing Practice

This intervention differs from other DNP projects because it focuses on changing the process of when to initiate the informed consent process for the parturient population requesting a labor epidural for labor pain management. This innovative process improvement allowed the

parturient and their family members to be involved in their decision-making process and to be able to fully understand and comprehend the information, which facilitated a well-informed decision-making ability and consent free of any undue influences for the management of their labor pain. Having the parturient and their family understand the vital information decreased their risk for injury during the placement of their labor epidural and increased their ability to recall the risks associated with the procedure. The findings of this quality improvement project prove that initiating the informed consent process during the early stages of labor when pain scores were lower afforded the parturient and family the ability to recall the risks greater than those who were in greater amounts of pain. This safer practice will be a system-wide change.

COnclusiOR

Using the theoretical frameworks of Nursing Theory-Guided Practice and Lewin's Theory of Planned Change gave me direction for my process improvement project. Recognizing that the current method of initiating the informed consent process for those parturients desiring a labor epidural to manage their labor pain was risky and bordered on unethical and inappropriate consent process gave me reason to make a necessary process change. Initiating the informed consent process for labor epidural placement for the parturient during the early stages of labor decreased the risk of injury and allowed for a greater recall of the risks associated with the procedure, which coincided with my literature review.

Chapter Five: Discussions and Conclusions

The project determined that initiating the informed consent process for a labor epidural to parturients during the early stages of labor when pain scores were lower, rather than the later stages of labor when pain scores were higher, provided a better understanding and the recall of the risks associated with the procedure. For this intervention, the L&D RNs had the parturient

and their family members (if present) view a nine-minute epidural video once they were settled on the L&D unit. Communication between the RN and the CRNA was paramount to initiate this process early when their pain scores were low. During the required post-anesthesia evaluation (PAE), the CRNA utilized an informed consent information questionnaire (ICIQ) tailored to the project to elicit feedback on the parturient's pain score at the time they underwent the informed consent process, along with eliciting the recall of the risks mentioned during the informed consent process and epidural video. Based on the data analysis, parturients who underwent the informed consent process during the earlier stages of labor when pain scores were lower, were able to recall the risks associated with the placement of a labor epidural greater than those who underwent the process during the later stages of labor when pain scores were higher.

This project tested an intervention that could be used in practice to provide better timing and safer practice to initiate the informed consent process for those parturients who desired a labor epidural to manage their labor pain. CRNAs and L&D RNs can review the findings of this project and be aware that this intervention can provide a safer practice that decreases the risk of injury, affords the parturient the ability to recall the risks of having a labor epidural placed, improves outcomes, and patient satisfaction scores. As populations continue to grow and the number of deliveries per month continues to rise, future research should focus on the cost savings from this intervention to include 1) return visits to the emergency department for the management of post-dural puncture headaches, 2) replacement epidurals for poor function, and 3) placement of a subarachnoid block (spinal) for the parturients who have a poorly functioning epidural for those times when labor fails and a cesarean section is warranted.

Discussion of Findings and Best **Practices**

This project focused on initiating the informed consent process during the early stages of labor when pain scores were low for the parturients who desired a labor epidural to manage their labor pain. The literature review encouraged this project because it upheld the patient's dignity, promoted rational decision-making capability, and maintained the ethical practice of medicine (Annas, 2017). Furthermore, initiating the informed consent process during the early stages of labor afforded the parturient the ability to receive all pertinent procedural information, including the purpose, risks, benefits, and alternatives, in a fashion that was understandable, voluntary, and maintained their ability to make the decisional choice without the threat of a coerced consent (Huschke, 2021). Lastly, the literature review encouraged this project because initiating the early consent process allowed the parturient to be free from undue influences such as pain and anxiety in making their autonomous decision (Wada et a1., 2018).

When determining the necessity and appropriateness of this project, it was discovered that there was no standardized method of initiating the informed consent process for parturients desiring a labor epidural to manage their labor pain. Communication between anesthesia providers and the L&D staff was poor. Often, the L&D RN would contact the CRNA, informing them that the parturient was ready to have their labor epidural placed. When they arrived to the patient's bedside to initiate the informed consent process, pain scores were high, the patient was not able to focus on the detailed information required to obtain the required informed consent, and the CRNA was rushed to provide the critical information and place the labor epidural.

This project set out to improve the informed consent process for the placement of a labor epidural. The intervention encouraged early initiation of the informed consent process shortly after the parturient was admitted to the L&D unit when pain scores were low and allowed the

patient to recall the information presented to them. It also opened the lines of communication amongst the L&D RNs and the CRNAs by utilizing the hospital's voalte system to adhere to better communication practices. The nine-minute epidural video allowed for shared decision-making (SDM) between the parturient and their family members when it came to their voluntary decisional choice to proceed to have a labor epidural placed. Additionally, the Nursing Theory Guided Practice (NTGP) theoretical framework used in this project helped to integrate a process change in OB anesthesia that drove an innovative process improvement for patient safety, better communication, better understanding of the risks, benefits, and alternatives, and a voluntary informed consent free of undue influences such as pain and anxiety. Lewin's Theory of Planned Change helped incorporate change by recognizing that change was needed, initiating the process of change, and establishing a new method of practice for better outcomes.

Implications for Practice and Future Projects

It is essential for CRNAs and L&D staff caring for the parturient population to consider this intervention as a solution to prevent unnecessary injury and provide an improved informed consent process for placing labor epidurals. As monthly deliveries of newborns continue to increase, an efficient, cost-effective intervention such as this valuable method of initiating the informed consent process during the early stages of labor when pain scores are low should be adopted by all healthcare systems that deliver newborns. It improves outcomes and patient satisfaction scores, reduces complications of epidural placement, and allows them to provide well-informed, voluntary consent free of undue influences such as pain and anxiety. This intervention also has the potential to decrease costs for the parturient and the healthcare system by reducing emergency room visits for the management of post-dural puncture headaches, re-admission to the hospital, replacement epidurals due to poor function, and conversion to

subarachnoid blocks for unplanned cesarean section. By implementing this project, parturients who underwent the informed consent process when their pain scores were low were able to recall a greater number of the risks associated with the placement of a labor epidural than those parturients who underwent the informed consent process during the later stages of labor when their pain scores were higher.

Implementing this project was cost-effective and non-cumbersome. It required effective communication between the CRNAs and L&D RNs to initiate the informed consent process shortly after the parturients were admitted to the unit to have them and their family members view the nine-minute epidural video. Once the parturient was ready to have their epidural placed, the L&D RN would contact the CRNA via the hospital voalte system and notify them. The CRNA would review any pertinent medical history of the parturient and then greet them at their bedside for any further questions they may have regarding the epidural placement prior to obtaining a signature on the informed-consent form. Once the signature was obtained, the CRNA would proceed to place their epidural. Healthcare providers must consider this improved process to enhance patient safety and recall of the vital information discussed during the informed consent process to scale it throughout the multiple hospitals within the system. Future projects can then focus on the cost-savings of initiating this innovative process change.

Plan for Dissemination

A dissemination plan for the findings of this project will occur through multiple avenues. Poster presentations of the project outcomes will be shared with each hospital's anesthesia department and L&D unit within the system. This dissemination method will allow each area to ask any questions they may need clarity on. The posters and question/answer sessions will facilitate introducing the intervention into their practice. Publishing this quality outcome project

and the outcomes will allow others outside the project site to benefit from this project. The American Association of Nurse Anesthesiology (AANA) and the American College of Obstetricians and Gynecologists (ACOG) have professional journals that can benefit from publication.

Sustaining Change

To sustain this process within the hospital system, CRNAs and L&D staff must continue to initiate the informed consent process to those parturients desiring a labor epidural shortly after admission to the unit for labor. There are times when there is an influx of new providers on the anesthesia and L&D teams. Both must continue the process and inform new providers of the innovative change. Close communication between the CRNAs and L&D RNs is paramount when there is a newly admitted parturient. Initiation of the informed consent process by having the parturient and family members view the nine-minute epidural video begins at this point when pain levels are low. They can view the epidural video on the L&D unit-supplied tablet or use their device through the free hospital Wi-Fi service.

Recommendations for Future Projects and Practice

Future projects in this area should focus on cost-savings for both the parturient and the health care system. When parturients return to the hospital for a continuous headache following the placement of an epidural, they usually check into the emergency department for the management of their post-dural puncture headache. This is a risk of having an epidural placed. Incurring these charges can be very expensive for the parturient. Wada et a1. (2018) mention multiple risks associated with an epidural placement, including a failed block or ineffective epidural necessitating the need to replace it, infection, bleeding, nerve damage, epidural hematoma, leg weakness, meningitis, seizure activity, and conversion to a subarachnoid block

(spinal) for those parturients who have an ineffective epidural in place and now require a cesarean section for failed labor. All of these incur costs and may be decreased when the informed consent process is initiated during the early stages of labor rather than the later stages of labor when pain scores are high. When parturients are in the later stages of labor and have increased pain levels, often they are unable to sit still for the procedure and rush the CRNA to place the epidural. This increases the risk of injury.

Another recommendation for future practice is having parturients view the epidural video during earlier OB visits. There is no maximum limit to the number of times a parturient can view the epidural video. Having a QR code printed on a card to hand to each parturient as they come in for their OB visits would be a perfect opportunity to provide them with the QR code, which they can scan and view on their personal devices at their leisure.

Lastly, I would recommend an intervention period greater than seven weeks to capture more data. In this study, my sample size consisted of fifty-five parturients. The average recall of the ten risks mentioned during the informed consent conversation of the parturients who stated that their pain level was between 0-2 at the initiation of the informed consent process was 5.6. I would consider that this number would increase with a larger sample size conducted over a longer time frame.

Doctoral Essentials Met

There are eight DNP Essentials that were established as an educational guide for doctoral education. This project focused on DNP I, II, III, V, and VIII.

DNP Essential I, a focus on scientific underpinnings for practice, was incorporated using evidence-based guidelines. Directly integrating nursing science with knowledge from ethics, utilizing science-based theories and concepts to promote the significance of health and healthcare

delivery, and advancing strategies to enhance healthcare delivery and evaluate their outcomes guided the project goals. DNP Essential II, organizational and systems leadership for quality improvement and systems thinking allowed an improvement of the informed consent process for the parturient population who requested a labor epidural for the management of their labor pain. Involving organization and systems leadership helped to translate this practice change into the L&D unit. This project advances nursing practice, ongoing improvement of health outcomes, and enhanced patient safety to facilitate organization-wide changes in practice delivery throughout each L&D unit within our healthcare system (Anderson et a1., 2015). DNP Essential III, clinical scholarship and analytical methods for EPB were carried out by using a Microsoft Excel spreadsheet that reflected the effectiveness of the intervention of initiating the informed consent process shortly after admitting the laboring patient to the L&D unit during the early stages of labor when pain scores were lower, rather than during the later stages of labor when pain scores were rated higher. The project promoted a safer practice for initiating the informed consent process to the parturient population who desired a labor epidural to manage their labor pain. This project found that parturients who underwent the informed consent process for a labor epidural placement and scored their pain level low versus high were able to recall the information presented to them more than those who did not. DNP Essential V, healthcare policy for advocacy in healthcare, was met by analyzing the disparities present in the L&D unit regarding how the informed consent process was conducted for the parturient population who desired a labor epidural to manage their labor pain. The process was not standardized, nor was the timing of when the informed consent process should be initiated. Advocating for the parturient population directly impacted practice regulation, safety, and quality of the informed consent process. This project improved the outcomes of the parturient population by standardizing the process of

initiating the informed consent process and by having each parturient receive the same information regarding the placement of a labor epidural and its associated risks, benefits, and alternatives. Lastly, DNP Essential VIII, advancing practice nursing, was met by facilitating effective communication between the L&D unit and the anesthesia providers regarding managing parturients who presented to the unit in labor. Using evidence-based guidelines to promote safer practices for initiating the informed consent process for a labor epidural placement led to better outcomes and recall of the vital information presented during the process.

Conclusion

This quality improvement project sought to improve the informed consent process for the parturient population who desired a labor epidural for the management of their labor pain. The intervention was carried out in an eighty-seven-bed, level IV trauma center serving multiple counties of the Pacific Northwest. The L&D unit carried out between 100-120 deliveries of newborns per month. The Nursing Theory Guided Practice and Lewin's Theory of Planned Change were used to guide this intervention as internal factors such as pain and anxiety affected the parturient's decision-making capability regarding the consenting process of having a labor epidural placed to manage their labor pain, thus providing the opportunities for unintentional injury during the placement of their labor epidural and giving rise to a potential unethical and illegal informed consent. The stages of Lewin's Theory of Planned Change guided the intervention steps. This intervention adhered to strict communication between the L&D RNs and CRNAs. It facilitated an earlier informed consent process for the parturient population who requested a labor epidural to manage their labor pain when their labor pain scores were low. It improved patient-provider communication and enhanced information recall of the risks, benefits, and alternatives of having a labor epidural placed. It decreased the potential risk of unintentional

injury when placing the labor epidural. Improved patient outcomes were confirmed that parturients who underwent the informed consent process for having a labor epidural placed during the early stages of labor when pain scores were lower, rather than initiating the informed consent process when their pain scores were higher, resulted in a greater recall of the information presented to them during the informed consent process. In the future, a recommendation would be a more extended project period, resulting in a larger sample size.

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Appendix A-ICIQ

Date_____

Please answer the following questions based on the information you were provided during the informed consent process.

1). What was your pain level on a 0-10 numeric pain rating scale at the time you underwent the informed consent process for your labor epidural?

0-2

3-5

6-8

9-10

2). List as many risks associated with a labor epidural placement as you can recall from the informed consent process (epidural video).

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

3). What is the benefit of having a labor epidural?

_____

4). What are the three alternatives of having a labor epidural that were mentioned during the informed consent process (epidural video)?

_____ _____ _____

Appendix B- Data Analysis

Pain Level	0-2	3-5	6-8	9-10
	9	1	2	3
	7	0	3	2
	8	9	7	3
	9	1	4	1
	9	6	2	0
	3	6	1	0
	8		1	0
	3		1	0
	4		0	0
	7		1	2
	8		0	2
	1		6	0
	0		6	1
	4		2	3
	4		5	
			4	
			3	
			3	
			4	
			5	

0-2	3-5	6-8	9-10
5.60	3.83	3.00	1.21