DOCTOR OF NURSING PRACTICE

POSTER PRESENTATION

APRIL 28, 2023
DNP POSTER PRESENTATION SCHEDULE

MORNING SESSION PRESENTERS
Moderator: Dr. Leah Baecht

Miriam Ndenecho
Management of Ineffective Epidural for Cesarean Section...............................page 1

Jessica Doerr
Cefazolin Administration in Penicillin Allergic Patients.................................page 2

Autumn Cullison
Tranexamic Acid Protocol for Lower Extremity Total Joint Arthroplasties..................page 3

Brian Bendel
Joshua Snodgrass
Implementation of a GlideScope Education Program for Novice Student Registered Nurse Anesthesiologists.............................................page 4

Sarah Elyse Butler
Colton Butler
Development of a Nurse Anesthesia Program Point-of-Care Ultrasound Airway Examination Curriculum................................................page 5

Kaisi Dye
Kelcie Brunnert
Adjuncts and Additives to Regional Anesthesia...............................................page 6

Daniel McGee
Robert Stein
Improving Student Registered Nurse Anesthesiologists’ Skills and Confidence Through High-fidelity Simulation.............................................page 7

Matthew Gill
Postdural Puncture Headaches and the Development of a Treatment Protocol..........................page 8

Charles Serrano
A Comparison of Erector Spinae Plane Block and Epidural Analgesia for Major Abdominal Surgery...............................................................page 9
DNP POSTER PRESENTATION SCHEDULE

MORNING SESSION PRESENTERS
Moderator: Dr. Leah Baecht

Courtney Silberberg
Remifentanil in Labor Analgesia

Mackenzie Schutt
Kaylie LaJeunesse
Development of Neuraxial Anesthesia Educational Videos for Nurse Anesthesia Students

Sydney Bontz
Active Learning Techniques to Improve Emotional Intelligence Among Student Registered Nurse Anesthetists

Jeannette Ineza
Lorette Osun
Diversity in Nurse Anesthesia Education: Understanding the Perspective of Racial-Ethnic Minority Nurse Anesthesia Students

Domenica Camaci-Douleh
Nicole Gorris
Utilizing the Anatomage Virtual Dissection Table for Learning Neuroanatomical Structures in Nurse Anesthesia Programs

Erika Aitken
Second-victimhood Among Anesthesia Providers and the Effects on Patient Outcomes

Alejandra Villescas
Developing an Advocacy Campaign to Minimize Barriers to SRNA Political Awareness

Alexandra White
Stephanie Lafikes
Prophylactic Tranexamic Acid Administration to Prevent Postpartum Hemorrhage After Cesarean Delivery in Patients at High Risk of Severe Postpartum Bleeding

Kaleigh Kuhlman
Paige Buckner
Post-Operative Pruritus Related to Neuraxial Opioid Use
DNP POSTER PRESENTATION SCHEDULE

AFTERNOON SESSION PRESENTERS
Moderator: Dr. Angela Andrews

Jessica McRill
Sarah Puckett
Courtney Russell
*Weight Loss Communication and Treatment in Primary Care* .............................................. page 19

Claire Eller
*Use of Anticipatory Guidelines in Late Infants and Toddlers 12 to 24 Months in Primary Care* ................................................................. page 20

Ashley Simons
*Integration of Telehealth into Family Practice* ................................................................. page 21

Shamika Allen
*Implementing the Timed Up and Go Test to Prevent Falls* ............................................. page 22

Isabel Butterfield
Darby Creasey
Jenna Dean
*Advance Care Planning in Primary Care* ................................................................. page 23

Jessica Landrum
Brianna Linsley
*Education for Oncology Providers on the Benefits, Uses, and Local Resources of Medical Marijuana* .............................................................. page 24

Abigail Fischer
*Expansion of Heart Failure Education from Hospital to Clinic* ...................................... page 25

Marcie Leonard
*Promoting a Just Culture in Nursing Academia* ............................................................. page 26

Allison Helmerichs
*Emergency Department Nurse Preceptor Development* ................................................ page 27

Carrie Carls
*A Multifaceted Approach to Promoting Speaking Up Behavior in a Community Hospital* ........................................................ page 28
DNP POSTER PRESENTATION SCHEDULE

AFTERNOON SESSION PRESENTERS
Moderator: Dr. Bernadette Sobczak and Dr. Annie Imboden

Maryann Van Ryn
Lucy Nyirongo
Age-appropriate educational tool for adolescents........................................page 29

Katelyn Phillips
Lainey Brown
Primary Care Management of Breast Cancer Screening.................................page 30

Amanda Frassato
Improving Pulmonary Rehabilitation Referral and Uptake
for Chronic Obstructive Pulmonary Disorder...............................................page 31

Camille Roland
Compassion Fatigue and Burnout in Mission Trip Providers............................page 32

Crystal Wingerter
Improving Depression Remission Screening Compliance.....................................page 33

Robin Risky
Utilizing a GERD and Ulcer Treatment Protocol to Ensure
Consistent, Evidence-Based Care is Followed on Short Term
Medical Mission Trips to Developing Countries.............................................page 34

Jaden Moomaw
Andrea Palmer
The Fantastic Four Improving Nurse Competency on
Guideline Directed Medication Therapy in
HFrEF Patients: A Quality Improvement Project............................................page 35

Kaylee Beals
Amanda Merriman
Advanced Care Planning in Primary Care.......................................................page 36

Wesley Ferrill
Tori Mattingly
Lechi Nkwocha
A Community Health Outreach Project Focused on Developing
and Implementing a Culturally Competent Tobacco Cessation
Education Toolkit..........................................................page 37

Katherine Ellingson
Hyperoxemia education to nurses to increase the adherence to
oxygen weaning goals in inpatient COPD patients........................................page 38
VIRTUAL DNP POSTER PRESENTATION SCHEDULE

MORNING SESSION PRESENTERS
Moderator: Dr. Kelley McGuire

Loveleena Alex
*Recognizing Barriers in the Elderly Population and Increasing Access to Case Management Services*…………………………...page 39

KeNecia Dones
*Understanding COVID-19 Vaccine Hesitancy in Underserved Populations*………………………………………………...page 40

Brandy McCrudden
*Implementing an EMR in a small psychiatric practice*………………………………………………………………..page 41

William Boyden
*Perioperative corneal abrasion: An investigation into preventive practices and educational interventions that limit corneal abrasions in the perioperative setting*…………………………...page 42

Jeremy May
*Amniotic Fluid Embolism Diagnosis and Treatment Pathway*……………………………………………………..page 43

Carolina Botero
*Utilizing Gastric Point-of-Care Ultrasound Assessment for Patients with Questionable NPO Status*………………………………………………………………..page 44

Chary Mathew
*Foley Catheter Algorithm*…………………………………………………………………………………………………………...page 45

Amrutha Panakkal
*Standardization of Perioperative Management of the Breastfeeding Women*……………………………………………………..page 46

Emily Birkhead
*Establishing a Diabetes Self-Management Resource for the Self-Pay Client in a Rural Clinic*………………………………………………………………..page 47
VIRTUAL DNP POSTER PRESENTATION SCHEDULE

MORNING SESSION PRESENTERS
Moderator: Dr. Kelley McGuire

Randi Rockwell
Improving Traumatic Brain Injury Outcomes: Early Identification and Management of Paroxysmal Sympathetic Hyperactivity .............................................................. page 48

Tonicia Boston
Introduction of a Spinal Care Pathway Triage Protocol in the Secondary Care Setting ................................................................. page 49

Cassandra Adkins
New Graduate Nurse Professional Development Planning: Key to Retention .............................................................. page 50

Heather Tucker
Enhancing Communication Pathways Between Care Environments to Improve Patient Outcomes .......................................................... page 51

Cindy Wallace
Increasing Education and Awareness of Patients who Identify as Transgender in Primary Care .......................................................... page 52
DNP POSTER PRESENTATION ELSEWHERE

Cassie Starrett
Katrina Harlan
Presented at Illinois Association of Nurse Anesthetists Fall Conference
Enhancement of a Peer Mentorship Program for
Student Registered Nurse Anesthetists……………………………………………………page 53

Andrea Perkins
Presented at Illinois Society for Advanced Practice Nursing Midwest Conference
Assessment of Caregiver Burden in a Memory Loss Clinic…………………………………page 54

Deidra Frisbie
Robin Simon
Presented at 6th Edition of Nursing World Conference
Empowering Nurses to Recognize Post-Stroke Depression
in the African American Community……………………………………………………………page 55

Hannah Shufeldt
Presented at American Nurses Association Illinois Professional Issues Conference
Retention of New Nurses in the Cardiovascular Operating Room…………………………page 56

Melissa Kulp
Kristin Elmore
Presented at SIGMA St. Louis Regional Consortium
Implementation of Written Discharge Instructions for
Common Diagnoses in an Urgent Care Setting………………………………………………page 57

LaToya Hayward
Presented at SIGMA St. Louis Regional Consortium
Implementation of Routine Screening to Detect Early
Cases of Depression and Anxiety in Hispanic Adolescents
in the Primary Care Setting……………………………………………………………………page 58

Emily Hartmann
Presented at SIGMA St. Louis Regional Consortium
Improving HPV Vaccination in Adolescents…………………………………………………page 59

Ashley Darin-Messmer
Presented at 14th Annual Nursing Research Symposium
Implementation of Enhanced Recovery After Surgery
for Adult Cervical Spine Fusion Patients: A Quality
Improvement Project……………………………………………………………………………page 60
DNP POSTER PRESENTATION ELSEWHERE

Anthony Nungesser
Presented at 14th Annual Nursing Research Symposium
Dexmedetomidine as an Adjunct Therapy to Neuraxial Anesthesia in Labor and Delivery

Kelci Steeples
Presented at RESPECT Center Conference: Let’s Talk Palliative Care: Coming Together Again
Alternate Route of Medication Administration to Treat Pain at the End of Life

Kristen Conkle
Presented at 26th Annual Nursing Research Conference / Breaking the Mold: Utilizing Research and EBP to Advance Practice
Caring for the Adult Patient with Autism Spectrum Disorder

Heath Gage
Tracey Kreipe
Sandra Obiebi
Presented at Perspectives in Pediatrics Conference
CBT Technology Implementation with Pediatric and Adolescent Populations
Miriam Ndenecho  
Doctor of Nursing Practice  
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Management of Ineffective Epidural for Cesarean Section

In the United States, epidural anesthesia is used for approximately 29-44% of cesarean sections (Carvalho, 2012). A failed or inadequate labor epidural is challenging to manage, especially when a cesarean section is imminent. A failed labor epidural is defined as insufficient pain relief within 45 min after placement, accidental dural puncture, re-siting or abandoning the procedure, and patient dissatisfaction at follow-up (Ismail et al., 2021). This project examined established best practices for managing a parturient with an ineffective labor epidural that requires a cesarean section. The literature review provided zero practice guidelines for the management of failed epidural for cesarean section. Anesthesia providers use different approaches to manage an ineffective epidural. If the epidural catheter adjustment or top-up dosing does not provide sufficient anesthetic conditions and time permits, replacing the epidural catheter or performing a spinal is safe, but the appropriate dose of LA must be considered based on the level of the current block (Bauer et al., 2012).
Cefazolin Administration in Penicillin Allergic Patients

Surgical site infections (SSI) are a type of hospital-acquired infection that are largely preventable. Cefazolin, a first-generation cephalosporin beta-lactam, is the recommended antibiotic for SSI prophylaxis (Bratzler et al., 2013). Approximately 10% of the general population reports a penicillin allergy (Joint Task Force on Practice Parameters et al., 2010). Penicillin is another beta-lactam. Penicillin-allergic patients are commonly prescribed alternative, less effective, antimicrobial agents for SSI prophylaxis, causing suboptimal outcomes. Current literature reports a cross-reactivity potential of less than 2%, with an even lower risk associated with cefazolin (Picard et al., 2019; Sousa-Pinto et al., 2021). This project aimed to review the literature surrounding beta-lactam allergy and cross-reactivity and create an evidence-based cefazolin administration algorithm for anesthesia providers at a tertiary care center in central Illinois. An educational presentation was conducted at the host facility, and participants completed a post-presentation survey to evaluate the algorithm. Implementation of the evidence-based algorithm optimized SSI prophylaxis, potentially improving patient outcomes, and avoiding the negative effects of alternative antibiotic administration.
Autumn Cullison  
Doctor of Nursing Practice  
Nurse Anesthesia Specialization

**Tranexamic Acid Protocol for Lower Extremity Total Joint Arthroplasties**

Bleeding is a risk associated with surgery, and complications, such as hypotension, anemia, and decreased oxygen-carrying capacity, can occur. Blood transfusions have been the mainstay treatment for excessive surgical blood loss; however, transfusion has associated risks including infection, volume overload, immunological reactions, and increased morbidity and mortality (Sahu et al., 2014). Interventions to decrease surgical blood loss are essential components to improving surgical outcomes. The antithrombolytic, tranexamic acid (TXA), decreases surgical blood loss and blood transfusion requirements, thereby decreasing transfusion-related complications (Gausden et al., 2017). Despite frequent use, variance exists surrounding the administration of TXA. Current evidence and guidelines regarding TXA administration were examined to decrease provider variance and optimize utilization. This quality improvement project aimed to improve outcomes for patients undergoing lower extremity total joint arthroplasty in a tertiary care facility in central Illinois by developing a TXA administration protocol. The protocol addressed contraindications and dosing guidelines. The results of the project indicated anesthesia providers at the host facility supported implementation of the evidenced-based TXA protocol into practice.
Implementation of a GlideScope Education Program for Novice Student Registered Nurse Anesthesiologists

GlideScope Video laryngoscopy carries a higher risk of injury to the pharyngeal cavity than direct laryngoscopy. Verathon is aware of this risk and has developed a proprietary “Four-step method” to mitigate it. This project aimed to reduce injuries related to GlideScope video laryngoscopy by providing first-year nurse anesthesiologists at Southern Illinois University Edwardsville with didactic and simulation education related to GlideScope video laryngoscopy and injury prevention. Didactic education was provided via a pre-recorded PowerPoint presentation. Simulation education was provided with the GlideScope and airway trainer manikins. The participants completed an identical 8-question pre-test and post-test to assess for knowledge gain and operator confidence after the educational intervention. Our results indicate increased knowledge gain and operator confidence.
Sarah Elyse Butler
Colton Butler
Doctor of Nursing Practice
Nurse Anesthesia Specialization

Development of a Nurse Anesthesia Program Point-of-Care Ultrasound Airway Examination Curriculum

Airway management is a critical and fundamental skill for anesthesia providers. Point-of-care ultrasound (POCUS) is an up-and-coming assessment technique that can provide critical information about a patient’s airway anatomy and may increase patient safety during anesthesia care. As a result, understanding the appropriate POCUS equipment, techniques, findings, and clinical implications for airway examination can become essential for safe and effective anesthesia practice. This project aimed to develop a clinical airway POCUS examination curriculum with detailed instructions on all aspects of appropriate examination equipment, set-up, technique, and implications for findings. The team designed the curriculum to incorporate it into the host Nurse Anesthesia program and to utilize it in future anesthesia coursework. It included an educational PowerPoint presentation with a voiceover lecture and a hands-on skills development lab conducted for third-year Nurse Anesthesia students at Southern Illinois University Edwardsville (SIUE). Pre-lab and post-lab surveys were collected to enable a comparative analysis of the curriculum's effectiveness. The post-lab data showed that most students began with limited knowledge of the necessary elements of airway POCUS examination but ended the lab session with significantly increased confidence in their ability to perform an airway POCUS examination.
Kaisi Dye  
Kelcie Brunnert  
Doctor of Nursing Practice  
Nurse Anesthesia Specialization  

Adjuncts and Additives to Regional Anesthesia

With regional anesthesia becoming increasingly popular, an emphasis has been placed on choosing appropriate adjunct medications to local anesthetics for prolonging peripheral nerve blocks- lengthening postoperative pain control and decreasing perioperative narcotic usage. This project aimed to increase provider knowledge of the proven efficacy of block and adjunct selection for breast, shoulder, and knee surgeries with intended results being prolonged block duration and increased patient satisfaction post-operatively. A focused lecture along with a Likert-scale questionnaire and quiz were administered to a small sample of anesthesia providers at a rural Illinois hospital. Half (55.6%) of the providers showed evidence of knowledge gained in PNB choice as well as adjunct selection. The remaining 44.4% did not reach out after the presentation and post-presentation knowledge was unable to be assessed. Thus, the results of the post-test and efficacy of the training may not be applicable to larger populations.
Improving Student Registered Nurse Anesthesiologists’ Skills and Confidence Through High-fidelity Simulation

Positive anesthetic outcomes require rapid and precise recognition and treatment of highly complex pathophysiologic states. Repeated exposure to low-frequency, high-stakes events in a realistic milieu facilitates timely and appropriate anesthetic interventions. Current evidence suggests high-fidelity simulation enhances anesthetic training and can improve patient outcomes by enhancing confidence, competence, and proficiency while removing the risk for patient harm during simulated events. This project’s aim was to improve student registered nurse anesthesiologists’ confidence and competence in routinely encountered anesthetic situations utilizing high-fidelity simulation. Prior to beginning clinical rotations, students participated in a high-fidelity routine anesthetic induction simulation and were challenged to diagnose and mitigate an esophageal or right-mainstem bronchus intubation. Overall, students self-reported improvements in confidence and competence with the anesthetic induction, endotracheal intubation, confirming appropriate endotracheal tube placement, and troubleshooting complications that may arise during an anesthetic induction.
Roughly 1% of patients receiving an epidural for analgesia will experience an accidental dural puncture (ADP). Of that 1%, half will go on to develop a postdural puncture headache (PDPH) (Apfel, 2010). PDPH presents 24-48 hours after neuraxial anesthesia as a dull, bilateral, throbbing, postural headache that is often accompanied by nausea (Patel et al., 2020). Although PDPH is a fairly common complication associated with neuraxial anesthesia, many facilities offering obstetric services lack a written protocol addressing ADP and PDPH treatment. The purpose of this project was to design and introduce a PDPH evidence-based treatment protocol for a hospital in the St. Louis metro-east region to combat the impact PDPH has on maternal-newborn bonding, patient satisfaction, and length of hospitalization. Through a comprehensive review of the literature, the most recent evidence of PDPH risk factors, prevention strategies, and treatment options were discovered and compiled into an educational presentation for the host facility anesthesia staff. This project utilized a non-experimental design and aimed at quality improvement. A pre and post educational presentation questionnaire were anonymously and voluntarily completed by staff in attendance to gauge the effectiveness of the educational presentation. Overall, questionnaire scores improved following the educational presentation. Anesthesia staff reported that they planned to adopt the proposed treatment protocol into their daily practice.
A large tertiary care center in central Illinois saw an increase in erector spinae plane (ESP) block administration for abdominal surgery patients, but many anesthesia providers at the facility were not acquainted with the ESP block. This project aimed to develop a comprehensive educational program concerning the ESP block compared to thoracic epidural analgesia for major abdominal surgery patients and ultimately improve patient care. The program introduced the relevant anatomy, indications, technique, advantages, and disadvantages of ESP block and epidural analgesia. Additionally, the risks, benefits, and costs of both adjunctive therapies were compared. The current literature shows that the thoracic epidural is the gold standard for pain control following major abdominal surgery, but the ESP block can be an effective alternative for patients where an epidural is contraindicated or undesirable. The ESP block has fewer complications compared to an epidural, but the safety profile depends on vigilant monitoring and management. Seven anesthesia providers attending the educational seminar agreed to take an anonymous pretest and posttest to evaluate the knowledge they gained from the program. The mean of the pretest and posttest were 65% and 86% respectively. The two-tailed P value equaled 0.0002 meaning that the posttest scores showed an extremely statistically significant improvement compared to the pretest scores. This project gave anesthesia providers the information necessary for them to make clinical judgments that are in the best interest of their patients thus improving patient care, safety, and satisfaction.
Remifentanil in Labor Analgesia

Labor has the potential to be the most excruciating and intense physical pain a woman experiences in her life. Neuraxial anesthesia, which includes epidural, spinal, or combined spinal-epidural technique, is the gold standard for pain control in laboring patients (Lee et al., 2017). Seemingly forgotten, a subset of parturients cannot experience the benefits of neuraxial anesthesia due to several absolute and relative contraindications. These women rely on other options for labor pain control. Remifentanil has emerged as a preferred opioid option for labor and delivery due to its rapid onset (peak effect in 1.1 minutes) and rapid metabolism by non-specific plasma esterases (Glass et al., 1999). The purpose of this project was to educate obstetrical anesthesia providers, obstetricians, residents, and pharmacists at a level 3 perinatal center in Central Illinois on remifentanil patient-controlled analgesia (PCA) for laboring parturients as an alternative to neuraxial analgesia. An evidence-based remifentanil PCA dosing regimen was also recommended. The results of the project implied that there was an increased understanding of remifentanil and an increased buy-in for the implementation of a remifentanil PCA at the facility. A recommendation is to follow up to determine if a remifentanil PCA standardized protocol has been implemented.
Development of Neuraxial Anesthesia Educational Videos for Nurse Anesthesia Students

Performance and evaluation of anesthetic procedures, specifically neuraxial anesthesia, are core components of nurse anesthesia curriculums. Teaching methods must provide nurse anesthesia students with the proper tools and knowledge to perform skills confidently and proficiently. Traditional teaching methods have fallen short of providing the necessary instruction for optimal student success. Incorporating video-learning resources on neuraxial anesthesia into course curriculums can significantly improve nurse anesthesia practice by better-preparing students for the clinical setting. Video learning increases student engagement and facilitates deep learning. Data shows that access to procedural videos enhances student physical examination performance compared to traditional teaching methods. Educational videos on performing neuraxial anesthesia were created according to best-practice recommendations. First-year nurse anesthesia students were given a pre-test to assess their baseline knowledge of neuraxial anesthesia. They were then given access to the educational videos and attended a hands-on lab. After students watched the video and practiced the procedures during lab, they were given a post-test with the same ten questions as the pre-test and a survey to gauge their thoughts and perceptions of the educational resources. The goal was to show an increase in scores and, thus, an increase in knowledge after the intervention. This quality improvement project implementation successfully enhanced student knowledge of neuraxial anesthesia and allowed for a refined approach to the education module, utilizing multimodal techniques.
Sydney Bontz  
Doctor of Nursing Practice  
Nurse Anesthesia Specialization

*Active Learning Techniques to Improve Emotional Intelligence Among Student Registered Nurse Anesthetists*

Students enrolled in nurse anesthesia programs are challenged to meet rigorous and lengthy clinical and didactic requirements throughout doctoral-level curriculums. Historically, admission into nurse anesthesia programs has been based on categories such as academic performance, intensive care nursing experience, and curriculum vitae. However, emerging research has exhibited emotional intelligence as an essential skill for varying situations that may be encountered. Additionally, training can be utilized to increase emotional intelligence levels (Lolaty et al., 2012).

The goal of this doctoral project was to provide emotional intelligence training for first-year student registered nurse anesthetists (SRNAs) at a mid-size University in the Midwestern United States. Project implementation involved a presentation given by an expert in the field of emotional intelligence, followed by two active learning sessions directed by a second-year SRNA, to reiterate concepts from the presentation. Pre- and post-emotional intelligence evaluation scores were obtained via the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) along with subjective data about the training program via a post-implementation survey. Overall, total post-MSCEIT scores showed improvement compared to pre-scores, and survey results revealed positive student feedback.
Diversity in Nurse Anesthesia Education: Understanding the Perspective of Racial-Ethnic Minority Nurse Anesthesia Students

The idea that race is not an issue, everyone is treated fairly, and the denial of racial differences is an act to refute that racism still perpetuates nursing education. Racial-ethnic minority student registered nurse anesthetists (SRNA) face unique challenges in their didactic and clinical training, including microaggressions, discrimination, and bias, all of which white students do not have to face during their educational experiences (Carter & McMillian-Bohler, 2020). Our project sought to highlight the lived experiences of ethnic minority student registered nurse anesthetists in the United States to bring awareness and effectuate change in nurse anesthesia education. Our Qualtrics survey link was emailed to nurse anesthesia faculty to forward to their students. The survey contained Likert style and open-ended questions. There were 371 respondents, data were collected from participants who self-identified as racial-ethnic minority students and completed the entire survey (n=130), 101 racial-ethnic minority students did not complete the survey, and 140 students self-identified as Caucasian. A total of 241 participants were excluded from the statistical analysis. Of the responses received, 61% of ethnic minority SRNAs felt isolated in clinical based on ethnicity, and 61% felt that preceptors judged their skills or intelligence based on race. Understanding the experiences of non-white SRNAs while navigating the educational system will allow the administration and faculty to understand the experiences that students of color face in the nurse anesthesia program and be able to better support them in the categories of mentorship and preceptor relationships.
DNP POSTER PRESENTATION
Southern Illinois University Edwardsville
April 28, 2023
9:50 a.m. Session

Domenica Camaci-Douleh
Nicole Gorris
Doctor of Nursing Practice
Nurse Anesthesia Specialization

**Utilizing the Anatomage Virtual Dissection Table for Learning Neuroanatomical Structures in Nurse Anesthesia Programs**

Certified registered nurse anesthetists are responsible for developing expertise in neuraxial anesthesia. A thorough understanding of anatomy and physiology is essential in the performance of subarachnoid and epidural blocks. Although cadaveric dissection is considered the gold standard for learning anatomy, student use of cadavers can become limited due to supervisory, ethical, accessibility, and financial constraints (Periya and Moro, 2019). In recent years, the evolution of technology has produced a virtual option for cadaver dissection (Washmuth et al., 2020). The anatomage virtual dissection table is a tool that could be used to increase knowledge of neuroanatomical structures and their spatial relationships in place of cadaveric dissection. Learning modules were developed utilizing the anatomage table to learn and review anatomy pertinent to neuraxial anesthesia. Second-year anesthesia students at the host Nurse Anesthesia Program in their Fall 2022 semester participated in implementing these modules. Pre- and post-surveys analyzed with a Paired Two Sample t-test demonstrated significant improvement in the student’s knowledge and confidence when administering neuraxial anesthesia after completing the provided modules. The improvement in knowledge in neuroanatomy leads to greater success and patient satisfaction when performing epidural or spinal anesthesia.

Keywords: virtual dissection, neuraxial anesthesia, anatomage table
Erika Aitken
Doctor of Nursing Practice
Nurse Anesthesia Specialization

Second-victimhood Among Anesthesia Providers and the Effects on Patient Outcomes

Anesthesia providers work in environments promoting productivity with tremendous pressure to begin the next case regardless of any recent adverse events that may have occurred (Wands, 2021). Certified nurse anesthesiologists (CRNAs) potentially struggle with a lack of recognition, a high number of hours, inadequate work-life balance, and limited professional advancement, which all contribute to high stress levels within the field (Andrade & Dantas, 2015). A healthcare professional involved in an unexpected adverse event, medical error, or patient-related injury is labeled as a second victim. Thirty anesthesia providers from a central Illinois hospital viewed a PowerPoint presentation, completed a survey, and ranked scenarios on a 5-point Likert scale. All participants state the presentation increased second victimhood knowledge, and the majority (60%, n=18) admit to having experienced second victimhood. Regarding the most beneficial support, 96.7% of respondents chose talking to a trusted peer. Second Victim Experience and Support Tool (SVEST) results detailed the severity of second victimhood experienced by CRNAs. Inadequately resolving chronic stressors can have negative implications, such as leaving the career or even suicide. However, studies show that supportive management and trustworthy peers improve outcomes for healthcare providers experiencing second victimhood symptoms.
Developing an Advocacy Campaign to Minimize Barriers to SRNA Political Awareness

Continuous advocacy and political participation have secured better working conditions and recognition of certified registered nurse anesthetists (CRNAs), translating into better patient care. This project aimed to launch an advocacy campaign targeting student registered nurse anesthetists (SRNAs). A pre-lesson survey was designed to identify SRNAs’ political participation barriers and assess their political literacy. Additionally, a lesson was developed to help SRNAs’ understand CRNA advocacy. To evaluate the educational tool, a post-lesson survey was created. These materials were distributed via email to all SRNAs (n=320) enrolled in a CRNA program in Illinois. Only 51 students completed the pre-lesson survey, and 39 completed the post-lesson survey. Results showed that lack of free time (82.4%) and political literacy (54.9%) were the most reported barriers to participation. Although most SRNAs ranked slightly more aware of politics (74.5%, n=38), six SRNAs were classified as totally politically unaware (11.75%). Most of the SRNAs strongly agreed the lesson help them understand CRNA advocacy (84.6%). However, only some SRNAs (38%) strongly agreed to participate in the political process after graduation. This and the lack of participation suggest disinterest or preexisting negativity toward politics among SRNAs. Therefore, engagement facilitation should be the focus to increase SRNAs’ political astuteness.
Prophylactic Tranexamic Acid Administration to Prevent Postpartum Hemorrhage After Cesarean Delivery in Patients at High Risk of Severe Postpartum Bleeding

Postpartum hemorrhage (PPH) is the leading cause of maternal death worldwide. Cases of PPH are increasing in the United States, and despite current treatment recommendations, mortality remains high. This project included a review of the research on the use of prophylactic tranexamic acid (TXA) administration to prevent or reduce blood loss after cesarean delivery. Statistics regarding the impact of PPH and the pharmacology of TXA were reviewed in detail. Evidence shows that TXA is safe for parturients and nursing infants. Further evidence shows prophylactic TXA administration is associated with a modest reduction in blood loss, the need for blood transfusion, and post-delivery drop in hemoglobin and hematocrit after cesarean delivery. This information was shared with obstetric and anesthesia staff at a level III perinatal center in central Illinois as an informative PowerPoint presentation. Thirteen pre and post-test surveys were collected from staff which showed an improvement in knowledge regarding the use of TXA as a prophylactic measure in the management of PPH. The goal of this project was to ensure that the individuals providing direct patient care are aware of up-to-date research findings on this therapy which may clinically benefit their patients.
Post-operative pruritus from the use of neuraxial opioids is a commonly overlooked issue among patients receiving neuraxial anesthesia for operations. A literature review was conducted comparing the use of dexmedetomidine in neuraxial anesthesia versus narcotics and the use of nalbuphine as a treatment for postoperative pruritus when narcotics are used in neuraxial anesthesia. After a review of the literature, a PowerPoint presentation was given to a group of anesthesia providers at a central Illinois hospital that discussed the evidence-based information. A pre- and post-survey were conducted to assess the change in knowledge, the willingness of providers to adapt to new changes in practice, and the willingness of providers to recommend these practice changes to colleagues. The results of the pre-and post-surveys showed willingness among the providers to implement the use of either dexmedetomidine instead of opioids in neuraxial anesthesia or the use of nalbuphine to treat post-operative pruritus in patients who received neuraxial opioids. A significant limitation of this study was the lack of rigorous research. Due to the lack of research, it is the hope that this topic will be further researched in the future to create a more widespread usage among anesthesia providers.
Weight Loss Communication and Treatment in Primary Care

Obesity is undertreated in the primary care setting as a single medical condition. Obese patients are at higher risk for comorbid conditions including heart disease, hypertension, diabetes mellitus, and stroke. There is no universal screening tool implemented in the primary care setting for obesity management. An extensive literature review was completed to identify barriers for providers to treat obesity as a disease state, assess current practices for weight management in these settings, and to identify health behaviors of adult patients with obesity. This project implemented the Five A’s Communication Tool to identify patients willing to discuss weight management during wellness exams and to guide providers’ conversations based on patients’ health behaviors. A sample size of 30 patients were surveyed, and 86% answered ‘yes’ to discussing weight during their exams, regardless of BMI, and 56% answered ‘yes’ to receiving resources regarding weight management for their medical comorbidities. Providers preferred patients to complete the survey prior to the exam to avoid discussing weight management with those patients who did not want their weight addressed. Identified limitations included lack of patient diversity, small sample size, and timing of implementation. This project was trialed to improve the provider-patient conversation surrounding weight management and improving patient overall health in the primary care setting. The Five A’s Communication Tool was proven beneficial in discussing weight management during annual exams in the primary care setting.
Use of Anticipatory Guidelines in Late Infants and Toddlers 12 to 24 Months in Primary Care

Anticipatory guidance is a well-known and utilized method that has been implemented in a majority of pediatric primary care offices. As the need for efficiency grows and increasing patient volumes climb, there is a growing need for strategies to provide this information effectively and efficiently. Prior evidence can be utilized to identify the most critical knowledge caregivers and parents will require. Our findings indicate safety, communication, nutrition, social development, and behavior as cornerstone topics for anticipatory guidance. To increase the volume of education provided to parents and caregivers, alternate methods beyond verbal discussion could be used. After gathering scientific literature on the foundational topics of anticipatory guidance we created handouts and educational videos. The videos explored communication, potty training, immunizations, drowning prevention, burn prevention, medication safety, and fall prevention. These were implemented at a rural pediatric clinic where they were met with positive feedback. Participants endorsed an array of topics (i.e., dental, nutritional, sleep, and potty training) as very satisfactory additions to their knowledge base. A review of the literature concludes that education and anticipatory guidance are foundational for preventing childhood illness and injury.
Integration of Telehealth into Family Practice

Integrating the use of telehealth into primary care provides patients with access to health care and increases the availability of follow-up care. Having a telehealth service while also providing education and promotion on utilization will provide more favorable appointment times and potentially increase patient willingness to seek care. The use of telehealth services in the primary care setting will lead to the feasibility of completing necessary sessions for physical and mental health, benefits in billing, and time management. To understand how providers and patients benefited from education and using telehealth in the primary care setting, surveys were given before and the after implementation of education. Implementation of education focused on assisting the providers in gaining comfort with telehealth usage and understanding billing reimbursement, HIPAA compliance, and usage availability. The education pieces were formulated based on current literature. Results of the project showed that with education and increased competency in using telehealth, telehealth utilization increased. Receiving formal education about how to use, bill, and ensure the safety of using telehealth providers’ better comfort with using telehealth for their care provided.
Implementing the Timed Up and Go Test to Prevent Falls

Falls are the most reported injury within the geriatric population. Behavioral health patients have the most injurious falls, with falls impacting multiple things such as staffing, cost, injury, and quality of life for the patient (Ocker et al., 2020). Currently, the standardized fall assessment for new patients upon admission is the Morse Fall Scale (MFS). This fall assessment was intended to assess the level of fall risk for patients who are on an acute medical floor during their hospital stay. The Timed Up and Go test (TUG) is a fall assessment that has been used in geriatric patients to assess their level of fall risk but has not been specifically used in a psychiatric geriatric setting to determine if the assessment tool would be more suitable than the MFS. The purpose of this project is to determine if the TUG is a more appropriate tool to aid in identifying fall risk amongst the inpatient psychiatric geriatric population in addition to using the MFS.

After the demonstration, education, and implementation of the TUG test by nurses, a survey was conducted with the nurse to determine if the TUG test would be beneficial to use in the mental health geriatric unit. The survey suggests that 20 nurses (95.24%) think that the screening tool is effective in identifying falls. There are 2 nurses (9.52%) that believe the TUG screening tool can be used independently when screening for falls. Twenty-one nurses (100%) reported that one of the benefits of the TUG screening was that it is directly aimed at the geriatric population.
Advance Care Planning in Primary Care

Advance care planning (ACP) is the process of preemptively making choices regarding medical preferences for end-of-life care, while still having decision-making capacity. Many patients don’t have an advanced directive (AD), or documentation of these decisions. This planning improves the individual’s perception of quality of life, a good death, and autonomy over their healthcare. The discussion regarding ACP can take place in primary care at wellness visits for patients over 18 years old, while healthy and able to discuss their wishes with a trusted medical provider. Providers have tools to aid patients in completing AD; however, barriers include lack of knowledge, inexperience with the requirements of AD documentation, and lack of accountability. This project encouraged providers to engage in a continuing AD education resource provided by the Centers for Disease Control’s Health Aging Program at a Midwest family practice clinic. Questionnaires were given to the patients of the participating provider to evaluate their preexisting knowledge of ACP. If interested, more information was given to the patients by the provider. Out of the 53 patients surveyed in a 6-week time, 21% of the patients surveyed had an AD, and 54% elected for additional education regarding ACP.
Medical marijuana is used to reduce symptoms of medical conditions including cancer. Medical marijuana can increase quality of life among patients with cancer by treating symptoms such as pain, nausea, and vomiting. For providers to care for this population, they must understand the implications for treatment, pharmacological properties, and legal issues related to medical marijuana use. Nurse practitioners at a cancer clinic in rural Illinois were unable to prescribe medical marijuana because they did not have the necessary knowledge about medical marijuana. The nurse practitioners at the clinic were requesting a “toolbox” containing medical marijuana resources such as uses for medical marijuana, benefits and risks of treatment, and ethical considerations. The nurse practitioners completed a pre-quiz to test their knowledge about medical marijuana. Then, the toolbox was presented to them, and they completed a post-quiz. The implementation of the toolbox immediately impacted the clinical site because it increased the knowledge of the nurse practitioners as evidenced by their post-test scores. Each nurse practitioner who attended the presentation stated they felt confident about prescribing medical marijuana. The long-term goal for this project was for the providers to share the toolbox with non-informed providers to increase evidence-based use of medical marijuana in the oncology clinic.
Expansion of Heart Failure Education from Hospital to Clinic

Heart failure education is vital to the long-term management of this condition. Education recommendations for heart failure are given by the American Heart Association (AHA) and the American College of Cardiology (ACC). Recommendations include verbal instruction and written materials regarding the patient’s medication plan, recognition of symptoms, what to do when symptoms occur, and the importance of daily weights. This project aimed to provide outpatient clinic providers and staff with resources and education necessary to educate heart failure patients. The project expanded use of an inpatient heart failure education packet for outpatient use. This was accomplished by conducting educational sessions for outpatient providers and staff about the contents of the educational packet. Staff understanding of the educational packet was evaluated using pre-tests and post-tests. The overall score on the post-test was 99%, an increase of 19% from pre-test scores. In this rural clinic, providers will now distribute educational packets to those newly diagnosed with heart failure. Medical assistants and nurses will distribute educational packets to patients previously diagnosed with heart failure for continued reinforcement from the inpatient setting. All patients diagnosed with heart failure, who present to the outpatient clinics within this rural hospital system, will now be properly educated about heart failure, be able to self-manage their care, and reduce hospitalizations.
Marcie Leonard
Post-Master’s Doctor of Nursing Practice

**Promoting a Just Culture in Nursing Academia**

Understanding the importance of reporting errors, near misses, and good catches by nursing students is not a standard part of the curriculum at the project site. Nursing students lack prerequisite knowledge of how just culture does not aim to place blame on individuals but focuses on system flaws. Nursing students fear being dismissed from the nursing program if errors occur. The purpose of this project was to evaluate just culture knowledge in undergraduate nursing students in the 3rd-semester of school before and after the addition of just culture education at a community college. The education consisted of 30 minutes of formal in-classroom theory content provided via lecture and the use of a PowerPoint presentation to 29 undergraduate nursing students. The 3rd-semester nursing students were given the Just Culture Assessment Tool for Nursing Education (JCAT-NE) survey pre and post-formal classroom education. The JCAT-NE consisted of 27 questions divided into 6 subscales. Five questions in two subscales, fear of reporting and understanding of continuous improvement process, had a statistically significant improvement with a p-value of \(<0.0001\) post-education calculated by performing a Mann-Whitney U test. The difference means the five questions ranged from 1.66 to -2.00. The results indicate that formal education improves understanding of the importance of reporting errors and how it contributes to quality and safety improvement. Building a stronger curriculum focusing on the quality and safety aspect of reporting errors, near misses, and good catches could help future generations of nurses reduce errors resulting in improved healthcare and quality patient outcomes.
Allison Helmerichs
Post-Master’s Doctor of Nursing Practice

*Emergency Department Nurse Preceptor Development*

The Emergency Department (ED) new graduate nurse (NGN) requires an orientation to prepare them to work with patients who have complex medical issues in a challenging, fast-paced environment. Clinically competent and effective preceptors are essential to prepare a NGN to work in an emergency environment while adopting multiple active learning strategies. Preceptor education and training are necessary to improve the confidence and competence of the ED nurse preceptor. Currently, the project site lacked preceptor training specifically for the ED nurse preceptor. This project aimed to develop a preceptor workshop to meet the training needs of the ED nurse preceptor. Qualitative and quantitative data were collected using a pre-and post-survey design. Workshop participants (n =16) attended an 8-hour event focused on communication, adult learning theory, performance evaluation, and teaching strategies for the ED nurse preceptor. The workshop used interactive learning methods which included group activities, case discussions, hands-on learning, and simulations. The post-workshop survey results demonstrated increased confidence and ability to perform the ED nurse preceptor role effectively. The average weighted confidence level pre-workshop was 2.57 and post-workshop 3.69. Qualitative data suggested that the participants found the workshop valuable and provided them with teaching strategies for the ED preceptor role. The quantitative and qualitative data results were encouraging and support the effectiveness of the ED preceptor workshop. One limitation identified for the project was the small sample size. Additional support-specific training may be required by the ED nurse preceptor to be confident and capable in the role.
A Multifaceted Approach to Promoting Speaking Up Behavior in a Community Hospital

Introduction: This project describes results of a multifaceted approach to promoting Speaking Up Behavior (SUB) among nurses in a community hospital. Patient safety outcomes, perception of healthy work environment, and nurse retention are connected to caregiver communication.

Methods: Interventions included development of a structured SUB communication and debriefing tool, SUB administrative policy, leadership rounding and verbal support for SUB, formal recognition of SUB, and SUB education including role-playing activities. Cross-sectional surveys evaluating nurse comfort and confidence with SUB using validated tools were implemented before and after the multifaceted interventions.

Results: The bedside nurse voluntary turnover rate reduced from 14.5% to 13.0% and the rate of patient safety events with communication as a factor reduced from as high as 2.25 to 0.76 per 1,000 patient days. Nurses had higher levels of comfort speaking up for patient safety and professionalism, as well as higher levels of engagement and trust in speaking up that were statistically significant following the interventions.

Implications for Practice: Interventions that promote SUB involving organizational culture, policy, leadership, recognition, and education may result in improved outcomes in patient safety, nurse turnover, and likelihood of SUB.
Maryann Van Ryn
Lucy Nyirongo
Doctor of Nursing Practice
Family Nurse Practitioner Specialization

Age-appropriate educational tool for adolescents

Adolescents make up the majority of STI cases in the United States; however, most STI education has not targeted them and their unique needs. This quality improvement project aimed to create an evidence-based educational tool for sexually transmitted diseases (STIs) for adolescents in a pediatric clinic. Next, we created a dynamic QR code to access the flyer digitally on a patient's mobile device. The QR code was printed and placed in an accessible location in the office. The dynamic QR code allowed us to capture data on the total number of scans and provided the demographics of the scanners and the device they used. After the project's implementation phase, we generated a report on the total number of scans. The report showed a total number of only three scans, which was insufficient to analyze data on utilization. Staffing changes, which included two nurse practitioners leaving and another reducing her status to working one day a week, affected the number of scans collected. Also, there was a mix-up about whether to give out the flier in printed form versus the QR code as the project intended. As a result, no printed-out flyers and QR codes were readily available in rooms to give to patients; these were some reasons that affected the number of scans.
Katelyn Phillips  
Lainey Brown  
Doctor of Nursing Practice  
Family Nurse Practitioner Specialization  

**Primary Care Management of Breast Cancer Screening**

Breast cancer remains the most prevalent cancer diagnosis and is the second leading cause of cancer death among women in the United States. Mammograms have been identified as an effective screening tool that can detect breast cancer in the early stages of the disease, before symptoms develop, and allow the possibility of a cure. The project aimed to identify women in the primary care setting with outstanding mammography orders and implement a more systemic outreach program to improve patient adherence. The intervention was a telephone outreach program in which the students conducting the project contacted patients with unsatisfied mammogram orders to determine a date and time that would work for a mammogram appointment. The measured primary outcomes included the effectiveness of identifying unfulfilled and/or overdue mammogram screenings, success in reaching patients to schedule mammogram appointments, and patient adherence to completing scheduled mammograms. The project demonstrated that an outreach program to improve mammogram screening adherence could be successfully implemented in a primary care setting. Patients have reported that the outreach program was convenient for them in terms of hassle-free scheduling and holding them accountable. Some patient limitations included patients that refused to get a mammogram despite education, patients declining due to lifestyle, busy schedules, insurance coverage, and declining due to comorbidities. Project limitations included staff constraints in the office and a lack of a call-back direct line.
Amanda Frassato  
Doctor of Nursing Practice  
Family Nurse Practitioner Specialization  

**Improving Pulmonary Rehabilitation Referral and Uptake for Chronic Obstructive Pulmonary Disorder**

Participation in pulmonary rehabilitation (PR) for patients with Chronic Obstructive Pulmonary Disease (COPD) improves exercise capacity and quality of life and reduces readmissions and mortality. Despite its benefits, PR is underutilized in the treatment of COPD. Referral to PR is impacted by provider knowledge of who and how to refer, the burden of making a referral, the provider’s positive or negative influence and accessibility to a PR program. In contrast uptake of PR by patients is impacted by patient knowledge of what PR entails and how it will help their health. This project aimed to increase referrals to PR at a rural health clinic in Southern Illinois by increasing provider knowledge of what PR entails, improving confidence in who, when and how to refer to PR and improving patient knowledge about PR and how it can improve health. This project equipped providers with materials to use when discussing PR with patients, provided educational posters in examination rooms at the clinic, and measured PR referrals as well as provider’s knowledge and comfort levels in referring COPD patients to PR. The project increased provider confidence in discussing PR and knowing how and when to refer. It is unclear whether the project led to increased referrals to PR. Suggestions for further interventions to improve uptake of PR by COPD patients at this clinic include implementing a prompt in the EHR, annual reassessment and documentation of COPD symptoms, and a post COPD exacerbation bundle.
Compassion Fatigue and Burnout in Mission Trip Providers

Compassion fatigue (CF) and burnout (BO) have had catastrophic effects on nurses, providers, and support staff in recent years due to COVID-19, labor shortages, and an influx of critically ill patients. Compassion fatigue is a state of exhaustion and dysfunction biologically, psychologically, and socially due to prolonged exposure to compassion stress. Burnout (BO) and secondary traumatic stress (STS) play a role in the ability to cope with environmental stressors causing emotional breakdown. Mindfulness, journaling, and self-care interventions can combat compassion fatigue. The project setting was in Guatemala with members of a short-term medical mission team of health care and non-health care providers. A group session conducted on mission day two consisted of mindfulness and self-care education, individual self-care assessments and discussion with eleven medical mission participants. The goal was to promote self-care interventions to achieve a reduction in compassion fatigue and burnout. Pre-intervention self-care questionnaires and Professional Quality of Life Scale (PROQOL) surveys were completed by eleven participants. Only 37% of participants completed a post self-care questionnaire and PROQOL thirty days post intervention. One participant had an increased PROQOL score after returning from Guatemala, two were same as baseline and one was worse. Limitations included small sample size, participant location, low post survey response, and lack of active participation by some in the intervention phase. Further study is needed to determine if the medical mission setting is a productive venue for healthcare provider self-care counseling and education.
Improving Depression Remission Screening Compliance

Depressive disorders are widespread in the United States and are diagnosed and treated in the primary care setting. In 2019, there were an estimated 19.4 million adults that had at least one major depressive episode. The purpose of this project was to improve follow up and depression remission assessment for patients with a diagnosis of depression at a metropolitan family care practice clinic. The Patient Health Questionnaire (PHQ–9) was utilized for remission assessment. Front desk staff and providers were trained and granted access to the quality information system (QIS) in the electronic medical records (EMR) system which allowed easy identification of patients with depression due for depression remission screening. A gap report from May 2022 indicated a total of 15 patients due for remission screening and only 9 receiving it; a compliance rate of 60%. During implementation, a total of 27 patients were due for depression remission screening and of these patients 24 were screened, thus improving the compliance percentage to 88%, an improvement of 28% from baseline. Training support staff on how to identify patients with depression due for remission screening though the QIS and having them distribute the PHQ-9 at appointment check-in helped increase compliance. Making sure patients with depression have proper assessment and follow up is imperative due to the high levels of impairment in occupational, social, and physical functioning.
Robin Risky  
Doctor of Nursing Practice  
Family Nurse Practitioner Specialization

Utilizing a GERD and Ulcer Treatment Protocol to Ensure Consistent, Evidence-Based Care is Followed on Short Term Medical Mission Trips to Developing Countries

"The United States conducts over 6,000 international medical mission trips each year. The short-term nature of these trips, unfamiliarity with the patient population, language barriers, limited resources, and inadequate staff training are just some of the factors that make it challenging to provide quality care. One way to avoid doing harm is to follow evidence-based guidelines when treating common conditions. This quality improvement project sought to provide an evidence-based protocol for short-term medical missions (STMMs), guiding providers and pharmacy staff on the treatment of GERD and peptic ulcer. This project was implemented in a rural health clinic at the Land of Hope in Escuintla, Guatemala. A short pre and post-test were utilized to assess provider and pharmacy staff knowledge on the clinical presentation and treatment of GERD and peptic ulcer. At the end of the trip, a post-implementation survey was administered to providers and pharmacy staff volunteers to assess the protocol’s effectiveness and ease of use. The average score on the pretest was 56%, with a range of 7% to 93%. The average score on the post-test was 88%, with a range of 54% to 100%. All post-implementation survey respondents agreed that the training was helpful, the protocol was easy to use, and the protocol helped ensure consistent, evidence-based care was provided to patients. This protocol can serve as a blueprint for future protocols that address commonly seen diseases on STMMs."
Jaden Moomaw  
Andrea Palmer  
Doctor of Nursing Practice  
Family Nurse Practitioner Specialization  

The Fantastic Four Improving Nurse Competency on Guideline Directed Medication Therapy in HFReEF Patients: A Quality Improvement Project

Heart failure claims one in four lives of those diagnosed each year. The term Guideline Directed Medication Therapy (GDMT) represents optimal medication therapy as defined by the American College of Cardiology Foundation and American Heart Association. Appropriate quadruple therapy results in an estimated 73% relative reduction in mortality over a two-year time span (Greene & Khan, 2021). However, there is a gap in proper GDMT stemming from suboptimal initiation and/or titration in the outpatient setting. Nursing staff in a rural midwestern cardiology clinic were provided with an in-service presentation discussing current guidelines and recommendations of GDMT through visual, auditory and kinesthetic adaptations. A pre- and post-educational survey was given to the nurses. The pre-test questionnaire had an average score of 78.3%. The post-educational questionnaire showed an average of 90.6%. Nursing staff then ranked their confidence and understanding on a scale of one to five. These scores reflected that the nursing staff felt more confident in their knowledge of GDMT medications and their mechanism of action along with their knowledge of the statistical benefit GDMT offers this patient population. Project results revealed increased knowledge of GDMT therapy by 18%. The immediate impact on practice is an increase in knowledge for the nurses, which will promote the evaluation of GDMT through staff. Long term impact of this quality improvement project would be an anticipated reduction in mortality, cardiovascular risk, overall hospitalizations, and hospitalization for heart failure as proper treatment is implemented.
In Illinois, the do-not-resuscitate (DNR) form that is legally binding in all healthcare facilities is known as the Practitioner Orders for Life-Sustaining Treatment (POLST) form. The Patient Self-Determination Act (PSDA) of 1991 mandates only certain facilities to discuss advanced care planning (ACP). Primary care offices are not included in this mandate. Therefore, no structured process exists for primary care providers to identify patients who may benefit from ACP discussions. The purpose of this Doctor of Nursing Practice (DNP) project was to initiate conversations about ACP with patients 55 years and older in a primary care office and complete POLST forms when appropriate. A screening form was implemented into the clinic’s electronic medical record (EMR) which would prompt the intake staff to ask any patient 55 years or older if they had any advanced directives. If a patient answered no, the provider was notified by placing ACP forms outside the patient’s room to signal the provider to have a discussion with the patient. This project was implemented over a period of two months and the data gathered was compared with ACP on file before and after implementation. Prior to implementation, 20% of patients had ACP on file, and 19.4% after implementation, which is a decrease of 0.6%. The future recommendation for this project is to implement it in multiple primary care offices over a year to gain a broader, larger, and more diverse population of patients for the purpose of outcome evaluation.
Wesley Ferrill  
Tori Mattingly  
Lechi Nkwocha  
Doctor of Nursing Practice  
Family Nurse Practitioner Specialization

A Community Health Outreach Project Focused on Developing and Implementing a Culturally Competent Tobacco Cessation Education Toolkit

Tobacco use disorder is a public health problem with a heavy economic burden as tobacco users are more likely to suffer from premature death and debilitating diseases. Literature supports clinicians engaging their patients in smoking cessation conversation with each visit. However, the lack of appropriate training as well as the lack of a handy toolkit on smoking cessation makes this difficult. The challenge of engaging in smoking cessation conversations is more apparent with specific vulnerable populations such as the underserved community of East St Louis. This DNP project utilized evidence-based guidelines with best practice research, the Five A’s framework, and cultural competence to create an educational PowerPoint training for the staff at the We CARE Clinic in East St. Louis. In addition, the project involved the development of an educational pamphlet to engage with patients and provide education. The Staff was surveyed utilizing pre- and post-implementation surveys to test the effectiveness of our education on assisting the staff in engaging their patients on smoking cessation. On the post-test, 100% of respondents agreed they feel comfortable initiating a culturally competent conversation using the Five A’s framework compared to 40% on the pre-test. While limitations included a small respondent pool of five, this data shows a favorable result of the toolkit and the potential for further project expansion.
DNP POSTER PRESENTATION
Southern Illinois University Edwardsville
April 28, 2023
2:10 p.m. Session

Katherine Ellingson
Post-Master’s Doctor of Nursing Practice

*Hyperoxemia education to nurses to increase the adherence to oxygen weaning goals in inpatient COPD patients*

Hyperoxemia in patients with acute exacerbation of chronic obstructive pulmonary disease (AECOPD) are at risk for increased hospital stay, mechanical ventilation, and increased risk of death. Literature supports that establishing increased education to nursing staff on the risks of hypoxemia to increase adherence to oxygen weaning protocols has the potential to improve future practice. Oxygen weaning protocols are often not followed for concern of patient care. Nurses may believe to be helping patients when increasing oxygen, when they could actually be potentially harming them. Increased education on hypoxemia in COPD patients for the nursing staff will assist them to feeling more comfortable following oxygen weaning goals to achieve ordered O2 saturation for their patients. This DNP project focused on evidence based data for hyperoxemia in AECOPD patients with education for nurses to enhance their knowledge. The nurses were presented with an educational poster presentation and a post test to evaluate their hyperoxemia knowledge in AECOPD patients. The educational goal for improvement was to have the nurses to score 80% or higher on the post test. This goal was achieved, implying it was a successful strategy for improvement of knowledge. For future projects in this topic, it would be beneficial to have included a pre and post chart audit to evaluate if the education is being implemented into nursing practice.
Recognizing Barriers in the Elderly Population and Increasing Access to Case Management Services

Implementing case management can lead to fewer hospitalizations in the elderly population. Barriers influencing the number of hospitalizations include low socioeconomic status, transportation needs, health literacy, financial strain, multiple comorbidities, underserved populations, medication availability, availability of community resources, and access to primary care. A review of the available literature revealed that by addressing these barriers in a primary care setting and implementing case management, the number of hospitalizations can be decreased and the quality of life in the elderly population can be improved. This quality improvement project implemented a screening and referral process for chronic care management in the primary care setting. Patients aged 65 and above completed a questionnaire regarding their demographics and chronic medical conditions. Based on their answers, the participants’ providers placed a case management order if appropriate given their social needs and/or their chronic conditions. Out of 280 participants, 10 of them were given a referral to case management. After implementing the project, few referrals were placed since majority of the participants understood their chronic medical conditions and did not have many social disparities. This quality improvement project could be implemented in the future in other primary care clinics to increase the need for case management referrals. By implementing case management, we can address our patients needs and decrease the need for unwanted hospitalizations.
KeNecia Dones  
Doctor of Nursing Practice

*Understanding COVID-19 Vaccine Hesitancy in Underserved Populations*

Vaccination remains one of the most effective ways to limit the spread of infectious diseases and reduce mortality and morbidity in the United States, especially in underserved populations. African Americans and Latinos are eight times more likely to die than White Non-Hispanic populations of COVID-19-related complications. Although vaccines are currently offered and approved to anyone over 5 years old in the United States, there continues to be vaccine hesitancy in the underserved population. The purpose of this project was to understand vaccine hesitancy in underserved populations to promote vaccine confidence and build trust in patients to the point where they will seek to be vaccinated. The setting for this project was a local health department in an underserved community of East St. Louis, IL that provides both COVID-19 vaccinations and testing free of charge. With the demands of COVID-19, education is important. Providing patients with proper education helps patients understand the disease process and avoid misinformation from unreliable sources. Questionnaires were provided to patients during COVID-19 testing to understand vaccination status, reasons for not being vaccinated, and offered vaccine if applicable.
Brandy McCrudden  
Doctor of Nursing Practice

Implementing an EMR in a small psychiatric practice

Electronic medical records (EMRs) can aid in improving surveillance, monitoring, adherence to practice guidelines, improving communication, and reducing medical errors. The adoption of EMRs in psychiatry and mental health settings has been slow despite the offered benefits. This project aimed to develop an implementation and training plan to successfully transition from paper charts to EMRs in a psychiatry practice. An extensive literature review was conducted on the adoption of EMRs in mental health settings, and a guideline for implementation was created to overcome identified barriers. Implementation guidelines included a planning phase, staff training plan, and rollout using a phase-in approach. The planning phase consisted of assessing the staff's awareness and understanding, organizational needs, and training needs to minimize errors. The staff training plan was created based on the user skills assessment and practice needs to support workflow procedures to be done as intended. The phase-in rollout approach was selected to allow for a more focused area of implementation and reduce strain on the support time. A recovery plan was developed for system failure or power outages. Successful EMR implementation in mental health settings requires a proper implementation plan. Pre-implementation testing was conducted to minimize errors before go-live. Post-implementation feedback was collected and used to continue to improve workflows, efficiency, and user satisfaction. The clinic continues making improvements to increase acceptance and adoption of the EMR.
William Boyden
Doctor or Nursing Practice

Perioperative corneal abrasion: An investigation into preventive practices and educational interventions that limit corneal abrasions in the perioperative setting

Corneal abrasions are the most common ophthalmic injuries that occur in the perioperative period. Corneal abrasions that occur while the patient is under anesthesia are the result of either physical trauma, exposure, or patient specific factors. Common practices used to prevent corneal abrasions are employed by anesthesia providers, but no definitive strategy exists. Anesthesiology departments rarely develop a continuing education program that offers annual staff education activities to reduce corneal abrasions. This project reviews the most evidenced-based guidelines for corneal abrasion prevention techniques while developing an educational program focused on corneal abrasion prevention amongst a group of Certified Registered Nurse Anesthetists (CRNAs) at a large academic medical center in Southeastern Pennsylvania. An educational PowerPoint presentation was presented to approximately twenty-eight CRNAs focusing on reducing corneal abrasions in the perioperative setting to inform and educate (CRNAs) on the risk factors associated with increased occurrence of corneal abrasions in the perioperative setting and practices that can help reduce corneal abrasions. A pre-and post-test was performed to understand the effectiveness of the educational PowerPoint presentation. Following the completion of the post-test, the results showed there was a significant improvement in the knowledge base of CRNAs in a large academic medical center in Southeastern Pennsylvania.
Jeremy May
Doctor or Nursing Practice

Amniotic Fluid Embolism Diagnosis and Treatment Pathway

Access to care in rural areas can prove difficult for any patient, but especially for the expecting mother. Healthcare providers in these rural settings often lack the staffing and experience to effectively recognize and treat rare obstetric emergencies. Amniotic fluid embolism (AFE) is a rare medical emergency that requires healthcare providers to rapidly diagnose, monitor, and treat the sequela of resulting symptoms in the obstetric patient. After a literature review, a teaching session was developed and implemented as part of the annual training for 20 nursing staff at a small 50-bed rural hospital in central California. An 8-question pre-test was given to assess knowledge of AFE, and a PowerPoint presentation highlighting the key presenting symptoms, monitoring, and treatment pathway. After completing the PowerPoint presentation, a post-test was administered following the same format to all 20 nurses to assess key symptoms of AFE, ability to recognize treatment pathways and monitoring recommendations. This project is sustainable by the annual use of the PowerPoint for training and continued review outcomes of suspected AFE cases.
Utilizing Gastric Point-of-Care Ultrasound Assessment for Patients with Questionable NPO Status

Perioperative aspiration is a rare but serious complication with high morbidity and mortality for patients. This event often occurs from anesthetic depression of protective airway reflexes. NPO guidelines are implemented before anesthesia to eliminate the presence of any gastric contents. However, patients with certain comorbidities may still persist with a full stomach before an anesthetic. Patients may complicate matters further by not following NPO instructions, the patient’s NPO status may be unknown, or the timing of surgery may prevent adequate NPO times. In these situations, the anesthesia provider is faced with the difficult decision to alter, delay or potentially cancel the anesthetic and therefore the surgical procedure. Gastric point-of-care ultrasound (POCUS) can be used to assess the status of the patient’s gastric contents to objectively decide how to manage an anesthetic. The difficulty in the implementation of this tool lies in the level of confidence and efficiency of the anesthesia provider’s assessment to dictate decision-making. This project’s goal was to train anesthesia providers to feel more confident in their ability to utilize this tool to mitigate relevant risks. Short knowledge tests and opinion surveys were administered before and after training on gastric POCUS. Anesthesia providers improved in their willingness and confidence to continue usage of gastric POCUS in appropriate scenarios. This will provide cost savings and improve safety within our facility which ultimately adds value in our clinical setting.
Urinary catheterization, indwelling and intermittent are simple and common procedures performed in hospitals, emergency rooms, nursing homes, and clinics to ensure adequate urinary output in patients who cannot void efficiently or closely monitor fluid intake and output. Though simple and straightforward in most cases, catheterization can become a challenging procedure with complications in the absence of a standardized protocol for difficult catheterization (Ghaffary et al., 2013). This Quality Improvement Project aimed to develop a standardized Foley catheter algorithm/flow chart available in our institution's intranet and laminated charts in nursing stations and procedure rooms with Foley catheter insertion indications, types, sizes, mindful patient history, and indications to consult with the urology team to decrease complications and morbidities due to catheterization in patients as well as to decrease healthcare financial burden. Data collection for the project was done in the level one emergency room through a pretest to identify the areas of knowledge deficit, followed by a 20-25 minutes educational PowerPoint presentation for the staff (nurses, advanced practice providers, and physicians) in the emergency department followed by a posttest questionnaire to evaluate the efficacy of the education. The data were analyzed using the Wilcoxon signed-rank test, which showed that the 20-25-minute presentation on Foley Catheters elicited a statistically significant change in participants' knowledge on catheter.
Amrutha Panakkal  
Doctor or Nursing Practice

**Standardization of Perioperative Management of the Breastfeeding Women**

Mother's milk is the optimal nutrition for the term and preterm neonates. The psychological and physiological stressors in the perioperative setting can impede a lactating mother's ability to breastfeed in the postoperative setting successfully. A best-practice guideline incorporating a stoplight color-coding chart and categories such as ""safe,"" ""caution,"" and ""consider avoidance"" was used to group medications according to their safety for anesthesia providers in a large urban academic medical center in Pennsylvania. The evidence-based guideline also provided links to the hospital policy, LactMed, and Hale database to streamline resources and aid in the rapid decision-making of anesthesia providers in identifying the safety profiles of common medications administered in the perioperative setting. The best practice guidelines were published on the anesthesia department website for improved accessibility. The post-implementation survey results demonstrated that anesthesia providers would use this best-practice guideline during their clinical decision-making to support lactating mothers to continue breastfeeding after surgery. There were no guidelines directed to the care of this patient population at the host facility prior to the implementation of this project. The long-term effectiveness of this guideline can be evaluated through repeated assessments of staff knowledge and improvement in patient satisfaction. Standard perioperative practice for breastfeeding patients by encouraging resuming breastfeeding as soon as the mother can safely hold the baby can optimize outcomes for the mother and the baby.
Establishing a Diabetes Self-Management Resource for the Self-Pay Client in a Rural Clinic

Self-management of type 2 diabetes mellitus remains a prominent health concern across the United States. Adherence to treatment plans, medication, and glucose monitoring are often limited by out-of-pocket costs for the client. Diabetes Self-Management Education (DSME) is a set of domains that includes: medication adherence, glucose monitoring, nutrition, exercise, and effective coping mechanisms. DSME programs are provided across the United States helping those with Type 2 diabetes mellitus on their daily habits and management of the condition. DSME programs are largely unavailable to rural communities due to cost and distance barriers, resulting in diabetes education not being readily available in these communities. The greatest disparities are among individuals with Medicare, Medicaid, and without insurance. This project utilized DSME domains, alongside local resources, to formulate a DSME brochure conducive to a designated rural community in south central Florida. The brochure included information regarding affordable glucose monitoring supplies, free medication programs, and resources for: diet, exercise, and coping mechanisms. Brochures were initially designed for self-pay clients, but limitations and unexpected occurrences resulted in difficulty reaching clients without insurance; therefore, the final implementation included distributing brochures to all patients with type 2 diabetes mellitus. Over the implementation period, 220 DSME brochures were given to clients in the rural clinic over a 3-month period.
Improving Traumatic Brain Injury Outcomes: Early Identification and Management of Paroxysmal Sympathetic Hyperactivity

Background: Paroxysmal sympathetic hyperactivity (PSH) can occur in patients with acutely acquired brain injury and is associated with mortality, poor clinical outcomes, prolonged hospitalizations, physical disability, and increased healthcare costs. The most common cause of PSH syndrome is traumatic brain injury (TBI). Symptoms consist of hyperthermia, diaphoresis, arterial hypertension, tachycardia, tachypnea, and extremity motor dystonic posturing, often in response to evoked stimuli and occurs in 8% to 33% of TBI patients. Critical care nurses are at the forefront of providing direct patient care to TBI patients and are often the first to identify PSH. Purpose: The objective of this quality improvement project (QI) was to comprehensively evaluate the literature and provide evidence-based information regarding PSH to nurses, advanced practice providers, residents, and trauma/surgical critical care attendings who deliver care to TBI patients in a surgical trauma intensive care unit (ICU). Methods: An integrative literature review was performed, PowerPoint was created to conduct seminars, and pre-and post-test analyses were obtained to evaluate knowledge attainment of the management of PSH. The overall goal of the educational seminars was to increase scores by >20% for adequate knowledge attainment, which was obtained. Limitations: high acuity patients, staffing schedules, seminar timing, and lack of perceived educational need by providers. Conclusion: This QI project identified a gap in clinical knowledge and practice surrounding PSH in TBIs. Continuous education on PSH is imperative to promote early identification and timely management for prevention.
Background: Back pain is considered the leading cause of disability worldwide. Providing effective multidisciplinary care for clients with chronic back pain (CBP) has been an ongoing issue globally. Improper care management of CBP creates personal, economic, and societal burdens that significantly affect patients, their families, and the healthcare system. Purpose: The purpose of this quality improvement project was to successfully integrate a Spinal Care Pathway (SCP), including an electronic decision support tool (e-tool), into a multidisciplinary spinal care program, to improve providers’ satisfaction with the delivery of care and their satisfaction with CBP patient’s outcomes. Methods: This DNP project used an evidence-based quality improvement (EBQI) design to introduce an SCP e-tool into a multidisciplinary spinal care program in a secondary healthcare setting. The Institute for Healthcare Improvements’ Plan-Do-Study-Act cycle was used as the pilot change process to evaluate the effects of SCP use on CBP patients’ delivery of care and healthcare providers’ satisfaction rates. Results: Of the NSI staff who participated in the surveys, 57.14% agreed, and 42.86% highly agreed, that the SCP e-tool is and will be helpful in collaboratively triaging their CBP patients to the most appropriate care modalities to decrease pain and increase functionality. (N=7). Conclusion: The SCP e-tool is a novel clinical decision support tool that will provide an evidence-based method to improve care quality and delivery for CBP patients. The results revealed clinical relevance to support the integration of the SCP e-tool into the NSI’s secondary clinical practice setting.
Cassandra Adkins  
Doctor of Nursing Practice

New Graduate Nurse Professional Development Planning: Key to Retention

A 150-bed urban hospital in Chicago lacked a formal process to assist new graduate nurses (NGRN) in developing incremental goals as a part of their longitudinal plan during their first year of professional nursing practice. This left NGRNs feeling unsupported in their journey from novice to expert. With many NGRNs choosing to leave the nursing profession within the first year of practice, organizations must invest in programs to support their transition from academia to practice. This project implemented First Year Coaches and regularly scheduled touchpoints with NGRNs to increase intent to stay at the organization, feelings of support, and future professional development activity involvement. Fifteen NGRNs were enrolled in the Transition to Practice Program during project implementation and nine participated in professional development planning meetings. All NGRNs enrolled in the Transition to Practice Program completed the Casey Fink New Graduate Nurse Experience Survey and a confidential survey on intent to stay and intent to participate in future professional development activities. NGRNs participating in monthly professional development planning meetings felt supported in their new professional nursing role and 100% of program participants reported their intent to stay at the organization for one year after their hire date. In addition, participants reported a desire to participate in future professional development activities.
Enhancing Communication Pathways Between Care Environments to Improve Patient Outcomes

Conducting hand-off communication among healthcare providers can impact patient outcomes. Lack of communication between healthcare entities at the time of care transition can produce patient harm and lead to adverse events such as medication errors, hospital readmission, and unnecessary emergency department visits. The project goal was to evaluate the impact of communication between acute care and primary practice nurses using a standardized, electronic communication tool within the EHR upon patient discharge from a community-hospital based setting. During implementation, forty-two patients were included in the project based on primary practice follow-up location. Of the 42 eligible patients, the acute care nurses successfully transmitted electronic hand-off communication on 36 patients to the appropriate primary care practices. After the adoption of the electronic hand-off communication tool, only one patient (2%) was readmitted within 30 days of hospital discharge. In addition, only one of the 42 patients visited the emergency department during the project implementation period. Nursing engagement supporting the use of an electronic hand-off communication tool was apparent during implementation based on participating feedback from nurses recommending continued use of the standardized, electronic communication tool. By using an electronic communication tool, care transition was enhanced at the time of hospital discharge. Adverse outcomes, such as hospital readmission, can be prevented through hand-off communication between the acute care and primary practice settings at the time of patient discharge.
Cindy Wallace  
Doctor of Nursing Practice  

*Increasing Education and Awareness of Patients who Identify as Transgender in Primary Care*

Background: Lesbian, gay, bisexual, and individuals who identify as transgender and queer (LGBTQ) often experience negative healthcare encounters (Parameshwaran et al., 2017). According to the Williams Institute of Law (2022), there are 1.3 million adults who self-identify as transgender. This education project utilized a pre/post-test design to explore attitudes, practices, and knowledge of primary care providers when interfacing with individuals who identify as transgender in primary health care settings. Theoretical Framework: This project was guided by Lewin’s Change Theory. Methods: Primary care providers in an urban community health clinic received a pre and post-education survey. A teaching session was delivered to the primary care providers to increase knowledge and awareness of treatment modalities needed to improve health care for this population. Results: Surveys were sent to 10 providers. Pre-test surveys were received from 100% of providers (n=10), and post-test surveys were received from 80% of providers (n=8). Post-test scores revealed substantial differences on some survey items. Participants on the post-test indicated a higher average agreement with the statement “I have sufficient training to provide primary care to patients who identify as transgender” compared to pre-test data (mean = 4.25; mean = 3.5, respectively). Implications for Practice: Future work in this area should include teaching and educational programs in the healthcare curriculum to increase the knowledge and awareness of primary care providers when interacting with individuals who identify as transgender.
Enhancement of a Peer Mentorship Program for Student Registered Nurse Anesthetists

Nurse anesthesia programs are associated with rigorous didactic work, doctoral projects, long clinical days, and high levels of financial debt (Mesicsa & Mainwaring, 2021). Doctoral students experience significantly higher levels of stress than other graduate students, necessitating resources that support emotional wellness (Griffin et al., 2017). A mentorship program for student registered nurse anesthesiologists (SRNA) may help minimize perceived stress and lessen the adverse physical and psychological effects. While mentorships foster both personal and professional success for mentees, mentors also report increased interest in professional development, productivity, and satisfaction (Flexman & Gelb, 2011). This study aimed to evaluate the effectiveness of an established SRNA peer mentorship program in reducing stress and anxiety and improving confidence levels. The literature review identified four recommendations to foster program improvement: (1) match mentees with mentors of similar backgrounds, (2) integrate more structure, (3) assign mentors after admission and (4) involve faculty as mentors. Student mentors and mentees were surveyed to assess perceptions about the current program and the literature review findings. Results revealed SRNAs would like to be matched with peer mentors from similar backgrounds, ages, and life experiences and, during their third year, certified registered nurse anesthetists.
Andrea Perkins  
Doctor of Nursing Practice

**Assessment of Caregiver Burden in a Memory Loss Clinic**

Background Information: Over 131,000 people in Illinois identify themselves as caregivers of someone with memory loss. The family caregiver may provide care including, but not limited to, assistance with activities of daily living, financial responsibilities, behavior management, and scheduling, and transportation to medical appointments. The care provided by the caregivers may lead to caregiver burden symptoms of depression, anxiety, and perceived stress. Purpose: Health care providers at a central Illinois memory clinic are not currently completing formal assessments of caregiver burden. This quality improvement project was done to determine if the current memory loss program services provide enough support to prevent caregiver burden in caregivers of people with memory loss or if further intervention is needed. Methods: Assessments were completed during a ten-day clinical period in a memory loss clinic. The Zarit Burden Interview (ZBI) and a demographic questionnaire were offered to each caregiver presenting to the memory clinic. Results: Twenty-five caregivers participated in this project, and all participating caregivers reported some degree of caregiver burden. Demographic information, patient Mini Mental State Exam scores from the clinic visit, and ZBI scores were evaluated to determine trends of contributory factors for caregiver burden and/or control of caregiver burden. The caregiver burden results revealed by the ZBI assessment, support the need for implementation of a formal caregiver burden assessment within the clinic. Further study into interventions is recommended to help reduce the symptoms of caregiver burden.
Empowering Nurses to Recognize Post-Stroke Depression in the African American Community

African Americans (AA) have the highest prevalence of stroke and death compared to other racial groups in United States. Post stroke depression (PSD) affects approximately 1/3 of all stroke patients and is under-diagnosed in the African American community. Aim: By using an mHealth mobile app and Psychiatry provider list at discharge, PSD can be identified and interventions initiated, thus decreasing the sequela of PSD in AA. Methods: Nurses were provided education on PSD, expressions of depression in African-Americans, cultural humility, implicit bias, and importance of nurse role in the development of a therapeutic relationship. Results: Quantitative analysis revealed the mean score of the pre-education test was 56% and the post education test was 95%. There was a 59% increase in recipient knowledge after education was provided in comparison to pre-education. Stroke nurse navigators provided quantitative data to measure PHQ2 at seven and 30 day follow up and whether or not the provider list and mHealth app were utilized. 100% of the post-implementation surveys demonstrated the use of the knowledge gained during the implementation and an increase in comfortability discussing PSD. Limitations: Stroke unpredictability, therapy needs, hospital discharge timing, small sample size, time limit of implementation and no 30 day post-stroke follow-up data. Of the 31 patients discharged that received a seven-day follow-up call, only three were AA. Conclusion: With education nurses are empowered to recognize PSD and initiate intervention, reducing the sequela of PSD in the AA community.
Retention of New Nurses in the Cardiovascular Operating Room

Background In January of 2020, an academic medical center in Springfield, Illinois started the year with seven full-time circulating nurses in the cardiovascular operating room (CVOR). Three of those nurses left before the end of the year and an additional four nurses were hired. In January of 2021, the CVOR began the year with eight nurses. Five of these nurses left by the end of the year and seven more were hired, one of which left before the end of 2021. This department has struggled to retain nurses, with a turnover rate of 42.9% in 2020 and 62.5% in 2021. Purpose The purpose of this project is to identify dissatisfying factors in the CVOR that are leading to high turnover rates. Methods Eight nurses in the summer of 2021 completed the Revised Casey-Fink Nurse Retention Survey. Survey results were reviewed and discussed with each nurse to obtain individual feedback. Results Surveys found that the top dissatisfying factors were the orientation process and the education provided in CVOR. Nurses described the orientation process as messy, rough, difficult, unorganized, and all over the place. Four nurses said they did not want to be working in the CVOR in five years. Three said they would consider leaving their job if another opportunity presented itself. Three said they had been in their position about as long as they wanted to be. Three nurses were either very dissatisfied or moderately dissatisfied with the orientation process, with one more being neither satisfied nor dissatisfied. Majority of nurses did not have a mentor. They also felt their educator not having operating room experience was a downfall.
Implementation of Written Discharge Instructions for Common Diagnoses in an Urgent Care Setting

Discharge instructions are an important tool providers use to communicate information to patients about their medical diagnosis after they return to their home environments. When patients understand and follow discharge instructions there are improved outcomes, fewer callbacks, and decreased return visits. The purpose of this quality improvement project were (a) to develop and distribute discharge instructions at or below a sixth-grade reading level, (b) on common diagnoses appropriate for a rural community, (c) decreased the need for subsequent office visits, and (d) decreased call volumes at a rural walk-in clinic. A large-scale literature review was conducted to determine the most appropriate literacy level for patient summaries, to examine the benefits of providing written instructions in conjunction with verbal instructions, and to investigate potential barriers to patient adherence and follow up. Pre and post surveys were conducted with both the practitioners utilizing the summaries and with patients who received the written instructions who had previously been evaluated in the clinic and given verbal instructions only. Results demonstrated patients liked the new summaries, found them easy to read, helpful, and referred to the summaries after going home. Practitioners utilizing the new written discharge instructions felt comfortable using and locating the sheets in the internal hard drive. Providers also felt the summaries were beneficial and easy to read. Limitations included the small sample size and inability to incorporate the summaries into the electronic medical record [EMR].
LaToya Hayward  
Doctor of Nursing Practice

**Implementation of Routine Screening to Detect Early Cases of Depression and Anxiety in Hispanic Adolescents in the Primary Care Setting**

Depression and anxiety are among the leading causes of illness and disability in adolescents and are two of the most prevalent mental health conditions in Latino youth. If left unrecognized and untreated, these conditions can lead to decreased quality of life and increased rates of suicide. Researchers recommend early mental health screening in the primary care setting. Through routine screening using evidence-based screening tools (PHQ-9 and GAD-7), the primary goal of this quality improvement project was to increase early detection of depression and anxiety in primary care and initiate early treatment. Project methods included implementation of new workflow, developing a referral toolkit, and staff education through PowerPoint presentation. Project evaluation assessed pre- and post- survey results and quantitative data from pre- and post-implementation screening. Results indicate all staff (N=2) strongly agreed there was a need for routine screening in their practice, routine screening would help identify early cases of depression and anxiety, and confidence in sustainability. Three-months pre-implementation, screenings occurred during 11 of 38 visits (28.94%); and 64 of 70 visits (91.43%) post-implementation. Post implementation mental health referrals were provided during 10 of 13 positive PHQ-9 assessments; one refusal and three were missed. All nine positive GAD-7 cases were provided referrals, three patients refused. Routine screening in primary care can facilitate early identification of adolescents who are at risk, leading to early interventions and treatment. Early interventions and treatment can help improve and/or resolve symptoms in the Hispanic populations.
Emily Hartmann  
Doctor of Nursing Practice  
Family Nurse Practitioner Specialization

**Improving HPV Vaccination in Adolescents**

Human papillomavirus virus (HPV) is a sexually transmitted disease that can negatively affect both males and females by leading to cervical, vaginal, vulvar, anal, penile, and oropharyngeal cancer. Vaccinating against HPV using the Gardasil vaccine is an effective method to prevent HPV, however, vaccination rates are still unacceptably low in adolescents ages 11 to 14. Pediatric providers should encourage and strongly recommend HPV vaccines to all adolescents. Addressing and easing parental hesitancy is a key component to improving vaccine acceptance. The setting for the project was a rural pediatric office in southern Illinois where HPV vaccination rates are lower than expected. Implementation included a one-minute video viewed by the patient and guardian, an educational handout highlighting HPV vaccine safety and efficacy, HPV poster in each exam room, and a follow-up conversation with the provider. Providers used the ANNOUNCE method and bundling technique to improve vaccine acceptance rates. Of the 44 participants, 20 received the vaccine (45%), 8 declined the vaccine (18%), and 16 plan to receive the vaccine at the health department due to insurance constraints (36%). The providers and support staff at the clinic will continue to use the educational tools in daily practice. A multifactorial parental education approach, as well as a strong recommendation from the provider, is most effective in increasing HPV vaccination compliance.

Spinal surgeries can lead to an increase in costs and complications for patients and hospital organizations. Complications following spine surgery have been identified in 16.4% to 80% of cases for spine surgeries. An Enhanced Recovery after Surgery (ERAS) protocol is a set of guidelines with the goal of improving surgical outcomes and improving a patient’s quality of life. The purpose of this quality improvement project was to implement an ERAS protocol for adult cervical spine surgery patients at a tertiary care teaching center with the goal to reduce hospital length of stay and readmissions. Inclusion criteria included adult patients undergoing cervical spine surgery with a focus on cervical fusion surgeries. The evaluation centered on the comparison of outcome measures prior to the ERAS protocol and post ERAS implementation. Six hundred adult cervical spine fusion cases occurred from May 26, 2022 to August 23, 2022 with 132 cases using ERAS protocol. Patients with the non-ERAS protocol had readmission rates of 4.3, while ERAS protocol patients had a readmission rate of 3.2. Length of stay in non-ERAS patients resulted in 7.2 days, while ERAS patients had a length of stay of 4.7 days. This study resulted in reduced length of stay, hospital readmissions, and overall costs. Few limitations occurred. The ERAS protocol had a positive impact on patient outcomes and practice improvements were achieved.
DNP POSTER PRESENTATION
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Anthony Nungesser
Doctor of Nursing Practice

Dexmedetomidine as an Adjunct Therapy to Neuraxial Anesthesia in Labor and Delivery

In 2011, the Centers for Disease Control (CDC) declared the opioid crisis an epidemic, and in 2017 it was declared a public health emergency. In labor and delivery, neuraxial anesthesia has been used for over a hundred years to provide pain relief for parturients. Although many alternatives have been studied, opioids are the most frequently used local anesthetic adjuvants, and their use in neuraxial blocks has evolved over the last 50 years (Swain et al., 2017). While neuraxial opioids have proven to be an effective adjunct for pain relief, they are associated with undesirable side effects as well as the exposure of the patient to the opioid itself. With the push for opioid-free techniques, researchers have searched for non-narcotic alternatives that can provide the same benefits as their narcotic counterparts. Dexmedetomidine (DEX) is an opioid-free, selective alpha-2 agonist that has been shown to be equal to, and in most cases, superior to opioid additives in neuraxial blockade (Qi et al., 2016). This project aimed to educate and institute a protocol for anesthesia providers in the Obstetric department of a suburban hospital in Bradenton, FL about using neuraxial Dexmedetomidine as an opioid-free replacement for patients during the entire labor process. The sample group was given a pre-test to assess their knowledge and experience with neuraxial DEX and their initial feeling on implementing DEX into their practice. Upon completing the pre-test, the group was given a PowerPoint presentation and all questions were answered satisfactorily. Approximately two weeks after training, the sample group was given a post-test to assess knowledge retention and willingness to implement DEX into their current practice. This quality improvement project successfully provided education for the present and future anesthesia providers that participated in it. This was evidenced by the combined 64% increase in knowledge of the use of this adjunct of the licensed providers and the 87% increase in the student’s knowledge. In addition, and perhaps more importantly, roughly 32% more licensed providers replied that they were more likely to incorporate the use of this adjunct into their practice. This knowledge and willingness to implement change will benefit the anesthesia providers, nursing staff, physician staff, and, most importantly, the patients.
Kelci Steeples
Post-Master’s Doctor of Nursing Practice

*Alternate Route of Medication Administration to Treat Pain at the End of Life*

Over 75% of hospice cases fail to eliminate pain despite high quality hospice care (Herr et al., 2010). The purpose of this quality project was to improve pain management in end-of-life patients via subcutaneous medication administration. An orderset was created to include subcutaneous infusion medications using the collaborative efforts of pharmacy leadership and palliative medicine leadership. Patients requiring pain management who were under hospice or palliative care and, lost intravenous (IV) access, were considered for this quality improvement project. A total of eleven patients met project qualifications, but unfortunately, two patients passed away before receiving pain medications subcutaneously. Project findings demonstrated similar pain scores when comparing the subcutaneous to intravenous route in nine of eleven patients.
Kristen Conkle
Doctor of Nursing Practice

Caring for the Adult Patient with Autism Spectrum Disorder

There are disparities in knowledge among healthcare workers when caring for adult patients with autism spectrum disorder (ASD). Lack of knowledge about the characteristics of this population and strategies to enhance care pose a barrier to treatment during hospitalization. A computer-based educational module was developed and assigned to staff at a community hospital. An online toolkit for healthcare providers was developed to aid staff in recognition of triggers and supplied adjunct methods for communication. A pre and posttest of healthcare provider knowledge and stigma regarding autism was performed. Evaluation of pre and posttest data showed an increase in knowledge regarding ASD. Notable was the increase in staff confidence reported in identifying stressors and recognizing the signs and symptoms of ASD. The project increased awareness and started a dialogue among providers to enhance care for patients with autism and other sensory processing disorders.
CBT Technology Implementation with Pediatric and Adolescent Populations

Digital therapy is a growing healthcare intervention improving limited access to specialty care for specific populations and geographic areas. Cognitive Behavioral Therapy (CBT) applications focus on treating anxiety and depression and assist pediatric and adolescent patients in learning behavioral techniques as they wait for 3-6 months or longer to see a mental health provider. Such delays are attributed to the national shortage of mental health practitioners and the further scarcity of fewer psychiatric providers in rural areas, causing the potential for adverse patient outcomes. The setting for this 8-week quality improvement project was a pediatric care clinic that sees an average of 30 to 60 patients a day. The practice had four providers at project commencement, but the number of providers unexpectedly reduced to two, dramatically decreasing project participation. Several pediatric patients aged 11-18 were referred to the CBT applications, but only one patient accessed the app, used it, and found benefits. The remaining three patients were lost to follow-up. The execution of this intervention is straightforward for providers to incorporate into their practice. Providers can suggest smartphone CBT apps to patients, knowing it may take months to complete an initial mental health referral and evaluation. Future considerations include more significant support from all providers and clinic staff, applying this intervention in a larger clinic, and re-tooling the project for primary care patients across the lifespan who present with symptoms of anxiety or depression.