SRNA SEDATION SEQUELS

FALL 2024 | FIU Miami, FL

Dr. Ann Miller

Effective October 8, 2024, on behalf of FIU's Nicole Wertheim College of Nursing & Health Sciences, Dean Valdes officially appointed Dr. Miller to Chair of the Nurse Anesthesiology Program. She was previously operating as Interim Chair and works relentlessly to make this program one of the best in the nation!

Dr. Ann Miller Holiday Wishes

This year marked many milestones in the FIU Nurse Anesthesiology Program, 13 new clinical sites, cohort 2024 winning our first FANA College Bowl, the highest SEE scores in the history of the program, the highest pass rate on the NCE for cohort 2023, and faculty being awarded national awards for their scholarship, service and teaching.

Cohort 2024 received their Doctoral Hood on 12/13/24, and there wasn't a dry eye in the house. With unforgettable memories and lifelong friendships, the Hooding ceremony and commencement mark the forging of new careers.

Cohorts 2025 and 2026 are currently in the trenches of the program, but like so many before them, will rise from the ashes unscathed and stronger.

I can't thank enough, the faculty and the clinical coordinators for their eternal commitment to the students and the program. Their commitment is never-ending and is at the heart of the program's success. They are consistently inspiring and mentoring future world-class CRNAs who themselves will foster intellectual curiosity and thinking.

It is with the utmost gratitude that I say thank you to all the faculty, staff, students, clinical coordinators, and CRNAs, and wish everyone a beautiful holiday season and a Happy New Year.

Warmest regards,

Dr. Ann Miller

Chair of the Nurse Anesthesiology Program

About Our Class

Each year, our Nurse Anesthetist students are charged with completing a DNP project as part of their degree. These projects are very successful and give students the important experiences to produce research and scholarship during their academic career. Many of our students receive opportunities to travel to conferences to present their projects and publish articles in scholarly publications. The College seeks philanthropic support to provide these experiences for our students as the university does not cover these costs. Please consider supporting our students with a tax deductible gift:

Recent Events

Class of 2024 DNP Symposium

Congratulations to the graduating class of 2024 who presented their final projects on December 2, 2024!

3rd Annual Nurse Anesthetist Recruiter Event

Please join us on Saturday September 20th, 2025 for our student run 3rd annual nurse anesthesia recruiter event!

FREE for students, alumni, and practicing CRNAs

$650 for anesthesia groups, financial planners, and medical representatives to present

email eeste046@fiu.edu to RSVP

DONATE TODAY!

You can make your tax deductible gift in one of two ways:

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On the memo line note: NWCNHS Nurse Anesthetist Program.

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FIU | Nicole Wertheim College of Nursing & Health Sciences

Professor Spotlight

Congratulations Dean Jorge Valdes!

The Mark Welliver Award for Excellence in Education

Established to honor the enduring legacy of Dr. Mark Welliver, CRNA, a trailblazer in nurse anesthesiology education, this prestigious award recognizes outstanding dedication, innovation, and leadership in the field.

Presented annually, it celebrates educators whose work embodies Dr. Welliver's passion for excellence, mentorship, and the advancement of nursing education.

This year, our esteemed dean has been honored with this award, highlighting his remarkable contributions not only to our program but also to the broader nurse anesthesiology community. This reward signifies his dedication to transformative efforts of positive change, inspiring excellence in the next generation of nurse anesthetists and shaping the future of the profession.

Congratulations Dr. Valerie Diaz!

Inducted to Class of 2024 Fellows of the AANA

Earning the designation of Fellow of the AANA (FAANA) is a significant career milestone for CRNAs, recognizing their dedication to advancing the nurse anesthesia profession. It reflects a commitment to leadership, advocacy, innovation, and excellence in areas such as patient safety, research, education, and healthcare policy. FAANA designees play a pivotal role in transforming the healthcare landscape by contributing to the AANA, state associations, and broader efforts to improve health equity and the global delivery of nurse anesthesia care.

She is a distinguished educator and senior naval officer, is the 2024 Florida International University Top Scholar in teaching and a staunch advocate for Navy CRNAs, having served as Specialty Leader, Chief Nursing Officer, and Director of Nursing Services.

NEW PROFESSOR ALERT!!!

DR. KESHIA GATTORNO
FIU Alumni c/o 2018

Since graduation, Dr. Gattorno has worked at Nicklaus Children's Hospital, Baptist Hospital, Jackson West and in several outpatient and office-based anesthesia practices. She was an adjunct professor for a year before joining the program full-time as a Visiting Clinical Assistant Professor. She is honored to teach at FIU alongside some of the same professors & colleagues that helped shaped her career. She enjoys teaching for the opportunity to watch and assist students in developing both didactically and clinically from nervous & novice RRNAs into confident and remarkable anesthesia providers.

FACULTY RECOGNITIONS

DR. YASMINE CAMPBELL
2024 RETI Award Recipient

Dr. Campbell received the RETI Award (Rewarding Excellent Teaching Incentive).
The RETI awards are intended to recognize faculty working to create learning-centered, inclusive classroom experiences by using evidence/information from their classrooms to inform instructional design and practice.

FANA 2024

Orlando, FL, October 3-5, 2024

FANA 2024

FROM THE PODIUM: By Lindsey Bell Class of 2024

Presenting my DNP project at the Florida Association of Nurse Anesthesiology (FANA) Annual conference was an exhilarating and deeply rewarding experience. It was more than an opportunity to showcase my research, it was a moment to contribute to the profession I love, connect with like-minded professionals, and inspire the next generation of CRNAs, currently practicing CRNAs, and even RNs who are hoping to one day apply to CRNA school.

Preparing for the presentation started long before I stepped onto the stage. It involved a few extra hours of research, analysis, and practice, not to mention overcoming the jitters of speaking in front of a crowd. But, in the end, those hours really paid off. The experience pushed me out of my comfort zone but also reminded me why I chose my specific DNP project topic, to make a meaningful impact.

Presenting at FANA was one of the most fulfilling experiences of my academic journey. It reminded me of the power of sharing knowledge and how our collective efforts can drive change in anesthesia and healthcare. Don't hesitate to put yourself out there; the experience will not only advance your career but also empower you to be a leader in the nurse anesthesia community.

Tips for Future Student Presenters

If you're considering presenting your research, here are a few tips to help you shine:

1. K**now Your "Why":** Ground your presentation in the purpose of your project. Why does your research matter? Knowing this will give you confidence and help you connect with your audience.
2. **Practice, Practice, Practice**: Start early and rehearse in front of peers, mentors, or even the mirror. Familiarity with your material will help you stay composed and adapt to any unexpected moments.
3. **Keep It Clear and Concise:** You might be deeply familiar with the nuances of your research, but not everyone in the audience will be. Simplify your main points to make them accessible without oversimplifying your work. You might even consider reviewing topics to make sure the audience can fully understand your work.
4. **Engage the Audience:** Start with an interesting fact or question to hook your listeners. Maintain eye contact and use relatable examples to keep them engaged throughout. Be ready for questions at the end and embrace them as an opportunity to clarify your work or share their own personal experiences with your topic.
5. **Be Yourself:** Authenticity resonates with people. Sharing personal anecdotes or insights can make your research more relatable and memorable.
6. **It's a Conversation, Not a Lecture:** Engaging with the audience turned my presentation from a one-sided speech into a dynamic exchange. This kept my audience engaged and interested throughout the entire presentation.

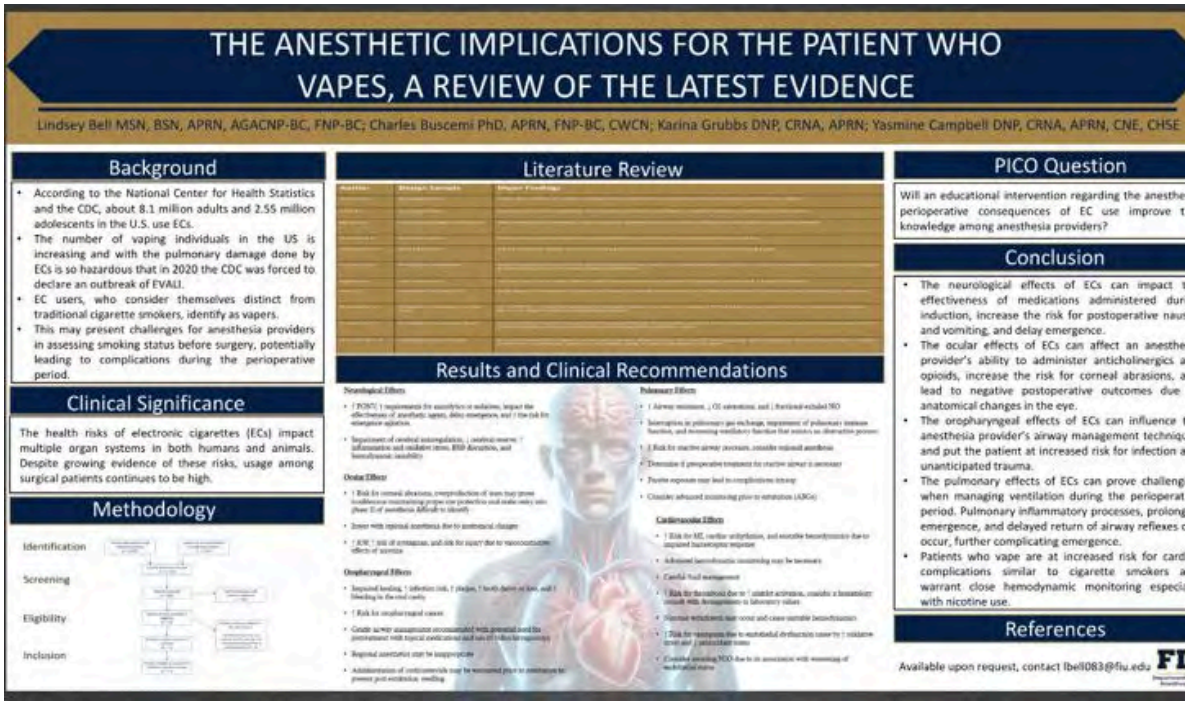
FANA 2024

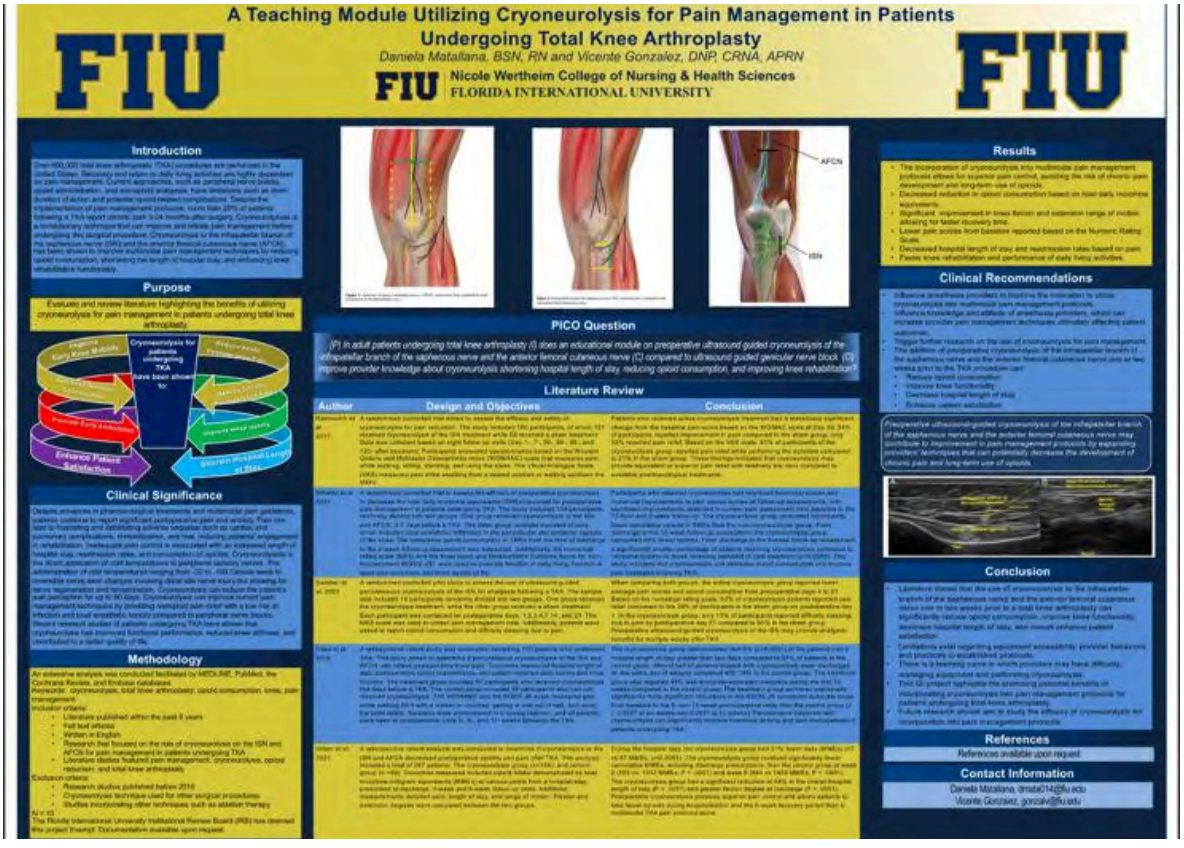
CONGRATULATIONS CLASS OF 2024 FOR WINNING COLLEGE BOWL: A FIRST FOR FIU!

By: Ashley Lema Class of 2025

On October 5th, 2024, five FIU graduating seniors competed against students from other nurse anesthesiology programs within Florida at the FANA Annual College Bowl. This event challenged students to face off in a head-to-head, moderated game show testing their anesthesia knowledge. The energy in the room was palpable as FIU outperformed each opponent one by one, advancing to the final round and ultimately claiming victory. As a student body, we look forward to continuing this winning streak at next year's annual college bowl by bringing home the trophy!

AANA ANNUAL CONGRESS FIU POSTERS





AANA ANNUAL CONGRESS FIU POSTERS

FIU

Erector Spinae Plane (ESP) vs Transversus Abdominis Plane Block (TAP) in Decreasing Opioid Consumption After Laparoscopic Surgeries: An Evidence Based Review

Jennifer Lopez, BSN, RN, CCRN; Yasmine Campbell, DNP, CRNA, CNE, CHSE
Florida International University Nicole Wertheim School of Nursing and Health Sciences

FIU

INTRODUCTION

Despite being minimally invasive, laparoscopic surgeries run the risk of causing moderate to severe levels of pain post-operatively because of the addition of visceral pain that is a result of the pneumoperitoneum needed to proceed laparoscopically.[1] Untreated post-operative pain leads to prolonged recovery, patient dissatisfaction, exacerbation of comorbidities, and worse outcomes. Currently, anesthesia providers use opioids or perform transversus abdominis plane (TAP) block to combat this pain. A TAP block has been seen to be inconsistent in blocking necessary spinal levels and does not contain visceral pain-relieving effects. Erector spinae plane block is a novel technique that has been increasingly used across various surgeries with promising results in pain-relieving effects due to its wide coverage of analgesia and visceral pain-relieving effects.[2]

PROJECT PURPOSE

- Incorporating regional blocks, particularly ESP and TAP, into a multimodal anesthetic plan has shown promising results in decreasing opioid consumption, increasing patient satisfaction, and accelerating recovery time.
- This evidence-based review sets out to discover a regional anesthetic, either a ESP or TAP block, that can produce better patient outcomes after laparoscopic surgeries, as pain remains an issue for up to 70% of patients.[3]

METHODOLOGY

- 3 databases: Embase, Pubmed, Medline
- Inclusion criteria = published within the years of 2017-2023, only RCTs, contained participants within the age range of 18-65 years old, written in English, had full-text accessibility, and pertained to the topic of interest.
- 127 articles were initially identified; 15 were accepted after applying the inclusion and exclusion criteria

PICO

In adults undergoing laparoscopic surgeries, which regional anesthetic technique, erector spinae plane (ESP) or transversus abdominis plane block (TAP), is more efficient in decreasing opioid consumption?

Image reference https://www.nysora.com/erector-spinae-plane-block/ & https://www.nysora.com/techniques/truncal-and-cutaneous-blocks/truncal-and-cutaneous-blocks/

Literature Review Table

Author	Design Sample	Major Findings
Altiparmak et al, 2019.	Randomized controlled trial.	ESP block administration prior to a laparoscopic cholecystectomy contributes to a vast reduction in tramadol consumption post-operatively, in NRS scores at each time frame post-surgery, and in rescue doses of opioid analgesics.
Altinsoy et al, 2022.	Randomized controlled trial.	Performing a unilateral ESP block for a patient undergoing a inguinal herniorrhaphy caused lower PCA usage, reduced NRS scores, and higher QoR-40 scores.
Vrsajkov et al, 2018.	Randomized controlled trial.	A TAP block showed to cause lower pain scores and less tramadol usage post-operatively.
Zhao et al, 2021 .	Randomized controlled trial.	As moderate post-operative pain is associated with laparoscopic colorectal cancer surgery, a posterior TAP block proves to show success in decreasing analgesic requirements more than no regional anesthetic technique

RESULTS

Administering anesthesia for a laparoscopic case is much more common than doing so for an open-abdominal procedure because as time has progressed and technology has advanced, surgical instruments have been created to enter the abdomen through small keyhole incisions. However, post-operative pain remains a critical unsolved issue that leaves the patient vulnerable to post-operative complications. With the evidence provided within the 15 articles and information that was provided throughout these studies, it can be concluded that a multimodal approach with the inclusion of an erector spinae plane (ESP) block was found to be the most effective way to treat post-operative pain after a laparoscopic procedure because of its visceral pain-relieving effects and its ability to provide a wider analgesia coverage.[3] Patients experienced less pain by documentation of pain rating scores, needed less rescue analgesia, used the PCA pump less, and were overall more satisfied.

IMPLICATIONS

- ESP blocks → wider coverage of analgesia and have shown to have the missing visceral aspect that has not been able to be adequately treated with IV medications or a TAP block.[3] Also, is more consistent in blocking T7 & T8 dermatomes unlike a TAP block..
- ESP blocks → decrease opioid consumption, NRS pain scores, PCA pump usage, and receive higher patient satisfaction based on questionaries.
- Anesthesia providers should consider incorporating an ESP block for laparoscopic cases to reduce opioid consumption and improve patient satisfaction.

REFERENCES

Available upon request, contact jlope562@fiu.edu

FIU

UTILIZATION OF ARTIFICIAL INTELLIGENCE ALGORITHMS IN THE PERIOPERATIVE MANAGEMENT AND REDUCTION OF PAIN: AN EVIDENCE-BASED EDUCATIONAL MODULE

By Cristine Jacob, BArch, MSGeog, RN, BSN, MSN and Valerie J. Diaz, DNP, CRNA, PMHNP-BC, APRN, CNE, CHSE, CAPT, USN, NC

FIU

BACKGROUND

PICO

RECOMMENDATIONS

RESULTS

CLINICAL SIGNIFICANCE

- Potential advantages & disadvantages
- Educational Impact
- Patient Advocacy
- Ethical Considerations
- Interdisciplinary Collaboration

PROJECT PURPOSE

- Literature review
- Educational module initiative
- Results dissemination
- Encourage further research

LEARNING OUTCOMES

- Enhance professional awareness
- Discuss the relevance, benefits and challenges
- Promote ethical insights
- Encourage anesthesia advancement

RESEARCH OBJECTIVES

- Effect on physiological surgical outcomes
- Compare AAI vs NOL sensitivity & specificity
- Impact on opioid overdosing & underdosing
- Assess provider's current perception

METHODOLOGY

Literature Review

LIMITATIONS

REFERENCES

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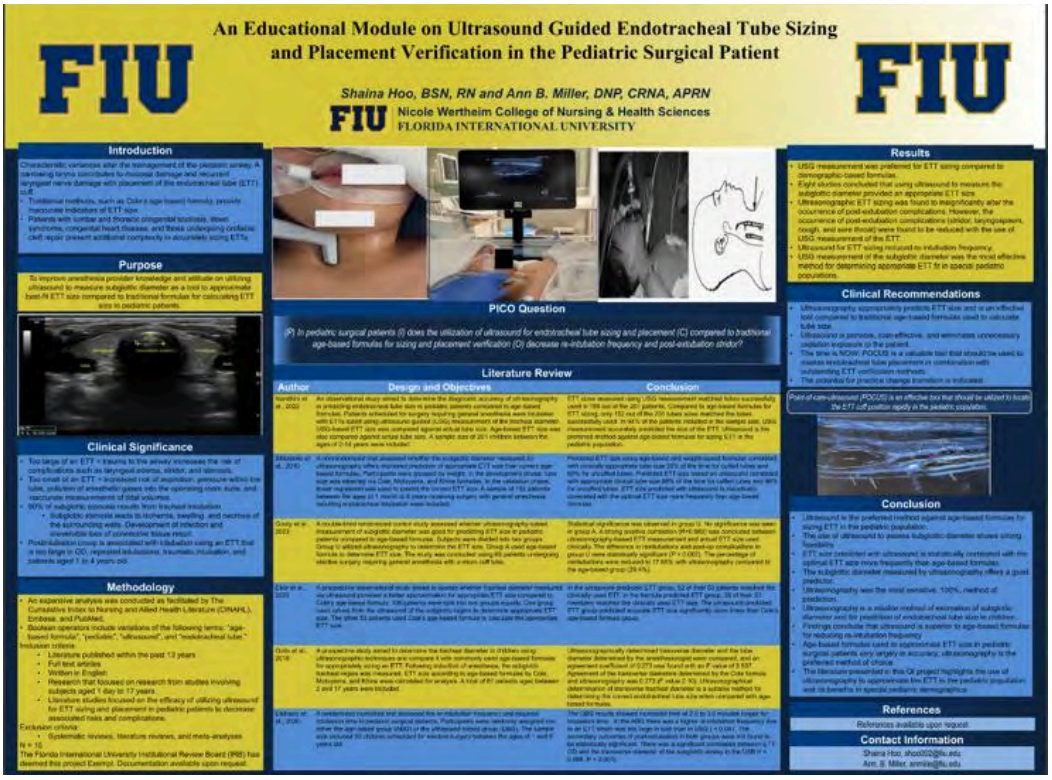

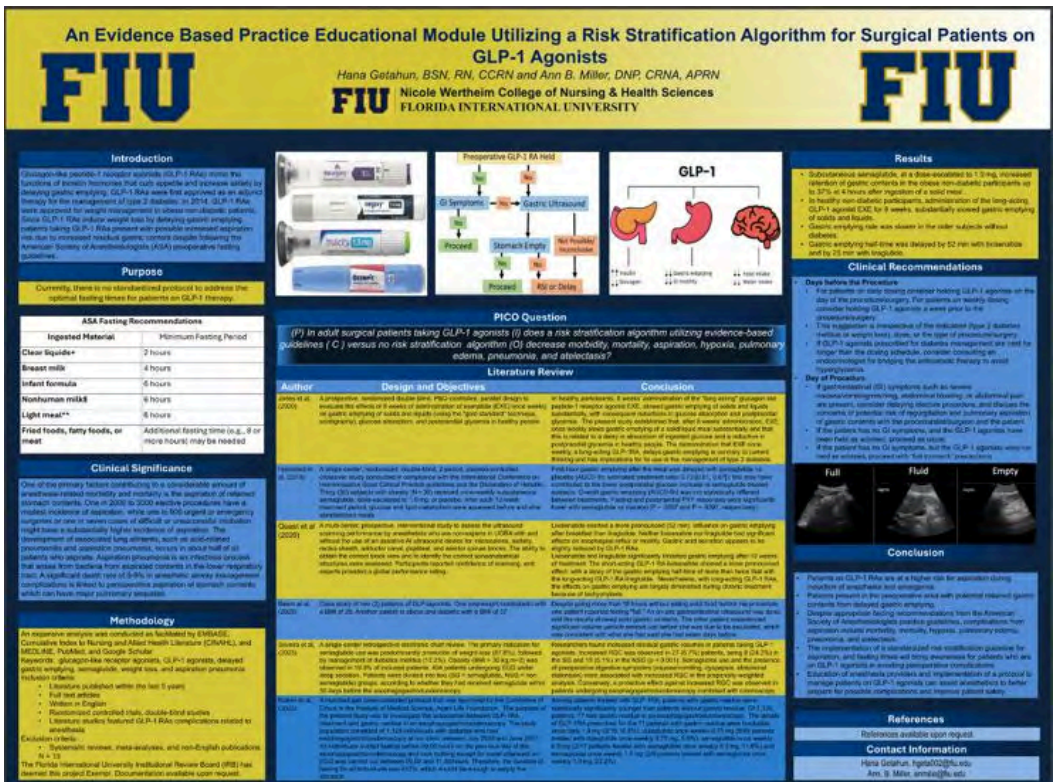

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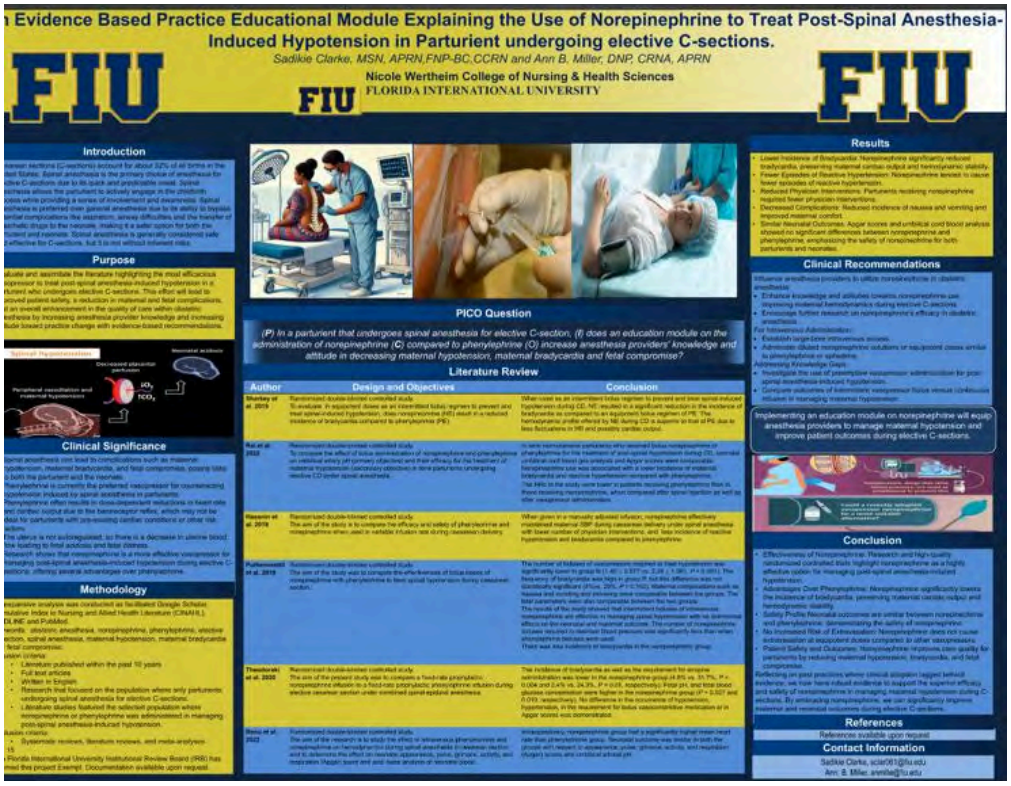

Evidence Based Practice Educational Module Explaining the Use of Norepinephrine to Treat Post-Spinal Anesthesia-Induced Hypotension in Parturient undergoing elective C-sections.

Sadikie Clarke, MSN, APRN,FNP-BC,CCRN and Ann B. Miller, DNP, CRNA, APRN

Nicole Wertheim College of Nursing & Health Sciences
FLORIDA INTERNATIONAL UNIVERSITY

FIU

Introduction

Purpose

Clinical Significance

Methodology

PICO Question

(P) In a parturient that undergoes spinal anesthesia for elective C-section, (I) does an education module on the administration of norepinephrine (C) compared to phenylephrine (O) increase anesthesia providers' knowledge and attitude in decreasing maternal hypotension, maternal bradycardia and fetal compromise?

Literature Review

Author	Design and Objectives	Conclusion
Shorley et al. 2019	Randomized double-blinded controlled study. To evaluate .in equipotent doses as an intermittent bolus regimen to prevent and treat spinal-induced hypotension, does norepinephrine (NE) result in a reduced incidence of bradycardia compared to phenylephrine (PE).	When used as an intermittent bolus regimen to prevent and treat spinal-induced hypotension during CD, NE resulted in a significant reduction in the incidence of bradycardia as compared to an equipotent bolus regimen of PE. The hemodynamic profile offered by NE during CD is superior in that of PE due to less fluctuations in HR and possibly cardiac output.
Rui et al. 2022	Randomized double-blinded controlled study. To compare the effect of bolus administration of norepinephrine and phenylephrine on umbilical artery pH (primary objective) and their efficacy for the treatment of maternal hypotension (secondary objective) in term parturients undergoing elective CD under spinal anesthesia.	In term normotensive parturients who received bolus norepinephrine or phenylephrine for the treatment of post-spinal hypotension during CD, comparable umbilical cord blood gas analysis and Apgar scores were noted. Norepinephrine use was associated with a lower incidence of maternal bradycardia and reactive hypertension compared with phenylephrine. The HRs in the study were lower in patients receiving phenylephrine than in those receiving norepinephrine, when compared after spinal injection as well as after vasopressor administration.
Klasseen et al. 2018	Randomized double-blinded controlled study. The aim of the study is to compare the efficacy and safety of phenylephrine and norepinephrine when used in variable infusion rate during cesarean delivery.	When given in a manually adjusted infusion, norepinephrine effectively maintained maternal SBP during caesarean delivery under spinal anesthesia with lower number of physician interventions, and less incidence of reactive hypotension and bradycardia compared to phenylephrine.
Pythenousakis et al., 2019	Randomized double-blinded controlled study. The aim of the study was to compare the effectiveness of bolus doses of norepinephrine with phenylephrine to treat spinal hypotension during caesarean section.	The number of episodes of vasopressors required to treat hypotension was significantly lower in group N (1.40 ± 0.577 vs. 2.28 ± 1.061, P = 0.001). The frequency of bradycardia was high in group P, but this difference was not statistically significant (P(Fisher, 2sided) = 0.102). Maternal complications such as nausea and vomiting and shivering were comparable between the groups. The fetal parameters were also comparable between the two groups. The results of this study showed that intermittent boluses of intravenous norepinephrine are effective in managing spinal hypotension with no detrimental effects on fetal neonatal and maternal outcomes. The number of norepinephrine boluses required to maintain blood pressure was significantly less than when phenylephrine boluses were used. There was also a reduction of bradycardia in the norepinephrine group.
Theodoraki et al. 2020	Randomized double-blinded controlled study. The aim of the present study was to compare a fixed-rate prophylactic norepinephrine infusion to a fixed-rate prophylactic phenylephrine infusion during elective cesarean section under combined spinal-epidural anesthesia.	The incidence of bradycardia as well as the requirement for ampoine administration was lower in the norepinephrine group (4.8% vs. 31.7%, P = 0.004 and 2.4% vs. 24.3%, P = 0.01, respectively). Fetal pH, and fetal blood glucose concentration were higher in the norepinephrine group (P = 0.027 and 0.013, respectively). No difference in the occurrence of hypotension, hypertension, or the requirement for bolus vasoconstrictive medication or in Apgar scores was demonstrated.
Rasu et al., 2022	Randomized double-blinded controlled study. The aim of the research is to study the effect of intravenous phenylephrine and norepinephrine on hemodynamics during spinal anesthesia (i.e.anesthetic decline and it) determine the effect on newborn appearance, pulse, grimace, activity, and respiration (Apgar score) and acid-base analysis of neonate blood.	Intraoperatively, norepinephrine group had a significantly higher mean heart rate than phenylephrine group. Neonatal outcome was similar in both the groups with respect to appearance, pulse, grimace, activity, and respiration (Apgar) scores and umbilical artery pH.

Methodology

- Literature published within the past 10 years
- Full text articles
- Written in English
- Research that focused on the population where only parturients undergoing spinal anesthesia for elective C-sections.
- Literature studies featured the selected population where norepinephrine or phenylephrine was administered in managing post-spinal anesthesia-induced hypotension.

Results

- Lower Incidence of Bradycardia: Norepinephrine significantly reduced bradycardia, preserving maternal cardiac output and hemodynamic stability.
- Fewer Episodes of Reactive Hypertension: Norepinephrine tended to cause fewer episodes of reactive hypertension.
- Reduced Physician Interventions: Parturients receiving norepinephrine required fewer physician interventions.
- Decreased Complications: Reduced incidence of nausea and vomiting and improved maternal comfort.
- Similar Neonatal Outcomes: Apgar scores and umbilical cord blood analysis showed no significant differences between norepinephrine and phenylephrine, emphasizing the safety of norepinephrine for both parturients and neonates.

Clinical Recommendations

Implementing an education module on norepinephrine will equip anesthesia providers to manage maternal hypotension and improve patient outcomes during elective C-sections.

Conclusion

- Effectiveness of Norepinephrine: Research and High-quality randomized controlled trials highlight norepinephrine as a highly effective option for managing post-spinal anesthesia-induced hypotension.
- Advantages Over Phenylephrine: Norepinephrine significantly lowers the incidence of bradycardia, preserving maternal cardiac output and hemodynamic stability.
- Safety Profile: Neonatal outcomes are similar between norepinephrine and phenylephrine, demonstrating the safety of norepinephrine.
- No Increased Risk of Extravasation: Norepinephrine does not cause extravasation at equipotent doses compared to other vasopressors.
- Patient Safety and Outcomes: Norepinephrine improves care quality for parturients by reducing maternal hypotension, bradycardia, and fetal complications.

Reflecting on past practices where clinical adoption lagged behind evidence, we now have robust evidence to support the superior efficacy and safety of norepinephrine in managing maternal hypotension during C-sections. By embracing norepinephrine, we can significantly improve maternal and neonatal outcomes during elective C-sections.

References

Reference available upon request

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SEDATION SEQUELS

KAILEY GONZALEZ

A DAY IN THE LIFE OF AN SRNA

Life as an SRNA is an intricate balancing act, maintaining rigorous academics, demanding clinical rotations, and my personal well-being. On any given day, you'll find me juggling the demands of our intense class schedule with our 4-days a week of clinical experience in the operating room. It's an incredibly rewarding journey, but it's not without its challenges.

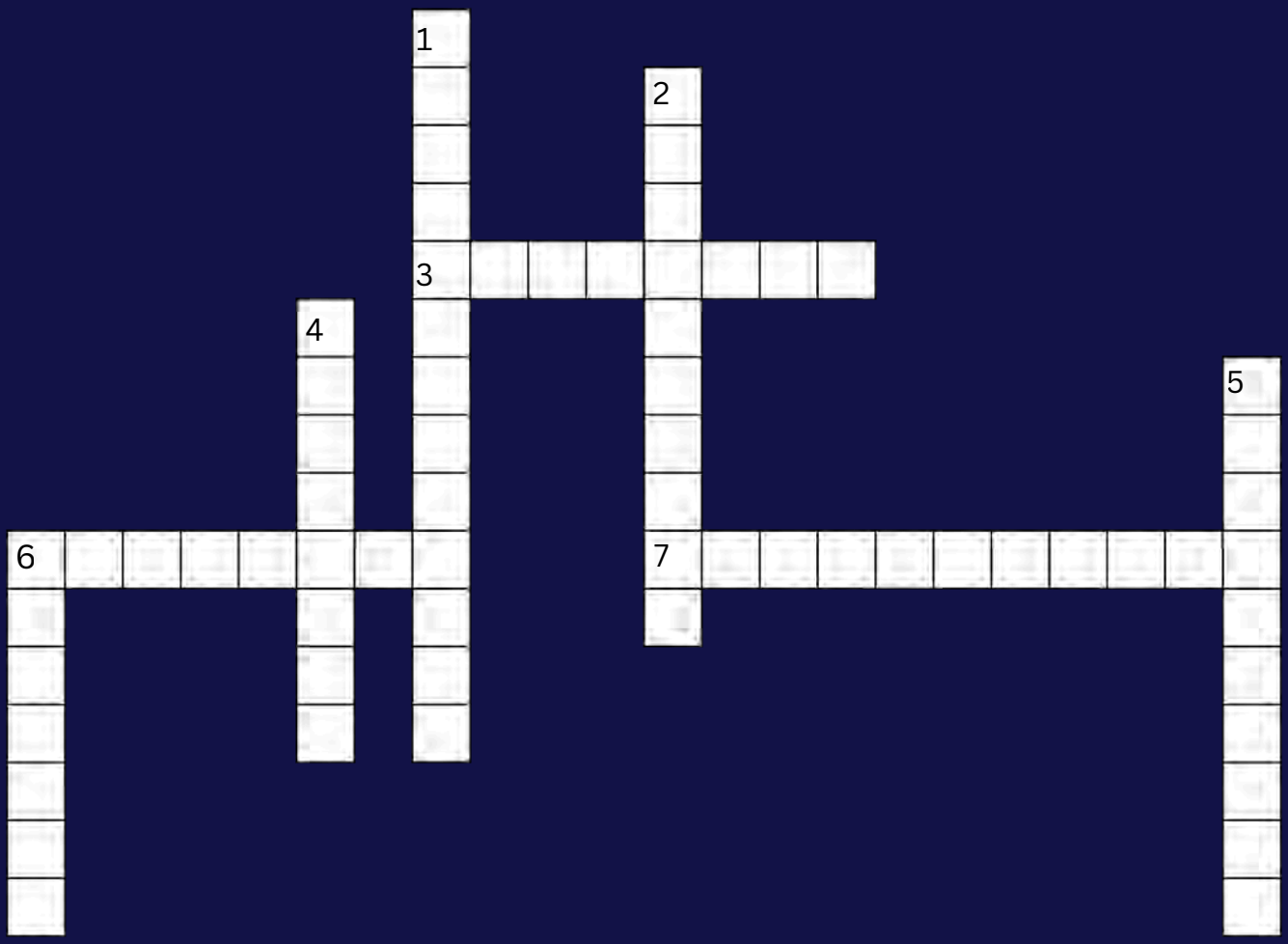
Each day starts early, often with a cup of coffee and a quick review of my cases and anesthesia plan, before heading to clinicals. In the operating room, I work closely with Certified Registered Nurse Anesthetists (CRNAs) and Anesthesiologists, honing my skills and learning to manage high-stakes situations. After a full day in clinicals, I shift gears to de-stress and take time for myself. Whether it's going for a walk or a run outside, or trying a new workout class, taking time for my own well-being is very important to me.

Amid this busy schedule, finding time for self-care and personal connections is crucial. Exercise is my go-to stress reliever, and I love incorporating runs, Pilates, or trying out new workout classes through ClassPass. These activities not only keep me physically fit but also help clear my mind. Cooking and eating healthy meals are also priorities, although they sometimes feel like luxuries amidst a packed schedule. I have recently been excited about trying new recipes and meal-prepping throughout the week. Good food serves as my motivator to get me through the day, especially when I have a delicious home-cooked meal to look forward to. (Side note: I've been enjoying Erin O'Brien's page on Instagram for some delicious and easy meals – check her out! J)

Maintaining relationships with family, friends, and my boyfriend requires intentionality, but these moments of connection ground me and keep me motivated. Whether it's a quick dinner, a fun weekend activity, or a phone call during my commute, these interactions remind me why I'm pursuing this challenging yet fulfilling career.

Being a nurse anesthesia student is demanding, but the rewards far outweigh the sacrifices. It's about finding balance, leaning into your passions, and embracing the journey—one day, one case, and one workout at a time!

SLEEPY CROSSWORD



Across

3. Nerve block often used in childbirth

6. Reversal agent for opioid overdose

7. Drug used to prevent nausea and vomiting post-op

Down

1. Device used to monitor oxygen saturation

2. Technique involving insertion of a tube into the trachea

4. Short-acting sedative commonly used for induction

5. Anesthesia machine component that measures expired CO2

6. Gas commonly used for pediatric of anesthesia