Removing Barriers to Practice: Achieving CRNA Autonomy through Education, Engagement, and Policy Change

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Author Note

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This paper is based on the ongoing DNP Project as partial fulfilment of the Doctor of Nursing Practice degree with the guidance and supervision of the following:

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Abstract

Developing change in health care at the legislative level requires support, education, and evidence. Currently, Certified Registered Nurse Anesthetists (CRNAs) in Pennsylvania are required to practice under the supervision of a physician. The literature suggests that CRNAs provide safe, cost-effective care, but legislation in Pennsylvania prevents full practice authority for CRNAs. To help increase active engagement for legislative change, a health policy toolkit consisting of an online webinar, a website, and a pamphlet was developed to educate CRNAs, Student Registered Nurse Anesthetists (SRNAs), health care administrators, and Pennsylvania state legislators on CRNA safety, cost, and current legislation. The participants were surveyed before and after the implementation of the health policy toolkit. The data analysis revealed that the implementation of a health policy toolkit significantly improved the participants understanding of the CRNA profession and a willingness to engage in future legislative activities supporting full practice authority for CRNAs in Pennsylvania.

Keywords: health policy toolkit, CRNA, SRNA, legislation, full practice authority

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Chapter I: Introduction and Overview of the Problem of Interest

Introduction

Across the United States and around the world, CRNAs provide safe anesthetic care in a wide variety of surgical based settings. According to the U.S. Bureau of Labor Statistics (2021), there are currently 43,950 practicing CRNAs in the United States and 31,130 practicing Anesthesiologists. Even though CRNAs account for more licensed anesthesia providers in the United States, CRNAs encounter many restrictions in their practice which ultimately limits patient access to care. Certified Registered Nurse Anesthetists have been practicing for more than 150 years while also delivering 50 million anesthetics to patients (American Association of Nurse Anesthesiology [AANA], 2022).

In 2001, the Centers for Medicare and Medicaid Services (CMS) altered their ruling for physician supervision which allowed governors to opt-out of traditional facility reimbursement obligations (AANA, 2022). While 22 of these states and Guam have full practice authority, the remaining states face regulatory restrictions which only allow CRNAs to practice under the guidance of an attending Anesthesiologist, a surgeon, a Doctor of Dental Surgery (DDS), or a Doctor of Dental Medicine (DMD) (AANA, 2022). Although many arguments are made as to why CRNAs should not be able to practice autonomously, there is an abundance of literature supporting the efficacy and safety of CRNA practice. Due to the regulatory restrictions, many rural and underserved areas across the United States struggle staffing licensed anesthesia providers. It proves difficult for opt-in CMS states to adequately staff these underserved areas with anesthesiologists to fulfill the supervision demands that are required by state law. If

legislation does not change for opt-in states such as Pennsylvania, these hospitals and surgery centers may have difficulty caring for their patients. If legislation changes to support full practice authority for CRNAs in Pennsylvania, patients can safely receive the proper care they deserve.

Background & Significance

On June 30, 2021, Pennsylvania Governor Tom Wolf signed S.B. 416, which gave formal recognition of CRNAs in Pennsylvania (PANA for Quality Care, 2021). Prior to the signing of S. B. 416, CRNAs were not recognized as an advanced practice profession in the state. While this milestone bill helped legitimize the profession in Pennsylvania, more can be done to advance the profession. Currently, there are approximately 3,500 CRNAs practicing in Pennsylvania (Pennsylvania Association of Nurse Anesthetists, n.d.). Certified Registered Nurse Anesthetists in Pennsylvania help staff hospital surgery suites, the Department of Veterans Affairs hospitals, critical access hospitals, pain clinics, ambulatory surgery centers, dental offices, and podiatry offices in urban and rural settings alike (AANA, 2022). Certified Registered Nurse Anesthetists safely care for these patients daily while under the supervision of Anesthesiologists or licensed physicians. One reason CRNAs provide such dependable care is due to the comprehensive, specialized education that must be completed prior to becoming a licensed professional. Before starting school, CRNAs must complete a minimum of one-year intensive care unit training as a registered nurse. Once enrolled in a CRNA program, CRNA graduates compile 9,400 hours of clinical experience which includes undergraduate experience, critical care nursing experience, and student nurse anesthesia clinical experience (AANA, 2022). Furthermore, by the year 2025, CRNA programs across the United States are required to graduate doctorate prepared CRNAs in accordance with the Council on Accreditation (Yazdi, 2020). The demanding educational requirements that CRNAs must undergo helps prepare CRNAs to work safely and effectively.

There is a cost saving benefit to utilizing CRNAs in Pennsylvania; the average cost per CRNA in 2014 was $170,000 while the average cost per anesthesiologist was $540,314 (AANA, 2020). When restrictions are placed on full practice authority for CRNAs, health care costs begin to climb. According to the AANA (2020), if a hospital employed 12 CRNAs, the average cost per year would roughly be two million dollars; whereas an anesthesiology only run hospital would cost roughly 5.04 million dollars; moreover, a 3:1 CRNA to anesthesiology care team ratio would cost 3.68 million dollars if 12 CRNAs and four anesthesiologists were employed (AANA, 2020).

The Hospital Healthsystem Association of Pennsylvania (2019) reported that there were 42 rural general acute care hospitals in Pennsylvania that served as the primary healthcare option for 3.4 million Pennsylvanians. One of the major barriers to equal health care in the United States is access. The AANA (2022) determined that CRNAs across the United States staff roughly 80% of the anesthesia in these underserved areas. However, in Pennsylvania, many rural patients may not receive the same healthcare opportunities unless they travel long distances to hospitals that offer the procedure they desire. According to Cohen et al. (2020), within rural communities, 55.1% of counties had no surgeon, 58.1% had no available CRNA, and 81.2% of counties did not have an available anesthesiologist.

Safety and efficacy of anesthesia delivery is paramount. Many hallmark studies have determined that there is no evidence suggesting that patient outcomes change when anesthesia has been delivered by a CRNA or physician anesthesiologist (Dulisse & Cromwell, 2010; Lewis et al., 2014; Needleman & Minnick, 2009; Negrusa et al., 2016) These studies have paved the way for many to become opt-out states to serve their communities safely.

PICO Question Guiding Inquiry

Many factors are considered when determining whether a state allows CRNAs to practice autonomously. Cost, safety, and legislation are three profound variables that affect the way CRNAs practice in the state. Currently a large portion of the population in Pennsylvania is rural and may be underserved due to their location in relation to anesthesia access. This directly correlates to the requirement that CRNAs must work under physician supervision to provide anesthesia in Pennsylvania. Limited access to providers delays the onset of care, worsens chronic diseases, and places patients at risk for inadvertent consequences. CRNAs in Pennsylvania have the opportunity to reduce these problems by working autonomously if Pennsylvania grants full practice authority to CRNAs. Change can only begin if lawmakers, anesthesia providers, and hospital administrators understand the safety, efficacy, cost, and importance CRNAs have on the health care system.

A health policy toolkit was developed to increase active engagement for legislative change for autonomous practice in the state of Pennsylvania. The health policy toolkit consisted of comprehensive webinar presentations, a pamphlet containing key data about CRNA practice in the state of PA, and a website providing tangible evidence-based information related to CRNA practice. By instituting a three-pronged toolkit, participants were able to receive and understand the information via the webinar, attained a physical pamphlet that may be distributed amongst colleagues, and obtain easy access website information to reference at a future time. In an attempt to change practice laws in the state of Pennsylvania, a PICO question was developed to look into this topic. The PICO question stated: “In the state of Pennsylvania, does the implementation of a health policy toolkit discussing the evidence behind CRNA independent practice increase legislative support and active engagement for policy change?”

System & Population Impact

As mentioned prior, many rural areas in Pennsylvania have limited access to anesthesia professionals. This deeply hinders their ability to receive equitable access to healthcare if an emergency arises. The population to which this project is targeted includes SRNAs, CRNAs, legislators, and hospital administrators. Student Registered Nurse Anesthetists in Pennsylvania begin their training under the guidance of a CRNA and/or anesthesiologist. Student Registered Nurse Anesthetists do not normally receive formal education discussing their current scope of practice in Pennsylvania which limits their understanding of what governs CRNA practice in Pennsylvania. Certified Registered Nurse Anesthetists in Pennsylvania understand how healthcare in Pennsylvania works, however it is important to continue educating them on their efficacy, safety, worth, and where current legislation stands for anesthesia practice in Pennsylvania. Legislators may not understand how positively CRNAs impact the anesthesia profession. Furthermore, legislators may not grasp what the CRNA profession entails, the safety to which CRNAs practice, the cost benefits to utilizing CRNAs, and the healthcare disparities many Pennsylvanians encounter when trying to receive care. Hospital administrators decide the anesthesia model that will be employed in their healthcare system. Reinforcing the impact, efficacy, safety, and cost impact that CRNAs have on healthcare may lead to future discussions instituting change to their current anesthesia model. Ultimately, patient safety and healthcare equity are paramount. Educating this target population on CRNA efficacy, safety, cost, and current legislation can lead change that could affects millions lives in Pennsylvania.

Purpose & Objectives

The purpose of this DNP project was to educate participants on the CRNA profession, enhance legislative support, and increase active engagement for policy change in the state of

Pennsylvania. Multiple modalities in the health policy toolkit were implemented to disperse the information to the participants. This was to reinforce the information while simultaneously offering several methods of learning. Five SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) objectives were developed to help quantify the results of this DNP project (see Appendix A). First, 50% of participants will agree or strongly agree in the post presentation survey that they have an increased understanding of patient outcomes as it relates to CRNA care delivery and practice in PA. Second, 50% of participants will agree or strongly agree in the post presentation survey that they have an increased understanding of the practice role CRNAs play within the healthcare delivery system in the state of Pennsylvania. Third, 50% of participants will agree or strongly agree in the post presentation survey that they have a better understanding of the cost-effective measures that CRNA expanded practice and autonomy will provide in the state of PA. Fourth, 50% of participants will agree or strongly agree in the post presentation survey that CRNA autonomy and expanded practice will help to increase access to care and fulfill shortages in anesthesia services. Finally, 50% of participants will agree or strongly agree in the post presentation survey that the health policy toolkit will increase their active engagement in helping to support legislation that will advance the role of CRNAs and allow full practice autonomy.

Chapter II: Review of Evidence/Literature

Search Methodology & Findings

A thorough literature search process was performed using the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Google Scholar to find the most pertinent material related to this topic. Google Scholar and CINAHL were used to identify high level and quality of evidence. The literature review concentrated on CRNA safety and efficacy. The

review also included articles that compared the quality and safety of anesthesia delivered by CRNAs and anesthesiologists. Keywords such as "anesthesia practice models, anesthesia model AND maternal outcomes, nurse anesthetist AND supervision, physician versus non physician AND anesthesia, and nurse anesthetist AND complications" were used to provide the foundation for initial research. Limiters were also applied to further limit the search. "Peer reviewed only" and date ranges from 2007 to 2022 was applied. Most of the research was identified within the last ten years, however a large body of evidence discussing decades of CRNA safety and efficacy was important to utilize. Studies that were randomized controlled trials, systematic reviews, meta-analysis, observational studies, and retrospective cohort studies were used to strengthen the pool of evidence.

Efficacy and Safety

The key words "anesthesia practice models" and "nurse anesthetist AND supervision" were used to provide the foundation of this topic. The limitations as noted above were applied to further restrict the results. In total, 22,870 results were located on Google Scholar and 61 were found on CINAHL. Of the literature chosen for the bases of this search, Yin et al. (2021) and Dulisse and Cromwell (2010) were the most pertinent. Yin et al. (2021) measured the safety and outcomes of anesthesia delivered by CRNAs on multiple spectrums. The findings were evaluated over a three-year period and compared outcomes before and after allowing CRNA autonomy. Yin et al. (2021) found a decrease or no change in complications over a three-year period such as failed intubations (0.04% to 0.02%), aspiration (0.02% to 0%), airway problems in the PACU (0.05% to 0.05%), laryngospasm post extubation (0.06% to 0.05%), unexpected ICU admission (0.25% to 0.17%), re-intubation (0.03% to 0.02%), cardiac complications (0.09% to 0.09%), and death (0.01 to 0.01%). The results of these anesthetic complication indicators displayed that after

CRNA autonomy was initiated, patient complication outcomes either improved or stayed the same. Furthermore, Dulisse and Cromwell (2010) delineated no statistically significant differences in mortality between opt-in or opt-out states when comparing CRNA only models, anesthesiologist models, and care team models. Additionally, the complication rates between CRNA only groups and physician anesthesiologist only groups were not found to be statistically significant (Dulisse & Cromwell, 2010). The complications that were compared included failure to rescue from complication of an underlying illness or medical care, iatrogenic pneumothorax, collapsed lung, postoperative physiologic and metabolic derangements, physical or chemical imbalances in the body, postoperative respiratory failure, and transfusion reactions (Dulisse & Cromwell, 2010).

Anesthesia Models

Four studies found within the last 13 years provided further evidence that CRNAs are safe anesthesia professionals. Google Scholar and CINAHL were used, and key words/phrases such as "anesthesia model AND maternal outcomes, physician versus non physician AND anesthesia, and nurse anesthetist AND complications" were used to identify further sources. The aforementioned limitations were applied. A total of 187 sources were found on CINAHL and 30,870 sources were found on Google Scholar. Lewis et al. (2014), Hoyem et al. (2019), Needleman and Minnick (2009), and Negrusa et al. (2016) compared anesthesia models and patient outcomes. Negrusa et al. (2016) found that 8 out of every 10,000 procedures resulted in anesthesia complications; however, these findings did not alter between a CRNA led group, anesthesiologist led group, or a CRNA and anesthesiologist led group. Likewise, Needleman and Minnick (2009) discovered that obstetrical outcomes did not alter between physician led or CRNA led anesthesiology groups (0.27% complication rate with physician led groups versus

0.23% complication rate with CRNA led groups). There were no statistically significant findings between cesarean section outcomes or death rates (Needleman & Minnick, 2009). This data is piggy backed by Lewis et al. (2014) who compared the 30-day mortality rate and complication rate for patients who received anesthesia. There was no significant difference in outcomes between CRNA only and anesthesiologist only anesthesia groups (Lewis et al., 2014). A retrospective review conducted by Hoyem et al. (2019) provided credence to these statistics. Hoyem et al. (2019) reviewed the total anesthesia related deaths post discharge was 0.82 per 100,000 individuals, an anesthesia complication rate of 2 per 10,000 for inpatient procedures, and 4 per 10,000 per outpatient procedures for all anesthesia providers and models. Overall, the safety and efficacy of anesthesia delivered by CRNAs displayed comparable outcomes across various anesthesia models.

Limitations

Limitations were seen in each research study that preceded this DNP project. Dulisse and Cromwell (2010) only utilized Medicare part A and B patients in their study. While this may not include every patient, a significant sample size was utilized in this study. Similarly, Lewis et al. (2014) offered information from only five United States hospitals and one foreign hospital. Yin et al. (2021) performed their study at a cancer hospital in China. This limited the generalizability to other hospitals, however the information gathered provided key insight comparing the complications seen between CRNAs versus anesthesiologists. Likewise, Needleman and Minnick (2009) performed their research on obstetrical cases and the associated outcomes. Additionally, Negrusa et al. (2016) provided only one year of research into their study; yet the sample size included a total of 5,740,470 procedures. Overall, multiple studies, procedure types,

anesthesia models were reviewed for this DNP project. This improves the generalizability of the findings to support CRNA safety and efficacy while providing anesthesia care.

Conclusions

Decades of literature support that CRNAs can administer safe, patient-centered anesthesia care. Current legislation in many states, including Pennsylvania, requires CRNAs to work in a physician led anesthesia model. CRNAs in Pennsylvania can mend the gap in underserved rural communities so that they can have equal access to anesthesia care. This can promote greater access to safe anesthesia care to millions of Pennsylvania residents. By instituting the health policy toolkit, the information regarding current legislation, CRNA costs, and CRNA efficacy and safety was disseminated to stakeholders who can bring change to the healthcare community.

Chapter III: Organizational Framework of Theory

The Diffusion of Innovation theory developed by E. M. Rogers in 1962, is a theoretical framework that explained how a new idea becomes adopted by a targeted social system over time (LaMorte, 2019). This theoretical framework's goal is for people to understand a new idea and then adopt that new idea or behavior. Adoption is the most difficult aspect to ascertain, however E. M. Rogers stressed that new ideas must be innovative to achieve change. E. M Rogers detailed five different types of adopters to new ideas: innovators, early adopters, early majority, late majority, and laggards (LaMorte, 2019). The Diffusion of Innovation theory was chosen to assist in implementing this DNP project because the theory demonstrated the importance of identifying key stakeholders and assisting them through the stages of diffusion.

Conceptual Definitions of Theory

There are five different adopter categories in Rogers' theory: innovators, early adopters, early majority, late majority, and laggards (LaMorte, 2019). Innovators are enthusiastic to try

and develop new ideas. Early adopters are content accepting new thoughts, positions, or ideas because they are aware of a need for change (LaMorte, 2019). The early majority require evidence before adopting a new idea, whereas the late majority are skeptical of change (LaMorte, 2019). The late majority are still willing to adopt new ideas or innovations, however the idea or innovation must be implemented successfully prior to adopting. Finally, laggards are steadfast in their actions or beliefs which make them skeptical of change (LaMorte, 2019). Of the five adopter categories, innovators and early adopters are the most likely to accept change or a new idea. The difficulty lies within the final three adopters. LaMorte (2019) stated that more information, material, and persuasion are required for the final three categories to adopt change. That is why it is paramount to implement multiple strategies that appeal to these groups.

Walitzer et al. (2015) discussed five stages people undergo when adopting a new idea or innovation within Rogers' Diffusion of Innovation Theory: knowledge, persuasion, decision, implementation, and confirmation. First, in the knowledge stage, people must obtain information and awareness about a new idea (Walitzer et al., 2015). This stage is the most important because it will begin to change preconceived thoughts related to a proposed topic or idea. Once the knowledge is acquired, the persuasion stage involves the development of positive attitudes toward the idea (Walitzer et al., 2015). In this stage, people will decide whether the proposed innovation is better than what has been used prior, the ease of adoption, and if the innovation can produce positive change (LaMorte, 2019). Providing quantitative proof that change should be made shapes the outcome of this stage. In the decision stage, people advance their attitudes and intentions toward implementing the proposed idea (Walitzer et al., 2015). The implementation stage involves utilizing the new idea, and in the confirmation stage, people recognize the benefits of the change while simultaneously pursuing support that a positive change occurred (Walitzer et

al., 2015). Every stage is as important as the previous, but it is important to build a strong foundation in the knowledge and persuasion phase to be able to carry out the final three stages to make a change a permanent reality.

Relationship of Theory to Scholarly Project

This DNP project held multiple stakeholders in each category; SRNAs and CRNAs fall into the innovator or early adopter category whereas legislators and hospital administrators were likely in the early majority, late majority, or laggard category of adopters. SRNAs and CRNAs were familiar with the job title, standards, and practice achievements. However, many of the stakeholders may not have been as familiar with the scope of practice, educational requirements, or job responsibilities that CRNAs hold. Legislators and hospital administrators likely fell into the early majority, late majority, or laggard adopters related to this lack of understanding as well. Part of implementing this theory involved knowing the audience and properly educating them based on their familiarity with the CRNA job profession. The pamphlet contained key data about CRNA practice in the state of PA. This may have been beneficial to politicians who wished to understand more about what a CRNA does and the safety of utilizing CRNAs. Hospital administrators would benefit from the webinar PowerPoint presentation because this highlighted the financial and safety aspects of the CRNA profession. Finally, all the adopters benefitted from the website since it contained easy to access information related to the profession.

In this DNP project, the Diffusion of Innovation Theory was utilized to target a wide variety of stakeholders to adopt change. The crux of this project was to educate and inform stakeholders of the positive impact CRNAs have on the community and state. Incorporating early adaptors in this project can help advance CRNA practice nationwide. By implementing a health

policy toolkit to educate people on current legislation, CRNA safety, and cost, informed decisions can be made to adopt changes over time for CRNA autonomy.

Chapter IV: Project Design

This DNP project was designed to increase the understanding of the CRNA profession through educational interventions. This was accomplished with three key pieces, as there was three members of the Cedar Crest College DNP Class of 2023 working on this project. Mr. Caruso focused on the policy aspect of this project, and Mr. Dent focused on the financial implications of allowing CRNAs to practice without physician supervision. I investigated establishing the safety and outcomes of independent CRNA practice. This project was designed to correlate with the five phases of Rogers' Diffusion of Innovation Theory in the form of health policy change.

Through the creation and dissemination of a health policy toolkit by means of publication and outreach activities, it was expected that the health policy toolkit would help form the foundational aspects for policy change in the future. The health policy toolkit consisted of three distinctive platform approach that was composed of a pamphlet, an interactive webinar presentation, and a website to provide Pennsylvania SRNAs, CRNAs, health administrators, and PA state legislators with information about CRNAs. The educational material will include information outlining:

- Who CRNAs are and their job duties;
- Their educational background and their training;
- The number, distribution, and utilization of CRNAs in the state of Pennsylvania;
- Their economic importance to healthcare in Pennsylvania;

- Their safety and care outcomes nationally and in states with opt out status.

The health policy toolkit was then disseminated in the form of two online presentations. Following the completion of the presentations, an evaluation survey was provided to all participants who met the inclusion criteria via survey monkey to capture their willingness and attitudes towards supporting legislation that supports CRNA independent practice in Pennsylvania.

Institutional Review Board (IRB) Approval

CITI training was completed in the spring semester of 2022 prior to submitting for IRB approval. Approval from Cedar Crest College's IRB was acquired September 9th, 2022 before implementing this DNP project. According to the IRB approval form, this DNP project was considered an exempt study as defined by Cedar Crest College's IRB regulations and by HHS Common Rule (45 CFR Part 46) that there were minimal risks for the research subjects. This DNP project benefited participants by better understanding the CRNAs role in healthcare and gaining access to resources for informed decision making. There were no risks, either physical or emotional, associated with participation in this DNP project. No monetary or other compensation was provided as a benefit of participation. There was no IRB approval needed for any healthcare organization or outside facility.

Implementation Plan

The implementation portion of this DNP project extended over a two-month period. The implementation phase incorporated the key stakeholders: CRNAs, SRNAs, legislators, and healthcare administrators in PA. There were two separate dissemination dates to accommodate the participant's schedules so that there was a greater outreach for this DNP project. The basis for the implementation involved the three-pronged health policy toolkit. The health policy toolkit

included two live webinar presentations, a website containing information encompassing the CRNA profession, and a tangible pamphlet. All three modalities were meant to facilitate learning as well as an easy way to locate information regarding the CRNA profession. The webinar presentations were 30 minutes in length to serve as the initial basis for information. A script was created and utilized during both of the webinar presentations to present the information the exact same way. This method ensured that each participant received the same material regardless of which webinar presentation they attended. Each participant also received the information for the created website and a pamphlet. The website and the pamphlet were to be referenced by the participants for more information regarding the CRNA profession, CRNA safety and efficacy, current legislation in the state of Pennsylvania, models of anesthesia care delivery, and current costs. To facilitate the ease of what each stakeholder may find important, the website contained specific links for healthcare administrators, legislators, and CRNAs. Prior to the webinar presentations, participants were asked to complete a pre-survey questionnaire. After the webinar presentation and after the website and pamphlet were distributed, the participants were asked to complete a post-survey. The data was collected and analyzed upon completion of the project.

Data Collection Tools and Analysis

SurveyMonkey was the primary source for collecting data for this DNP project. The pre-survey questions were compared to the post-survey questions. The survey contained 10 items in the form of questions utilizing a 5-point Likert scale with scores ranging from strongly disagree (1) to strongly agree (5) (see Appendix B). Various rating scales have been developed to measure attitudes directly, even when the audience knows their perceptions and attitudes are being studied. The Likert scale provided a series of questions that attempted to capture how much an individual agreed or disagreed with a particular statement using a five-to-seven-point scale. The

range on the scale allowed the participants to indicate their positive or negative strength of agreement regarding the proposed questions. The Likert scale assumed that under normal circumstances the strength or intensity of an emotion or attitude towards a specific topic is linear and can be captured on a continuum from strongly agree to strongly disagree (Barua, 2013). Based on this assumption, the Likert scale presents the argument that attitudes can be measured (Barua, 2013).

Each survey was scored and data items from participants responses was transferred to an Excel spreadsheet. The responses captured by the categories in the Likert scale had rank order and utilizing the data captured by the survey allowed for the creation of displays of distribution of observations in bar charts with median and mode identification. The pre-test survey (see Appendix A) consisted of questions to evaluate the participants baseline self-perceived knowledge toward CRNAs' role and practice. Conversely, the post-test survey (see Appendix A) consisted of identical questions to evaluate changes in attitude and perception towards CRNAs' role and practice. Likert scales have the advantage that they allow for variation outside of the normal yes or no answer from respondents. Therefore, the data can be analyzed to find patterns in responses. Offering anonymity in the surveys reduced social pressure, which allowed for authentic answers by the participants.

Resources Needed & Budget Justification

The primary resources for this DNP project included the key stakeholders, the Microsoft Teams forum for the webinar presentations, the website, the pamphlets, the SurveyMonkey website for the surveys, and Microsoft Excel for data analysis. The technological resources can be accessed by the authors electronical devices. The program used to develop the website was Wix, the pamphlet was created using Canva, the webinar presentation software utilized

Microsoft PowerPoint, and Microsoft Teams was used as the medium of communication during the webinars.

The health policy toolkit was an affordable method for disseminating information, which increased the sustainability and adoption of this project. The website design proved to be the only cost for this DNP project. Wix was used to design the website; There was a $90 design fee for a 3-month subscription. The communication mediums will be free to access for all stakeholders involved. SurveyMonkey, Canva, Microsoft Teams, and Microsoft Excel are free to use and have no additional fees. Additionally, the laptops used to store, analyze the results, and store the information were of no additional cost to the authors. Overall, the only monetary cost imposed was maintaining the websites domain. The budget will be $100. The participants were free of any charges or costs.

Chapter V: Implementation Procedures and Processes

CRNAs, SRNAs, legislators, and hospital administrators were recruited via multiple avenues. Certified Registered Nurse Anesthetists and SRNAs were contacted via social media outreach, and flyers were hung in the CRNA breakrooms of various hospitals in Pennsylvania (see Appendix C). Legislators and their aides, along with hospital administrators were contacted via email. If interested in participating, the prospective applicants emailed the attached Gmail account. The Gmail account was created to organize direct communication between the authors and the interested participants. Inclusion criteria for CRNA and SRNA participants were that they must be currently practicing or training in the state of Pennsylvania. Legislators must work, currently live, or actively engage in legislative or regulatory processes in PA, and hospital administrators must be currently working in a hospital system in Pennsylvania.

After the recruitment method commenced, the participants were emailed a confirmation to the project which included the implementation dates of the live webinars. The email contained a confidential consent for participation in social and behavioral projects to be signed and emailed back to the authors prior to engaging in the webinar. Multiple webinar dates and times were offered to accommodate varied schedules. At the start of the webinar presentation, the participants were asked to complete a six-question anonymous pre survey on SurveyMonkey which was linked on the Microsoft Teams platform.

Once the pre survey was completed, a thirty-minute webinar presentation was conducted by the authors. The webinar contained key information related to the CRNA profession such as current healthcare legislation in Pennsylvania, healthcare disparities in rural America, CRNA educational standards, comparison of anesthesia models, and the safety and efficacy of CRNAs administering anesthesia. There was an opportunity for a question-and-answer period at the end of the presentation. Additionally, when the presentation was completed a direct link to the website that was created by the authors was provided to the participants. This website highlighted the information presented, and enclosed links specific to CRNAs, SRNAs, hospital administrators, and legislators. The purpose of this website was for participants to have direct access to this information on any electronic device, along with references and links to the evidence surrounding this topic. The website also served as a modality for continued access to the information regarding CRNA independent practice for future generations to utilize in their discussions and progress towards professional autonomy. Finally, there was a QR code on the website which directed the participants to a tangible pamphlet that was printed at the discretion of the participants. The pamphlet further addressed the pertinent information related to CRNAs in Pennsylvania.

Once the webinar presentations were completed, the participants were provided a ten-question post survey in the Microsoft Teams platform. Multiple methods of dissemination were chosen to allow for participants to refer to any of the material as tools to advocate for the CRNA profession. Reminder emails were sent within two days to all participants to offer additional opportunity for those who may not have completed the survey. The data received from the pre and post surveys were stored on a password protected computer where the password is known only to the authors. All copies of the raw electronic data were encrypted with a similar password. The raw data was only to be accessible to the authors. Once the pre and post surveys were completed, the data was analyzed against each other via statistical analysis using Microsoft Excel and a T-Test calculator (Lambert, 2020) to assess if the goals of the DNP project were met.

Chapter VI: Evaluations and Outcomes

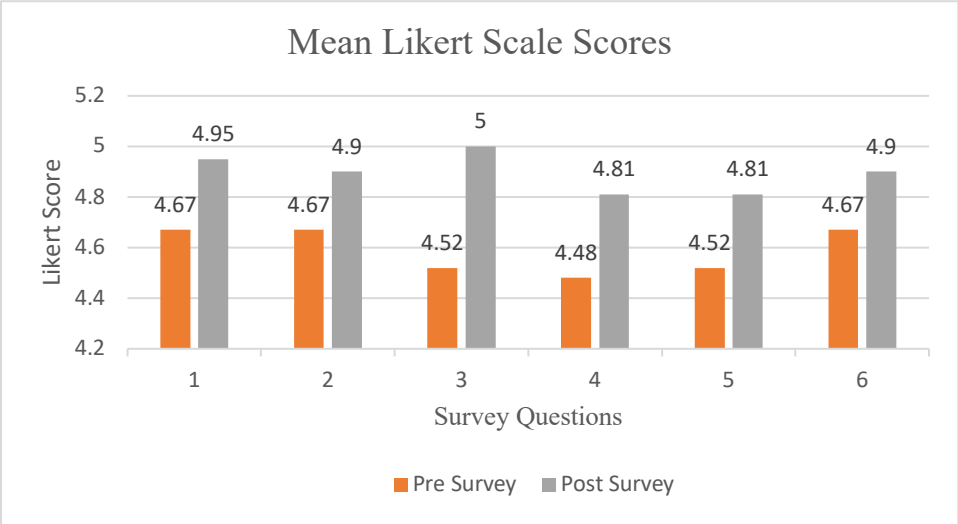
Evaluation

To evaluate the effectiveness of the health policy toolkit, a pre and post survey was created using the Likert scale. The survey questions asked the participants to answer from one (strongly disagree) through five (strongly agree) to assess the efficacy of the toolkit. In total, 25 participants attended the two-day dissemination period. After compiling the data, 21 of the 25 participants responded to the pre and post survey questionnaire. Six of the questions were identical for both the pre and post survey questionnaire. These questions were examined for statistical significance. An additional four questions were developed specific to the post survey. A paired t-test was used to assess the difference between the pre and post survey scores for each question since the data was collected from two dependent groups (Lambert, 2020). Furthermore, the alpha value was set at $p < 0.05$ to test for statistical significance.

The first question of the survey asked, “I have a good understanding of the role that CRNAs play in the delivery of anesthesia services to patients.” The average score of the pre-survey was 4.67, and the average score of the post survey was 4.95 with a p-value of 0.01. The second question asked, “The provision of anesthesia care as it relates to patient outcomes is equally as safe and effective under CRNA delivery as other anesthesia providers.” The average score of the pre survey was 4.67, and the average score of the post survey was 4.90 with a p-value of 0.02. The third question asked, “Evidence shows that CRNA training and education requirements are effective to support independent practice.” The average of the pre survey score was 4.52, and the average post survey score was 5 with $p < 0.001$. The fourth question asked, “Research has shown that CRNAs having full practice authority would decrease costs associated with anesthesia care in the state of Pennsylvania.” The average score of the pre survey was 4.48, and the average score of the post survey was 4.81 with $p < 0.02$. The fifth question stated, “There is an increased need for anesthesia providers in my area.” The average score of the pre survey was 4.52, and the average score of the post survey was 4.81 with a p-value of 0.03. The sixth question asked, “CRNAs having full practice authority would help fulfill anesthesia provider shortages throughout Pennsylvania.” The average pre survey score was 4.67, and the average post survey score was 4.90 with a p-value of 0.02.

Figure 1

Mean Likert Scale Scores of Pre and Post Survey

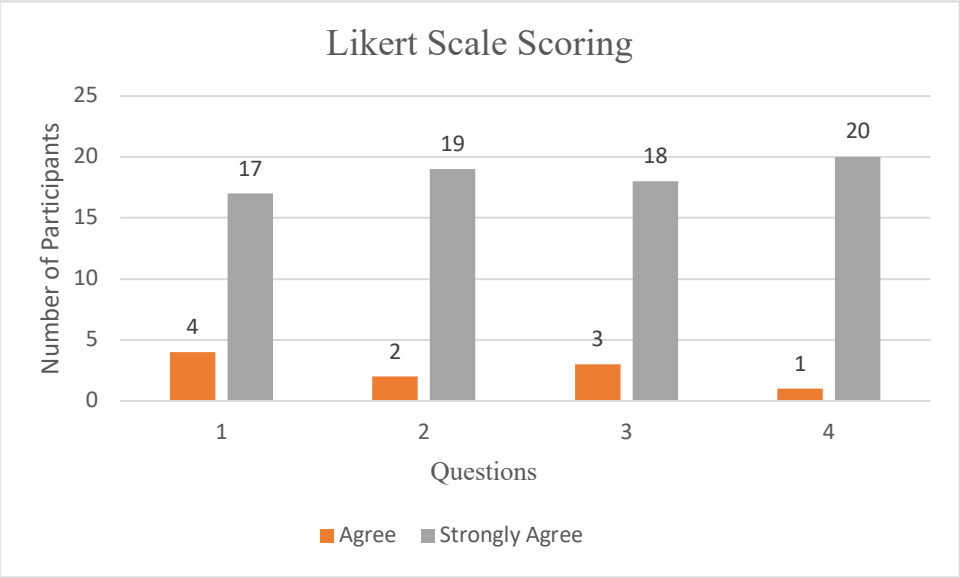


The final four post survey questions were averaged to assess the health policy toolkit and its use for engagement in healthcare policy changes. The first question asked, "After being presented with the health policy toolkit, I have an increased understanding of the role that CRNAs play within the healthcare delivery system in the state of Pennsylvania." The results indicated that 17 of the 21 participants strongly agreed (81%) while 4 of the 21 participants agreed (19%). The second question stated, "Cost effectiveness was made apparent throughout this presentation, and the reduction in healthcare associated costs plays a major role in the consideration for policy change." The data concluded that 19 of the 21 participants (90.5%) strongly agreed while 2 of the 21 participants agreed (9.5%). The third question asked, "I will reference the health policy toolkit to promote active engagement by a vast majority of stakeholders to support and encourage legislation for CRNA full practice autonomy in Pennsylvania". The data showed that 18 of the 21 participants strongly agreed (85.7%) while 3 of the 21 participants agreed (14.2%). Finally, the fourth question asked, "After viewing this presentation, I am more likely to support or engage in activities that support full practice

authority for CRNAs in Pennsylvania." The results showed that 20 of the 21 participants strongly agreed (95.2%) while 1 of the 21 participants agreed (4.8%).

Figure 2

Likert Scale Scoring of the Additional Four Post Survey Questions



As identified above, a p-value of < 0.05 was determined to be considered statistically significant. Six of the pre and post survey questions were tested by running a paired t-test to test for statistical significance to identify if the health policy toolkit increased the understanding the role CRNAs play in their profession, cost efficiency of a CRNAs, the safety of CRNA practice, CRNA educational requirements, and current gaps in healthcare coverage in the state of Pennsylvania. Each individual question identified that there was a statistically significant difference between the pre and post survey once the health policy toolkit was introduced to the participants. While the statistical significance is important, the clinical significance can play a major role in how CRNA practice can change. The materials can be referenced via website or pamphlet for easy access tools to highlight the profession. After introducing the health policy toolkit, the information can now be distributed to other CRNAs, SRNAs, healthcare

administrators, and legislators to actively engage in policy change for CRNA practice in Pennsylvania.

Outcomes

To determine overall outcomes of this DNP project, the PICO question and objectives must be reevaluated. The PICO question as stated in Chapter 1 is, “In the state of Pennsylvania, does the implementation of a health policy toolkit discussing the evidence behind CRNA independent practice increase legislative support and active engagement for policy change?”. Utilizing the Likert scale afforded the authors the ability to quantify whether the health policy toolkit educated and encouraged the participants to engage in legislation regarding CRNA policy and practice in Pennsylvania. Each question focused on the health policy toolkit’s material and if the toolkit promoted a willingness to engage in health policy change. Five SMART goals were identified to answer the PICO question. Within each goal were the questions used for the pre and post survey (see Appendix A). For each goal, 100% of participants agreed or strongly agreed with each post survey question. This determined that the utilization of a health policy toolkit increased the participants knowledge of CRNAs and will encourage active engagement for health policy change.

Discussion

A health policy toolkit was created to help educate CRNAs, SRNAs, legislators, and hospital administrators about CRNAs and current policies in Pennsylvania. The studies and material used within the health policy toolkit demonstrated multiple examples on the safety of the care CRNAs provide, the cost-efficiency of utilizing a CRNA only model for anesthesia delivery, current disparities in anesthesia coverage in underserved areas, and the current legislation of CRNA practice. The material presented in three formats (online webinar, website,

and pamphlet) were used to educate the participants via multiple avenues to help encourage engagement in legislative affairs regarding CRNA practice. The information was to be insightful yet easy to access whenever educating others on CRNA practice or engaging in legislation relating to CRNA practice. The data analysis supported the use of a health policy toolkit to promote active engagement in policy change for CRNA practice. If this project was to be repurposed, the key stakeholders should only be hospital administrators and/or legislators. Including CRNAs was crucial for this DNP project as one of the goals was to increase CRNA engagement in policy change, however targeting those who directly influence policy in hospitals or in congress could prove beneficial. Additionally, a future survey given to the participants could be conducted to see if they utilized the pamphlet and website for reference, and/or approached political members regarding CRNA practice in Pennsylvania.

Chapter VII: Implications for Nursing Practice

Implications for Practice

Creating change in healthcare can be deemed as a difficult task. Discovering ways to remove the barriers of change can be even more difficult. The creation of a health policy toolkit educated participants while also providing tangible materials to refer to while engaging in policy change. The website and pamphlet can be used to provide evidence and as a reference to enhance legislative support. Data from this DNP project utilizing the health policy toolkit showed that participants would increase engagement in legislative activities and engagement for policy change for CRNA practice. The support can lead to changes in CRNA practice in Pennsylvania.

Strengths & Limitations

This DNP projected possessed many strengths which guided its success. Creating an approach to education by means of an online presentation, a website, and a tangible pamphlet

provided multiple forms of communication to the participants. The toolkit offered an auditory, physical, and technical element to education. The website and pamphlet may be used by anyone in the future to aid their involvement with political actions. Additionally, a QR code was placed on the website which linked the pamphlet. This allowed for a quick and streamlined approach for access to the pamphlet and information.

Another strength to the project was the use of Microsoft Teams for the online presentation. One goal was to include as many participants as possible from around the state of Pennsylvania. If the presentation was performed in person, less people may have signed up to attend the presentation due to proximity issues. This also allowed participants to remain anonymous during the presentation. Furthermore, the authors offered a couple dates to listen to the online presentation. This allowed the participants to choose a time that fit their schedule and gave the authors a broader audience to present to.

There were a few limitations found within this DNP project. As mentioned previously, the population targeted in this DNP project included CRNAs, SRNAs, legislators, and healthcare administrators. In total, there were 25 participants who partook in the authors online webinar presentation, and 21 participants completed the pre and post surveys. Although 21 participants provided adequate data for the purpose of this DNP project, more participants would have solidified the results. Additionally, the majority of the participants were CRNAs and SRNAs while only a few were legislators and hospital administrators. Repeating this project with only healthcare administrators and legislators could help better understand if the material that was presented displayed evidence that CRNAs can practice autonomously while also advocating for health policy change in Pennsylvania.

Linkage to DNP Essentials

The DNP Essentials, created by the American Association of Colleges of Nursing (2006), were designed to produce the foundation of all advanced nurse practice roles. The eight DNP Essentials must be represented in the curriculum as well as in the DNP project to meet accreditation requirements. These eight DBP Essentials guided this DNP project to its completion.

DNP Essential I – Scientific Underpinnings for Practice: To begin this DNP project, a full literature review was performed to gather evidence-based research relating to CRNA safety and efficacy. This literature review highlighted years of safe CRNA practice from a variety of different studies.

DNP Essential II – Organizational and Systems Leadership for Quality Improvement and Systems Thinking: Instituting a health policy toolkit to help educate and advocate for policy change to CRNAs, SRNAs, legislators, and healthcare administrators was the focus of this DNP Project. Creating a toolkit that was easy to use and to reference when advocating for a change in CRNA practice can be easily transferable in practice.

DNP Essential III – Clinical Scholarship and Analytical Methods for Evidence-based Practice: This DNP Essential was met by designing the health policy toolkit, implementing the webinar, and evaluating the data. The data collection was evaluated using the paired t-test and descriptive statistics. The final dissemination was a poster presentation at Cedar Crest College and a presentation at the Annual Philadelphia Advisory Group of Nurse Anesthesia Programs, Spring CRNA/Nurse Anesthesia Residency DNP Projects held at Villanova University.

DNP Essential IV – Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care: This DNP Essential was met by instituting

numerous technological mediums to distribute and implement the findings. An online webinar was conducted as a part of the health policy toolkit on Microsoft Teams. A QR code was placed on the flyers to link the webinar presentation dates. Second, a website was created as part of the toolkit to provide information about CRNA practice and important information relative to health care administrators and legislators. Finally, online software was used to analyze the data from the surveys that were given to each participant.

DNP Essential V – Healthcare Policy for Advocacy in Healthcare: Two of the four key stakeholders for this DNP project included healthcare administrators and legislators because they ultimately dictate change within states and healthcare systems. The information included in the webinar, website, and pamphlet refer to the current policies and standards of practice that are instituted in Pennsylvania. The information also included the safety of CRNA practice as well as a cost benefit to utilizing CRNAs in practice. For CRNAs, this DNP project provided a foundation to advocate for the profession. Ultimately, CRNAs should feel empowered to manufacture change in practice, and the health policy toolkit can be the ignition for change.

DNP Essential VI – Interprofessional Collaboration for Improving Patient and Population Health Outcomes: This project positively showed the impact CRNAs have on hospital costs, patient outcomes, and relieving disparities in healthcare access to underserved communities in Pennsylvania. Employing CRNAs to work autonomously can help provide equitable anesthesia services, while also promoting safe and cost-effective care.

DNP Essential VII – Clinical Prevention and Population Health for Improving the Nation's Health: The AACN (2006) defines this essential as improving the health status of the population in the United States regardless of age, gender, culture, occupation, or socioeconomic status. The research indicated that rural regions of the country do not share the same

opportunities for healthcare as other regions. Providing the tools to help implement change in healthcare policy for CRNA practice provides the opportunity to lighten this burden on many underserved areas of the state.

DNP Essential VIII – Advanced Nursing Practice: The information and data amassed during this DNP project along with the evidence supporting legislative change in CRNA practice served as a guide to improving healthcare disparities and advancing the CRNA profession. The health policy toolkit can serve as a gateway for change to the CRNA profession in Pennsylvania.

Chapter VIII: Summary of Project

Summary & Conclusions

There are multiple barriers preventing CRNAs from working to their full scope of practice. Legislators, healthcare administrators, CRNAs, and SRNAs, may not be aware of the current legislation governing CRNA practice so, it was important to seek ways to engage active CRNAs to advocate for the advancement of the profession. Twenty-two states and Guam have paved the way for states to enact legislation to opt-out of the current physician supervision requirement for CRNAs (AANA, 2022). Enacting legislation in Pennsylvania to allow CRNAs to work autonomously can ease the burden of many underserved hospitals and healthcare facilities in the state while simultaneously providing a cost beneficial anesthesia team.

The construction of the health policy toolkit educated CRNAs, SRNAs, legislators, and healthcare administrators about the CRNA profession and current legislation governing CRNA practice. The material presented was provided in three forms: an online webinar, a website, and a pamphlet. Utilizing three modalities of dissemination allowed the participants to absorb the information through multiple contexts. Furthermore, the material presented at the online webinar can be revisited seamlessly by opening the website or reading the pamphlet. The information is

readily available and can serve as a tool while engaging in legislation or advocating for the profession. Statistical significance was found in analysis of the pre and post surveys. It was determined that the participants would utilize the health policy toolkit to engage in activities that support full practice authority for CRNAs in Pennsylvania. The data also demonstrated that the participants showed an increased understanding of the cost benefits for employing CRNAs, the safety and quality of care that CRNAs provide, and the need for anesthesia coverage in underserved parts of the state.

Dissemination Plans

One of the most important steps to advocating for the profession and engaging in legislative matters was to educate healthcare professionals regarding CRNA practice to provide the greatest impact in practice. This was first done virtually by presenting at the Annual Philadelphia Advisory Group of Nurse Anesthesia Programs on March 9th, 2023. Following that presentation, the final dissemination of this DNP project took place at Cedar Crest College before faculty and students on April 20th, 2023.

Future Ideas

The goal of this DNP project was to fuel engagement for change in current legislation governing CRNAs in Pennsylvania. There are many hurdles that must be circumvented before policy change can occur; therefore, providing a foundation of material and support is the first step. The website and pamphlet, which was created as part of the health policy toolkit, may be used by CRNAs, SRNAs, legislators, or health care administrators advocating for the profession. The information may be shared amongst colleagues to be utilized in future discussions of change. There is an abundance of evidence supporting CRNA autonomy, and with the guidance

of the health policy toolkit, more insightful engagements could occur to create a positive change for the CRNA profession.

References

American Association of Colleges of Nursing. (2006). *The essentials of doctoral education for advanced nursing practice.* https://www.aacnnursing.org/Portals/42/Publications/DNPEssentials.pdf

American Association of Nurse Anesthesiology [AANA]. (2022). *Certified registered nurse anesthetists fact sheet.* https://www.aana.com/membership/become-a-crna/crna-fact-sheet

American Association of Nurse Anesthesiology [AANA]. (2020). *Full practice authority for CRNAs in the VA: Issue brief.* https://www.aana.com/docs/default-source/fga-aana-com-web-documents-(all)/va-issue-brief-final.pdf?sfvrsn=54bf563b_

Barua, A. (2013). Methods for decision-making in survey questionnaires based on likert scale. *Journal of Asian Scientific Research*, *3*(1), 2–28. https://doi.org/10.4135/9781412986496.n1

Cohen, C., Baird, M., Koirola, N., Kandrack, R., & Marsolf, G. (2020). The surgical and anesthesia workforce and provision of surgical services in rural communities: A mixed-methods examination. *The Journal of Rural Health*, *37*(1), 45-54. https://doi.org/10.1111/jrh.12417

Dulisse, B., & Cromwell, J. (2010). No harm found when nurse anesthetists work without supervision by physicians. *Health Affairs*, *29*(8). https://doi.org/10.1377/hlthaff.2008.0966

Hoyem, R. L., Quraishi, J. A., Jordan, L., & Wiltse Nicely, K. L. (2019). Advocacy, research, and anesthesia practice models: key studies of safety and cost-effectiveness. *Policy, Politics, & Nursing Practice*, *20*(4), 193–204. DOI: 10.1177/1527154419874410

Lambert, J. (2020). Statistical tools for doctor of nursing practice final projects. *Journal of Nursing Education*, *59*(2), 119-120. https://doi.org/10.3928/01484834-20200122-15

LaMorte, W. W. (2019). Diffusion of innovation theory. *Boston University School of Public Health*. https://sphweb.bumc.bu.edu/otlt/mph-modules/sb/behavioralchangetheories/BehavioralChangeTheories4.html

Lewis, S. R., Nicholson, A., Smith, A. F., & Alderson, P. (2014). Physician anaesthetists versus non-physician providers of anaesthesia for surgical patients. *Cochrane Database of Systematic Reviews*, *7*. https://doi.org/10.1002/14651858.CD010357.pub2

Needleman, J., & Minnick, A. F. (2009). Anesthesia provider model, hospital resources, and maternal outcomes. *Health Services Research*, *44*(1), 464-482. https://doi.org/10.1111/j.1475-6773.2008.00919.x

Negrusa, B., Hogan, P., Warner, J. T., Schroeder, C. H., & Pang, B. (2016). Scope of practice laws and anesthesia complications: No measurable impact of certified registered nurse anesthetist expanded scope of practice on anesthesia-related complications. *Medical Care*, *54*(10), 913-920. https://doi.org/10.1097/mlr.0000000000000554

PANA for Quality Care. (2021). *Legislative updates.* https://www.panaforqualitycare.com/copy-of-legislative-updates

Pennsylvania Association of Nurse Anesthetists. (n.d.). *Welcome to the Pennsylvania association of nurse anesthetists*. https://www.pana.org

The Hospital Healthsystem Association of Pennsylvania. (2019). *Fact sheet: A bold experiment to heal rural Pennsylvania: The rural health model*. https://www.haponline.org/Resource-Center?resourceid=74

U.S. Bureau of Labor Statistics. (2021). *Occupational employment and wages, May 2021*. https://www.bls.gov/oes/current/oes291151.htm

Walitzer, K. S., Dermen, K. H., Barrick, C., & Shyhalla, K. (2015). Modeling the innovation-decision process: Dissemination and adoption of a motivational interviewing preparatory procedure in addiction outpatient clinics. *Journal of Substance Abuse Treatment*, *57*, 18-29. https://doi.org/10.1016/j.jsat.2015.04.003

Yazdi, M. (2020). *CRNAs will need a doctorate degree by 2025*. https://nurse.org/education/crna-doctorate-degree-2025/

Yin, L., Shui, X., Zuo, J., Yang, Q., Jiang, X., Liao, L. (2021). No harm found when the scope of practice of nurse anesthetists is expanded to the whole process of anesthetic care and under indirect supervision of anesthesiologists: A time series study. *International Journal of Nursing Studies*, *117*. https://doi.org/10.1016/j.ijnurstu.2021.103881

Appendix A

DNP Project Smart Goals

SMART Goal #1

50% of participants will agree or strongly agree in the post presentation survey that they have an increased understanding of patient outcomes as it relates to CRNA care delivery and practice in PA.

Pre/Post Question:
I have a good understanding of the role that CRNAs play in the delivery of anesthesia services to patients.

Pre/Post Question:
The provision of anesthesia care as it relates to patient outcomes is equally as safe and effective under CRNA delivery as other anesthesia providers.

SMART Goal #2

50% of participants will agree or strongly agree in the post presentation survey that they have an increased understanding of the practice role CRNA play within the healthcare delivery system in the state of PA.

Pre/Post Question:
Evidence shows that CRNA training and education requirements are effective to support independent practice.

Post Question:
After being presented with the health policy toolkit, I have an increased understanding of the role that CRNAs play within the healthcare delivery system in the state of PA.

SMART Goal #3

50% of participants will agree or strongly agree in the post presentation survey that they have a better understanding of the cost-effective measures that CRNA expanded practice and autonomy will provide in the state of PA.

Pre/Post Survey:
Research has shown that CRNAs having full practice authority would decrease costs associated with anesthesia care in the state of PA.

Post Survey:
Cost effectiveness was made apparent throughout this presentation, the reduction in healthcare associated costs plays a major role in the consideration for policy change.

SMART Goal #4

50% of participants will agree or strongly agree in the post presentation survey that CRNA autonomy and expanded practice will help to increase access to care and fulfill shortages in anesthesia services.

Pre/Post Survey:
There is an increased need for anesthesia providers in my area.

Pre/Post Survey:
CRNAs having full practice authority would help fulfill anesthesia provider shortages throughout PA.

SMART Goal #5

50% of participants will agree or strongly agree in the post presentation survey that the health policy toolkit will increase their active engagement in helping to support legislation that will advance the role of CRNAs and allow full practice autonomy.

Post Survey:
I will reference the health policy toolkit to promote active engagement by a vast majority of stakeholders to support and encourage legislation for CRNA full practice autonomy in PA.

Post Survey:
After viewing this presentation, I am more likely to support or engage in activities that support full practice authority for CRNAs in Pennsylvania.

Appendix B

Likert Scale

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Appendix C

Recruitment Flyer

Removing Barriers to Practice: Achieving Autonomy for Certified Registered Nurse Anesthetists through Education, Engagement, and Policy Change

An Educational Session hosted by:

Mitchell Dent, Peter Caruso, & Quinn Luckenbill

Join us for a webinar presentation to learn more about the role of CRNAs in healthcare, anesthesia practice models with a focus on CRNA independent practice, and legislation that governs the practice of CRNAs in the state of Pennsylvania.

Dates:	Thursday, February 2, 2023	6:00 pm – 6:30 pm
	Saturday, February 4, 2023	10:00 am – 10:30 am
Location:	Microsoft Teams	

SCAN ME

Please email ccc.dnp2023@gmail.com to register for this event or scan the QR code above. Be sure to include the date you are signing up for in the email.

Doctorate Project Implementation by SRNAs from Cedar Crest College

**This DNP project was approved by Cedar Crest College IRB no. 434 on September 9, 2022.*