

A Multidimensional Wellness Initiative for CRNA's & SRNA's

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**Author Note**

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### Abstract

CRNAs provide safe, high quality, and cost-effective anesthesia and aid in the life saving care of patients in the emergency/trauma units, intensive care units, obstetrical units, operating rooms, etc. This shared sentiment of burnout and high stress has only been further exacerbated by the current pandemic for these health care providers. A multidimensional wellness initiative (MWI) can be implemented to reduce this feeling of overwhelming stress. By incorporating mindfulness-based stress reduction techniques (MBSR) as well as a simplified exercise regimen, the holistic nature of this MWI covers two perspectives of stress reduction. This paper highlights pertinent information regarding MWI implementation. The resulting information garnered from the review of literature supports the use of a MBSR smart phone application as well as the use of exercise (specifically walking) to therapeutically address the stresses of CRNAs and SRNAs. Both the mental and physical aspects of stress reduction are addressed to manifest a well-rounded therapy aimed to decrease the amount of stress a typical CRNA and SRNA experience during work and or school environments.

***Key words:*** CRNAs, SRNAs, anxiety, exercise, mindfulness, stress reduction, stress, multidimensional wellness program, burnout

**Title** A Multidimensional Wellness Initiative for CRNA's & SRNA's

**Population, Intervention, Control, Outcome (PICO) Question**

Amongst CRNA's and SRNA's, how does the implementation of a multidimensional wellness initiative effect their perceived willingness to utilize mindfulness and exercise in their everyday lives.

## **A Multidimensional Wellness Initiative for CRNA's & SRNA's**

### **Chapter I**

In the global field of nursing there is an ever-growing issue related to increased work burden, poor work/life balance, and overall increase in feelings of stress, anxiety, and burnout. Within that global practice environment of nursing there is a group of nurses who continue their education and pursue a path full of intense training, rigorous clinical/study schedules, and overwhelming number of hours dedicated to their prospective craft. This group is known as Nurse Anesthesia and consists of Certified Registered Nurse Anesthetists (CRNAs) and Student Registered Nurse Anesthetists (SRNAs). Nurse Anesthetists are critical care nurses who go back to school to learn how to practice anesthesia (American Association of Nurse Anesthesiology – AANA, 2021). Once in a doctorate level nurse anesthesia program, they gain the title of SRNA where they begin intense training and experience while under the supervision of CRNAs (AANA, 2021). Once the SRNA finishes their three-year advanced practice masters and doctoral degree they become licensed CRNAs (AANA, 2021). CRNAs provide safe, high quality, and cost-effective anesthesia while they administer more than 50 million anesthetics to patients each year (AANA, 2021). They also aid in the life saving care of patients in the emergency/trauma units, intensive care units, obstetrical units, operating rooms, etc. (AANA, 2021). CRNAs are airway and pharmacology experts who are trained in all aspects of advanced cardiopulmonary life support (ACLS) and pediatric advanced life support (PALS) (AANA, 2021). During the last year, the COVID-19 pandemic has highlighted the highly intense workplace duties of all medical workers along with the CRNAs and SRNAs who largely were tasked as being the COVID intubation teams for many hospitals across the United States. COVID showed the world the increased level of stress, anxiety, and morbidity that they have been exposed to for years and

years (Shechter et al., 2020). Shechter et al., found that during the pandemic alone, more than 50% of the health care workers in their study were diagnosed with acute post-traumatic stress, 75% had poor sleep behaviors, and the overwhelming responsibility both emotionally and physically of healthcare workers only increased the traumatization (Shechter et al., 2020). Working in high acuity health care environments under adverse conditions strongly correlates with a decreased ability to cope, a decreased feeling of proficiency, and a glooming feeling of burnout for those on the frontline (Jackson et al., 2018).

### **Background and Significance**

Burnout of healthcare workers is an ever-present issue for hospitals and something that leads to decreased job satisfaction, decreased proficiency, increased turnover rates, and can eventually lead to a decrease in patient safety from situations such as medical errors (Hall et al., 2016). Thus, the question that is continuously asked by hospital management is “How can burnout be eliminated?” and the key to the answer to that question is to understand what burnout is caused by. Jackson et al. (2018), describes burnout as a “disillusionment and emotional exhaustion.” They go on to state that burnout stems from emotional exhaustion, cynicism, and decreased feelings of self-efficiency caused by physiological stressors identified as moral distress, PTSD, and compassion fatigue (Jackson et al., 2018). CRNA's and SRNA's perform in circumstances similar to the conditions leading to these kinds of issues.

A direct way to combat the causes of burnout is to identify the stressors that CRNAs and SRNAs are faced with and develop a way to physically and psychologically cope with said stressors. If the CRNAs and SRNAs learn to cope, then there will be less burnout. If there is less burnout then patients get more effective and safe care. Shechter et al., (2020) found that the people who adequately dealt with the increased stress related to the COVID-19 pandemic did so

with the help of a consistent coping regimen. The majority (around 60% of the study population) utilized exercise as the coping mechanism of choice (Shechter et al., 2020). The next most popular coping strategy were techniques characterized as mindfulness-based stress reduction (MBSR) techniques such as meditation, yoga, etc. (Shechter et al., 2020). Exercise is also an excellent way to allow the body to physically heal from stress and anxiety through the release of endorphins, decreased release of cortisol (the stress hormone), and allowing the central nervous system to go from a state of “fight or flight” to a place of calmness and peace (Matzer et al., 2018).

Matzer et al. (2018), did something unique in their study which led to an overall synergism between the mind and body to allow for an increased ability to cope with stress. This technique is known as a multidimensional wellness initiative (MWI). Matzer et al. (2018), found that when exercise, such as walking 30 minutes a day, is combined with a MBSR technique, there is a higher rate of coping as proven by the following indicators: decreased systolic and diastolic blood pressure, decreased levels of salivary cortisol, increased feeling of alertness, calmness, relaxation, and overall good mood (Matzer et al., 2018). The study by Matzer and colleagues suggests a need for further focus and validation of utility of an MWI. The foundation of this project rests on the ability to reduce stress amongst CRNAs and SRNAs via an MWI because it will help reduce stress, feelings of burnout and increase patient safety.

### **PICO Question Guiding Inquiry**

The nursing practice environment is now more than ever faced with higher levels of stress in and outside of the workplace. This overwhelming stress creates a heavy burden on nurses which can also spill over and effect their interpersonal relationships, family lives, work satisfaction, and their ability to provide safe and effective care to patients (Woo et al., 2020).



This COVID pandemic has certainly exacerbated this stress level and intensified the burden put on all healthcare workers in the field (Shechter et al., 2020). To try to alleviate some of this stress CRNAs and SRNAs deal with, a MWI that focuses on both mind and body coping could be implemented into the daily or weekly schedules. On the mental health side of this project, MBSR techniques will be addressed. Then on the physical side of the project, an exercise program revolved around walking will be addressed. The entirety of this information will be addressed via a podcast series where listeners can connect to the authors (both SRNAs) and their personal experiences with these coping strategies followed by detailed ways of how to plan and implement a real-life multidimensional wellness program in someone's everyday life. The PICO question stands as such: "Amongst CRNA's and SRNA's, how does the implementation of a multidimensional wellness initiative effect their perceived willingness to utilize mindfulness and exercise in their everyday lives."

### **System and Population Impact**

The nursing field and the advanced practice providers within that field all face a significantly heightened stress level within the workplace. As stated earlier, CRNAs and SRNAs, the target population for this project, are nurses by profession and licensure. Within the field of anesthesia, these advanced practice providers have extremely high rates of substance abuse due to poor coping practices and increased stress/burnout. High stress, life or death experiences combined with free reign access to some of the most addictive drugs known to mankind can be a dangerous and potent mix (Griffin et al., 2017). Therefore, it is so important to reach this population from a coping standpoint and enhance their personal experience both in and out of the workplace.

### **Purpose, Objectives, and Goals**

The purpose, objectives and goals for this project are based on the implementation of a daily MWI can have a beneficial impact on CRNAs and SRNAs overall well-being. The primary objective is to connect with those CRNAs and SRNAs within the profession and prove through experience and literature that a MWI can be effective tool that can be implemented into their busy life schedules. The goal is that they can become more enlightened on these various techniques and will show a willingness to utilize MWI in their daily life.

## **Chapter II**

### **Search Methodology & Findings: Exercise**

A literature review was conducted through the online resources of the Cressman Library at Cedar Crest College. The first literature search focused on the topic of exercise use for stress reduction in healthcare workers or any other type of employee who works in a high stress environment. Databases such as SpringerLink, Google Scholar, EBSCO Host, and CINAHL were used to identify high level/quality evidence. Keywords such as “exercise, stress reduction, SRNAs, CRNAs, health care workers, chronic stress, acute stress, and burnout” were used to gather an initial search. Further limiters such as “peer reviewed only”, “date range 2013-present”, etc. were applied to strengthen the pool of evidence of which to choose from. Literature that utilized randomized control trials, systematic reviews, and case studies were used representing higher level information to validate the benefits of exercise upon managing stress/anxiety. The studies showed that exercise can be used to treat chronic stress/anxiety, acute stress/anxiety, decrease feelings of work-related burnout, and improve a person’s self-esteem. For example, Jayakody et al. (2014), found that exercise offers treatment benefits for people with acute and chronic anxiety disorders whether used with or without the

medication adjuncts. Another example from Griffin et al. (2017), showed that an improved perceived wellness and self-efficacy were positively correlated to success in the workplace and improved test scores amongst student registered nurse anesthetists. Therefore, this information is useful for proving that exercise can aid in the treatment of acute stress. It also showed that exercise can decrease physiological symptoms of stress such as high blood pressure, salivary cortisol levels, etc. Some studies surveyed healthcare workers to identify how they coped through the immense amount of work-related stress during the COVID-19 pandemic and exercise was the most common at about 60% of those people surveyed. In many of the studies the researchers used a 30-minute walk as their exercise of choice because it was something that most participants could perform regardless of their exercise experience. Overall, there are various studies suggesting the effectiveness of exercise as part of an MWI.

### **Limitations**

As with any research project, there were multiple limitations noted within the research gathered. Shechter et al., (2020), had a low initial response, an uneven gender distribution, a relatively small sample size compared to the overall population of healthcare workers, the study was conducted during peak COVID-19, therefore, they may have gotten more involvement at a different time and all the participants were from a large medical center in NYC and may not represent all the healthcare workers in the United States (US). Jayakody et al. (2014), used English language only studies, most of the studies were short durations, and some patients may have turned to medications without giving exercise the opportunity to work. Matzer et al. (2018), never looked at physical activity by itself however it compared relaxation and physical together vs relaxation alone. There was also no control group without an intervention (Matzer et al., 2018). Furthermore, they only measured the stress levels pre- and post-intervention. They did not

do any further evaluation (Matzer et al., 2018). Griffin et al. (2017), do not have any concrete cause-and-effect conclusions that can be made due to the fact these are observed relationships and correlations between wellness and perceived self-efficacy and all SRNAs are selected based on previous academic and clinical success.

### **Literature Review Conclusion**

In the nurse anesthesia setting, work environments are full of high stress situations, morbidity, troubling outcomes, and increased work demand. This leads to CRNAs and SRNAs having to deal with a multitude of emotions but most significantly stress and anxiety. It is crucial for these CRNAs and SRNAs to deal with these struggles by utilizing healthy coping mechanisms. The research shows that they will have higher likelihood of burnout which may also pose a risk to patient safety in the long run. This project aims to highlight the effective coping mechanisms of exercise and MBSR techniques and implement them together via an MWI. The plan is to have a population of CRNAs and SRNAs relate to the author stories and develop the motivation to implement a MWI in their everyday life. These CRNAs and SRNAs will hear the authors stories of how they were able to implement these techniques in their life and the research that goes behind a MWI via an online podcast series. The hope is that the podcasts are perceived by the targeted CRNA and SRNA participants as a practical approach for adopting a MWI to support better coping ability. Overall, the research is concise and has shown over and over that when a MWI such as this is implemented, health care workers will have less higher feelings of proficiency, improved mood, decreased blood pressure, decreased cortisol levels, less anxiety, less burnout, and with that, improved patient safety and outcomes. In the grand scheme of medicine, this is a “trickle down” benefit. If the providers on the front line can get the help

and resources they need, then the patients they care for will have a more effective provider and a safer hospital stay with better outcomes.

### **Chapter III**

#### **Conceptual Definitions of Theory or Framework**

The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) model is a model that deals with a certain type of clinical decision making with the help of problem-solving tools at an individual or group level (Friesen et al., 2017). Successful implementation when using the JHNEBP model stems from a three-step process known as the practice question-evidence-translation (PET) process (Friesen et al., 2017). A practice question is developed (i.e. PICO question), evidence is obtained (i.e. literature review and synthesis), and then translated to the population (i.e. implementation and dissemination) (Friesen et al., 2017). However, the key to success is continued mentorship and education (continued contact with the population week after week) (Friesen et al., 2017). Friesen et al. (2017), reports that the barriers to success with this model are as follows: lack of mentorship, lack of sufficient time, lack of resources, lack of organizational incentives, apprehension from professional peers, and lack of EBP knowledge (Friesen et al., 2017). With that said, the goal JHNEBP model is to make sure that the newest evidence-based practice findings are appropriately used for patients that are treated (Friesen et al., 2017).

#### **Relationship of Theory/ Framework to Scholarly Project**

In this project, permission to use this framework was gained from John's Hopkins Health System and then JHNEBP model was tailored to ensure that the latest research and evidence was implemented to those who directly care for the patients. This model was utilized throughout the entirety of the project, especially during the implementation where the evidenced based research

was presenting the via our podcast series. Shechter et al., found that during the pandemic alone, more than 50% of the population in their large group study were diagnosed with acute post-traumatic stress, 75% had poor sleep behaviors (Shechter et al., 2020). This leads to a decreased ability to cope, a decreased feeling of proficiency, and a glooming feeling of burnout for those on the frontline (Jackson et al., 2018). As stated before, the research also shows that multidimensional wellness programs are beneficial for decreasing stress for healthcare workers such as CRNAs and SRNAs. Furthermore, the latest research goes on to show the positive correlation between high stress work environments and burnout rates. This in turn leads to less safe care for the patients who need it most. By using this model to implement the research to the caregivers, the benefits trickle down and will hopefully improve patient care and safety in the future.

## **Chapter IV**

### **Institutional Review Board Approval (IRB)**

IRB approval was obtained for this project and “expedited review” approval was obtained on October 13, 2021. The IRB utilized for this project was the Cedar Crest College IRB because this project is going to occur outside of the hospital setting. It was anticipated that participants would be at no apparent physical, psychological, or emotional risk at any time during the DNP project. Nor was it anticipated that participation in the project would place the participants at any risk of criminal or civil liability or damage the participants' financial standing or employability. Should participants' involvement in the study initiate any sense of emotional distress, information was available to participants in support of counseling and other psychological supports and regional resources supporting psychosocial wellness. These include the PA 211 "warm line" supporting directed counseling and referral options. Mental assistance in the form of

hotlines, assisting centers and other information will be provided in the unlikely event something was to happen.

### **Implementation Plan**

The implementation plan for this project was based on holistically improving personal wellness via a MWI podcast for CRNAs and SRNAs. The implementation phase consisted of a podcast mini-series consisting of four episodes that was released on “buzzsprout.com” over four consecutive days. The first episode was related to a review of consent and an introduction of the authors so that the listeners can learn to relate and understand the commonalities between the author’s struggles and the struggles that all SRNAs and CRNAs face when it comes to stress in the workplace. The second episode covered the use of mindfulness-based strategies and specifically how the authors utilize the “UCLA mindfulness application” in their busy lives. It highlighted the benefits and various ways to integrate the coping mechanism into daily life. The third episode highlighted the use of exercise in a similar fashion to the mindfulness technique and how the authors incorporate it in their daily lives along with the research benefits and clever ideas on how to incorporate it into busy life schedules. The final episode discussed the combination of both techniques implemented together. The podcast series suggests ways to implement a long-term multidimensional wellness initiative.

### **Data Collection Tools**

The measurement tool used for this project is based on the use of Google Survey. Prior to starting the series and following the completion of the series the listeners were asked to complete a Google forms survey that assessed ideas such as previous knowledge base, how well they can relate to the stress discussed, and whether the podcast episode helped them understand new ways to implement a MWI as a more beneficial form of coping.

The survey was a Likert scale-based survey thereby using a pre-test/post-test study format. Google survey was able to combine all the results into a graph where the project authors then utilized a professional statistician for all statistical analysis. The program was evaluated via the data that was acquired from the Google surveys. The resulting data was quantitative in nature and served as a worthy scale for determining the effects of the implementation of the DNP project on the participants.

The hope was that the listeners would understand and relate to the stress and anxiety experienced by the authors as well as other SRNAs and CRNAs. Also, the results of the surveys were hoped to convey that the listeners have a better understanding for how to implement and utilize a multidimensional wellness program into their own busy lives. The goal was to show the SRNA and CRNA community a more beneficial and healthy form of coping through multidimensional wellness modalities.

### **Resources**

Resources needed for this project are the authors time/effort, willing participants, the “buzzsprout.com” podcast platform, Likert scale Google surveys done before and after listening to the podcast series, a quiet place to record each podcast, a MacBook Pro laptop with two sets of headphones, the “QuickTime player” application, to record each podcast episode, and professional statistician that was sponsored by our DNP project chair to analyze the statistical data. Most of these resources were available to the authors prior and allowed for a seamless implementation of this proposed DNP project.

### **Budget Justification**

This project utilized multiple free resources including the following: “buzzsprout.com” a podcast hosting website, QuickTime player application, the UCLA *Mindful* application, Google



forms, and Microsoft Excel. The overall cost of the project was mostly time, energy, and willingness to persevere through the process of this DNP project via the podcast series.

## **Chapter V**

### **Implementation Procedures and Process**

The implementation process for this project was started by reaching out to a professional group of Pennsylvania CRNAs and SRNAs via the “PA CRNA/SRNA Facebook group.” A google email address ([WellnessDNP2022@gmail.com](mailto:WellnessDNP2022@gmail.com)) was created so that interested participants could request to join the project. The email was also used so that all further communication between the author and participants could be concise and organized. This allowed for confirmation emails to be sent to the participants so that the project population could be finalized. The email thread was then used to send out the reminders, instructions, participant numbers, pre and post surveys, and podcast episode links. Over four consecutive days, the participants completed a presurvey on day one, along with listening to one of the podcast episodes per day. After listening to the fourth episode on the fourth and final day, the participants completed the post survey. After the completion of the pre survey, podcast series, and the post survey, they data was gathered from the google form surveys and Wilcoxon rank test was utilized by a professional statistician.

Podcast episode one “Introductions” focused on introducing the authors to the audience and identifying the many stressors they face to show how they relate to the participants. The authors discussed their introduction (name, title, family, and journey to anesthesia), all the stressors in and outside of anesthesia such as personal, clinical, etc. that they face, and the fact that stress occurs in anesthesia, but life does not cease from happening. Podcast episode two “Mindfulness Based Stress Reduction” highlighted the definition of what it is, facts surrounding

its physical and psychological benefits when used for stress reduction, and a thorough explanation of the UCLA Mindful application (how to download it, use it, etc.). Podcast episode three “Exercise” discussed the diverse degrees of exercise, the facts surrounding the physical and psychological benefits that it produces when it is used to cope with stress, and it focuses on an easy-to-use walking regimen that has been proven to aid in stress reduction for healthcare workers. Podcast episode four “Conclusion” encapsulated everything discussed prior and integrates the total implementation of an MWI in a busy SRNAs or CRNAs life. The authors started by talking about the fact that stress is felt different amongst everyone, and it isn’t something that people often explain how to manage. The authors discussed how they manage stress and how they utilize a MWI in their busy lives. They highlighted solutions to help many people with the roadblocks that may inhibit them from implementing a MWI in their daily lives.

### **Data Analysis**

The Pre- and Post-Test survey data was analyzed to address differences (Polit & Beck, 2017). The test statistic that was used for this scenario is the “Wilcoxon Signed Rank Test” (WSRT). The WSRT is “a nonparametric statistical test for comparing two paired groups, based on the relative ranking of values between the pairs.” (Polit and Beck, 2012, p.746) The final data analysis was obtained from a professional statistician.

## **Chapter VI**

### **Evaluation**

To evaluate the efficacy and efficiency of this DNP project, comparisons were made using pre/post surveys. The surveys were used to determine whether the CRNAs and SRNAs were able to acquire knowledge and improve their perceived ability to implement a

multidimensional wellness initiative in their own daily life. The pre and post surveys asked questions requiring a Likert scale response. The Likert scale answers were as follows: 0 strongly disagree; 1 disagree; 2 neutral; 3 agree; 4 strongly agree. The initial question to evaluate current stress and anxiety levels amongst the participants, “I currently feel significant stress, anxiety, and overwhelmed at times while performing as an SRNA (including school & clinical) or as a practicing CRNA.” The next question was used to identify current poor coping mechanisms that the participants were engaging in, “I feel that I have a poor plan for dealing with school, clinical, or work-related stress (Ex. drinking, drugs, excessive eating, poor relationships, etc.).” The third question was a knowledge base assessment about mindfulness-based strategies used for stress and anxiety reduction, “I am familiar with the physical and psychological benefits of mindfulness-based techniques as a coping method to deal with stress?” The fourth question was another knowledge base assessment but related to the use of exercise strategies in their use for stress and anxiety reduction, “I am familiar with the physical and psychological benefits of exercise as a coping method to deal with stress?” The fifth and final questions was a competency and willingness to change assessment, “I feel equipped to utilize a multidimensional wellness program in my life to cope with my school, clinical, or work-related stress. related stress.”

### **Outcomes**

Each of the 15 participants completed their pre and post surveys before and after listening to the podcast. SPSS v.17 was used to statistically analyze each pre and post survey question with the help of the WSRT. A WSRT was conducted on each question from the pre and posttest responses. From this test, several positive outcomes were identified.

The survey responses indicate most of the participants (10 out of 15 participants or 67%) currently feel significantly stressed, anxious, and overwhelmed at times while performing as an

SRNA or CRNA. In addition, 6 out of 15 participants (40%) shared that they feel that they have a poor plan for dealing with school, clinical, or work-related stress (e.g. drinking, drugs, excessive eating, poor relationships, etc.). Then 14 out of the 15 participants (93.3%) showed an improvement in their understanding of the physical and psychological benefits of mindfulness-based strategies. Furthermore, 10 out of 15 (67%) showed an improvement of their understanding of the physical and psychological benefits of exercise. The most significant result was that 12 out of the 15 participants (80%) showed an improvement in their own sense of preparedness to utilize a multidimensional wellness program in their personal lives.

### **Discussion**

Research shows that improving wellness among anesthesia providers can help reduce stress, anxiety, and burnout, which will lead to an improvement of patient safety and outcomes (Hall et al., 2016). The goal of this DNP project was to help disseminate information needed to help CRNAs and SRNAs Improve their level of wellness. It has been shown in the research that there is more of a vested interest when information is communicated within a collaborative group of people because there is a sense of shared ownership (Sprowls, 2020). In contemporary society, communication via multimedia platforms has become increasingly advanced and able to reach countless numbers of people via their personal electronic devices. The most recent example of this was the use of multimedia education and business platforms used during the COVID 19 pandemic. This DNP project aimed to reach CRNAs & SRNAs and promote wellness among peers through a podcast series informed by an evidence-based multidimensional wellness program highlighting the combination of exercise and mindfulness based coping strategies.

Based on the DNP project surveys submitted by the participants, it was found that: CRNAs and SRNAs experience a significant amount of stress related to the clinical setting; and

most CRNA and SRNA participants either engage in poor coping strategies that are unsustainable or were not as knowledgeable of positive strategies such as mindfulness and exercise. The data analysis reflects that the participants have a better understanding of exercise/mindfulness and the proven beneficial effects that both modalities have on reducing stress and improving wellness after listening to the podcasts. Finally, the participants feel more equipped to utilize a multidimensional wellness program after listening to our podcast.

Despite several factors that made this implementation challenging (COVID 19 pandemic, digital recruitment, etc.), this multidimensional wellness initiative was implemented smoothly from the authors to their fellow nurse anesthesia peers to help relay a more relatable message on the importance of wellness. Additionally, the DNP Project podcast is something that can be used in the future to reach other CRNAs and SRNAs for many more years to come by remaining conveniently active on Buzz Sprouts podcast holding site. In the future, this project should be implemented in a larger scale to help identify more of a direct correlation (in terms of statistical power) between CRNA/SRNA wellness and patient safety outcomes. Patient safety is always the goal of a provider. By highlighting the improvement of anesthesia provider wellness in this project, the hope is for a “trickle down” effect that improves the care for their patients along with the patient’s safety. Future research could be done to evaluate the impact of a CRNAs wellness routine on adverse events in their practice and patient safety.

## **Chapter VII**

### **Implications for Practice**

As identified in the background section of this paper, CRNAs and SRNAs have a pivotal and unique role in the care of patient within the emergency/trauma units, intensive care units, obstetrical units, operating rooms, etc. (AANA, 2021). CRNAs and SRNAs also are responsible

for managing issues outside of the realm of their life saving/sustaining patient care. Issues like staffing shortages, demanding operating room pace, treating COVID 19 patients in the ICU, etc. have increased levels of stress leading to increased provider burnout. When work related burnout occurs it is critical for CRNAs and SRNAs to prioritize their physical and mental health because it correlates with the safety and efficacy of patient care (Bittinger et al., 2020). CRNAs and SRNAs should be taught how to actively implement multidimensional wellness modalities into their own daily lives.

When a multidimensional wellness initiative is utilized in the daily life of providers experiencing high burnout rates, it can act as a source of healing for the mind and body (Lie et al., 2021). There is a need for clinical institutions to support CRNAs & SRNAs in respect to their stress & anxiety so that overall patient safety and positive clinical outcomes are maintained. Lie et al. (2017) discusses how the work environment culture lays the framework for the employee's attitudes. Consequently, if an institution emboldens their employees and promotes a culture of wellness then that work environment will be more centered around self-care, encouraging attitudes, and a stronger sense of community (Lie et al., 2021).

### **Strengths and Limitations**

The strengths of the project stem from the project's organizational methods. All recruitment, implementation, data collection, evaluation, etc. were done in a remote or digital fashion which allowed for easy access to project materials for the participants and authors. The recruitment method allowed for the authors to recruit both CRNAs and SRNAs which gave a better representation of the similarity of stress and anxiety that all nurse anesthesia professionals deal with. As for the implementation, the entire participant population (n=15) was able to follow through with the implementation of the project from start to finish. Furthermore, the use of an

independent DNP Project Google email account allowed for concise communication between authors and participants along with an efficient release of podcast episodes. This account allowed for seamless data collection and statistical analysis of the pre and post surveys.

Despite a participant population of 15 being more than sufficient for a DNP project, the population size was not large enough to generate the amount of statistical power needed for some of the data conclusions. It could be determined that another limitation was the digital format. The lack of face-to-face interaction may have had a negative impact on the participants especially in the recruitment phase of the project. There is no question that it is more effective and efficient to communicate in person versus digitally.

### **Linkage to DNP Essentials**

DNP Essentials are very important to the development, implementation, and dissemination of a DNP Project. The purpose of the DNP Essential is to establish a set of competencies that can be used to earn a Doctor of Nursing Practice (AACN, 2006). The authors of this project utilized this guidance as a roadmap from the beginning of planning until the finality of dissemination. It was important to use these essentials throughout the DNP process to ensure that the most beneficial evidence-based practice outcomes could be obtained and justified (AACN, 2006).

- Essential 1 – Scientific Underpinnings of Practice: A review of literature was conducted to identify the most current research on this project's topic. The authors obtained scholarly projects showing that exercise and mindfulness could be used together as a multidimensional wellness initiative to decrease stress and anxiety among healthcare professionals.

- Essential 2 – Organizational and Systems Leadership for Quality Improvement and Systems Thinking: Reaching out to CRNAs & SRNAs to promote wellness through an evidence-based multidimensional wellness initiative highlighting the combination of exercise and mindfulness based coping strategies. Thus, helping these providers improve their own wellness and the quality of care they can provide to patients.
- Essential 3 – Clinical Scholarship and Analytical Methods for Evidence-based Practice: Implementation of the project helped CRNAs and SRNAs understand the importance of using these coping modalities to decrease their own stress and anxiety. Utilizing these techniques leads to less stress, burnout, and an overall improvement in their everyday life experiences.
- Essential 4 – Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care: Virtual and digital platforms allowed for convenient recruitment, implementation, data collection, etc. Google email account allowed for concise communication, Google forms functioned as a helpful data collection tool, and Buzz Sprouts media website allowed the podcast to be easily platformed. The technology used for the DNP project was extremely efficient.
- Essential 5 – Health Care Policy for Advocacy in Health Care: CRNAs and SRNAs should take their mental and physical wellness seriously because it directly correlates to the quality of care that their patients receive. They can be taught how to actively implement these modalities into their own daily lives. Clinical institutions should support these providers in respect to their stress & anxiety so that overall patient safety and positive clinical outcomes are maintained.
- Essential 6 – Interprofessional Collaboration for Improving Patient and Population



Health Outcomes: This DNP project was able to help CRNAs and SRNAs improve their ability to cope with their own stress and anxiety to decrease burn out and improve patient care. This conclusion along with the other research data provider should be able be applied to future group of SRNAs and CRNAs.

- Essential 7 – Clinical Prevention and Population Health for Improving the Nation’s Health: Peer to peer awareness of provider wellness should be utilized to continue educating CRNAs and SRNAs on how to build a balanced mental and physical wellness foundation. If an adequate foundation is set, research has proven that patients will receive safer and more efficient care.
- Essential 8 – Advanced Nursing Practice: With all the research provided and the results of this projects data collection, it has been shown that provider wellness and patient safety have been improved. The goal of this project was to reach CRNAs & SRNAs and promote wellness among peers through a podcast series informed by an evidence-based multidimensional wellness program highlighting the combination of exercise and mindfulness based coping strategies.

## Chapter VIII

### Summary and Conclusions

With the United States health care system facing historic staffing shortages, and rising burnout rates, it is imperative that the health care profession addresses the stress and anxiety that is placed on their healthcare providers. For CRNAs and SRNAs, the stress and anxiety dealt with daily can spiral out of control very easily. When that spiral occurs, it is easy for burnout, medical errors, and lapses in patient care to occur. Wellness strategies such as exercise and mindfulness can be assets that CRNAs and SRNAs can use as a resolution to this problem.

Shechter et al. 2020, showed that mindfulness-based stress reduction techniques were one of the top two most successful coping strategies used by health care workers who dealt with the work-related stress during the COVID 19 pandemic (Shechter et al., 2020). Matzer et al. 2018, found that exercise is an excellent way to allow the body to physically heal from stress and anxiety through endorphin release, decreased cortisol release, and allowing the body to not be in a constant state of “fight or flight” (Matzer et al., 2018). When these two techniques are used together as a MWI there are incredible benefits achieved.

The purpose of this DNP project was to reach CRNAs & SRNAs and promote wellness among peers through a podcast series informed by an evidence based MWI highlighting the combination of exercise and mindfulness based coping strategies. Another goal was to improve CRNAs and SRNAs ability to implement a MWI in their own life. The goals of this project were achieved utilizing the JHNEBP model to help CRNAs and SRNAs improve clinical decision making with the help of problem-solving tools (wellness strategies) at an individual or group level (Friesen et al., 2017). Based on the pre and post survey analysis and statistics the following conclusions can be made: first, CRNAs and SRNAs experience a significant amount of stress related to the clinical setting. Second, most CRNAs and SRNAs either engage in poor coping strategies that are unsustainable or are not as knowledgeable of positive strategies such as mindfulness and exercise. Third, data analysis reflects the participating CNRAs and SRNAs have a better understanding of exercise/mindfulness and the proven beneficial effects that both modalities have on reducing stress and improving wellness after listening to the podcasts. Lastly, CRNAs and SRNAs feel more equipped to utilize a multidimensional wellness program after listening to our podcast. Therefore, it can be inferred that this project was clinically

significant and helped to increase CRNA and SRNA wellness which will in turn improve the care that their patients receive.

### **Dissemination**

The DNP project was disseminated to several audiences to best publicize the results. On March 3rd, 2022, the project was disseminated at the CRNA/SRNA Virtual Professionalism Lecture hosted by Drexel University. The project's podcast was then sponsored by the Pennsylvania Association of Nurse Anesthetists (PANA) to be posted permanently on their website on the wellness committee page. On April 11th, 2022, the project was also disseminated to students and faculty at Cedar Crest College.

### **Future Ideas**

The future of the anesthesia profession is bright and with the help of strong wellness modalities like exercise and mindfulness, CRNAs and SRNAs can become more effective providers with less stress and anxiety. The research is strong stating that improving wellness among anesthesia providers can lead to reduced stress, anxiety, and burnout, which will lead to an improvement of patient safety and outcomes (Hall et al., 2016). With that said, expanding on this phenomenon could be very beneficial to provider's adherence to everyday use of an MWI. A future project could look at the overall safety outcomes that stems from CRNAs and SRNAs who utilize an MWI and those who do not over a measurable amount of time. This can lead to improved patient safety and increased use of MWI among anesthesia providers.

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## APPENDIX A

*Recruitment Post*

Hello,

We are Damian & Dominick Richards, and we are posting to this group to recruit participants for the DNP project we are implementing. Below, you will find specific information regarding our topic. In short, the implementation will be carried out via podcast over a 4-day consecutive period. The episodes will be less than 10 minutes each. A pre survey and post survey will need to be completed via Google Forms.

**IF INTERESTED:** Please email us at [WellnessDNP2022@gmail.com](mailto:WellnessDNP2022@gmail.com) and we will forward you instructions. This email will be the main form of communication between participants and authors. Anonymity will be maintained via a numbered system when completing the surveys.

**Title of DNP Project:** A Multidimensional Wellness Initiative for CRNA's & SRNA's


**Objective:** The goal of this DNP project is to gain insight on whether stress can be reduced amongst Certified Registered Nurse Anesthetists (CRNAs) and Student Registered Nurse Anesthetists (SRNAs) using a multidimensional wellness program that consists of mindfulness-based stress reduction and exercise techniques.

The procedure is going to consist of a podcast mini-series consisting of four episodes that will be released on "listennotes.com" over 4 days. The first episode will be related to a review of consent and an introduction of the authors so that the listeners can learn to relate and understand the commonalities between their struggles and the struggles that SRNAs and CRNAs face when it comes to stress in the workplace. The second episode will be covering the use of mindfulness-based strategies and specifically how the authors utilize the "UCLA mindfulness application" in their busy lives. It will highlight the benefits and various ways to integrate the coping mechanism into daily life. The third episode will highlight the use of exercise, in a similar fashion to the mindfulness technique, and how the authors incorporate it in their daily lives along with the research benefits and clever ideas on how to incorporate it into busy personal schedules. The final episode will discuss the combination of both techniques implemented together. It will highlight ways to create a long-term multidimensional wellness program. Prior to the first episode and then once again after the completion of the last episode the listeners will be asked to complete a Google Forms survey that will assess previous knowledge base, their willingness to continue to learn more via following episodes, how well they can relate to the stress discussed, and whether the podcast helped them understand new ways to implement a healthier plan for coping with stress.

-Damian and Dominick Richards

APPENDIX B

DNP Presentation Poster



**CEDAR CREST COLLEGE**

## A Multidimensional Wellness Initiative for CRNAs & SRNAs

Damian Richards SRNA, DNP Student & Dominick Richards SRNA, DNP Student  
Cedar Crest College School of Nursing, Allentown, PA

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### Background

- Healthcare professions are associated with burnout, turnover, and stress related to their jobs. These factors can lead to medical errors and sentinel events (Hail et al., 2016). Burnout is also a primary factor in the global healthcare staffing shortage (Schreyer et al., 2020).
- Burnout stems from emotional exhaustion, cynicism, and decreased self-efficacy caused by moral distress, PTSD, and compassion fatigue (Jackson et al., 2018).
- Yang et al., (2018) states in order to achieve optimum health two essential constructs must be addressed: mental and physical health.
- Shestler et al., (2020) found that the people who adequately dealt with stress utilized a consistent coping regimen.
- Madow et al., (2018), emphasized the benefits of synergism between the mind and body to achieve an increased ability to cope with stress. This technique is known as a multidimensional wellness program (MWP). When exercise is combined with a mindfulness technique, physical and emotional well being is improved.
- **PICO:** "Among CRNAs and SRNAs, how does the implementation of a multidimensional wellness initiative affect their perceived willingness to utilize mindfulness and exercise in their everyday lives."


### Recommendations for Practice

CRNAs and SRNAs should be taught how to actively implement multidimensional wellness modalities into their own daily lives

CRNAs and SRNAs should take their mental and physical wellness seriously because it directly correlates to the quality of care that their patients receive.

Clinical institutions should support CRNAs & SRNAs in respect to their stress & anxiety so that overall patient safety and positive clinical outcomes are maintained.

### Conclusion



- Research shows that improving wellness among anesthesia providers can lead to reduced stress, anxiety, and burnout, which will lead to an improvement of patient safety and outcomes (Hail et al., 2016).
- There is more of a vested interest when information is communicated within a collaborative group of people because there is a sense of shared ownership (Sprinks, 2020).

**Based on the DNP project surveys submitted by the participants, it was found that:**

- CRNAs and SRNAs experience a significant amount of stress related to the clinical setting
- Most CRNAs and SRNAs either engage in poor coping strategies that are unsustainable or are not as knowledgeable of positive strategies such as mindfulness and exercise.
- Data analysis reflects the participating CRNAs and SRNAs have a better understanding of exercise/mindfulness and the proven beneficial effects that both modalities have on reducing stress and improving wellness after listening to the podcasts.
- CRNAs and SRNAs feel more equipped to utilize a multidimensional wellness program after listening to our podcast.

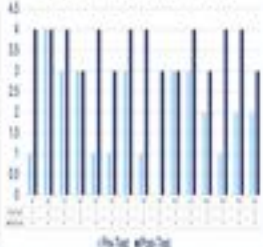
### Objective

- Reach CRNAs & SRNAs and promote wellness among peers through a podcast series informed by an evidence-based multidimensional wellness program highlighting the combination of exercise and mindfulness based coping strategies.

### Translation

- A four-part podcast series was developed using the Buzzsprout hosting site. The episodes discussed the current research in regard to the use of mindfulness and exercise as modalities to improve overall wellness.
- A total of 15 participants engaged in the implementation phase of the project. The group included CRNAs and SRNAs.
- Using Google Forms, participants completed the pre-survey prior to engaging in the podcasts and the post-survey after completion of all four episodes. (Question 5 results seen to the right).
- Data was analyzed using a professional statistician consultant with application of the Wilcoxon rank test.
- Data analysis revealed a significant increase in the participants' confidence, knowledge, and willingness to use a multidimensional wellness plan in their own lives.

**"I feel equipped to utilize a multidimensional wellness plan in my life in order to cope with my school, clinical or work-related stress"**



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