DNP Scholarly Project Final Approvals

The DNP student _Randall Wyatt_ and the Scholarly

Project_____ Preparation of support persons of nurse anesthesia students _____

_____ meet all the
requirements for the degree of Doctor of Nursing Practice at University of Saint Francis-
Fort Wayne, IN.

Date of Final Approval: _6/18/21_

DNP Student
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Signature: _Wendy Clark_

NAP Program Director
Signature: _____

Copies to: Student File, Graduate office and attached to the Final Project Manuscript.

Preparation of Support Persons of Nurse Anesthesia Students

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June 23, 2021

DNP Scholarly Project Proposal Initial Approval

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DNP Scholarly Project Proposal Initial Approval

To: Randall Wyatt, DNP-NAP Student

From: Dr. Susan Lown, Course Coordinator NURS 715

Re: DNP Project Proposal Review Council Endorsement

Date: 11-15-2020

DNP Scholarly Project Title: Preparation of Support Persons of Nurse Anesthesia Students

DNP Scholarly Project Review Council:
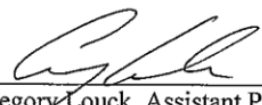
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Dr. Megan Winegarden, Associate Professor Division of Nursing
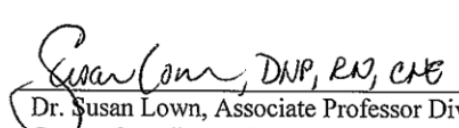
DNP Project Proposal
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Member Signature:

Dr. Gregory Louck, Assistant Professor Division of Nursing
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DNP Project Proposal
Review Council
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Dr. Susan Lown, DNP, RN, CNE
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Date of initial approval by DNP
Scholarly Project Review Council:
Initial review 11-12-2020 – Approval
pending re-submission to USF IRB.
Documentation of IRB approval of
revisions received 11-15-2020. S.Lown

1 - Student File
2 - Attached to Proposal

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Abstract

Background Stress amongst nurse anesthesia students is linked to poor academic performance, increased student attrition rates and failure to pass certification exams after graduation. Support persons play a significant role in mitigating the adverse levels of stress experienced by student registered nurse anesthetists (SRNA). However, social support persons are often ill-equipped for the major life transitions and stress that accompany nurse anesthesia school and are at risk for absorbing the student's negative emotions and stress. Involving spouses and families in support programs and resiliency training can aid in alleviating the crossover effects of stress and equip them to better anticipate the expected changes in family dynamics and the students time commitments. **Methodology** This Doctor of Nursing Practice (DNP) project was an evidence-based quality improvement project designed to increase feelings of preparedness and to decrease levels of perceived stress amongst the support persons of SRNA's. Baseline demographic data and perceived stress levels were collected via a pre-intervention survey for 15 participants. After viewing a seminar, a post-intervention evaluation tool was distributed to participants to complete. Responses to the evaluation tool were compared to the pre-intervention survey responses. **Findings** Of the SRNA support persons attending, 73.3% felt that they could have been better prepared before the student started school. When asked how helpful the seminar that they had viewed would have been at the start of the program, 67% responded that it would have been "very useful" and 20% felt that it was "imperative". In addition, 93.3% of respondents reported that they would have liked the opportunity at the start of the program to attend a seminar like the one used in this project. **Conclusion and Implications** Based on the strength of these findings, it is recommended that other SRNA programs implement similar information

seminars. Further research is required, especially in relation to the long-term effects of this type of intervention on student attrition rates.

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Chapter 1: Introduction

Problem

Stress amongst nurse anesthesia students has been linked to poor academic performance (Chipas et al., 2012). Poor academic performance translates to increased student attrition rates and failure to pass certification exams after graduation (Conner, 2015). Support persons play a significant role in mitigating the adverse levels of stress experienced by student registered nurse anesthetists (SRNA) (Conner, 2015). However, social support persons are often ill-equipped for the major life transitions and stress that accompany nurse anesthesia school. Despite the well-documented importance of social support on graduate student self-efficacy, no programs currently exist at the University of Saint Francis to help prepare and equip the support persons of the students enrolled in the nurse anesthesia program.

DNP Project Problem Statement

The intent of the project was to increase feelings of preparedness and to decrease levels of perceived stress amongst the support persons of nurse anesthesia students. Involving spouses and families in graduate student orientation activities can aid in alleviating the crossover effects of stress. This level of involvement allows for the primary support person of the student nurse anesthetist to better anticipate expected changes in family dynamics and clarify expectations regarding time commitments (Chipas et al., 2012 & Gold, 2006).

The PICOT question for this Doctor of Nursing Practice scholarly project reads as follows: Can stressors be reduced for the primary support person of nurse anesthesia students at the University of Saint Francis (USF) with an informational seminar?

Background

In the United States and Puerto Rico, there are currently 121 accredited nurse anesthesia programs that graduate over 2,400 students every year (AANA, 2019). However, nurse anesthesia programs in the United States also experience an institution specific attrition rate of 0-25% with the highest reported attrition rate being 64% (Council on Accreditation, n.d.). Nationwide, the 2009 attrition rate for all graduate programs was approximated at 43% (Council of Graduate Schools, 2009). Student attrition not only negatively effects the student, but also the student's family, and the nurse anesthesia program. The financial impact of attrition on students stems from money spent on relocation costs, tuition, and lost potential income from unemployment. In terms of employment, one can assume that any student enrolled in graduate study is likely unable to contribute to the nursing workforce. In turn, this exacerbates the current nursing shortage in America. When attrition rates are high, educational programs also suffer significant financial losses in terms of lost revenue from student tuition.

Stress plays a significant role in a student's academic success and the occurrence of burnout (Dyrbye et al., 2010; McKay et al., 2010). The stressors of nurse anesthesia school are multifactorial and stem from financial, relational, academic, clinical strain and sleep deprivation (Griffin et al., 2017; Phillips, 2010). Given the nature of graduate study and the sparsity of nurse anesthesia programs in certain regions of the country, students often must relocate their family. Relocating one's family for school to an unfamiliar environment in the absence of social support systems contributes to increased stress levels in both the nurse anesthesia student and his/her family. Increased stress in the family tends to make them less equipped to support the student (Padden & Posey, 2013; Wilson et al., 2015). A 2012 survey of 1,374 nurse anesthesia students demonstrated that 47.3% of nurse anesthesia students in America have experienced depression at

some point in their education. In addition, nearly 21.2% of respondents claimed to have experienced suicidal ideation at some point during their schooling (Chipas et al., 2012).

Social support systems play a significant role in mitigating the adverse levels of stress experienced by student registered nurse anesthetists (Conner, 2015). There is a positive correlation between students' resilience and the amount of social support they receive from family and faculty (Dyrbye et al., 2010). Student success in nursing doctoral programs has been correlated with high levels of family support (Volkert et al., 2018). Of the total number of students enrolled in nurse anesthesia programs in the United States, 65.5% were reported to be married in 2012 (Chipas et al., 2012). While a student's support person may contribute to decreased levels of stress and increased resilience in the student, the support person is at risk for absorbing the student's negative emotions on top of already perceived stressors from relocation and role reversal (Bakker et al., 2009). Therefore, to decrease student attrition, it may be in the best interest of the University of Saint Francis to enact a program to aid in the transition of each nurse anesthesia student's primary support person.

Needs Assessment and Practice/Knowledge Gap

Involving spouses and families in support programs and resiliency training can aid in alleviating the crossover effects of stress. This level of involvement allows for the social support structures of the student nurse anesthetist to better anticipate expected changes in family dynamics and to clarify expectations regarding time commitments (Chipas et al., 2012 & Gold, 2006). Despite the well-documented importance of social support on graduate student self-efficacy, no programs currently exist at the University of Saint Francis to help prepare and equip the support persons of the students enrolled in the nurse anesthesia program.

Academic programs should be transparent with prospective students regarding the stress and expectations of the program as well as the expected impact of the program on both personal and family life (Wilson et al., 2015). Transparency better allows for the preparation of students and their families for the rigors of nurse anesthesia school. This preparation can be accomplished through the establishment of programs within the school that help nurture supportive relationships between families and students (Imus, 2015 & Volkert et al., 2018). Collins et al. (2017) demonstrated that informal resources are key to decreasing depression in support systems. Informal support resources may include finding ways for the student and his/her family to connect with the community through networking and social gatherings (O'Neal et al., 2019).

DNP Project Overview

Statement of Project Design Type

This Doctor of Nursing Practice (DNP) project was an evidence-based quality improvement project that included a pre-intervention survey tool, a virtual asynchronous support seminar, and a post-intervention evaluation tool.

Scope of Project

The sample population for this project consisted of the primary support person of each nurse anesthesia student currently enrolled at the University of Saint Francis. The intent of this project was to implement an asynchronous virtual support seminar designed to increase the primary support persons awareness of the stressors associated with nurse anesthesia schooling in an effort to better prepare them for the duration of the program. Baseline demographic data and perceived stress levels were collected via a pre-intervention survey. After the seminar, a post-intervention evaluation tool was distributed to participants to complete. Responses to the evaluation tool were compared to the pre-intervention survey responses. This comparison

allowed for an assessment of the effectiveness of the seminar in meeting the aims and outcomes as outlined for this project.

Due to the sunsetting of the Nurse Anesthesia Program by administration, this project only incorporates the primary support person of each student currently enrolled in the University of Saint Francis Nurse Anesthesia Program. Participants only evaluated the effectiveness of the asynchronous virtual seminar designed for this project. This project did not have a control group and did not compare the impact of the seminar on stress levels over time. There were 25 students enrolled in the Nurse Anesthesia Program at the time of the project implementation. Therefore, there could have been a maximum of 25 participants for this project.

Stakeholders

The primary stakeholders of this project included this author and Dr. Megan Winegarden, the project advisor. Dr. Greg Louck and Dr. David Johnson were members of the project team. Additional stakeholders included the University of Saint Francis Nurse Anesthesia Program, the faculty of the Nurse Anesthesia Program at the University of Saint Francis, other nurse anesthesia programs in the United States, and the affiliated future SRNA students enrolled in those programs as well as their primary support persons.

Evidence of Training in Human Subject Protection

In accordance with the scholarly requirements, Collaborative Institutional Training Initiative (CITI) training was completed in February of 2020. Certificates of completion are included in Appendix A.

Letter of Support from Project Facility

A letter of support from Dr. Angel Harrell, the dean of the School of Health Sciences at the University of Saint Francis, can be found in Appendix B.

Budget and Resources

Minimal expenses were incurred during the implementation of this project. Given the virtual format of the orientation program, no costs were incurred through the use of a physical space. The survey and evaluation tool were conducted via an online format as well, and therefore did not incur any delivery costs. The cost of the SPSS software for data analysis was $80 and was covered in-kind by the project team manager. The use of Google Forms for survey distribution was free.

The intervention for this project was developed by this author and was provided in-kind. Time and material for the orientation seminar were donated in-kind from Dr. Gregory Louck and Dr. David Johnson.

Process and Outcomes

General Timeline

Implementation of the project occurred between December of 2020 and January of 2021 after USF IRB approval. Meetings with primary stakeholders occurred throughout the preparation, implementation, and evaluation phases of the project. A formal, written proposal of this scholarly project was submitted to DNP faculty for review during the Summer of 2020. A formal PowerPoint presentation was constructed containing key outcomes from the project. Outcomes were shared with faculty and students within the Nurse Anesthesia Program at the University of Saint Francis during the project's dissemination in the Summer of 2021.

Project Setting

Participants in this project were the primary support persons of all students currently enrolled in the program. To maintain participant anonymity, recruitment occurred through referral from all currently enrolled students. The project team manager distributed emails to all

students currently enrolled in the University of Saint Francis Nurse Anesthesia Program. Within the email, recipients found instructions directing them to forward the email to their primary support person. The email contained information pertaining to the specifics of the project along with a copy of the informed consent form. Links that directed the participants to the survey, seminar video, and evaluation tool were located within the email. A copy of this email can be found in Appendix C. Since participation in this project represented implied consent, participants were not required to contact the project team manager at any point.

Prior to viewing the pre-recorded seminar, participants were instructed to complete the pre-intervention survey. Data collected by the pre-intervention survey included demographic information as well as data pertaining to stress and anxiety. A link to the pre-intervention survey on Google Forms was clearly identified in the email distributed to the participants. Instructions within the email were provided to clearly direct participants to complete the survey prior to viewing the seminar. After completion of the survey, instructions within the email directed participants to view the pre-recorded virtual seminar.

The seminar was delivered via a virtual format in consideration of social distancing due to the COVID-19 pandemic. This author also anticipated that an asynchronous virtual orientation seminar would increase subject participation in the project. At the conclusion of the seminar, participants were directed to access a seminar evaluation form on Google Forms via a link provided in the invitation email. At the end of the presentation, participants were directed to follow a link within the email that directed them to the post-intervention evaluation form.

Participant Inclusion and Exclusion Criteria

Given the impending closure of the University of Saint Francis Nurse Anesthesia Program and lack of new incoming students, participants in the project were the primary support

persons of all students currently enrolled in the program. For the purpose of this project, the primary support person was defined as a student's spouse, friend, significant other, sibling, parent or grandparent. Each student enrolled in the University of Saint Francis Nurse Anesthesia Program was instructed to identify one primary support person who is over the age of 18. No exclusion criteria were used for participants who meet the inclusion criteria as defined in this paragraph.

Expectations of Participants and Time Requirements

The total time required from participants was less than two hours. Participants were expected to complete a pre-intervention survey delivered via Google Forms at the start of the orientation seminar. This pre-intervention survey was comprised of 20 questions and took participants less than 20 minutes to complete. A copy of this survey tool can be found in Appendix D. Participants were then expected to view an asynchronous virtual seminar that lasted approximately one hour. An outline of the content addressed during the seminar can be found in Appendix E. After viewing the seminar, participants were expected to complete a seven question post-intervention evaluation. This post-intervention evaluation was expected to take participants less than 10 minutes to complete. A copy of this evaluation tool can be found in Appendix F. Since all aspects of this project were completed via a virtual format, it was anticipated that no time would be spent on travel by participants. Since the seminar was pre-recorded, participants were able to complete all aspects of the project at a time most convenient for them.

Setting for Data Collection

Data collection for the survey and the evaluation tool occurred in a virtual format through the use of Google Forms**.** Instructions for access to survey and evaluation tools was provided

during the presentation and in the email invitation. Data collected through Google Forms was

password protected and only accessible by this author.

Risk Analysis, Informed Consent Procedures, Participant Protection

Risk Analysis

No immediate or long-term risks to participants were identified. Due to the sensitivity of

the topics to be discussed, potential risks to participants included anxiety and depression. To

address any unintended effects from the project, resources pertaining to stress management and

counseling were provided to participants at the conclusion of the seminar. Participation in this

project was not compensated and informed consent was obtained. During the consent process,

participants were notified of the option to opt out of the study at any time. A copy of the consent

form can be found in Appendix G. Confidential information was not be collected from any of the

participants at any point. Participants who viewed the seminar were not recorded. Potential

benefits of participation included the generation of knowledge and data that may assist support

persons of future students in different programs. Participants could learn new stress management

skills and a better understanding of the student experience within the Nurse Anesthesia Program.

Chapter 2: Synthesis of Supporting Evidence and Project Framework

Conceptual Framework and Theory

Knowledge to Action Model

The goal of this project was to develop a tool based on the synthesis of current knowledge pertaining to the benefits of preparing social support systems and the impact on decreasing stress amongst nurse anesthesia students. The Knowledge to Action (KTA) model was designed to primarily function as a tool to aid in the transference of synthesized knowledge into tools that can then be implemented and reevaluated for effectiveness (Graham et al., 2006). The KTA framework is comprised of two phases. The first phase is known as the "knowledge creation" phase. This knowledge phase is best thought of as a funnel, where generalized knowledge on the topic is refined to immediately applicable data that can be used in the next phase of the framework (White, 2016). The second phase of the KTA framework consists of a multi-step approach to the transference of generated knowledge into actionable change through the implementation of generated tools. The second phase of the KTA framework is known as the "action cycle" (White, 2016). The seven phases of Knowledge-To-Action Model include:

1) Problem Identification

2) Change knowledge use to local context

3) Assess barriers

4) Select interventions to promote knowledge use

5) Monitor the use of knowledge

6) Evaluate outcomes

7) Sustain the use of knowledge

Crossover Theory

An important aspect to well-being is the ability to separate work experiences from personal experiences. An inability to separate these two domains of life leads to spillover and crossover effects (Bolger et al., 1989). Spillover is defined as a "within-person across-domains transmission of strain from one area of life to another" (Bakker, Westman et al., 2009, p. 207). Spillover can occur in response to negative and positive events that occur at work. The same can be said for events that occur at home spilling over into work. A negative impact of spillover is that it can interfere with time dedicated to leisure resulting in increased feelings of anxiety, stress, and burnout (Bakker, Westman et al., 2009).

Crossover is separate from spillover in that it pertains to a "dyadic, inter-individual transmission of stressors or strain" (Bakker, Westman et al., 2009, p. 207). In other words, the crossover model describes how events experienced in one domain are confided to individuals in another domain, thus leading to a transmission of stressors or strain. Crossover typically is a product of spillover and results in an increase in role strain for the partner leading to exhaustion, burnout, and reduced marital satisfaction (Bakker, Westman et al., 2009). The empathic ability of the partner is directly correlated with the degree of crossover experienced in that individual (Bakker & Demerouti, 2009).

Through emotional synchronization, crossover may occur between the primary support person and the SRNA. School related stress experienced by the SRNA may spillover into their personal life and negatively affect their primary support person. The primary support person must then navigate through both their own perceived stressors in addition to the crossover stress from the SRNA. Without proper management, this combined stress has been shown to result in an increased level of exhaustion in the support person and contribute to work-family conflict

(Bakker, Westman et al., 2009). Being involved in a dyadic relationship with the primary support person, the SRNA is subject to the crossover effects of the perceived stress of the support person, thus compounding their current level of stress. Therefore, it is important to recognize that a key avenue in reducing stress in SRNA is by intervening in the perceived stress of the primary support person. This intervention may be accomplished through strategies aimed at decreasing stress or through exposure to stress management techniques.

Literature Review

An exhaustive review of the literature was conducted pertaining to stress in SRNA's. In total, 30 filtered and raw databases were scoured for evidence pertaining to the aforementioned subject matter. Several of the databases did not return any relevant results to the subject. Databases that proved that proved to be the most beneficial included: Campbell Collaboration Library of Systematic Reviews, CINAHL Plus, ERIC, Google Scholar, Proquest Nursing and Allied Health, PsychInfo, Directory of Open Access Journals, and the Sigma Theta Tau Virginia Henderson e-Repository. Additional information pertaining to SRNAs was gathered from the Council on Accreditation and the American Association of Nurse Anesthetists. Search terms utilized included: student perseverance, attrition, retention, social support, anxiety, graduate school, military family, military spouse, graduate school orientation NOT sexual, nursing graduate students, medical students, SRNA, and Student Registered Nurse Anesthetist. No limitations were placed on the search engines during this process. Additional literature review strategies employed included reviewing cited literature in relevant articles. Out of 108 articles reviewed, 58 articles were used in the completion of this review. Articles were initially reviewed based on their title and abstract. The 58 articles included in this review were selected based on their relevance to stress in support persons. Given the age of some of the landmark studies

pertaining to this topic, articles published in peer-reviewed journals from 1980-2020 were all given consideration.

Stress

Stress is an individualistic response that manifests to varying degrees in different persons based on their innate ability to adapt to stress and the duration of the stress (Chipas & McKenna, 2011; Yates, 2020). A certain degree of stress is a necessary component to the educational process because it prevents the development of sleep and boredom (Chipas et al., 2012). On the other hand, high levels of stress can be crippling and detract from the educational process (McKay et al., 2010).

The most frequent type of stress experienced by individuals is acute stress (Chipas & McKenna, 2011). Acute stress manifests in response to recent or anticipated events and does not linger long enough for the individual to become accustomed to the stress and develop the negative consequences associated with long-term stress (Chipas & McKenna, 2011).

Chronic stress manifests as a result of sustained release of stress hormones via the Hypothalamic-Pituitary-Adrenal (HPA) axis (Benedict et al., 2009). With prolonged stress exposure, the individual tends to become accustomed to the stress and may not realize the level of stress that they are under. Chronic stress is attributed to the complex interplay of work and home factors which may include financial pressures, interpersonal relationships, and unsupportive environments (Chipas & McKenna, 2011). Chronic stress results in a depletion in an individual's ability to positively cope with stress resulting in decreased ability to concentrate and learn as well as an increase in the incidence of depression, substance abuse, exhaustion, obesity, and hypertension (Chipas & McKenna, 2011).

Stress in Student Registered Nurse Anesthetists

The nurse anesthesia educational process is rigorous, time consuming, and stressful. Stress amongst nurse anesthesia students is multifactorial. In a survey by Chipas et al (2012) of 1,282 student nurse anesthetists, three common sources of stress were identified. The stressors reported stemmed from academic, clinical, and external causes. Specific stressful events experienced by students in nurse anesthesia programs as outlined by Chipas et al (2012) included:

1. Relocation

2. Termination of employment

3. School (Information overload and examination anxiety)

4. Immersion in new environments

5. Decreased income

6. Life events (birth of a child, divorce, death of a family member, personal injury)

7. Role ambiguity

Although moderate levels of stress have been associated with improved knowledge retention and academic performance, the heightened levels of stress that students are exposed to in an anesthesia program can have adverse effects (McKay et al., 2010). Continuous exposure to stress has been shown to decrease levels of self-esteem and potentiate forgetfulness, depression, and preoccupation (Wildgust, 1986). Prolonged exposure to stress can lead to thoughts of worthlessness, suicidal ideation, and substance abuse (Chipas et al., 2012; Chipas & McKenna, 2011). In the aforementioned study by Chipas et al (2012) involving 1,282 student nurse anesthetists, it was found that 47.3% of nurse anesthesia students in America have experience depression at some point in their education. In addition, nearly 21.2% of respondents claimed to have experienced suicidal ideation at some point during their schooling.

Alleviating factors for stress include support persons at home, faculty support, social support within a student's cohort, exercise, and self-efficacy (Conner, 2015). A support person, as identified in the research, includes a student's spouse, significant other, parent, grandparent, or cohabitant (Katz et al., 2000; Mallinckrodt & Leong, 1992; Westman, 2001). Dyrbye et al. (2010) found a positive correlation between a student's resilience and the amount of social support received from family and faculty. Self-efficacy is the ability of an individual to maintain confidence in their ability to exert control over their motivation (Conner, 2015). Self-efficacy is the ability of an individual to pursue and achieve set goals regardless of influences from the external environment, motivation, and behavior (Conner, 2015). Griffin et al. (2017) found a positive correlation between self-efficacy and student wellness. Self-efficacy is promoted in most anesthesia programs through the use of high-fidelity simulation, constructive feedback, and observational experiences (Collins & Callahan, 2014; Conner, 2015). Mentorship programs have also been implemented in multiple programs to promote sustained academic motivation (Wilson et al., 2015).

Role of Support Persons in Decreasing Student Stress

One of the core requirements for all nurse anesthesia programs is that students must have at least one-year of professional experience as a Registered Nurse prior to applying to a nurse anesthesia program. According to the AANA, the average amount of nursing experience that students accepted into nurse anesthesia programs have is 2.9 years (Education of Nurse Anesthetists in the United States – At a Glance, 2019). In 2017, the average age of students graduating from nurse anesthesia programs and entering clinical practice was 32.76 years (NBCRNA 2017 Annual Report, 2017). An important point to consider is that an estimated 65.5% of nurse anesthesia students are married (Chipas et al., 2012). Considering this

information, nurse anesthesia students can be best categorized as non-traditional students because they are students who have obligations outside of their education requirements. These external obligations result in a competition with the education process for time and resources (Urwin et al, 2010). External obligations that have been shown to have the most significant impact on a student's academic progression are family relationships and commitments (Cuthbertson et al., 2004; Dante et al., 2011).

Across multiple disciplines, partner support has been shown to heavily influence a student's progression in academia (Andrew et al, 2015). Burnout, a phenomenon that is highly prevalent amongst graduate students, has been found to be a predictor of student attrition. Resilience, as defined by the American Psychological Association, is the ability to positively adapt in the presence of large amounts of stress (Building your resilience, 2020). Resilience plays a major role in ameliorating burnout in students and is considered to be a protective factor against its occurrence (Dyrbye et al., 2010). The resilience of a student comes from a culmination of multiple influences ranging from the prevalence of external stressors to learning climate stressors. A major contributing factor to increased student resilience and decreased burnout is partner and family support (Dyrbye et al., 2010; Kim et al., 2017).

Partner support has been shown to play a particularly significant role in female student progression. This phenomenon has been, in part, attributed to an unwillingness of male partners to engage in a reversal of traditional gender roles. This inflexibility often results in relational conflict and impaired academic performance (Andrew et al., 2015).

Stress in Support Persons

There is a strong correlation between graduate education and marital strain; manifested by an impaired academic performance, decreased student retention, and family turmoil (Chipas

et al., 2012; Gold, 2006). Relocation of one's family in order to attend a nurse anesthesia program is a common occurrence given the geographic distribution of programs in the United States and the competitiveness of the admissions process. An unfamiliar environment and absence of family social support systems contributes to increased levels of stress in both the nurse anesthesia student and the student's support person. Increased stress in the support person has been linked to a decreased ability to support the student (Padden and Posey, 2013; Wilson et al., 2015).

In many ways, the stressors that the support person of the nurse anesthesia student must undergo are reminiscent of those experienced by spouses of military members. Military families are subject to frequent relocations, social isolation, and prolonged periods of separation. Support persons of military members must undergo the stress of assuming a single parent role and changes in finances (Padden & Posey, 2013). In a similar manner, the support person of the nurse anesthesia student must cope with prolonged periods of separation during clinical rotations. The stress from this separation is compounded by the absence of social support systems and social isolation due to relocation for school. The support person of the nurse anesthesia student often must assume responsibilities that were once shared such as finances, chores, and parenting. This assumption of additional roles and role reversal can lead to feelings of being overwhelmed.

Through emotional synchronization, crossover and transference, the support person may also inadvertently assume the burden of school-related stress from the student (Bakker et al., 2009). An inability of the support person to cope with this compounding stress can have physical and psychological consequences. Manifestations of uncontrolled stress include sleep disturbances, fatigue, headaches, appetite changes, and weight changes (Blount et al., 1992). Stress in the support person may also lead to increased work-family conflict (Bakker et al.,

2008). This is of significance because in the same way that stress from the student may have crossover effects on the support person, stress in the support person may have crossover effects on the student (Bakker et al., 2009). This transference of stress may ultimately result in a heightened perception of stress in the student.

Strategies for Preparing Support Persons

Involving spouses and families in graduate student orientation activities can aid in alleviating the crossover effects of stress. This level of involvement allows for the social support structures of the student nurse anesthetist to better anticipate expected changes in family dynamics as well as clarify expectations regarding time commitment (Gold, 2006). Research supports the idea that academic programs should be transparent with prospective students regarding the stress and expectations of the program as well as the expected impact of the program on both personal and family life (Wilson et al., 2015). Knowledge of expected stress and time commitments better allows for the preparation of students and their families for the rigors of nurse anesthesia school. This level of preparation was accomplished through the establishment of programs within the school that help to nurture supportive relationships between families and students (Imus, 2015; Volkert et al., 2018). Collins et al. (2017) demonstrated that informal resources are key to decreasing depression in support systems. Informal support systems may include finding ways for the student and their family to connect with the community through networking and social gatherings (O'Neal et al., 2019)

Limitations of Literature

Causes of stress in graduate students and potential alleviating factors have been extensively studied. Less research has been conducted on the causative factors of stress in

support persons of graduate students and associated alleviating factors. Limited research is available pertaining to perceived stress in the support person of nurse anesthesia students. Similarities can be drawn between military families and graduate student families, allowing for the transference of some data between populations. However, support persons of nurse anesthesia students do not have to cope with feelings of stress derived from the dangers of deployment or the associated psychological complications that afflict servicemen when they return from war. For this reason, caution must be exerted when drawing similarities between the two populations.

Practice Recommendations

- Preparation of the student's family support system through the implementation of a family orientation day (Gold, 2006). An orientation day would aid in the promotion of feelings of involvement amongst family members by incorporating them into student events (Gold, 2006).

- Aid in the establishment of informal social support groups between family members of students (Wilson, Gibbons, & Wofford, 2015).

- Schedule briefing sessions with family members to prepare them for the rigors and expected demands of the student's time during the upcoming semester (Wilson et al., 2015; Gold, 2006).

Summary of Supporting Evidence

The nurse anesthesia educational process is rigorous and time consuming. Nurse anesthesia student success is tied to student resilience which is influenced by multiple factors. One of these factors is social support from friends, classmates, family, and support persons such as a spouse or cohabitant. Program acceptance often entails the relocation of one's family. This

is similar to what is experienced by military families who undergo relocation. Relocation often results in loss of community support structures for the support person.

The educational process is a major time commitment with many days and nights spent away from family for clinical rotations, studying, or professional events. Often, role reversal must occur in the family for needs to be met. Commonly, the support person must assume additional responsibilities to allow for the student to meet their educational demands. This is similar to the role reversal and responsibility transference experienced in military families during deployment which can lead to increased stress on the support person. The stress experienced by the support person is amplified by a crossover of the stress experienced by the student.

Given the major role that support persons play in preventing student attrition and increasing student resilience, preparing and equipping the student's support person may be in the best interest of the University. This preparation could decrease stress in the support person as well as enable them to better support the student in their academic endeavors.

Chapter 3: Project Design

Project Design and Methodology

This Doctor of Nursing Practice (DNP) project was an evidence-based quality improvement project that included a pre-intervention survey tool, a virtual asynchronous support seminar, and a post-intervention evaluation tool. The intent of this project was to implement an asynchronous virtual support seminar designed to increase the primary support person's awareness of the stressors associated with nurse anesthesia schooling in an effort to better prepare them for the duration of the program.

Implementation methods for this DNP project were focused around the development and implementation of a virtual, asynchronous support seminar for the primary support persons of SRNAs. The team manager of this project worked with Dr. Greg Louck and Dr. David Johnson to create the support seminar. Project implementation occurred in January and February of 2021. Given the impending closure of the anesthesia program and lack of new students, participants in the project were the primary support persons of all students currently enrolled in the program. A student's primary support person, as defined for this project, included one of the following: student's spouse, a friend, a significant other, a sibling, a parent, or grandparent.

The aims of this project were:

- Aim one: Increase awareness of stressors among support persons of nurse anesthesia students at the University of Saint Francis.

- Aim two: Increase self-reported feelings of understanding among support persons of nurse anesthesia students at the University of Saint Francis.

The proposed outcomes aligned with the project aims and included:

- Outcome 1a: Support persons of nurse anesthesia students will report a 20% increase in the awareness of stressors after completing the intervention.

- Outcome 1b: 25% of support persons of nurse anesthesia students will report an increase in awareness of program expectations for nurse anesthesia students.

- Outcome 2a: More than 25% of participants completing the survey will report feelings of increased preparedness after completion of the intervention.

- Outcome 2b: More than 30% of participants completing the survey will report an increased understanding of how to better support themselves and their student after completing the intervention.

Evaluation of project aims occurred via a pre-intervention survey and a post-intervention evaluation tool. The pre-intervention survey was administered to collect demographic data and evaluate current perceived stressors. The post-intervention evaluation tool answers were compared to the pre-intervention survey responses. This comparison allowed for an assessment of the effectiveness of the seminar in meeting the aims and outcomes as outlined for this project.

Ethical Considerations

Conditional approval from the University of Saint Francis Institutional Review Board (IRB) was obtained on October 12, 2020. The letter of conditional approval from the IRB board can be found in Appendix I. Once all conditions for approval were addressed, full IRB approval was obtained on October 30, 2020 (Appendix J). In accordance with the scholarly requirements, Collaborative Institutional Training Initiative (CITI) training was completed in February of 2020. Certificates of completion are included in Appendix A. A letter of support from the Dean of the School of Health Sciences at the University of Saint Francis can be found in Appendix B.

Informed consent was provided to all participants. Consent was implied through participation in the project. Participants were informed of their ability to opt out of the project at any time without fear of repercussions. A copy of the informed consent form that was distributed to participants can be found in Appendix G. Participant confidentiality was maintained throughout all aspects of the project. Demographic data collected contained no unique identifiers. All information collected from participants was kept confidential. The project manager was never in direct communication with participants, but instead solely communicated with the associated student and instructed the student to distribute the information along to their primary support person.

Project Timeline

The timeline for this project, including the project's steps through the evaluation phase, are included in Appendix K. Project implementation occurred in January of 2021 and ended in February of 2021. The data was cleaned, organized, and analyzed in March and April of 2021.The project was presented and defended to the USF faculty in July of 2021.

Implementation Methods

Data collection for this project occurred over the course of two weeks. At the start of the data collection period, an email with information pertaining to the orientation seminar was distributed to all students currently enrolled in the nurse anesthesia program. This email contained directions for the student to forward the email to their designated primary support person. Information forwarded by the students to the designated primary support person included background information about the project and a timeline. Within the email, hyperlinks were used to direct the participants to the pre-intervention survey, the video presentation, and the post-intervention evaluation. A copy of the informed consent form was also attached to the email. In

an effort to maintain participant anonymity, the informed consent stipulated that participation in the study represented implied consent and that participants could withdraw from the project at any point without fear of repercussions. A copy of the informed consent form can be found in Appendix G.

In an attempt to increase subject participation, a reminder email was sent out at the end of the first data collection week. Subsequent reminder emails were sent out once a day during the final three days of the data collection period. A final email was sent out at the end of the data collection period to thank participants for their time and contributions. Contents of this final email contained information pertaining to the expected timeline for data analysis. Information on how to access project results was also included within the email.

Measures/Tools/Instruments

The total time required from participants was less than two hours. Participants were expected to anonymously complete a pre-intervention survey delivered via Google Forms at the start of the seminar. This survey was comprised of 20 questions, which would take participants less than 20 minutes to complete. Submissions were collected anonymously through Google Forms. A copy of this survey tool can be found in Appendix C. Participants were then expected to view a 15-minute asynchronous virtual seminar. An outline of subjects that were addressed during the seminar can be found in Appendix E. After viewing the seminar, participants were instructed to complete an anonymous, seven-question post-intervention evaluation via Google Forms. Expectations were that participants would spend less than 10 minutes completing this evaluation. A copy of this evaluation tool is found in Appendix F. Since all aspects of this project were completed via a virtual format, no travel time was required from participants. Since

the seminar was pre-recorded, participants were able to complete all aspects of the project at a time most convenient for them.

Evaluation Plan

At the start of the orientation seminar, participants were directed to access and complete the pre-intervention survey on Google Forms. Immediately following the seminar, participants were then directed to access and complete the post-intervention evaluation tool on Google Forms. No personal information was collected from participants in either the pre-intervention survey or the post-intervention evaluation. To link each individual's survey responses to their evaluation responses, each participant was asked to supply a unique identification number with their responses. This information was only viewable by the project manager and was not shared with any other party. Use of personal numerical identifiers such as birth dates was discouraged.

The data was stored on Google Forms for a period of one month before being erased. The data was analyzed using SPSS Version 27 and was stored by the project manager on an encrypted and password protected hard drive. The data was permanently destroyed after dissemination of the project during the summer of 2021. Using SPSS, the data was analyzed using descriptive statistics and t-tests. Linking the surveys and the evaluation tools through personal identification numbers allowed the project manager to analyze the effect of the intervention on individual participants while maintaining participant anonymity. At the conclusion of the project, participants were debriefed through email communication mediated by the associated nurse anesthesia student.

Dissemination Plan

This project was disseminated via a written proposal that was submitted to faculty for review and approval during the summer of 2021. In June of 2021, students, colleagues, and USF

faculty were invited to attend a formal presentation about the project outcomes. The manuscript for this project was then uploaded to the USF DNP repository so that it could be accessed by future DNP students, colleagues, and researchers. Project findings were also communicated with the Indiana Association of Nurse Anesthetists (INANA) so that they may be distributed to other CRNA programs in Indiana. Project findings were also communicated with Dr. Lisa Osborne, the Assistant Director for a CRNA program based in Tennessee. Dr. Lisa Osborne had previously been the NAP director for the University of Saint Francis before accepting her current position in Tennessee. Due to her history with the University of Saint Francis, she had knowledge of this project and expressed interest in having the results shared with her.

Chapter 4: Results and Outcomes Analysis

Data Collection Techniques

Data collection for the pretest and posttest data was accomplished using the Google Forms platform. The pretest survey was completed prior to the viewing of the seminar. The posttest evaluation was completed after viewing of the seminar. After implementation of the project and collection of all surveys and evaluations, collected data was imported into IBM's SPSS Version 27 software from Google Forms. A paired-samples *t*-test was then completed. According to a previously completed power analysis, a necessary sample size of 10 was needed to determine statistical significance ($p < .05$). A total of 15 participants completed the pre- and post-tests, meeting the requirement for a paired-samples *t*-test. Fifteen participants completed the pre-intervention survey. Only the demographic data and the measures of acute stress data was used from participants who only completed the pre-intervention survey.

Measures and Indicators

The total number of participants was 15 (n=15). Demographic data collected in the pre-intervention survey demonstrated that 66.7% of respondents identified as female and the remaining respondents identified as male. Of the respondents, 60% were reported to be married to a student while 13.3% of respondents reported that they were engaged to a student. Of the remaining respondents, 6.7% were reported to be friends of the students and another 13.4% were reported to be family members. Out of the 15 respondents, 93.3% reported that they were employed full-time.

Part of the project evaluation was based on the ability to meet the four proposed outcomes. The responses to the preintervention survey and the postintervention evaluation were used to evaluate the success of the project in meeting the proposed outcomes.

The proposed outcomes for this project were:

- Outcome 1a: Support persons of nurse anesthesia students will report a 20% increase in the awareness of stressors after completing the intervention.

- Outcome 1b: 25% of support persons of nurse anesthesia students will report an increase in awareness of program expectations for nurse anesthesia students.

- Outcome 2a: More than 25% of participants completing the survey will report feelings of increased preparedness after completion of the intervention.

- Outcome 2b: More than 30% of participants completing the survey will report an increased understanding of how to better support themselves and their student after completing the intervention.

There was a total of four questions that were found on both the pre-intervention survey and the post-intervention evaluation. Each was designed to measure the impact and benefits of the orientation seminar. Additional questions found in the survey and the evaluation tools provided static, single data points.

Outcome 1a was evaluated through the comparison of question #17 in the pre-intervention survey and question #4 in the post-intervention evaluation. A Likert scale was used to evaluate the participants awareness of the stressors associated with the nurse anesthesia program both prior to and immediately after viewing the seminar. Responses were reported on a scale of one to five (1 = no awareness, 5 = complete awareness). A paired-samples t test was calculated to compare the mean Likert rating of the pre-intervention survey to the mean Likert rating of the post-intervention evaluation. The mean reported value from the pre-intervention survey was 3.2 ($sd = 1.014$). The mean reported value from the post-intervention evaluation was

3.8 (sd = 0.676). No significant difference from the pre-intervention survey and the post-intervention evaluation was found ($t(14)$ = -2.073, $p > .05$). There was also only an 18.75% increase in the mean between the pre-intervention survey and post-intervention evaluation. Therefore, outcome 1a was not met.

Outcome 1b was evaluated through the comparison of question #18 on the pre-intervention survey and question #5 on the post-intervention evaluation. A Likert scale was used to evaluate the participants awareness of program expectations for student time commitments both prior to and immediately after viewing the seminar. Responses were reported on a scale of one to five (1 = no awareness, 5 = complete awareness). A paired-samples t test was calculated to compare the mean Likert rating of the pre-intervention survey to the mean Likert rating of the post-intervention evaluation. The mean reported value from the pre-intervention survey was 3.0 (sd = 0.756). The mean reported value from the post-intervention evaluation was 3.93 (sd = 0.961). A significant increase from the pre-intervention survey to the post-intervention evaluation was found ($t(14)$ = -3.5, $p < .05$). A total of ten participants (67%) reported an increase in awareness of program expectations for student time commitments after viewing the seminar. Therefore, outcome 1b was met.

Outcome 2a was evaluated through the comparison of question #16 on the pre-intervention survey and question #3 on the post-intervention evaluation. A Likert scale was used to evaluate the participants feelings of preparedness for the nurse anesthesia program both prior to and immediately after viewing the seminar. Responses were reported on a scale of one to five (1 = no awareness, 5 = complete awareness). A paired-samples t test was calculated to compare the mean Likert rating of the pre-intervention survey to the mean Likert rating of the post-intervention evaluation. The mean reported value from the pre-intervention survey was 3.2 (sd =

0.775). The mean reported value from the post-intervention evaluation was 3.6 ($sd = 0.737$). No significant difference from the pre-intervention survey and the post-intervention evaluation was found ($t(14) = -1.572$, $p > .05$). A total of six participants (40%) reported an increase in feelings of preparedness for the nurse anesthesia program after viewing the seminar. Therefore, outcome 2a was met.

Outcome 2b was evaluated through the comparison of question #19 on the pre-intervention survey and question #6 on the post-intervention evaluation. A Likert scale was used to evaluate the participants level of understanding on how to support themselves and their affiliated student both prior to and immediately after viewing the seminar. Responses were reported on a scale of one to five (1 = no awareness, 5 = complete awareness). A paired-samples *t* test was calculated to compare the mean Likert rating of the pre-intervention survey to the mean Likert rating of the post-intervention evaluation. The mean reported value from the pre-intervention survey was 3.07 ($sd = 0.799$). The mean reported value from the post-intervention evaluation was 3.8 ($sd = 0.676$). A significant increase from the pre-intervention survey to the post-intervention evaluation was found ($t(14) = -2.442$, $p < .05$). A total of 11 participants (73%) of participants reported an increase in their level of understanding on how to support themselves and their affiliated student after viewing the seminar. Therefore, outcome 2b was met.

Data Analysis Inferences

Out of the 15 respondents, 73.3% felt that they could have been better prepared before the student started school. When asked how helpful the seminar that they had viewed would have been at the start of the program, 67% responded that it would have been "very useful" and 20% felt that it was "imperative". In addition, 93.3% of respondents reported that they would have

liked the opportunity at the start of the program to attend a seminar similar to the one demonstrated for this project.
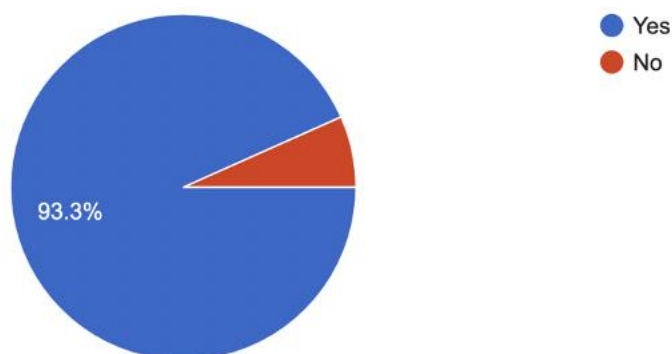
In the post-intervention evaluation, one respondent stated that: "…this video would have been helpful for a support person entering the life of the student at any point in the program – not just at the beginning. Very helpful and applicable information!". Another respondent had this to say in their post-intervention evaluation:

> "I feel when my spouse started the program we knew a lot of time would be sacrificed and we would have to be in 'survival mode' for the next few years. Luckily we started with a solid marriage, I am an extrovert/independent person, we jumped into a small group in church, and were connected with couples in the SRNA program as well. This could have been a lot harder for a more reserved, introvert type of person. I think a seminar at the beginning of the program for the partner AND the student to attend together would have so many opportunists. Not only to hear expectations and tips but for partners of students to have to opportunity to meet with other support persons and to make connections they would not have sought after on their own. Thank you for thinking of the support systems and our stressors as well in this study"

Gaps

Although 25 students were enrolled in the nurse anesthesia program at USF at the time of project implementation, only 15 individuals participated in the study. Therefore, participants represented only 60% of the population investigated.

Unanticipated Consequences

No anticipated consequences were noted during the implementation phase of this project.

Expenditures

A required expenditure for the data analysis section of this project was an $80 subscription for SPSS software. The cost of the subscription was covered in-kind by the project leader. No other costs were incurred during the development and implementation of this project.

Chapter 5: Leadership and Management of Project

Organizational Culture review model

An organizational assessment is a systematic method of identification and evaluation of factors and processes that contribute to the overall performance of an organization (Moran et al., 2020). Through the use of an organizational assessment tool, key issues and opportunities for growth in the institution may be identified with consideration to the organization's motivations, mission, and strategic plan (Moran et al., 2020). By using a systematic approach to assess an organization, gaps in the desired and current state of the organization may be identified with supporting evidence to help influence change (Moran et al., 2020).

Institutional and Organizational Assessment Model

The Institutional and Organizational Assessment Model (IOA Model) was developed by Universalia, a management consulting firm based in Montreal, Quebec (Lusthaus et al., 2002). The IOA Model was developed as a tool to aid in the assessment of an institution's strengths and weaknesses. With the use of this tool, institutions are better able to identify areas of improvement and increase their performance (Lusthaus et al., 2002). According to this model, organizational performance is influenced by multiple factors within the organization such as the environment, motivation, and capacity. The performance of an organization is determined by the ability of the organization to fulfill its mission in an efficient manner as well as its ability to remain financially viable (Lusthaus et al., 2002).

Organizational Performance

Organizational performance is a broad concept that is difficult to define and quantify. Measures of performance are dependent upon organizational-specific goals and that organizations ability to meet those goals. Regardless of the organization type, certain elements

should always be assessed to determine that organization's performance. These elements include the organization's effectiveness, efficiency, relevance, and financial viability.

Effectiveness. The effectiveness of an organization is determined by an organizations ability to accomplish its goals (Lusthaus et. al., 2002). Given the educational role of the University of Saint Francis Nurse Anesthesia Program (USF-NAP), the best methods for assessing the effectiveness of the USF-NAP are student attrition rates, graduation rates, and the students ability to pass state licensure exams. Given the relative infancy of USF-NAP and the absence of a graduating class, many of these variables of performance cannot be assessed. However, the attrition rate amongst the three cohorts enrolled in the program can be assessed. Per direct communication with the program director, the combined attrition rate for all students enrolled in the program was 10% (L. Osborne, personal communication, May 19, 2020).

Efficiency. Organizational efficiency is best thought of as a ratio of cost to production (Lusthaus et al., 2002). As it relates to a University, efficiency can be evaluated through an observation of a programs enrollment status and attrition rate. Based on its initial accreditation process, the USF-NAP was approved to accept up to 15 students per class on an annual basis. Based on this authors observation, the three classes enrolled in the program at the time of this paper were not filled with 15 students, indicating a loss of potential revenue for the program. The lack of enrolled students was largely attributed to a lack of qualified applicants and student attrition. Per personal communication with the program director, the attrition rate for all students enrolled in the program at the time of this paper was 10% (L. Osborne, personal communication, May 19, 2020).

The program has also been run on a lean administrative model. Historically, only three of the four approved faculty positions for the program had been filled. Administrative turnover for

the program includes one director and one faculty member. At the time of this paper, the program had all four faculty positions filled. All faculty members of the program are required to be licensed CRNAs. According the Bureau of labor Statistics, the mean CRNA salary in the United States in 2019 was $181,040 (Occupational employment and wages, 2020). Given that the University of Saint Francis is required to employ licensed CRNAs as faculty, the University must pay a competitive salary to draw practicing clinicians into academia which significantly contributes to the overhead costs of the program.

Relevance. Priority stakeholders in the USF-NAP include local Fort Wayne, Indiana hospitals as well as healthcare systems throughout the state of Indiana. According to the University of Saint Francis website, the expected need growth for CRNAs at a national level is 31% by 2026. In the state of Indiana, the expected need growth for CRNAs is 50% (Nurse Anesthesia, n.d.). Given that the USF-NAP program is the only program of its type in northern Indiana, it can be assumed that anesthesia groups and hospital systems in the surrounding area have a vested interest in the success of the program.

Financial Viability. The University of Saint Francis made an executive determination that the nurse anesthesia program is not financially viable and elected to sunset the program. Once the class of 2022 graduates, the USF-NAP will cease to exist. Information pertaining to why the program was determined to not be financially viable has not been disclosed.

External Environment

Organizations are heavily dependent on interactions with their surrounding environment for success. Environmental factors that contribute to the success of an organization include stakeholder involvement, regulation agencies, social and cultural environment, and the economic environment.

Environmental factors play a significant contributing role in the success of the USF-NAP. Major stakeholders in the USF-NAP include local anesthesia groups, the Indiana Association of Nurse Anesthetists (INANA) local hospital systems, local surgery centers, local CRNAs, and the University of Saint Francis. Students enrolled in the USF-NAP, as well as the faculty of the program may also be considered as stakeholders. The Council on Accreditation of Nurse Anesthesia Educational Program (COA) is a national accreditation agency responsible for ensuring that educational requirements are met by nurse anesthesia programs. For this reason, this organization may also be considered a stakeholder in the USF-NAP.

Community involvement in the program through guest lectures from local as well as prominent national speakers contribute to the educational experience of the program. The program is also heavily reliant on relationships with anesthesia groups and hospital systems throughout Indiana, Ohio, and Illinois to provide the necessary clinical experiences for students to graduate. The USF-NAP would not be able to exist without a partnership between these separate community entities. By the same token, the performance of students in the clinical environment also plays a significant role in the continued participation of clinical sites with the USF-NAP.

Organizational Motivation

Organizational motivation refers to the culture or personality of an organization. It entails the factors that encourage performance amongst members of the organization (Lusthaus et. Al., 2002). Four underlying concepts have been affiliated with motivation within an organization: history, mission, culture, and incentives (Lusthaus, 2002).

The University of Saint Francis has over 30 years of nursing education experience (Nursing: BSN, n.d.). A recent addition to the program, the inaugural class of the USF-NAP

began their coursework in August of 2017. Given the infancy of the NAP and the absence of a graduating class, no major awards or data pertaining to certification rates have been able to be collected. The founding director of the program left a year after the program was started but an assistant director was able to assume the role of director. At the start of 2020, it was announced that the University of Saint Francis would close the NAP after graduation of currently enrolled students. The closure of the program was attributed to nonspecific financial concerns.

The University of Saint Francis is a private Catholic university founded in 1890 by the Sisters of Saint Francis of Perpetual Adoration (About, n.d.). The mission of the school is to promote faith and reason through education, leadership and service. The University of Saint Francis subscribes to the values of St. Francis: Revere the unique dignity of each person; encourage a trustful, prayerful community of learners; serve one another, society, and the Church; foster peace and justice; and respect creation (About, n.d.)

In terms of community service, a unique requirement specific to the nurse anesthesia program is that all students must routinely participate in a food collection and distribution service for children who are at high risk for food insecurity. Through participation in this activity, students are encouraged to reflect on their time spent participating in community service and the impact made. Although not required, students are also encouraged to participate in medical mission trips to underserved countries.

Organizational Capacity

According the Lusthaus et al. (2002, p. 11), organizational capacity is "the ability of an organization to use its resources to perform". Factors that influence an organization's ability to perform include management of finances, programs, and processes as well was strategic leadership, human resources, infrastructure, and inter-organizational linkages (Lusthaus et al.,

2002). Although this author was unable to independently investigate the USF-NAP financial management, the USF board of directors decided to close the USF-NAP after only being open for three years citing financial reasons.

Process management for the program centered around student feedback and suggestions as well as faculty deliberation. The NAP faculty consisted of a program director, an assistant program director, and two CRNA-specific professors. Since the USF-NAP was a nurse anesthesia program that awarded a Doctor of Nursing Practice (DNP) degree through the graduate school of nursing, a separate group of faculty with a focus on the DNP aspect of the degree also played a major role in the education of students. The DNP specific faculty were not under the direct supervision of the NAP director but instead worked in collaboration. Since the NAP was closely associated with the graduate nursing program at USF, a lot of the key infrastructure necessary for the implementation of a NAP was already in place. This included simulation labs, program materials, and key courses. Therefore, in order to implement the NAP, the University of Saint Francis only had to expand upon existing infrastructure.

Change Strategy

In the first phase, an organization must increase the forces that promote change or decrease the forces that inhibit change. Known as the *unfreezing* phase, this is the first component of change. Change is an integral part of any organization's culture. Lewin's Change Theory is a three-phase change model that categorizes change into three phases: the *unfreezing* phase, the *change* phase, and the *refreezing* phase. Change is influenced by driving forces, restraining forces, and equilibrating forces (White et al., 2016).

In the *unfreezing* phase an organization must increase the forces that promote change or decrease the forces that inhibit change in order to demonstrate a need for change to occur. This is the first component of change. The forces pertaining to this project are listed in Table 5.

Table 5

Table outlining forces both for and against change and associated actions

Forces		Action to Be Taken
Driving Forces (For)	**Restraining Forces (Against)**	
	Impending closure of program and lack of interest from stakeholders in implementing project	Develop a stump speech that succinctly identifies the benefits of the project on a national scale.
	Lack of participation from primary support persons either due to time commitment or distance Pandemic restrictions to in-person meeting.	Investigate ways to make orientation program available on a virtual platform
	Timeline difference between project implementation period and new student orientation period	Create a mock environment for project implementation.
	Lack of new incoming students to USF nurse anesthesia program	Create a mock environment with existing students.
10% Student Attrition rate for USF nurse anesthesia program and national attrition rate of 0 to 26%.		Demonstrate the relationship between student stress and student attrition. Highlight the role that the primary support person can play in alleviating stress. Identify factors that increase stress in the support person, thus rendering them less able to support the student.
Investment by program director in improving student retention on a national scale		Incorporate program director in development and implementation of orientation program.
Doctoral education environment focused on process improvement and research implementation.		Clearly illustrate the need and potential for change with research to primary stakeholders.
	Lack of financial support due to impending closure of program	Develop cost-effective means of implementing project. A cost analysis should be performed to compare a virtual orientation program and an in-person program.
	Incentives for support persons to attend mock in-person orientation program.	

In the *change* phase, active steps are taken to implement change now that the barriers to change have been addressed in the first phase (White et al., 2016). The *change* phase was the

focal point for implementation of this project. The final phase, known as the *refreezing* phase,

pertains to establishing the new change as normal or standard practice. The goal in this stage is to

prevent a reversion back to the old way of doing things (White t al., 2016).

Leadership Style

Transformational leadership involves the motivation of followers who have similar

internal values. A transformative leader is able to clearly communicate their values and beliefs so

that followers can recognize a shared goal and vision. Transformational leaders also encourage

the pursuit of visions and assist in these pursuits in any way possible. Through this positive

motivation and instilment of ownership, followers are energized to exceed performance

expectations (Grossman & Valiga, 2017, p. 110). Transformational leaders instill pride in

followers, build moral, act as a positive role model, build confidence through encouragement,

and provide positive feedback (Grossman & Valiga, 2017, p. 111).

A transformative leadership style was adopted by the team leader for this project. The

aim of this project was to promote change and positive outcomes for the SRNA and their support

person. The gravity and simplicity of this aim, in combination with the shared lived experience,

allowed for the adoption of a transformative leadership style amongst all members of the project

team. The primary determinant behind the use of a transformative leadership style was the shared

lived experience amongst all team members. Each team member had been married when they

were enrolled in a doctoral program and had experienced many of the problems detailed

throughout this paper.

Interprofessional Collaboration

Interprofessional collaboration was crucial in the development and implementation of this

scholarly project. Interprofessional collaboration is foundational to the creation of meaningful

change. Doctoral-prepared nurses are positioned to assume leadership roles in these dynamic

teams (AACN, 2006). As established by the project leader, the interprofessional team for this

project consisted of Dr. Greg Loucke, Dr. David Johnson, and Dr. Megan Winegarden. Each

member of the interprofessional team had a vested interest in the success of the project and

contributed in their own way. Utilizing the unique skills and knowledge of each team member,

the project goals were achieved. The project leader found it important to clearly delineate roles

and expectations for each project team member and to ensure the continuity of open

communication amongst all team members.

Conflict Management

Throughout the course of the project's development and implementation, multiple

conflicts arose. A working knowledge of effective conflict resolution strategies is of paramount

importance for the DNP prepared nurse to assume a leadership role. Conflict management

necessitates a mastering of interprofessional communication skills and the ability to approach

crises in a systematic and efficient manner (Sipes, 2016).

The first conflict that arose early in the project's development was the announced closure

of the nurse anesthesia program at the proposed site of implementation. The announced closure

of the program was a challenge because the intended participant group for this project was new

incoming students and their primary support person. Due to the change in participant availability,

the sample population was adjusted to include only the primary support persons of the students

currently enrolled in the program. One of the unforeseen benefits to this change is that it allowed

for the project to assess the perceived benefit of the information seminar amongst individuals

who had the lived experience.

Another conflict encountered during the development and implementation of the project was the novel coronavirus pandemic (COVID-19). Prior to the pandemic, it was the intention of the project leader to have the information seminar be a live, in-person event. However, the social distancing measures that ensued after the start of the pandemic eliminated the possibility of hosting this type of event. Even in the event that an in-person event could be put together, societal fear of the novel coronavirus would have likely had a significant impact on participation rates. Therefore, the decision was made to convert the informational seminar to a virtual format. In an effort to increase participation rates in the project, the project team chose to prerecord the information seminar as opposed to hosting a live event. The thought was that this would allow participation to occur asynchronously over the course of two weeks at each individual's convenience.

Chapter 6: Discussion

Impact of Project

The intent of the project was to increase feelings of preparedness and to decrease levels of perceived stress amongst the support persons of nurse anesthesia students at the University of Saint Francis. As written, all the proposed outcomes for this project were not achieved. Progress was made towards each of the proposed outcomes. Only two outcomes did not demonstrate statistical significance. Progress in all the other outcomes did demonstrate statistically significant change.

Decisions and Recommendations

The electronic format for this project may have been one of primary driving forces for the 60% participant response rate. Although it was not the original intended format, the virtual format of this project allowed for participation at everyone's convenience while maintaining social distancing recommendations. In addition, the virtual format allowed for participation from different geographical locations. Therefore, the use of a virtual format is recommended for all future iterations of this project.

The positive response garnered from participants demonstrated a need for further research regarding how best to prepare the primary social support person of the SRNA. Future iterations of this project may include using the social support person of students who have yet to start the SRNA education process. Through the use of routine follow-up surveys as students progress throughout the program, additional refinements could be made to the informational seminar. Other future iterations of this project could evaluate the effectiveness and perceived benefits of an in-person informational seminar compared to the effectiveness of an online seminar.

Limitations of Project

The electronic format utilized for this project's distribution and implementation proved to have several benefits. However, the virtual seminar may have also detracted from the potential perceived benefits of an in-person seminar. Specifically, one of the anticipated benefits of an in-person seminar was the comingling and socialization of participants. The project leader anticipated that this socialization would have fostered a sense of community amongst participants and helped to promote the creation of a peer support group amongst the participants. Social media platforms would allow for the creation of a similar type of peer-support community and may be a viable alternative option for virtual formats.

Application to Other Settings

The small sample size of this project combined with the fact that all participants were associated with the same nurse anesthesia program limits the external validity of the information covered in the information seminar. Although attempts were made during the construction of the seminar to keep the information presented as relevant to other nurse anesthesia programs as possible, it is impossible to guarantee that all the information provided is equally applicable across multiple programs. Each individual NAP has its own unique stressors, and future iterations of this project may benefit from program-specific information seminars. On that same note, the sample population for this project did not consist of any participants from other graduate and doctoral programs.

Strategies for Maintaining and Sustaining

Data and information collected from this project supports the use of similar events amongst other SRNA programs. Due to the impending closure of the NAP, it is not possible to sustain a program such as the one developed for this project at the University of Saint Francis.

However, to garner attention to the subject and encourage the development of similar programs, the results of this project will be disseminated to other nurse anesthesia programs. The results from this project may also be of use for other graduate programs at the University of Saint Francis. Therefore, the results from this project will also be distributed to other graduate programs at the University of Saint Francis.

Lessons Learned

One of the most important lessons learned from this project was the benefit of a virtual, asynchronous seminar on participation rates. A key aspect to encouraging participation in this setting is frequent follow-ups and reminders with participants. During the implementation of this project, several reminder emails were sent out to request participation. Each reminder email garnered multiple additional survey responses from participants. Reminder emails would indicate that the use of reminder emails played a significant role in increasing subject participation.

Chapter 7: Conclusion

Potential Impact on Health Outcomes Beyond Implementation Site

Given the impending closure of the NAP at the University of Saint Francis, a majority of impact from this project will occur beyond the implementation site. Other graduate programs at the University of Saint Francis may be able to adopt and modify certain aspects of this project to create change in their programs. Given the standardization of the nurse anesthesia curriculum throughout the United States, this project has the potential to impact outcomes for all SRNAs and their support persons. Communication of the results of this project to other Universities and the AANA will facilitate awareness regarding the project premise and may also encourage adoption of the interventions. This project will also be submitted for publication.

Health Policy Implications of Project

Information and data collected from this project did not address or lead to the development of any specific health policies. The hope with this project was that it would lead to the development of program-specific initiatives to increase feelings of preparedness and to decrease levels of perceived stress amongst the support persons of nurse anesthesia students both at the University of Saint Francis and at other nurse anesthesia programs across the United States. Information and data collected from this project may also be used in the development of similar initiatives for other graduate programs at the University of Saint Francis.

Proposed Future Direction for Project

Academic programs should be transparent with prospective students regarding the stress and expectations of the program as well as the expected impact of the program on both personal and family life (Wilson et al., 2015). Transparency better allows for the preparation of students and their families for the rigors of nurse anesthesia school. For example, of participants in this

DNP project, 73.3% felt they could have been better prepared before the student started school. This preparation can be accomplished through the establishment of programs within the school that help nurture supportive relationships between families and students (Imus, 2015 & Volkert et al., 2018). The seminar created for this DNP project is one example of how this can be accomplished, as evidenced by the 93.3% of respondents who supported its future use in other programs.

Due to the impending closure of the NAP at the University of Saint Francis, the orientation seminar developed for this project will not continue to be used in its current form. In an effort to promote an adoption of similar seminars, other graduate programs at the University of Saint Francis will receive copies of this project. Ideally, this project will impact future SRNAs and their affiliated support person through the adoption of similar programs at other Universities. Presenting the results of this project at state and national conferences would encourage the adoption of similar programs at other Universities. Publication through the American Association of Nurse Anesthetists would also aid in raising awareness on the subject. Efforts should also be made to include some of the information obtained from this project on the AANA Wellness website.

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Appendix A

CITI Training Certificates

CITI PROGRAM

Completion Date 01-Feb-2020
Expiration Date 31-Jan-2023
Record ID 35170583

This is to certify that:

Randall Wyatt

Has completed the following CITI Program course:

GCP – Social and Behavioral Research Best Practices for Clinical Research (Curriculum Group)
GCP – Social and Behavioral Research Best Practices for Clinical Research (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

University of Saint Francis

Verify at www.citiprogram.org/verify/?wd465e236-07cd-4277-b609-a8f1871982a1-35170583

CITI PROGRAM

Completion Date 01-Feb-2020
Expiration Date 31-Jan-2023
Record ID 35170582

This is to certify that:

Randall Wyatt

Has completed the following CITI Program course:

Social and Behavioral Responsible Conduct of Research (Curriculum Group)
Social and Behavioral Responsible Conduct of Research (Course Learner Group)
1 - RCR (Stage)

Under requirements set by:

University of Saint Francis

Verify at www.citiprogram.org/verify/?w61a33442-a7a5-4c5a-b273-d37ea86482fb-35170582

CITI PROGRAM

Completion Date 01-Feb-2020
Expiration Date 31-Jan-2023
Record ID 35170584

This is to certify that:

Randall Wyatt

Has completed the following CITI Program course:

Public Health Research (Curriculum Group)
Public Health Research (Course Learner Group)
1 - Basic (Stage)

Under requirements set by:

University of Saint Francis

Verify at www.citiprogram.org/verify/?w68b72f26-673a-4a80-9579-334980d10eb0-35170584

CITI PROGRAM

Completion Date 02-Feb-2020
Expiration Date 01-Feb-2023
Record ID 35170580

This is to certify that:

Randall Wyatt

Has completed the following CITI Program course:

Social & Behavioral Research - Basic/Refresher (Curriculum Group)
Social & Behavioral Research (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

University of Saint Francis

Verify at www.citiprogram.org/verify/?we1fc8ee6-c06a-4b2e-a526-bd14f47cbbf8-35170580

CITI PROGRAM

Completion Date 01-Feb-2020
Expiration Date N/A
Record ID 35170581

This is to certify that:

Randall Wyatt

Has completed the following CITI Program course:

Information Privacy Security (IPS) (Curriculum Group)
Researchers (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

University of Saint Francis

Verify at www.citiprogram.org/verify/?wd1c4e43a-6762-4842-a0d2-d599c2893ba1-35170581

Appendix B

Letter of Support from the Dean of College of Health Sciences

UNIVERSITY of SAINT FRANCIS

September 16, 2020

University of Saint Francis Institutional Review Board:

This letter is being written in support of University of Saint Francis NAP/DNP student Randall Wyatt's Doctor of Nursing Practice Scholarly Project entitled *Preparation of Support Persons of Nurse Anesthesia Students*. We understand that the aims of the DNP Scholarly Project are to increase awareness of stressors amongst support persons of nurse anesthesia students and to increase self-reported feelings of preparedness amongst support persons of nurse anesthesia students.

The College of Health Sciences and the University of Saint Francis is supportive of the aims of the project. We believe that the participation of USF nurse anesthesia support persons in this project will be beneficial to the students and program as well as provide information that will be beneficial to other CRNA educational programs. We support Mr. Wyatt's efforts related to preparedness of support persons of nurse anesthesia students. Should this proposal receive approval from the IRB, to whose judgment we defer, we look forward to hearing the results of his project.

Sincerely,

Dr. Angela Harrell
Dean, College of Health Sciences
aharrell@sf.edu

Dr. Lance Richey
Vice President for Academic Affairs
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2701 Spring Street
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Appendix C

Email invitation for nurse anesthesia student to forward to their primary support person
Dear SRNA student,

Randall Wyatt, a third year DNP student, is conducting a project on how best to prepare the support persons of nurse anesthesia students for the demands of the program. This project will consist of a pre-recorded virtual seminar as well as the completion of a survey and an evaluation. The total anticipated time commitment is less than two hours.

In an effort to promote participant anonymity, please forward this email to the one person that you define as your primary source of emotional and social support. This may be defined as spouse, a significant other, a friend, a sibling, a parent, or a grandparent. **The support person must be 18 years of age or older to participate**. Please notify them of this email and request their participation.

Thank you for your assistance.

Randall Wyatt

Hello!

My name is Randall Wyatt, and I am a Student Registered Nurse Anesthetist (SRNA) at the University of Saint Francis in Fort Wayne, Indiana. As one of the requirements for the Doctor of Nursing Practice program, I am conducting a project to assess the perceived benefit of an information seminar on the preparation of the nurse anesthesia student's primary support person. This project will consist of a pre-recorded virtual seminar, a pre-intervention survey and a post-intervention evaluation. The total anticipated time commitment is less than two hours.

To participate in this project, please follow the links below in the order they are listed. By participating in this project, you are providing your consent to participate. Participation is voluntary and you may choose to not participate at any time. All aspects of this project are to be completed anonymously with no collection of personal information. **Please do not provide any identifying information about the student or yourself**. Examples of this type of information include names, birthdays, or geographic locations. **All participants must be at least 18 years of age.**

1. Please follow this link to access the survey to be completed **prior** to viewing the seminar.
2. Please follow this link to access the seminar.
3. Please follow this link to access the evaluation form **after viewing the seminar**

If you would like any assistance with feelings of stress or are in need of resources for social needs, information will be provided during the seminar and at the end of the evaluation. If you have any other questions, please contact me at wyattrd@cougars.sf.edu or my research advisor Dr. Megan Winegarden at mwinegarden@sf.edu.

Thank you for your time.

Randall Wyatt

Appendix D

Pre-intervention Survey Tool
The following questions will tell me a little about yourself. By completing this survey, you provide your consent to participate in the study. Participation is voluntary and withdrawal may be done at any time without penalty. **Please do not answer any open-ended questions with identifying information pertaining to yourself or the student such as your name or name of the student, city/state, or name of the program.**
Demographic Information
1. Please create a unique 4 number identification number. Refrain from using any personal identifiers in the creation of this number (i.e. date of birth etc.). Please write this number down in a safe place. You will be asked to reenter this number on the program evaluation tool at the end of the seminar.
   _____

2. What is your age?
   o   18-25
   o   25-34
   o   35-44
   o   45-54
   o   >55
3. What is your gender
   o   Male
   o   Female
   o   Non-binary
   o   Gender non-conforming
   o   Prefer to self-describe _____
4. What year is your student in the program?
   o   A1 (1st year)
   o   A2 (2nd year)
   o   A3 (3rd year)
5. Your Employment Status
   o   Employed; Full-time
   o   Employed; Part-time
   o   Unemployed
   o   Student
   o   Retired
   o   Other _____
6. When did you last take a sick day?
   o   0-3 months ago
   o   4-6 months ago
   o   7-11 months ago
   o   1-2 years ago
   o   >2 years ago
7. Relationship to student (SRNA)
   o   Married

o Engaged
o Committed Relationship
o Parent/Grandparent
o Child
o Cohabitant
o Friend
o Other _____

The following questions pertain to both your overall stress as well as specific causes of stress. As a reminder, please do not answer any open-ended questions with identifying information such as your name or name of the student, city/state, or name of the program.

8. During the past year, have any of the following occurred (mark all that apply)

__ Salary/benefits decreased	__ Personal illness or injury
__ Bankruptcy/financial stress	__ Pregnancy
__ Birth of a child	__ Promotion
__ Caring for debilitated/chronically ill loved one	__ Quit a job
__ Changed jobs	__ Retirement
__ Death of a spouse/partner/child	__ Started school (yourself)
__ Death of a family member/close friend	__ Marriage/legal union
__ Demotion	__ Military/deployment – Self
__ Divorce	__ Military deployment – significant other/friend
__ Marital/partner reconciliation	__ Moved/relocated
__ Marital/partner separation	

9. How would you rate your overall stress level on an average day in the past month?
   (1 is low stress, 5 is extreme stress, 0 is no stress)

                    1   2   3   4   5   0

10. How would you rate your stress level in the past month has a result of each of the following?
    (1 is low stress, 5 is extreme stress, 0 is no stress).

	1	2	3	4	5	0
o Work-related issues	1	2	3	4	5	0
o Your relationship with the student	1	2	3	4	5	0
o Financial Issues	1	2	3	4	5	0
o Personal health issues	1	2	3	4	5	0
o Health of a loved one	1	2	3	4	5	0
o Lack of time spent with student	1	2	3	4	5	0
o Caring for children	1	2	3	4	5	0
o Caring for pets	1	2	3	4	5	0
o Taking care of household chores	1	2	3	4	5	0

11. What do you find the most stressful about the student (SRNA) being in school?

_____

12. What has surprised you the most since the student (SRNA) has started nurse anesthesia school?
    o Amount of time dedicated to studying
    o Being in clinical away from home
    o Cost of the program
    o Stress level of the student
    o Other
    _____

13. Do you feel you could have been better prepared before the student (SRNA) started school?
    o Yes
    o No

14. What do you think could have prepared you better before the student (SRNA) started school?

_____

15. Would you have liked the opportunity to attend a seminar before the student started school about what you could expect regarding school requirements, time commitments, financial commitments, et cetera.
    o Yes
    o No

16. How would you rate your feelings of preparedness for the Nurse Anesthesia Program at the University of Saint Francis? (1 = Not prepared, 5 = Completely prepared).

                1   2   3   4   5

17. How would you rate your awareness of the stressors associated with the Nurse Anesthesia Program at the University of Saint Francis? (1 = No awareness, 5 = Completely aware).

                1   2   3   4   5

18. How would you rate your awareness of program expectations for time commitments of nurse anesthesia students? (1 = No awareness, 5 = Completely aware).

                1   2   3   4   5

19. How would you rate your understanding of how to support both yourself and your student throughout the nurse anesthesia program? (1 = unclear, 5 = Complete understanding).

                1   2   3   4   5

20. Use this space for any additional comments

Thank you for taking the time to complete this survey. If you have any concerns or questions, please contact Randall Wyatt at wyattrd@cougars.sf.edu or my project advisor Megan Winegarden, DNP, CNE at mwinegarden@sf.edu.

Appendix E

Agenda for Support Person Seminar

1. Program breakdown (moderated discussion between the Nurse Anesthesia Program

    director, guest speaker Dr. David Johnson, and Randall Wyatt, SRNA).

    a. Phases of the program and classroom hours

        i. Time spent studying

    b. Clinical rotations

        i. Travel time/distance

        ii. Time required with progression in program

        iii. Call requirements

    c. Financial considerations

        i. Lodging, travel, certification exams, conferences

    d. Stressors in graduate education

    e. Stress management strategies

    f. Resources available for students and their support person

Appendix F

Post-intervention Evaluation Tool

Seminar Evaluation Please circle the number that most closely represents your thoughts and feelings regarding the subject of each question. By completing this survey, you provide your consent to participate in the study. Participation is voluntary and withdrawal may be done at any time without penalty. As a reminder, **please do not answer any open-ended questions with identifying information pertaining to yourself or the student such as your name or name of the student, city/state, or name of the program**.

1. Please enter the same Personal Identification Number (PIN) that you used in the previous survey:

    _____

2. Regarding your preparation for the stress and time commitments of the nurse anesthesia program, how would you rate the helpfulness of the seminar you just experienced? (1 = Not useful, 2= slightly useful, 3= moderately useful, 4 = very useful, 5 = Imperative)

    1   2   3   4   5

3. After viewing the seminar, how would you rate your feelings of preparedness for the Nurse Anesthesia Program at the University of Saint Francis? (1 = Not prepared, 5 = very prepared).

    1   2   3   4   5

4. After viewing the seminar, how would you rate your awareness of the stressors associated with the Nurse Anesthesia Program at the University of Saint Francis? (1 = No awareness, 5 = Complete awareness).

    1   2   3   4   5

5. After viewing the seminar, how would you rate your awareness of program expectations for time commitments of nurse anesthesia students? (1 = No awareness, 5 = Complete awareness).

    1   2   3   4   5

6. After viewing this seminar, how would you rate your understanding of how to support both yourself and your student throughout the nurse anesthesia program? (0 = unclear, 5 = Complete understanding).

    1   2   3   4   5

7. Would you have liked the opportunity to attend a seminar similar to the one you just experienced before the student started school?

    o   Yes
    o   No

8. Use this space for any additional comments or questions. You may also include any personal advice that you would wish to share with future students and their support person. Please refrain from providing any personal identifiers.

_____

_____

_____

Thank you for taking the time to complete this evaluation. If you have any concerns or questions, please contact Randall Wyatt at wyattrd@cougars.sf.edu or my project advisor Megan Winegarden, DNP, CNE at mwinegarden@sf.edu. If you feel the need to talk with someone about your stress or if you are having thoughts of harming yourself or others, the following list of resources may be of assistance:

- Students may access free counseling services through the USF Health & Wellness Center. Appointments may be scheduled by calling 260-266-8060.
- Families may access free counseling services through Purdue University Fort Wayne Community Counseling Center. Appointments may be scheduled by calling 260-481-5405.
- Additional local mental health resources may be found at https://www.namifortwayne.org/local-resources.
- The National Suicide Prevention Lifeline may be accessed 24hrs a day at 800-273-8255 or at www.suicidepreventionlifeline.org.

Thank you again for your time

Randall Wyatt, SRNA

Appendix G

Informed Consent
Introduction

My name is Randall Wyatt and I am a Student Registered Nurse Anesthetist (SRNA) at the University of Saint Francis in Fort Wayne, Indiana. As part of a requirement for the Doctor of Nursing Practice program, I am conducting a project on the stress experienced by the primary support persons of SRNAs and how the nurse anesthesia program may better work to support them. My project advisor from the University of Saint Francis is Dr. Megan Winegarden DNP, EdM, RN, CNE. Your participation in this project would be greatly appreciated.

Purpose of the Project

Stress has been identified as a major barrier to student success in graduate education. The University of Saint Francis currently employs multiple methods to help alleviate unnecessary stress on currently enrolled graduate students. However, the University does not currently employ any strategies to decrease perceived stress in the primary support person of students. The purpose of this project is to identify how the University may best prepare the primary support persons of incoming SRNAs. The information obtained from this survey will be used to facilitate the development of an orientation for primary support persons at the start of the program. Information will also be used to aid in the development of resources aimed at assisting the support persons throughout the course of the program.

Procedures

1. This study will consist of an initial online survey to gather idea on how the nurse anesthesia program could have better prepared the support persons of currently enrolled students. This survey will be completed online at the start of the information seminar and will take between 20 minutes to complete.
2. Participants will then be asked to engage in a virtual, asynchronous information seminar. This mock orientation program will last around 15 minutes.
3. At the conclusion of the informational seminar, participants will be asked to provide feedback via an evaluation of the perceived benefits of the program as well as areas for improvement. This evaluation is expected to take less than 10 minutes to complete.

Risk and Benefits

- Potential risks to participants may include anxiety and depression due to the potentially sensitive nature of the subject.
- There may not be any benefit to you personally, but the information collected from participation has the potential to help others undergoing similar situations in the future.

Safeguards

Participation in this study is voluntary. In an effort to protect participant anonymity, information collected from the survey and evaluation will be encrypted and biometrically secured on the project manager's personal computer. All published data will be in aggregate form. To assist in efforts to maintain participant anonymity, please do not provide any identifying information pertaining to yourself or the student. Identifiable information to avoid include names, birth dates, and geographic locations.

Freedom to Withdraw

Participation in this survey is completely voluntary. Therefore, participants are free to not participate or to withdraw from the survey at any point. You may withdraw your permission for use of responses at any time without penalty to yourself or the associated student.

Notation of Understanding

By completing any of the project's components, you are indicating that you understand the aforementioned information and agree to participate in this project. Participation is voluntary and you may choose to stop participating at any point. Once the study is completed, the results will be made available to you. If you have any questions in the meantime, please contact me at wyattrd@cougars.sf.edu or my project advisor Dr. Megan Winegarden DNP, EdM, RN, CNE at mwinegarden@sf.edu.
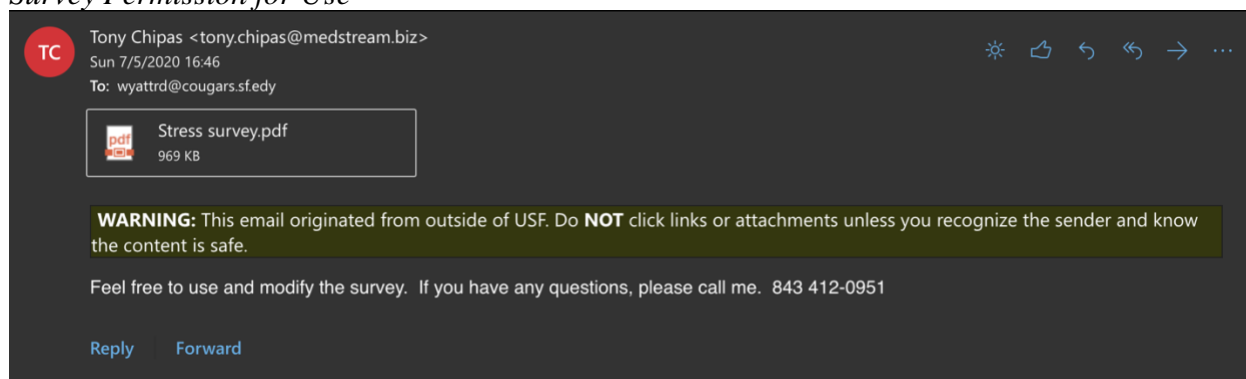
If you have any complaints about your treatment as a participant in this study, please call or write:

IRB Chairperson
University of Saint Francis
2701 Spring Street
Fort Wayne, IN 46808
(206) 399-7700
Administration email: irb@sf.edu

Thank you for your time,
Randall Wyatt, BSN, RN, CCRN-CMC/CSC, USF DNP-NAP Student
University of Saint Francis

Appendix H

Survey Permission for Use

Tony Chipas <tony.chipas@medstream.biz>
Sun 7/5/2020 16:46
To: wyattrd@cougars.sf.edy

pdf Stress survey.pdf
969 KB

WARNING: This email originated from outside of USF. Do **NOT** click links or attachments unless you recognize the sender and know the content is safe.

Feel free to use and modify the survey. If you have any questions, please call me. 843 412-0951

Reply | Forward

Appendix I

Letter of Conditional Approval from USF IRB

University of Saint Francis
Institutional Review Board
Human Subjects Review Committee/ACUC/IBC
Institutional Review Board Approval Form

Protocol Number: 16006273294-HSRC

Review by (underline one): HSRC   ACUC   IBC

Date Reviewed: 10/12/2020 with follow-up discussion on 10/19/2020
Principal Investigator: Randall Wyatt
Faculty Advisor: Dr. Megan Winegarden
Protocol Title: Preparation of support persons of nurse anesthesia students
Study Site(s): University of Saint Francis

Type of Proposal:
       Original research
       Replication or extension of previous research
       Quality Improvement/Evidence-Based Practice Project

Items submitted for review:
    ☒CITI Certificate
    ☒Initial protocol
    ☒Abstract
    ☒Informed Consent Form (if applicable)
    ☒Approval letter from outside institution
    ☒Other – explain: pre-intervention survey, intervention outline, post-intervention evaluation

Type of Review:
    ☒Full Review
    ☐Expedited Review
    ☐Exempt Review

Approval:
    ☐Approval granted on _____
    ☐Approval granted on _____ for a period of one year.
    ☒Conditional approval* granted on __10/12/2020_____.
    ☐Not approved*
    ☐IRB approval is not required:
    ☐Other

*Comments:
Please address the following concerns of the IRB before you begin your project:

1. The surveys do collect some sensitive information about the investigator's classmates and their primary support persons. There are risks that anonymity will not always be possible. The demographic survey asks for student's year in program along with information about the support person which could result in identifiable data. To address this concern, remove the assurances in the consent form related to anonymity and rather focus on steps taken to protect confidentiality. Consider whether the student year in the program is necessary data to collect.
2. Add the phrase from the consent form about **not including any identifying information about self or student** to the instructions of the surveys as added protection during survey completion.

IRB Committee Approval Form sjo 10/12/2020

3. In the Risk Analysis section, the investigator notes that "Confidential information will not be collected from participants at any point." That is not an accurate statement since all information collected from participants must remain confidential.

4. In the Risk Analysis section, the investigator states that participants may experience anxiety or depression and resources will be provided at the end of the seminar. The potential risks are not identified in the consent form for participants, but rather, the consent notes there is no risk to participants. The consent form MUST list all potential risks to participants. The resources that will be shared with participants also need to be included with this proposal as they will be provided to the participants.
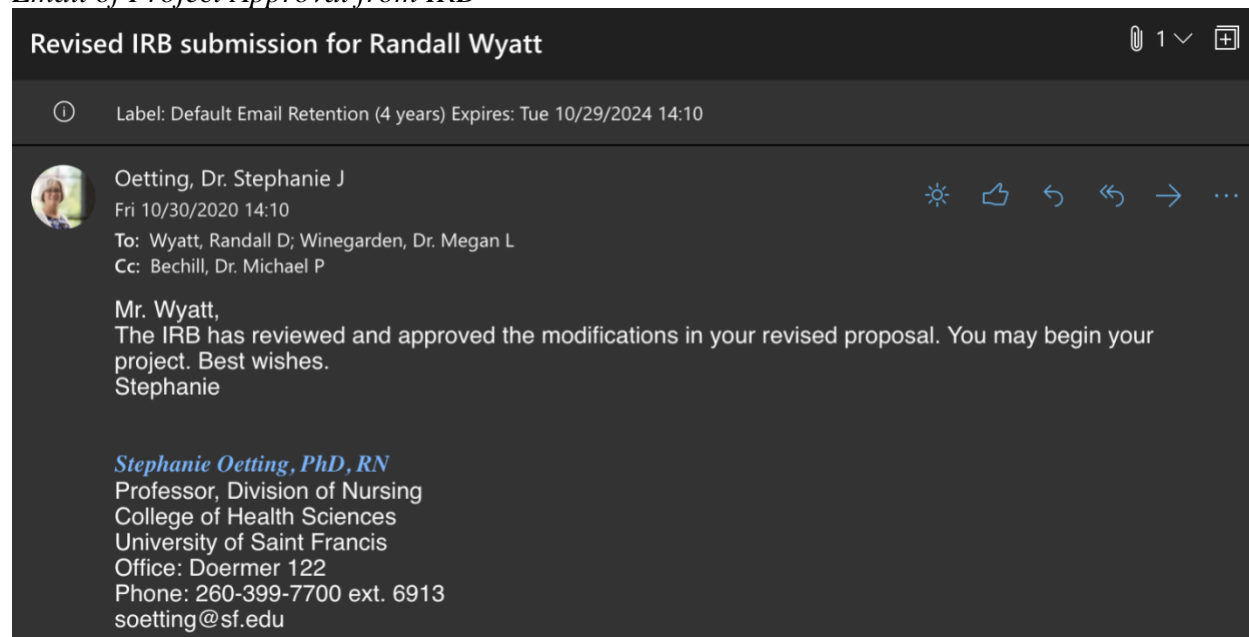
Please submit an addendum that addresses all these points before initiating your project. You may submit the addendum to Dr. Stephanie Oetting via email at soetting@sf.edu for review and response prior to initiating the project.

The committee performing this review is duly constituted and operates in accordance and compliance with local and federal regulations and guidelines.

Stephanie Oetting	_Stephanie Oetting_	10/19/2020
Printed Name (Chair or designee)	Signature	Date

Appendix J

Email of Project Approval from IRB

Revised IRB submission for Randall Wyatt   📎 1 ∨ ⊞

ⓘ Label: Default Email Retention (4 years) Expires: Tue 10/29/2024 14:10

Oetting, Dr. Stephanie J   ☀ 👍 ↩ ↩ → ⋯
Fri 10/30/2020 14:10
To: Wyatt, Randall D; Winegarden, Dr. Megan L
Cc: Bechill, Dr. Michael P

Mr. Wyatt,
The IRB has reviewed and approved the modifications in your revised proposal. You may begin your project. Best wishes.
Stephanie

Stephanie Oetting, PhD, RN
Professor, Division of Nursing
College of Health Sciences
University of Saint Francis
Office: Doermer 122
Phone: 260-399-7700 ext. 6913
soetting@sf.edu

Appendix K

Project Timeline

	12/19	1/20	2/20	3/20	4/20	5/20	6/20	7/20	8/20	9/20	10/20	11/20	12/20	1/21	2/21	3/21	4/21	5/21	6/21	7/21	8/21
Project Approval	X																				
Literature Review	X	X	X	X	X																
Stakeholder Identification		X	X	X																	
IRB app/ approval									X	X	X	X									
GAP analysis			X																		
Team Agreement					X																
Survey Distribution/ Collection														X	X						
Program Development											X	X	X	X							
Project Implementation														X	X						
Organizational Assessment						X															
Risk Analysis							X														
Budget							X														
DNP Project Presentation																				X	
Data analysis/ survey																	X	X			
Collaboration with project team										X	X	X	X	X	X						
Distribution of informed consent														X	X						
Monthly meetings with project advisor	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Rehearsal for Program Presentation											X	X	X								
Program Evaluation														X	X	X					

Appendix L

Statistical Analysis

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PreSaware	3.20	15	1.014	.262
	PostSaware	3.80	15	.676	.175
Pair 2	PreTimeExpect	3.00	15	.756	.195
	PostTimeExpect	3.93	15	.961	.248
Pair 3	PreRatePrep	3.20	15	.775	.200
	PostRatePrep	3.60	15	.737	.190
Pair 4	PreBiSupport	3.07	15	.799	.206
	PostBiSupport	3.80	15	.676	.175

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	PreSaware & PostSaware	15	.167	.553
Pair 2	PreTimeExpect & PostTimeExpect	15	.295	.286
Pair 3	PreRatePrep & PostRatePrep	15	.150	.593
Pair 4	PreBiSupport & PostBiSupport	15	−.238	.393

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2–tailed)
Pair 1	PreSaware – PostSaware	−.600	1.121	.289	−1.221	.021	−2.073	14	.057
Pair 2	PreTimeExpect – PostTimeExpect	−.933	1.033	.267	−1.505	−.361	−3.500	14	.004
Pair 3	PreRatePrep – PostRatePrep	−.400	.986	.254	−.946	.146	−1.572	14	.138
Pair 4	PreBiSupport – PostBiSupport	−.733	1.163	.300	−1.377	−.089	−2.442	14	.028

Appendix M

Pre-intervention Survey Results

2. What is your age?
15 responses

- 18-25
- 25-34
- 35-44
- 45-54
- >55

(20%, 13.3%, 66.7%)
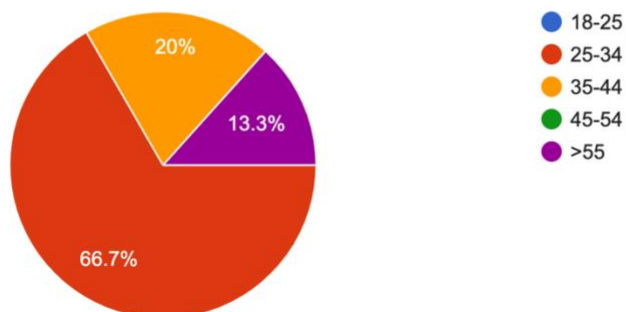
3. What is your gender
15 responses

- Male
- Female
- Non-binary
- Gender non-conforming

(66.7%, 33.3%)
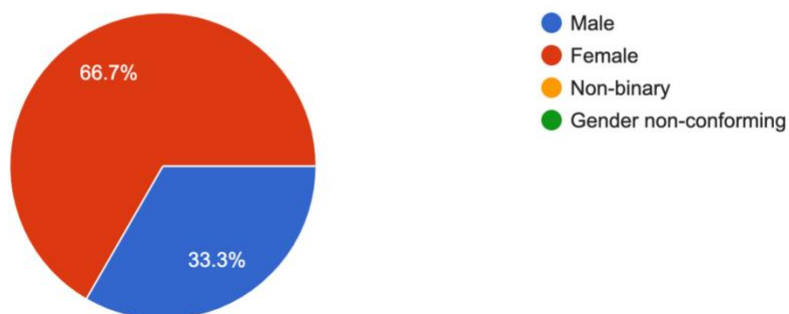
4. What year is your student in the program?
15 responses

- A1 (first year)
- A2 (second year)
- A3 (third year)

(66.7%, 33.3%)
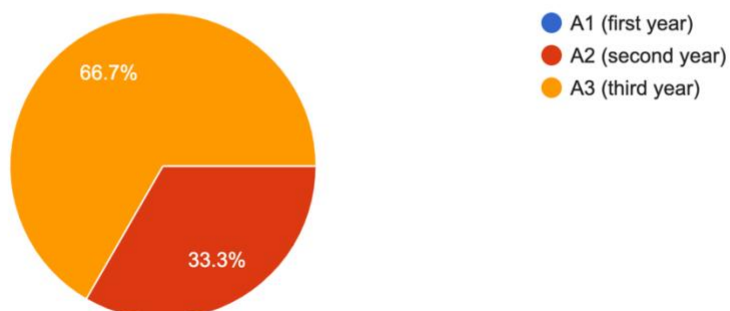
Appendix M

5. Your Employment Status
15 responses

- Employed; Full time
- Employed; Part-time
- Unemployed
- Student
- Retired

93.3%
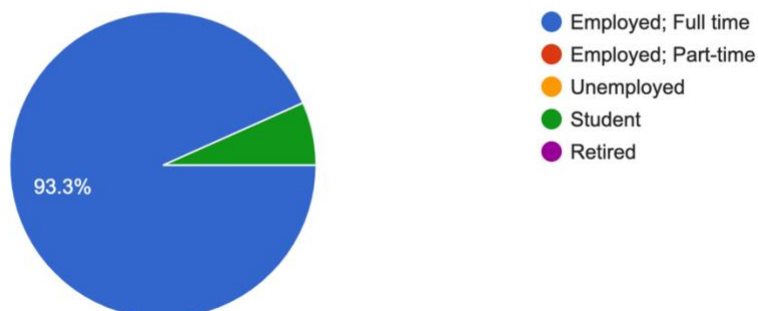
6. When did you last take a sick day?
15 responses

- 0-3 months
- 4-6 months
- 7-11 months
- 1-2 years ago
- >2 years ago

13.3%   26.7%
13.3%
13.3%
33.3%
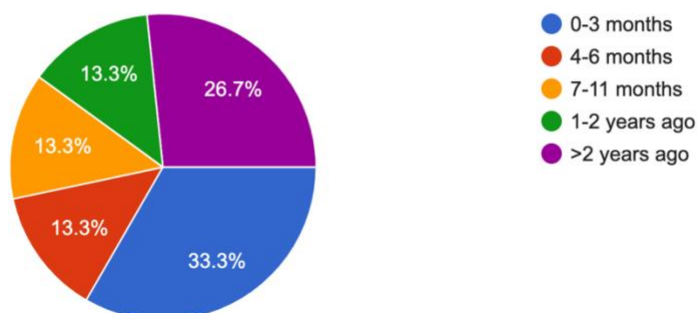
Relationship to student (SRNA)
15 responses

- Married
- Engaged
- Committed Relationship
- Parent/Grandparent
- Child
- Cohabitant
- Friend
- .
- Sister

13.3%
60%
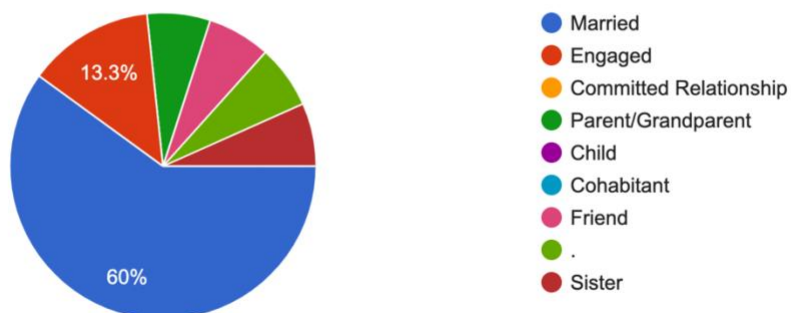
Appendix M

The following questions pertain to both your overall stress as well as specific causes of stress. As a reminder, please do not answer any open-ended questions with identifying information such as your name or name of the student, city/state, or name of the program.

8. During the past year, have any of the following occurred (mark all that apply)
11 responses
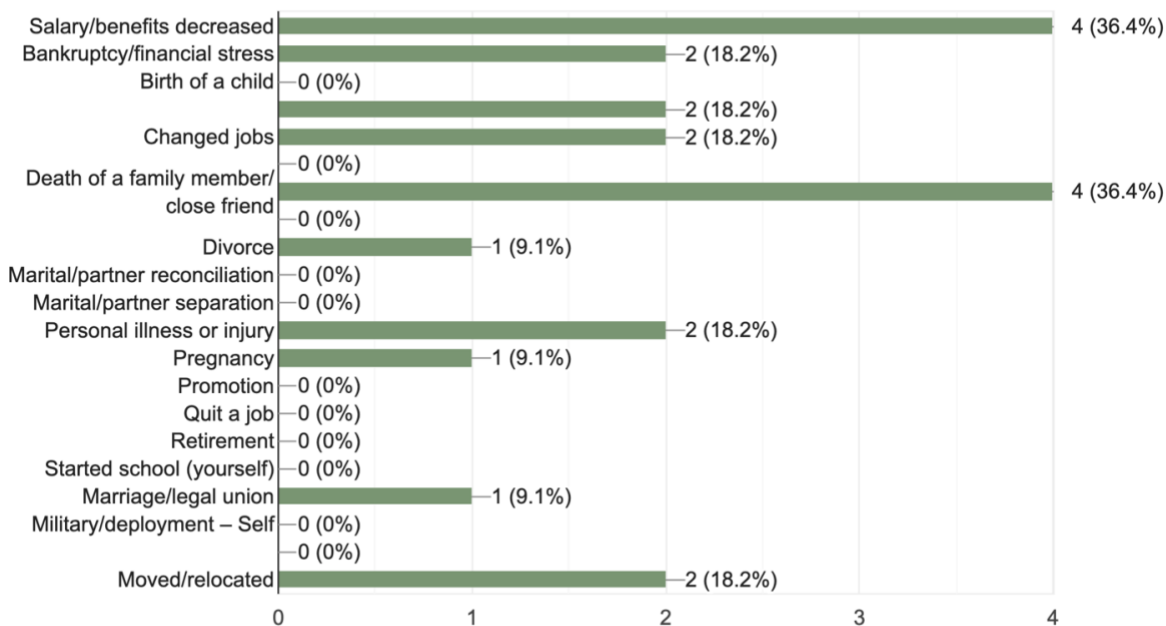
Category	Value
Salary/benefits decreased	4 (36.4%)
Bankruptcy/financial stress	2 (18.2%)
Birth of a child	0 (0%)
	2 (18.2%)
Changed jobs	2 (18.2%)
	0 (0%)
Death of a family member/ close friend	4 (36.4%)
	0 (0%)
Divorce	1 (9.1%)
Marital/partner reconciliation	0 (0%)
Marital/partner separation	0 (0%)
Personal illness or injury	2 (18.2%)
Pregnancy	1 (9.1%)
Promotion	0 (0%)
Quit a job	0 (0%)
Retirement	0 (0%)
Started school (yourself)	0 (0%)
Marriage/legal union	1 (9.1%)
Military/deployment – Self	0 (0%)
	0 (0%)
Moved/relocated	2 (18.2%)

9. How would you rate your overall stress level on an average day in the past month?(1 is low stress, 5 is extreme stress, 0 is no stress)
15 responses

Rating	Value
0	0 (0%)
1	2 (13.3%)
2	5 (33.3%)
3	6 (40%)
4	2 (13.3%)
5	0 (0%)
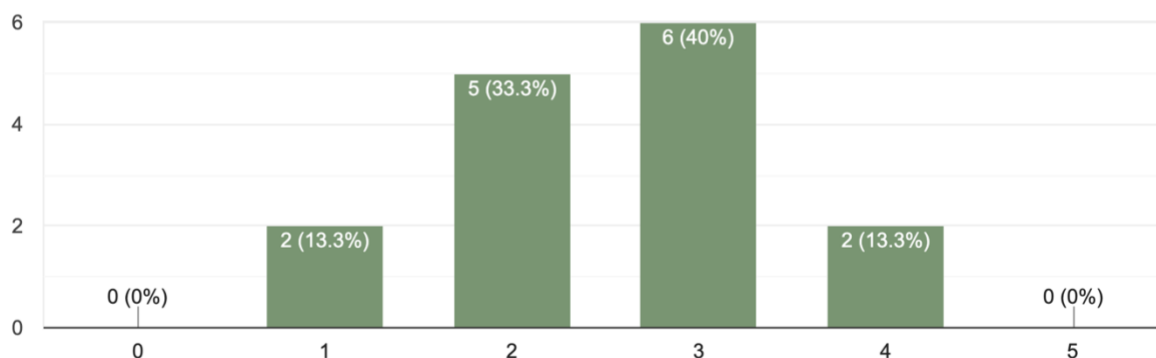
Appendix M

10. How would you rate your stress level in the past month as a result of each of the following? (1 is low stress, 5 is extreme stress, 0 is no stress).

o Work-related issues
15 responses
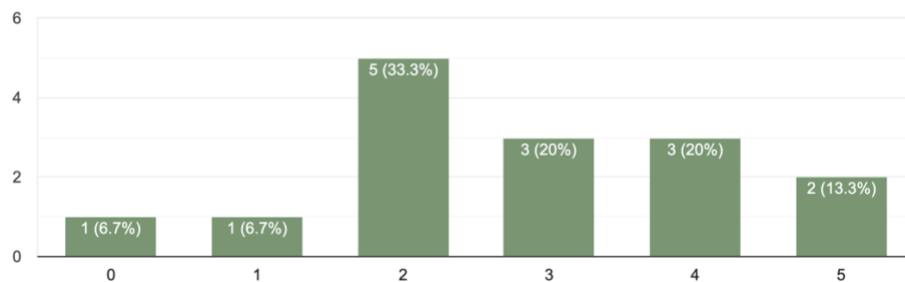
o Your relationship with the student
15 responses
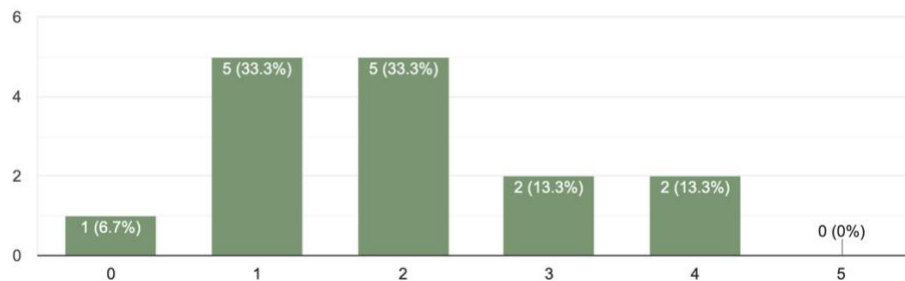
o Financial Issues
15 responses
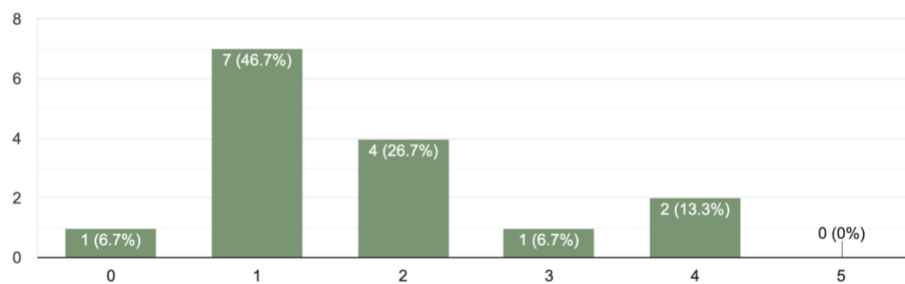
Appendix M

o Personal health issues

15 responses
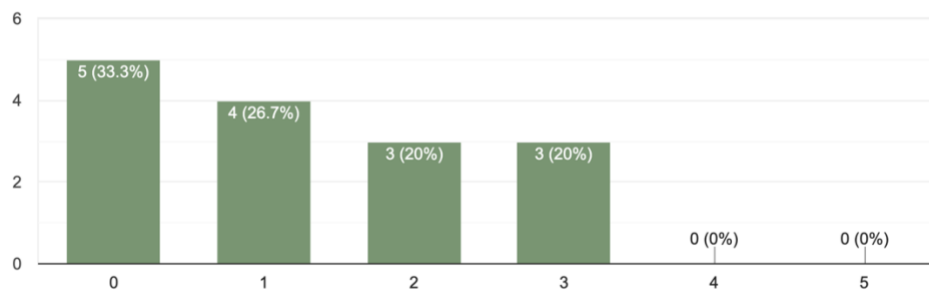
o Health of a loved one

15 responses
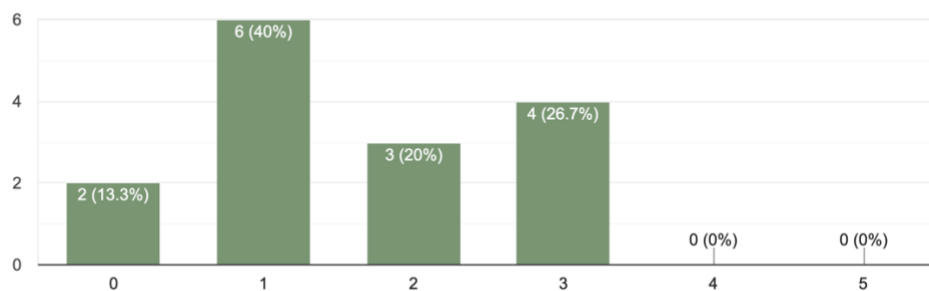
o Lack of time spent with student

15 responses
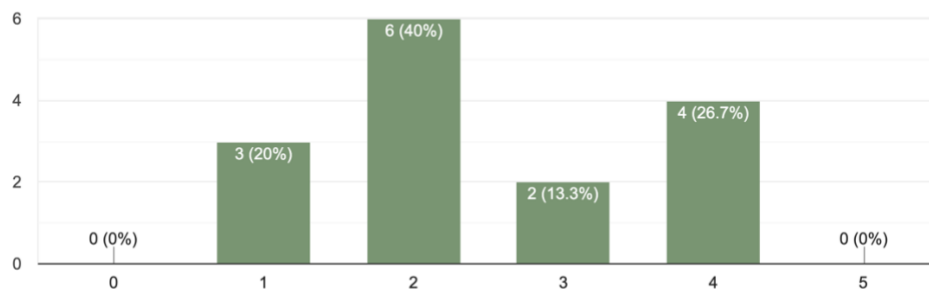
Appendix M

o Caring for children

15 responses
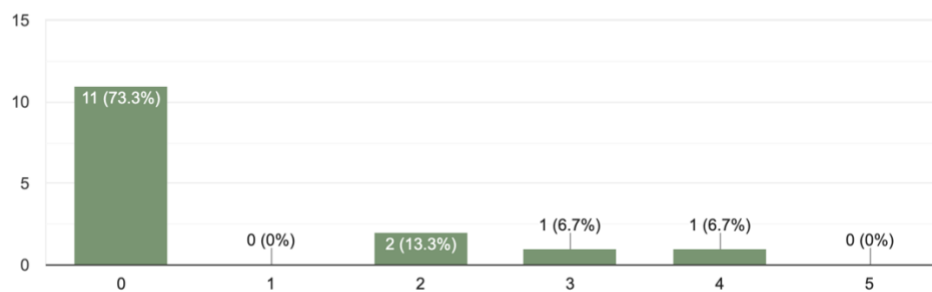
o Caring for pets

15 responses
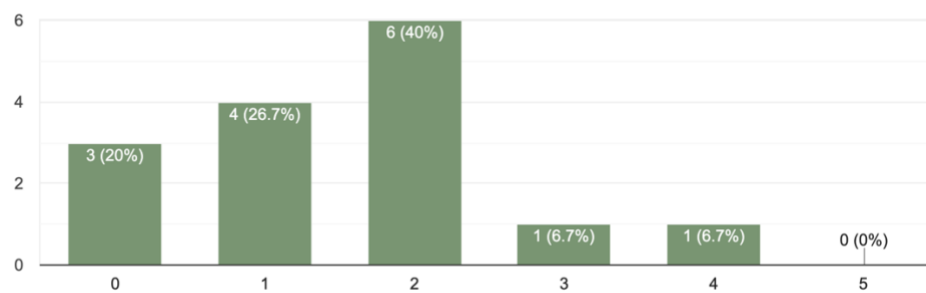
o Taking care of household chores

15 responses
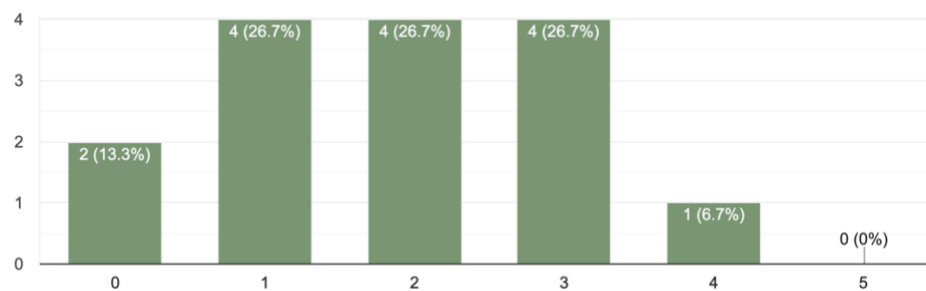
Appendix M

11. What do you find the most stressful about the student (SRNA) being in school?

- Lack of family time
- Not being able to form healthy marriage habits
- NOT BEING AVAILABLE
- Time apart from family/loved ones
- Lack of time spent together
- The high demands of the program causing a lack of time for balancing clinical residency and DNP requirements.
- My great increase in responsibilities and being the only source of income
- Carrying the workload of childcare
- Constant anxiety, stress, constant worrying, unable to relax or have fun...
- Their stress level, financial stress
- Her stress about deadlines and not having time
- Financial cost
- lack of time for activities
- Distance and concerns about students stressors
- Time spent apart

12. What has surprised you the most since the student (SRNA) has started nurse anesthesia school?

15 responses
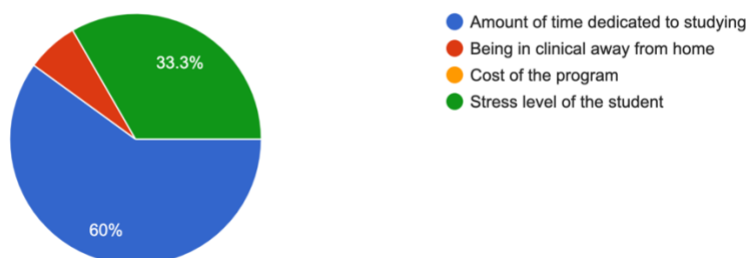
- Amount of time dedicated to studying
- Being in clinical away from home
- Cost of the program
- Stress level of the student

33.3%

60%

13. Do you feel you could have been better prepared before the student (SRNA) started school?

15 responses

- Yes
- No

26.7%

73.3%
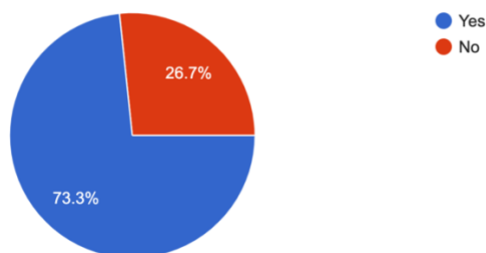
Appendix M

14. What do you think could have prepared you better before the student (SRNA) started school?

- Meeting with families prior to start of program.
- Knowing I have to keep my own healthy habits and not take on the student's stress, or we'll both be burned out.
- GETTING AND MOVED IN EARLIER
- More information about cost
- No preparation, just have to get through the three years.
- Working in a nu PICU and NICU.
- More money, more savings
- Having an idea of the time commitment
- Maybe a breakdown of hours spent and an example of what their weekly time allotment might be.
- Information/ guidance on supporting your partner at each level of the program.
- Nothing
- na
- speaking with other support people of students
- Knowing the time commitment ahead of time

15. Would you have liked the opportunity to attend a seminar before the student started school about what you could expect regarding school req... commitments, financial commitments, et cetera.

15 responses

Legend:
● Yes
● No

93.3%
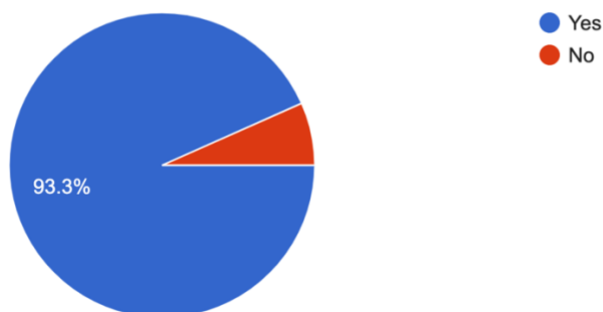
Appendix M

16. How would you rate your feelings of preparedness for the Nurse Anesthesia Program at the University of Saint Francis? (1 = Not prepared, 5 = Completely prepared).
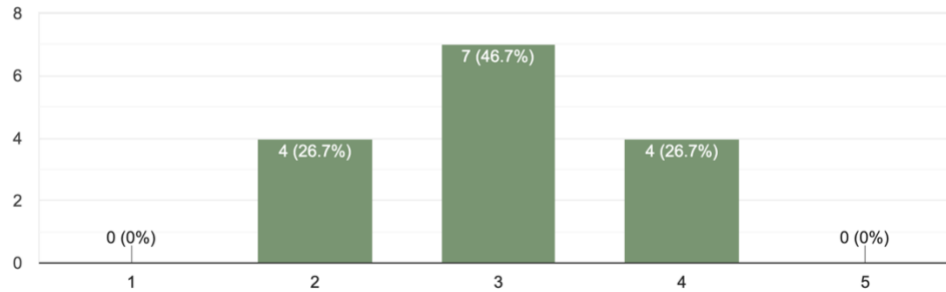
15 responses
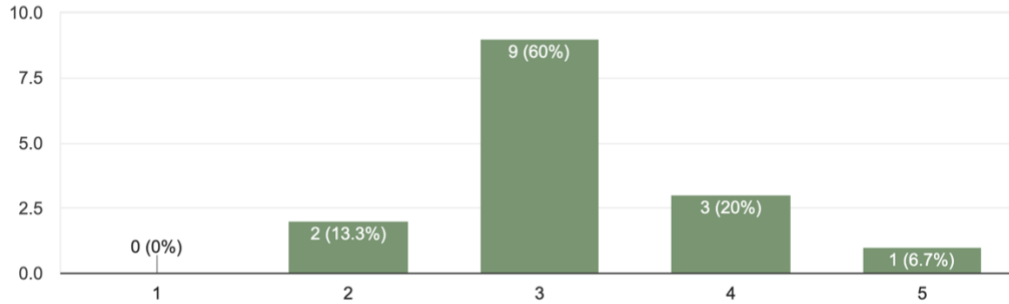
17. How would you rate your awareness of the stressors associated with the Nurse Anesthesia Program at the University of Saint Francis? (1 = No awareness, 5 = Completely aware).
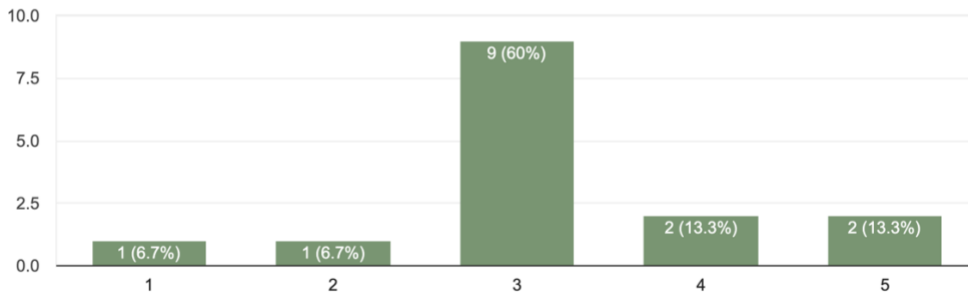
15 responses

18. How would you rate your awareness of program expectations for time commitments of nurse anesthesia students? (1 = No awareness, 5 = Completely aware).

15 responses

Appendix M

19. How would you rate your understanding of how to support both yourself and your student throughout the nurse anesthesia program? (1 = unclear, 5 = Complete understanding

15 responses
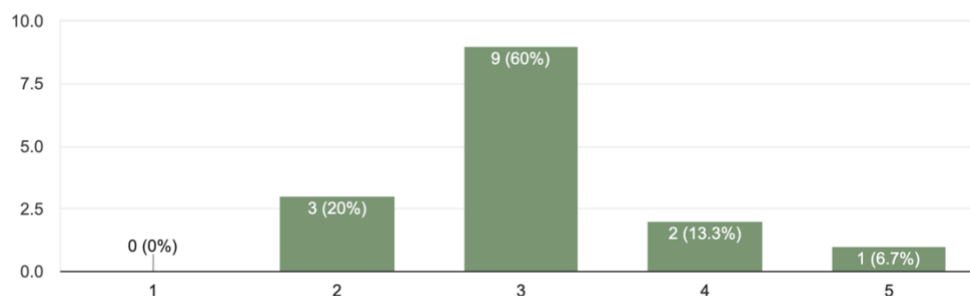
20. Use this space for any additional comments

- None
- I went through grad school myself so general expectations are not foreign to me. However, knowledge of the specific stress, commitment (financial and time), etc would have been useful as a support partner to not put additional expectation on the student for sharing information.

Appendix N

Post-intervention Evaluation Results

2. Regarding your preparation for the stress and time commitments of the nurse anesthesia
program, how would you rate the helpfulness of the ...oderately useful, 4 = very useful, 5 = Imperative)
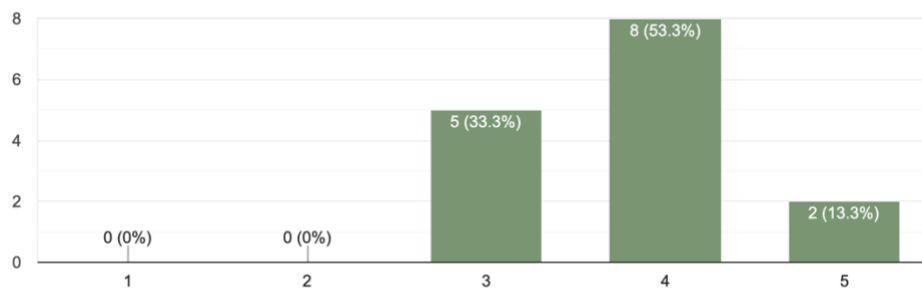15 responses
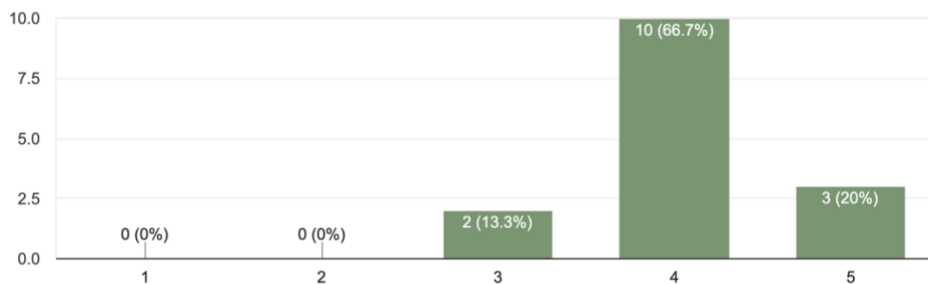
3. After viewing the seminar, how would you rate your feelings of preparedness for the Nurse
Anesthesia Program at the University of Saint Francis? (1 = Not prepared, 5 = very prepared).
15 responses
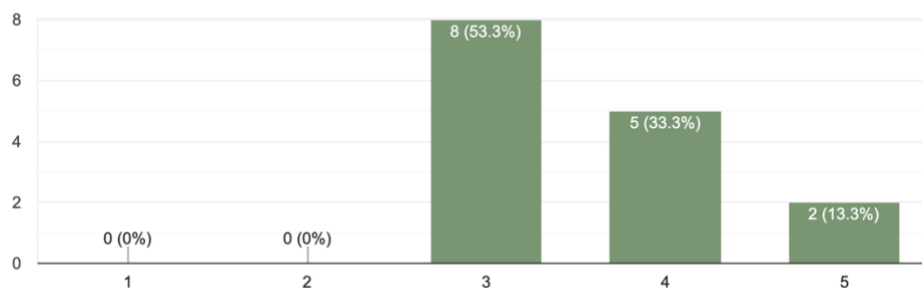
4. After viewing the seminar, how would you rate your awareness of the stressors associated with
the Nurse Anesthesia Program at the University of...cis? (1 = No awareness, 5 = Complete awareness).
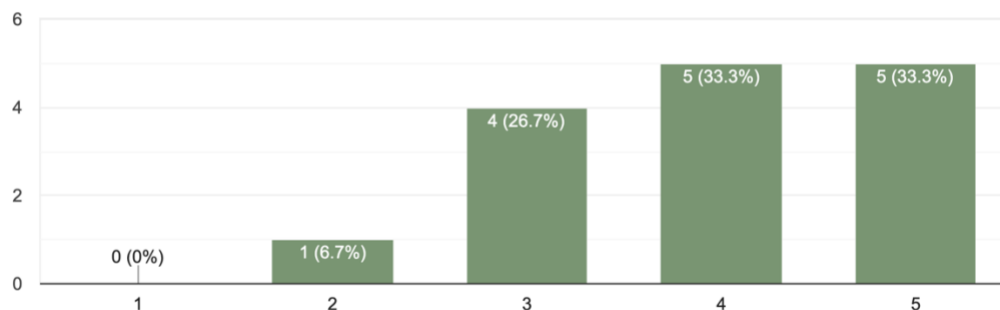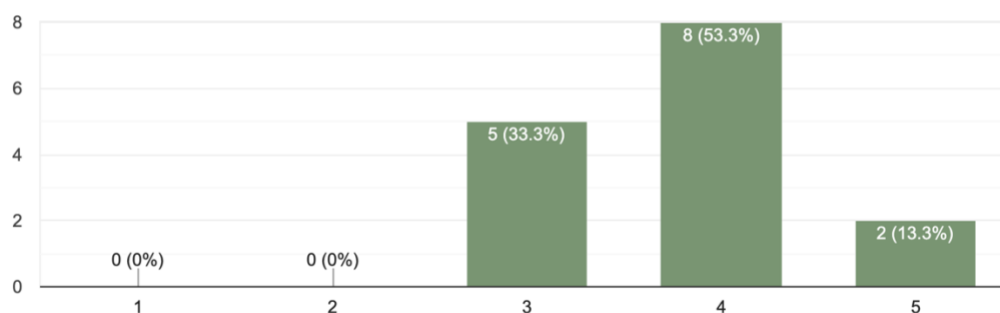15 responses

Appendix N

5. After viewing the seminar, how would you rate your awareness of program expectations for time commitments of nurse anesthesia students? (1 = No awareness, 5 = Complete awareness).
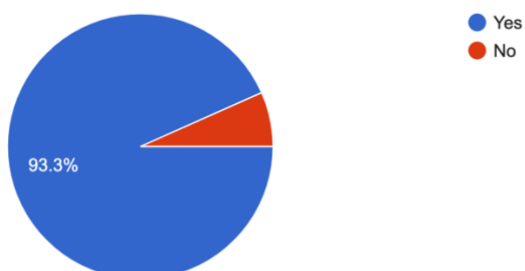
15 responses

6. After viewing this seminar, how would you rate your understanding of how to support both yourself and your student throughout the nurse an...gram? (0 = unclear, 5 = Complete understanding).

15 responses

7. Would you have liked the opportunity to attend a seminar similar to the one you just experienced before the student started school?

15 responses

Appendix N

8. Use this space for any additional comments or questions. You may also include any personal advice that you would wish to share with future students and their support person. Please refrain from providing any personal identifiers.

- Incredibly helpful seminar! Thank you!
- I think this is a beneficial tool for both individuals going through the hardships of an anesthesia program together. I had an idea of the difficulty of the program because I witness the stress of anesthesia everyday in the OR. As for a significant other that is unfamiliar with the profession, they probably won't understand the stress of anesthesia. I think having CRNA couples talk about their experiences and enlightening new SRNAs on their path could help bring light to the difficult road. I like how establishing work expectations was brought up because there are multiple styles of work in the OR setting.
- I feel when my spouse started the program we knew a lot of time would be sacrificed and we would have to be in "survival mode" for the next few years. Luckily we started with a solid marriage, I am an extrovert/independent person, we jumped into a small group in church, and were connected with couples in the SRNA program as well. This could have been a lot harder for a more reserved, introvert type of person. I think a seminar at the beginning of the program for the partner AND the student to attend together would have so many opportunists. Not only to hear expectations and tips but for partners of students to have to opportunity to meet with other support persons and to make connections they would not have sought after on their on. Thank you for thinking of the support systems and our stressors as well in this study.
- None
- I think this video would have been helpful for a support person entering the life of the student at any point in the program - not just at the beginning. Very helpful and applicable information!