Suffering in Silence: Healing the Healer

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DNP Scholarly Project Final Approval Form

DNP Scholarly Project Final Approvals

The DNP student Jordan Foster **and the Scholarly Project** Suffering in Silence.: Healing the Healer **meet all the requirements for the degree of Doctor of Nursing Practice at University of Saint Francis-Fort Wayne, IN.**

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

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Executive Summary

Background: The term second victim describes an individual in a caring environment traumatized by exposure to clinically challenging cases and events. The second victim experience can affect the mental health of anesthesia providers and compromise patient safety. Literature has shown that 65-84% of anesthesia providers will experience the second victim phenomenon at least once in their career. There is a gap between current evidence that shows the detrimental effects the second victim phenomenon can have on an anesthesia provider and the current awareness level of anesthesia providers on the phenomenon itself and coping strategies to mitigate the phenomenon.

Methodology: A second victim phenomenon awareness quality improvement project seeks to identify if an implemented education module related to second victims and available resources for mental health support improves awareness of the second victim phenomenon.

Results: Nurse anesthesia provider and nurse anesthesia student participants had a 20% increase in knowledge scores and an 82% increase in identifying common signs of the second victim phenomenon from the pre-test to the post-test. Participants had a confidence level increase in recognition of the second victim phenomenon from pre-test to post-test by 23.75%. Participants also stated an 8.67% increase in the future use of peer support coping strategies.

Conclusion: The results from this project incorporating an educational presentation on second victims can increase the knowledge and awareness of the second victim phenomenon and translate into future recognition of the second victim phenomenon and the use of peer support coping strategies in the anesthesia community.

Chapter 1: Introduction

Problem

Problem Statement

Certified registered nurse anesthetists (CRNAs) and healthcare providers alike have been ingrained through education and clinical practice that traumatic events, whether patient death, injury, or near-miss, are "part of the job." By nature, the field of anesthesia is a high-stress work environment. Stressor sources include competence factors, production pressures, long working hours, call shifts, and fatigue (Kain et al., 2002). Having multiple complexities and responsibilities may lead to a traumatic clinical event related to anesthesia. The negative effects a traumatic clinical event can have on a provider include post-traumatic stress disorder, anxiety, depression, troubling memories, fear of making another error, and questioning their career path (Busch et al., 2019; Cabilan & Kynoch, 2017; McLennan et al., 2015; Ozeke et al., 2019; Schiess et al., 2018; Seys et al., 2013; Tamburi, 2017). The negative impact a traumatic clinical event can have on a healthcare provider can trigger the second victim phenomenon.

Considering almost 50% of healthcare professionals will experience a traumatic event at least once in their career it is crucial to mitigate the second victim phenomenon (Ozeke et al., 2019). Following the traumatic event, healthcare providers feel they have failed the patient and may begin to doubt their clinical expertise and question their judgment in future practice (Scott et al., 2009). Furthermore, the healthcare provider may suffer emotionally and mentally from the traumatic event triggering the second victim phenomenon. Without improving the knowledge base of second victims and understanding available resources for CRNA's mental health, financial implications will ensue toward a facility's potential loss of providers and quality care toward future patients.

Background

According to Wu (2000), the term "second victim" originally described healthcare providers' negative emotional and mental responses to a medical error. Scott and Halverson (2020) have expanded on the original definition to state a second victim is an individual in a caring environment traumatized by exposure to clinically challenging cases and events. A traumatic event can affect the patient, family, individuals who witnessed the event firsthand, and even the most experienced and skilled provider. Traumatic events have a heightened sense of horror, helplessness, injury or threat of injury, and death (Center for Disease Control, n.d.). An adverse traumatic event may be preventable or nonpreventable. The traumatic event has caused harm to a patient due to medical care that may cause a prolonged hospital stay, need for further medical intervention, patient harm, or death (Office of Inspector General, n.d.).

The patient and their family are considered the first victim in a traumatic event and are supported immediately (Busch et al., 2019; Nydoo et al., 2019; Tamburri, 2017). The healthcare provider is the second victim, who handles the traumatic event's emotional and mental distress. The complications can be both physical and psychological.

When a healthcare providers' mental health deteriorates, providers may develop post-traumatic stress disorder, anxiety, anger toward oneself, fear of making another error, depression, and suicidal ideation (Cabilan & Kynoch, 2017; Ozeke et al., 2019; Schiess et al., 2018). Through exposure in the media, public opinion, and professional expectations, there is a notion that healthcare providers must be perfect in all aspects of the job (Wu, 2000). The weight placed on healthcare providers to be infallible only adds to the stress leading to the second victim experience. With the prevalence of heightened work-related stress, many providers continue to be unaware of the second victim phenomenon, the mental and emotional ramifications, or the

resources available to mitigate the phenomenon (Busch et al., 2019; Jithoo & Sommerville, 2017; Merandi et al., 2017; Ozeke et al., 2019; Schiess et al., 2018; Vanhaecht et al., 2019; Vinson & Randel, 2018). The first thing to mitigate the second victim experience is to increase the awareness of CRNAs to understand the relevance and the potential impact the phenomenon can have on the profession of anesthesia.

PICOT Question

The question that guided the Doctor of Nursing Practice (DNP) Project is: Among CRNAs, does an implemented education module related to second victims and available resources for mental health support improve awareness of the second victim phenomenon?

Practice/Knowledge Gap

To address the current knowledge gap CRNAs were assessed at the University of Saint Francis nurse anesthesia program clinical affiliate sites during clinical rotations in the Fall of 2020. CRNAs were asked if they had any prior knowledge about the second victim phenomenon and its potential impact on healthcare providers. The results were that no providers had heard of the second victim phenomenon. After a traumatic clinical event providers will not actively seek support and will instead suffer in silence or wait to be approached by peers and management (Cabilan & Kynoch, 2017; Hirschinger et al., 2015 Ozeke et al., 2019). Common barriers identified to using peer support coping strategies are the mental health stigma among healthcare providers, plagued knowing possible litigation, uncertainty about the error, fear of loss of job and licensure, and confidentiality often limits discussion of traumatic clinical events (Edrees & Wu, 2017; Hirschinger et al., 2015; Schiess et al., 2018). The lack of support can damage the healthcare provider creating the second victim, healthcare organization reputation for investing support in providers can be damaged creating a third victim, and if providers second guess their

clinical skills and knowledge base future patients can be harmed creating a fourth victim (Daniels & McCorkle, 2016; Mira et al., 2015; Ozeke et al., 2019). An educational presentation on the second victim phenomenon has the potential to increase the knowledge of nurse anesthesia providers and will therefore close the knowledge gap on the second victim phenomenon and be a pivotal step in changing the culture of mental health in nurse anesthesia providers.

Needs Assessment

Currently, CRNAs have minimal to no education regarding the second victim phenomenon and interventions to mitigate the phenomenon (Daniels & McCorkle, 2019; Wands, 2021). Almost 65% of anesthesia providers have experienced a perioperative traumatic event during their career, with 84% of providers experiencing an emotional response consistent with the second victim phenomenon (Gazoni et al., 2012; Van Pelt et al., 2015). Additionally, the current practice culture is a "culture of blame" instead of a "just culture" that balances accountability with systemic defects over which healthcare providers have no control and focuses on root causes to prevent reoccurrence of traumatic clinical events (Burlison et al., 2016; Cabilan & Kynoch, 2017; Chan et al., 2016; Edrees & Wu, 2017; Ozeke et al., 2019; Schiess et al., 2018). Education on the second victim phenomenon can increase awareness of the problem and stimulate the development and use of effective coping strategies that benefit healthcare providers, patients, and healthcare systems (Busch et al., 2021; Daniels & McCorkle, 2019; Wands, 2021). The benefits of increasing the knowledge base of healthcare providers regarding the second victim phenomenon can increase healthcare provider's ability to identify the second victim phenomenon in themselves and colleagues (Busch et al., 2021). The second victim phenomenon can be addressed in the immediate stages following a traumatic clinical event to

help minimize the second victim phenomenon's impact on providers to limit symptoms of post-traumatic stress disorder, fear of making another error, burnout, and depression.

Burnout and provider turnover can be costly for healthcare systems ranging between $250,000-$300,000 per advanced practice provider (Gilliland, 2019). Additionally, the second victim phenomenon can affect patient safety culture. Without knowledge of ways to mitigate the second victim phenomenon, healthcare providers may second guess their clinical skills and judgment, subsequently harming more patients (Ozeke et al., 2019). There is a problem with the current practice of managing healthcare provider mental health after a traumatic clinical event, and increasing knowledge of the second victim phenomenon and peer coping strategies is the foundation for change

DNP Project Overview

Scope of Project

The DNP Project Suffering in Silence: Healing the Healer was an in-person educational presentation for CRNAs and student registered nurse anesthetists (SRNAs) on the second victim phenomenon at the Indiana Association of Nurse Anesthetists (INANA) 2021 Fall Conference on October 10, 2021. The goal of the presentation was to increase the knowledge of the second victim phenomenon and peer support coping strategies. This project was a quality improvement project to translate evidence-based research into practice to increase the knowledge of the second victim phenomenon among anesthesia providers. Each participant took a demographic questionnaire and a pre/post-test survey. The project manager compiled the data from participants and ran data analysis to determine if the educational presentation related to the second victim phenomenon increased each participant's knowledge of the phenomenon and peer coping strategies. The educational presentation did not include methods to create hospital-wide

support systems, nor did it have a hands-on workshop to discuss traumatic clinical event scenarios with support debriefing.

Stakeholders

The stakeholders for the DNP Project were the CRNAs and SRNAs in attendance for the presentation who gained vital knowledge on ways to mitigate the second victim phenomenon. Additionally, hospitals where the CRNAs work and where the SRNAs will be employed are also stakeholders since they will retain more providers and limit providers lost due to the impact of the second victim phenomenon.

Budget and Resources

Cost

The DNP Project has a total budget of $126. Breaking down the budget, $50 in expenses for demographic questionnaires and pre/post-test surveys and $76 in expenses for IBM SPSS statistical analysis software. See Appendix A for cost breakdown.

Description of Resources

Numerous resources were needed to implement an educational presentation at the INANA Fall 2021 Conference. Resources for this project included a conference center, microphone and speakers for presenting, printed handouts, personal computer, and statistical analysis software. The conference center, microphone and speakers were be provided by Embassy Suites by Hilton in Noblesville, Indiana where the INANA has rented the space for the Fall 2021 conference. The printed handouts will be provided by the project manager.

Process and Outcomes

General Timeline

The concept phase of the project and identification of the problem started in January 2021. A comprehensive literature review occurred from January 2021 through March 2021. Project development lasted until August 2021, with project refinement and preparation for IRB approval lasting until September 2021. The implementation of the DNP Project Suffering in Silence: Healing the Healer occurred on October 10, 2021. Data analysis occurred between October 11, 2021, and December 11, 2021. Final details of the DNP manuscript were completed between January 2022 and April 2022. Dissemination of the project occurred in June 2022 with a formal presentation to DNP faculty and stakeholders.

Project Setting

The project occurred at Embassy Suites by Hilton in Noblesville, Indiana, in their conference center. The location of the Fall 2021 Conference was chosen by the INANA Board of Directors. To mitigate the risk of COVID-19 current guidelines were followed. Guidelines on physical distancing remaining greater than six feet apart and a facemask covering the nose and mouth were strongly recommended but not required. Participants were seated in the conference room seating area with the project manager at the front podium with a microphone to present the educational presentation as an audio component. The educational presentation was displayed on a projector screen via Microsoft PowerPoint for a visual component for participants.

Before the educational presentation, participants completed the demographic questionnaire and the pretest survey. Utilizing a Microsoft Forms QR codes before the educational presentation, participants were able to scan the QR codes with their smartphone to be directed to the online demographic questionnaire and pretest survey. After the presentation, a Microsoft Forms QR code was utilized to access the online post-test survey with their smartphone. Microsoft Forms software was encrypted with security to only allow access to the

online documents during the educational presentation timeframe. Participants could not access the online documents before or after the educational presentation timeframe. If participants did not have a smartphone or phone malfunctions, paper copies of the demographic questionnaire and pre/post-test survey were readily available.

Participant Inclusion/Exclusion Criteria

Inclusion criteria included participants needing to be a currently licensed CRNA or an SRNA currently enrolled in an accredited nurse anesthesia program. Non-CRNA or Non-SRNA individuals were excluded from participating. If the CRNA or SRNA were not able to be present during the entire educational presentation, they were excluded. Additionally, physician anesthesiologists were excluded from participating because the INANA is an association specifically for nurse anesthetists.

Expected Outcomes

The first expected outcome for the DNP Project was that there would be an increase in the knowledge of the second victim phenomenon among nurse anesthesia providers. The second expected outcome was an increase in knowledge would translate into influencing nurse anesthesia provider future recognition of the second victim phenomenon and use of peer support coping strategies in the anesthesia community.

Risk Analysis

Risk Analysis

The risks associated with this project were minimal for both CRNA and SRNA participants. The risk involved with the DNP Project included feelings of anxiety or discomfort related to troubling memory reoccurrence after learning about the second victim phenomenon. To mitigate feelings of anxiety or discomfort, a participant could remove themselves from the

presentation at any time. If further resources were needed to mediate anxiety or discomfort, participants could consult their health care practitioner. COVID-19 exposure risk was mitigated to Embassy Suites by Hilton and the state of Indiana guidelines. Benefits for participants were an increased knowledge of the second victim phenomenon and available resources for mental health support. Participants did not receive financial compensation but instead were compensated for their time in the form of knowledge to better mitigate the second victim phenomenon after future traumatic clinical events and know coping strategies to support their mental health.

Informed consent was obtained from each participant before being enrolled as participants in the educational presentation and before completing the demographic questionnaire and pre/post-test surveys. The informed consent was on handouts that only the project manager collected. Refer to Appendix B for the informed consent. Personal information was kept confidential and not shared with anyone by having the informed consent documents placed in folders with randomly assigned numbers created by the project manager to protect the anonymity of the participants on the collected data sheets. Personal information was encrypted with security and stored on the cloud with password protection. CRNA and SRNA participation was entirely voluntary and could withdraw from participation at any time and for any reason without penalty. SRNA participation or decision not to participate had no impact on their grade or educational program. If a participant chose to withdraw from participation, any information gathered was securely disposed of and not used in the study. No deception was used during the DNP Project educational presentation. No audio, video or any other form of recording was used in the DNP Project.

Chapter 2: Synthesis of Supporting Evidence and Project Framework

Relevant Theory and Concepts

Frameworks/Models/Concepts/Theories

The Transformative Learning Theory (TLT) was the framework chosen for the DNP Project. There is considerable research related to the second victim phenomenon and the need for organizational support, but there is currently a gap in the literature on promoting awareness of the second victim phenomenon to healthcare providers. The depiction of mental health is not a topic of discussion in the healthcare provider community. As such, the healthcare provider's current perception of managing mental stress after a traumatic event is to self-soothe. By raising awareness of the second victim phenomenon, healthcare providers can change their perception of mental stress and support after a traumatic event.

The TLT describes how learners interpret and reinterpret their sense of experience to make meaning of their lives (Mezirow, 1997). TLT gives an individual a way to change their view of a problem and, ultimately, how they think, feel, and behave (Christie et al., 2015). Utilizing the TLT, an individual can challenge their own beliefs and perspectives through self-reflection and over time alter their assumptions, feelings, and views of the world. The TLT was applied to the DNP Project to change healthcare providers' assumptions and views of the second victim phenomenon and how mental stress can be managed appropriately following a traumatic event. Healthcare providers received new knowledge while evaluating previous ideas of treatment of providers following a traumatic clinical event. The newly received knowledge can shift old mindsets into new understandings. Individuals can then be more self-governing, self-aware, and empathetic toward themselves (Valamis, 2020). The theories' major concepts consist of four assumptions, two learning methods, and ten phases to the learning process.

The four assumptions include:

1. Humans naturally reinforce their existing points of view.
2. Change is difficult when views are not challenged.
3. Humans establish a new point of view when given a new experience.
4. If the experience is reinforced, it can change the point of view and habits, resulting in a change in attitude to a given experience (Briese et al., 2020; Mezirow, 1997).

Healthcare providers view their clinical experiences through a frame of reference. Frames of reference are assumptions through which providers understand their experiences, which is composed of their habit of mind (Mezirow, 1997). Habits of mind are abstract ways of thinking, feeling, and acting that are "coded" into individuals through culture, education, and political factors (Mezirow, 1997). When habits of mind are not challenged by new knowledge, individuals will not know how to understand their experiences through a new perspective. The idea that a traumatic event is "part of the job" in healthcare is the habit of mind that was be challenged through raising awareness of the second victim phenomenon. Changing the mindset of healthcare providers can change their attitude toward traumatic events in clinical settings.

The two types of learning to overcome the habit of mind consist of instrumental learning and communicative learning. Individuals use instrumental learning to help determine cause-effect relationships and problem solving (Valamis, 2020). Healthcare providers use instrumental learning to appraise psychological stressors related to traumatic events, and by raising awareness, providers can gain new knowledge to understanding what the second victim experience is and how to mitigate the mental health effects. Communicative learning teaches individuals to be better communicators of their feelings and needs. Communicative learning promotes understanding purpose, values, educational concepts, and reasoning of our own experiences to understand others' experiences (Mezirow, 1991). Using communicative learning, providers can better support others by evaluating values and support resources to cope after a traumatic event.

Mezirow argues that the transformation follows a ten-phase process to perspective change including:

1. Disorienting dilemma
2. Self-examination
3. Assessment and alienation
4. Sharing
5. Exploring
6. Build competence
7. Plan for action
8. Acquire knowledge
9. Try new roles
10. Reintegrate (Christie et al., 2015; Harbecke, 2012).

Refer to Appendix C for a figure that demonstrates Mezirow's 10 Phases for Transformative Learning Theory. Individuals avoid change because their perspective becomes their cold frame of reference (Christie et al., 2015). An individual's original point of view can be so deep-seated that only a compelling argument or disorienting dilemma can change an individual's thought process (Christie et al., 2015; Mezirow, 2000). The disorienting dilemma could be severe in an individual's life, such as death or divorce, or a mild dilemma such as a career change, attending college, or developing a development program. The goal of the disorienting dilemma is to make individuals examine and challenge their current knowledge, values, and beliefs (Mezirow, 1991). Educating and increasing awareness on the second victim phenomenon to CRNAs is the initial disorienting dilemma to cause a self-examination of their frame of reference.

CRNAs can assess the common cultural notion that traumatic events are "part of the job" and potentially share with other providers their experiences and assumptions on how to manage mental stress. An education module guided CRNAs to explore and build competence in the second victim phenomenon. It is the hope that CRNAs will acquire knowledge of available resources that can be accessed for mental health support, thus creating a new plan of action to mentally cope with a traumatic event. The new role and reintegration phase provides CRNAs the

ability to be aware of the adverse health effects the second victim phenomenon can have on healthcare providers and can aid in phenomenon prevention when traumatic events arise in the clinical setting.

Applying Mezirow's TLT to the education module related to the second victim phenomenon, CRNAs could challenge their current beliefs and assumptions. CRNAs could change their mindset from "part of the job" to being aware of the second victim phenomenon and resources available to support mental health. An education module's disorienting dilemma provides CRNAs the initiation into examining their own experiences to recognize instances where they experienced the second victim phenomenon and the physical and psychological symptoms such as fear, anger, and guilt. CRNAs could critically assess their assumptions of being "part of the job" to transition into being aware of the phenomenon and resources to mitigate the second victim experience. Acquiring new knowledge and developing an awareness for the second victim phenomenon, CRNAs could be reintegrated into practice with a new viewpoint on how to handle the aftermath following a traumatic event properly.

Literature Review

Search Strategy

The literature was accumulated through a comprehensive systematic approach using multiple electronic databases between February 2020 to March 2021. Electronic databases used include CINAHL, Google Scholar, Joanna Briggs, ProQuest, and PubMed. Search terms utilized include second victim and (anesthesia, awareness, barriers, coping strategies, counseling, CRNA, employee assistance programs/occupational health services, healthcare professional, knowledge, and trauma), depression and (burnout, and coping strategies), and critical or traumatic event resources.

Second Victim Phenomenon in Healthcare

The patient and family members are often considered the most critical aspects of a traumatic clinical event. As such, they are considered the first victim and are supported immediately after a traumatic event. However, exposure to a traumatic clinical event can have a vastly negative impact on the healthcare providers involved. The healthcare provider is the second victim, who is often forgotten in the aftermath of a traumatic event and is not adequately supported. Healthcare providers can be psychologically and physically affected, causing unrest in personal and professional lives (van Pelt et al., 2019). Second victim phenomenon anecdotes in literature began in 1956 during research related to determining patient death in the operating room (Dornette & Orth, 1956). The term "second victim" was not coined until 2000 by Wu, who determined healthcare providers were second victims following a traumatic event. The second victim phenomenon can affect any healthcare provider, including but not limited to anesthesia providers, nurses, pharmacists, physicians, technicians (laboratory and radiology), therapists (respiratory, physical, and occupational), and healthcare trainees (resident physicians and nursing students) (Burlison et al., 2017; Ozeke et al., 2019). Thus no one healthcare provider is immune to the potential for the second victim phenomenon.

Advancements in innovation and technology have rapidly increased healthcare efficiency, but in doing so, it has also placed healthcare providers in production pressure situations related to performance accountability. The expectation of society, organizations, and healthcare providers amongst themselves is perfection. Anything short of perfection would be considered a professional failure (Busch et al., 2020; Scott et al., 2009). High-risk scenarios for healthcare providers to experience the second victim phenomenon include pediatric cases, medical errors, first death experiences, failure to rescue cases, and global pandemics (Nydoo et al., 2020; Scott

& Halverson, 2020). Regardless of job title or location healthcare provider practices, each second victim will have unique experiences and support needs.

Second Victim Phenomenon in Anesthesia

Anesthesia practice has had immense improvements in recent years to provide a safer environment for patients in surgery. Advancements in monitoring technology, ultrasound, video laryngoscopy, and medication safety have contributed to an increase in anesthesia safety in the operating room. Even with advancements in care, anesthesia-related traumatic events can still occur. In a study of 65 anesthesia providers, it was found that 86% of providers experienced common second victim psychological symptoms such as unpleasant memories, depression, and feelings of guilt (Ogunbiyi et al., 2006). In another study of 1200 anesthesia providers, 70% experienced guilt, anxiety, and reliving the event, and 67% of providers stating their clinical skills were compromised for at least four hours after a traumatic event (Gazoni et al., 2012). Therefore, most anesthesia providers will likely be involved in at least one traumatic event in their career (Stone et al., 2017). Although there is only a 1 in 200,000 chance for a death in the operating room, multiple variables (patient, surgical, medication-related) can contribute to adverse outcomes (Daniels & McCorkle, 2016). A traumatic event in the operating room can affect even the most seasoned anesthesia provider.

Swiss Cheese Model of Systematic Error

There are two ways to view traumatic event occurrence: the person approach and the system approach. The person approach relates to blaming individuals either due to lack of vigilance or forgetfulness. In comparison, the system approach relates to conditions outside of an individual's control to mitigate a traumatic event (Reason, 2000). The Swiss Cheese Model of Systematic Error demonstrates that despite error-prevention strategies in a healthcare setting,

opportunities for a traumatic event will always be present due to human fallibility (Busch et al., 2019; Cabilan & Kynoch, 2017; Ozeke et al., 2019; Reason, 1998). The Swiss Cheese Model theorizes that traumatic events do not occur from isolated mistakes but rather from a flawed system with multilevel failure. Refer to Appendix D for a figure that demonstrates the Swiss Cheese Model of Systematic Error. As such, each slice of cheese represents a barrier or "checkpoint" that prevents errors from occurring. However, swiss cheese has holes that correlate to flaws or weaknesses in the system (Reason, 2000). The holes in a healthcare system can be dormant for long periods of time and are activated after being triggered by a series of events (Cabilan & Kynoch, 2017). The triggers could consist of production pressures, overwhelming workload, structural flaws, inadequate resources, or technological errors.

Furthermore, healthcare providers are human and are not resistant to failure and can be affected by work-related fatigue, oversight, distractions, and memory lapse. Ideally, in a healthcare system, the weaknesses (holes in the Swiss chess) never line-up. The Swiss cheese layer weaknesses (holes) will be blocked by another layer's strengths (no holes) to prevent any flaws from getting through. Although, when a traumatic event occurs, each layer's weaknesses have aligned causing a barrier breach (Reason, 2000). Once the barrier is breached, the entire system has failed and creates an environment at high risk for error.

Risk Factors for the Second Victim Phenomenon

Many variables can contribute to increasing the risk of the second victim phenomenon. Not one risk factor predominates another as each healthcare provider has their own individualized experience with the second victim phenomenon. Risk factors include severe harm, degree of responsibility, the relationship between the patient and healthcare provider, unexpected patient death, traumatic events from routine procedures, obstetrics, pediatrics, and female gender

(Daniels & McCorkle, 2016; Helo & Moulton, 2017; Nydoo et al., 2020; Pratt & Jachna, 2015; Scott & Halverson, 2020). After a traumatic event, female providers are more likely to lose confidence in their clinical skills and judgment, have a greater fear of being blamed, and suffer a more significant loss of reputation than male providers (Helo & Moulton, 2017). Other risk factors consist of patient or family reaction toward the provider following a traumatic event, colleagues' reaction, fear of litigation, prior belief of infallibility, and occupational tenure (Nydoo et al., 2020; Pratt & Jachna, 2015). Younger providers who have limited clinical expertise are more prone to experience the second victim phenomenon.

Second Victim Phenomenon Impact on Healthcare Providers

Although some healthcare providers involved in a traumatic event do not experience the second victim phenomenon, individuals who identify as second victims report a standard set of symptoms that commonly characterize post-traumatic stress disorder (PTSD) (Burlison et al., 2016; Quillivan et al., 2016). A traumatic event can trigger feelings of PTSD because healthcare providers may feel they betrayed someone who trusted them with his or her life. Symptoms may result from both internal and external factors. In the initial aftermath following a traumatic event, healthcare providers experience physiological effects such as sleep disturbances, fatigue, gastrointestinal distress, and muscle tension before psychological and emotional effects (Schiess et al., 2018; Tamburi, 2017). The most common symptoms experienced are troubling memories at 81% and anxiety at 76% (Busch et al., 2019). Other common emotional and psychological symptoms consist of fear of making another error, burnout, depression, and damaged personal integrity (Busch et al., 2019; Cabilan & Kynoch, 2017; Ozeke et al., 2019).

Healthcare providers have described the symptoms of the second victim phenomenon as an "emotional tsunami,' with an overwhelming amount of frustration toward themselves,

continually asking the "what if" questions (Ozeke et al., 2019). Healthcare providers can also suffer professionally related to job burnout, decreased job satisfaction, loss of employment, loss of confidence in skills, self-doubt, and questioning career path (Chan et al., 2016; McLennan et al., 2015; Seys et al., 2013; Tamburi, 2017). Physical, emotional, psychological, and professional symptoms of the second victim phenomenon can persist for weeks, months, and years after a traumatic event. With either no or inadequate mental support for individuals, PTSD symptoms may progress to suicidal ideation (Schiess et al., 2018). Detrimental symptoms of the second victim phenomenon can be mitigated and prevented by building awareness of the experience and support resource availability.

COVID-19 Impact on the Second Victim Phenomenon

The Coronavirus (COVID-19) pandemic has taken an emotional and mental toll on both patients and family members who have contracted COVID-19 and the healthcare providers managing their care. Through the COVID-19 pandemic, healthcare providers are considered heroes, risking their lives to treat patients all while knowing they too could succumb to the effects of the virus. Patients' health status with COVID-19 can decline rapidly leading to respiratory collapse requiring a ventilator and may continue to progress to death. The mental toll the COVID-19 pandemic has had on healthcare providers is, unfortunately, an afterthought. Since the COVID-19 pandemic, adverse health impacts have ranked highest in households with healthcare workers, with 26% reporting a sense of trauma (Henderson, 2020). The mental stress on healthcare providers during COVID-19 has correlated closely with past large-scale disasters such a Hurricane Katrina, the September 11th, 2001, terrorist attack in New York City, and the SARS epidemic.

Common symptoms that have been elevated from the pandemic are fatigue, insomnia, flashbacks, anxiety, depression, dread about going to work, doubt in clinical abilities, PTSD, and may lead to suicide (Roberts, 2020; Schiess et al., 2018; Vanhaecht et al., 2020). Significant mental stress resources are related to loneliness related to patient death, constant changes in guidelines, personal protective equipment (PPE) shortages, an overwhelming work environment, and fear of infecting family members. The peak stages of the COVID-19 pandemic have rapidly escalated the mental stressors, quickly breaking down a healthcare provider's well-being. An example of the severest symptoms was exemplified by Dr. Lorna Breen of New York City (Scott & Halverson, 2020). She committed suicide after feeling the pandemic weighing on her, feeling alone and unable to reach the expectations she set for herself in taking care of her patients.

Second Victim Recovery Trajectory

Despite varying experiences related to traumatic clinical events and coping strategies, healthcare providers have a similar recovery trajectory from the second victim phenomenon (Miller et al., 2015; Ozeke et al., 2019; Scott & Halverson, 2020; Scott et al., 2009). There are six unique stages in the recovery trajectory: 1) chaos and accident response; 2) intrusive reflections; 3) restoring personal integrity; 4) enduring the inquisition; 5) obtaining emotional first aid; and 6) moving on (Scott & Halverson, 2020; Scott et al., 2009). The first stage, chaos and accident response, begins immediately when a healthcare provider realizes a traumatic clinical event occurs and continues until the patient is no longer in their care (Scott & Halverson 2020; Scott & McCoig, 2016). This period consists of intense personal scrutiny and questioning judgment to understand how the traumatic event occurred. The healthcare provider attempts to stabilize and treat the patient but may need help from colleagues due to distraction from stress-related physical and psychosocial symptoms.

The second stage, intrusive reflections, occurs when patient care has been transferred to another provider. Healthcare providers have haunting re-enactments of the event in an attempt to re-evaluate the scenario for answers. Providers may self-isolate to reflect on the traumatic event and may begin to feel inadequacy in their clinical skills (Scott & McCoig, 2016). When self-doubt transcends beyond an individual's self-compassion, healthcare providers can doubt their career path. The third stage, restoring personal integrity, can coincide with stage two or immediately after and begins with an individual's fear of the events potential impact on their employment status and licensure (Scott & Halverson 2020; Scott & McCoig, 2016). Healthcare providers may fear their coworkers have lost trust in them, and the traumatic event is the focus of coworker conversations. Second victims in this stage hope for reacceptance from their coworkers and the healthcare community.

The fourth stage, enduring the inquisition, is the recovery trajectory where second victims realize the severity the traumatic event had on the patient (Scott & Halverson 2020; Scott & McCoig, 2016). The second victim in the fourth stage meets with various organization departments to question the incident. Interacting with the unfamiliar departments about the traumatic event may trigger the second victim to intensify fears of lost licensure, litigation, and disclosure to the patient and or family. Stage four increases the physical and psychosocial symptoms second victims can experience, such as anxiety, increased heart rate and blood pressure, and fear of coworker thoughts on their clinical skills. The fifth stage, obtaining emotional first aid, occurs when a second victim desires guidance but is unsure how or whom to ask for support (Scott & McCoig, 2016). Many second victims suffer in silence and internalize their feelings and emotions due to the fear of being deemed weak by other providers and the

stigma around mental health. Additionally, second victims worry about who is “safe” to discuss the traumatic event with and who can relate to their stress.

The sixth stage, moving on, can be broken down into three terminal paths a second victim can heal in the aftermath of a traumatic event: thriving, surviving, and dropping out (Scott & Halverson, 2020). The thriving phase allows second victims to cope and acquire a positive experience to become a better clinician to avoid similar events in future practice (Cabilan & Kynoch, 2017; Ozeke et al., 2019; Scott & Halverson, 2020). Thriving is considered a “post-traumatic growth experience” where providers gain new insights and advocate for patient safety initiatives for the future (Scott & Halverson, 2020). Healthcare providers who can thrive from a traumatic experience is a sign of a quality support system within the organization. The surviving phase occurs when second victims continue to cope with the traumatic event while never returning to baseline performance levels (Scott & Halverson 2020; Scott & McCoig, 2016). Survivors are more reserved in work performance with persistent sadness, continually thinking about the traumatic event. The dropping out phase relates to a change in the professional role either by career change, a new location for practice, or leaving the healthcare profession (Scott & McCoig, 2016). Healthcare providers drop out due to consistent thoughts of failure and change professions to protect future traumatic events from occurring. Some providers whom the second victim phenomenon has so drastically impacted may drop out through suicide to end their suffering.

Coping Mechanisms

Each healthcare provider is unique with their experience in a traumatic event; thus, each has their way of coping with the ensuing stress. The most common coping mechanisms include support from colleagues, family and friends, exercising, hobbies, and religious activities (Baas et

al., 2018; Scott et al., 2015). Even though healthcare providers do not actively seek support from peers, peer support is the preferred method for coping since they better understand the traumatic experience (Edrees & Wu, 2017; Merandi et al., 2017). Friends and family are easy to seek out for emotional coping but commonly lack the profession's comprehension, and support is often inadequate (Scott & McCoig, 2016). Dysfunctional coping methods include solace in alcohol and drug abuse (Baas et al., 2018; Helo & Moulton, 2017). Healthcare providers are more apt to cope with alcohol and drug abuse when other avenues to cope are limited (Helo & Moulton, 2017). Furthermore, as alcohol and drug abuse progress, clinical skills can deteriorate, potentiate another traumatic event, and have an increased chance of lost employment and licensure.

Support for Second Victims

In recent years, second victim support programs have been developed in healthcare organizations, but currently, many lack the available resources and lack peer or supervisor support systems to overcome an individual's second victim experience (Burlison et al., 2017; Cabilan & Kynoch, 2017; Kim et al., 2020). Additionally, many current resources are unstructured and inadequate in healthcare organizations, with 90% of providers finding their organizations lacking adequate support (Mira et al., 2015; Stukalin et al., 2019). Lack of support systems in a healthcare organization can damage the organization's reputation creating a third victim from the traumatic event. When the healthcare provider receives inadequate to no support, they can second guess their clinical skills and judgment in the future, subsequently harming more patients creating a fourth victim (Daniels & McCorkle, 2016; Lane et al., 2018; Mira et al., 2017; Ozeke et al., 2019; Pratt et al., 2012; Scott, 2015). Thus, healthcare providers must be aware of the second victim phenomenon, resource availability, and know about locating resources outside of their organizations if no immediate resources are available.

Successful second victim support programs include the forYOU program at the University of Missouri Health Care and the Resilience in Stressful Events (RISE) program at John Hopkins University (Hauk, 2018; Ozeke et al., 2019). The RISE program is an emotional peer support program made up of a multidisciplinary healthcare provider team who has volunteered to support individuals after a traumatic event. The disciplines involved in the support team include physicians, nurses, social workers, pharmacists, risk management, and patient safety administration (Edrees et al., 2016). In the first 52 months of program inception, 119 calls to support 500 individuals were made. Of the 500 individuals supported, 88% of the peer support encounters were successful (Edrees et al., 2016). The forYOU is a more complex program developed from recommendations from second victims called the Scott Three-Tiered Interventional Model of Second Victim Support (Hirschinger et al., 2015; Merandi et al., 2017; Tamburri, 2017). Tier 1 is immediate "emotional first aid" unit-based with support from colleagues and unit leaders trained to support second victims. Tier 2 includes trained colleagues who can provide individual and group debriefings and assess for second victim signs that need higher-level support referrals. Tier 3 consists of rapid access to professional counseling services. Over five years, 1075 healthcare providers were provided mental health support through the forYOU program; 90.7% of provider's needs were addressed in Tier 1 and Tier 2, while only 9.7% of providers needed professional counseling referrals (Hirschinger et al., 2015).

Very few healthcare organizations have formal second victim support programs, but many have employee assistance programs (EAP). Although EAPs may not provide extensive debriefings with counselors, they can guide healthcare providers to find private counseling outside the organization. Additionally, there are also national telehealth programs that offer free counseling services to healthcare providers. Telehealth counseling resources include

Hope4Healers, PeerRxMed, and Project Parachute (American College of Cardiology; 2020 D'Ambrosio, 2020). Hope4Healers and Project Parachute match mental health professionals with healthcare providers for confidential counseling sessions to help manage stress. PeerRxMed is a peer-to-peer program for healthcare providers to connect with other providers who have experienced similar situations to discuss successful stress management strategies. Telehealth counseling programs provide a benefit for providers to have access to mental stress counseling.

Recommendations for Practice

Healthcare and its organizations are lacking clear guidelines for managing healthcare provider mental stress after a traumatic event. Policies need to be implemented within healthcare organizations to support second victims, including healthcare provider's five rights. The five human rights include treatment that is just, respect, understanding and compassion, supportive care, and transparency with the opportunity to contribute to learning. The five rights can be remembered as the acronym TRUST (Denham, 2007; Ozeke et al., 2019). Second victims deserve respect and assumed good intentions and do not deserve to be blamed and embarrassed for their human fallibility. The current healthcare environment also needs to transition into a "just culture" and move away from a "culture of blame." (Burlison et al., 2016; Chan et al., 2016; Edrees & Wu, 2017; Ozeke et al., 2019). The "culture of blame" targets individuals of traumatic events instead of the organization to find the root cause. Organizations with the "culture of blame" create threatening, isolating, and malicious reactions toward second victims (Ozeke et al., 2019). By transitioning to a "just culture," organizations can balance accountability with systemic defects over which healthcare providers have no control and instead focus on root causes to prevent reoccurrence (Edrees & Wu, 2017; Ozeke et al., 2019). "Just culture" reflects on the Swiss cheese model in that healthcare providers should only be held accountable for what

they can control and should also hold the organization itself accountable for weaknesses in the systemic barriers that also contributed to the traumatic event.

Summary of Supportive Evidence

The second victim phenomenon is a mentally debilitating experience for any healthcare provider. Unfortunately, the second victim phenomenon is never entirely avoided due to systematic error, as demonstrated by the Swiss Cheese Model that provides an opportunity for traumatic events to occur due to human fallibility. Healthcare providers are human; traumatic events can break a healthcare provider physically, psychologically, and psychosocially. With 50% of healthcare providers experiencing the second victim phenomenon at least once in their career, it is imperative to mitigate the phenomenon with quality support. Anesthesia providers are involved in high-risk, high-stress scenarios daily. Anesthesia providers are commonly involved in pediatrics, obstetrics, traumas, complex cases with critically ill patients, and patients with an adverse reaction to anesthetic medications leading to an unanticipated event. Even giving a quality anesthetic, the second victim experience can happen to even the most seasoned providers. With the potential for a second victim experience to occur, very few providers are aware of the phenomenon. Resources for support are available, but the first step to support and mitigate the experience is to be aware of the second victim phenomenon's existence. Without awareness, mitigating and preventing the mental stress the second victim phenomenon has on individuals would not be possible. Healthcare providers do not need to suffer in silence after a traumatic event.

Chapter 3: Project Design

Methodology

Project Design

The type of project design implemented for the DNP Project Suffering in Silence: Healing the Healer was a quality improvement project utilizing evidence-based research. The DNP Project was implemented as an educational presentation at the INANA Fall 2021 Conference. Refer to Appendix E for the educational presentation that was created via Microsoft PowerPoint. Handout versions of the Microsoft PowerPoint presentation was also provided for participants for a future reference. Participants for the DNP Project was chosen via convenience sampling with a pre/post-test design to measure the outcomes of the DNP Project. A pre/post-test design guided the project by testing a dependent variable (knowledge and confidence) before and after the independent variable (educational presentation). The pre/post-test design helped achieve the DNP Project outcomes by aiding in identifying if participants increased their knowledge and confidence levels regarding the second victim phenomenon and use of peer support strategies.

Ethical Considerations

The project manager completed CITI training in human subject protection prior to application submission to the Institutional Review Board at the University of Saint Francis. The INANA was in full support and allowed implementation of the DNP Project at their Fall 2021 Conference. The CITI training was completed on February 1, 2021. Refer to Appendix F for CITI training certificates. An informed consent form was provided to all participants and signed prior to the educational presentation. Participation in the DNP Project was voluntary. Confidentiality, dignity, and respect for every participant was upheld through the entirety of the

implementation of the DNP Project. On September 21, 2021, the Institutional Review Board at the University of Saint Francis reviewed and approved the DNP Project proposal for implementation of the project. Refer to Appendix G for the Institutional Review Board approval documentation.

Project Schedule

Successful implementation of the DNP Project started with planning and utilizing a Gantt chart. A Gantt chart is a graphical outline of the milestones and timeline for implementing and disseminating the DNP Project. Refer to Appendix H for the Gantt chart. In January 2021, after a thorough discussion with University of Saint Francis Nurse Anesthesia Program Director Dr. Louck, a problem within the CRNA community was identified to address the lack of awareness among CRNAs with the second victim phenomenon. A comprehensive literature review was started in February through March 2021 to provide baseline data to identify gaps in the literature and current standards in practice regarding the second victim phenomenon and healthcare provider mental health after a traumatic event.

In March to April 2021, the INANA 2021 Fall Conference was identified as the location site for implementing the project and helped identify key stakeholders for the project. Refer to Appendix I for letter of support from the DNP Project facility. From July to August 2021, data collection tools were identified, the informed consent form was finalized, and the DNP Project manuscript was approved by the DNP faculty for submission to the University of Saint Francis Institutional Review Board (IRB) to approve the DNP Project. IRB approval was completed in September 2021 with implementation of the DNP Project occurring in October 2021. The DNP faculty initial approval of the DNP Project was completed on November 12, 2021. Refer to Appendix J for DNP faculty initial approval documentation. Data collection and extensive

analysis were conducted following the DNP Project implementation to complete the DNP manuscript by March 2022. Dissemination of the DNP Project occurred in June 2022.

Implementation Methods

The purpose of the DNP Project was to increase the knowledge of CRNAs and SRNAs on the second victim phenomenon. The project focused on developing and implementing an educational presentation on the second victim phenomenon. The DNP Project was implemented as an educational presentation to discuss (a) the background of the second victim phenomenon, (b) its impact on healthcare, (c) signs, and symptoms of the phenomenon, (d) the stages of healing and recovery for second victims, (e) coping strategies for second victims. Each participant took a demographic questionnaire and a pre/post-test survey. The project manager compiled the data and ran statistical analysis to determine if an educational presentation increased each participant's knowledge of the second victim phenomenon.

The measures applied to the DNP Project were knowledge and confidence. Knowledge was measured in aim 1, outcome 1a, and outcome 1b. Confidence was measured in aim 2, outcome 2a, and outcome 2b.

The aims and outcomes of the DNP Project included:

- Aim 1: Increase knowledge of the second victim phenomenon among anesthesia providers.
    - Outcome 1a: Anesthesia providers' total scores on second victim phenomenon knowledge will increase from pre-test to post-test by 30% by the end of the educational presentation.

    - Outcome 1b: Anesthesia providers will be able to correctly identify with 80% accuracy common signs and symptoms associated with the second victim phenomenon.
- Aim 2: Influence future recognition of the second victim phenomenon and use of peer support coping strategies in the anesthesia community.
    - Outcome 2a: 30% of anesthesia providers will state an increase in recognizing the second victim phenomenon after future traumatic clinical events.
    - Outcome 2b: 20% of anesthesia providers will state an increase in using peer support coping strategies (offer colleague support, active listening, reaffirming colleague clinical skills) for future traumatic clinical events.

Measures/Tools/Instruments

Please refer to Appendix K for the Demographic Questionnaire used for data collection. The names of the published instruments used to create the pre/post-test survey include the Second Victims in German Speaking Countries (SeVid) Survey and the Second Victim Experience and Support Tool (SVEST). The SeVid has a rho reliability score of 0.76 and items in the questionnaire were taken from six previously developed valid questionnaires on second victims to ensure content validity. The SVEST has a Cronbach α reliability score for the survey dimensions ranging from 0.61 to 0.89. SVEST content validity for inter-rater agreement among participants is 78% and confirmatory factor analysis indicated a reasonable fit with a comparative fit index of 0.890 for construct validity. Please refer to Appendix L for citation and proof of authorization to use the SeVid and Appendix M for citation and proof of authorization to use the SVEST in the DNP Project. Please refer to Appendix N for the Pre/Post-Test Survey used for data collection.

The procedures used to ensure confidentiality of data included the Microsoft Forms software being encrypted with security to only allow access to the online documents by participants during the educational presentation timeframe and cannot be accessed before or after the educational presentation timeframe. The educational presentation timeframe occurred on October 10, 2021, between 9:45 a.m. and 10:30 a.m. The project manager had access to Microsoft Forms data following the educational presentation timeframe to allow for data analysis. The data analysis timeframe occurred from October 11, 2021, to December 11, 2021. The informed consent was on handouts that the project manager collected and placed in a locked filing cabinet. Personal information was kept confidential and not shared with anyone. Personal information was encrypted with security and stored on the cloud with password protection. Informed consent documents and pre/post-test surveys both online and handout versions were destroyed either using a paper shredder for the paper handouts and the online survey were destroyed using software destroying software.

The project manager was responsible for collecting the data. Informed consent forms were given to each participant in a folder that the project manager assigned random identification numbers to before participants received each folder. The project manager was the only person to create the random identification numbers to maintain participant confidentiality further. Informed consent handouts were completed, with each participant dropping their handout folder in a data collection bin. If any demographic questionnaires and pre/post-test surveys are handed out due to participants not having a smartphone or due to smartphone malfunction were in a separate folder with randomly assigned identification numbers. The demographic questionnaire and pre/post-test survey handout folders were completed with each participant dropping off their handouts in a data collection bin separate from the informed consent data collection bin. The

project manager monitored both bins, with all completed forms inside at the end of the educational presentation then placed in a locked filing cabinet. Handouts, both printed and online formats, were completed in a private setting. The project manager was responsible for keeping a log of handouts collected data on a private, locked by password protection and encrypted cloud drive. Data collected via demographic questionnaire and pre/post-test survey online handouts from Microsoft Forms can only be accessed by the project manager, who is the administrator of the online handouts. Data collected from the online handouts were also kept in a private log, locked by password protection, and encrypted cloud drive. The data was permanently destroyed via a paper shredder for paper handouts and via software destroying software for online surveys after the dissemination of the project in the summer of 2022.

Evaluation Plan

The project manager was responsible for collecting the data. The project manager compared the pre/post test data collected from the participants to the aims and outcomes of the DNP Project. This evaluation plan was utilized to determine if the DNP Project aims, and outcomes were met. The project manager was responsible for storing the data. Data collected was stored in a private log, locked by password protection, and encrypted cloud drive. Data analysis consisted of using Microsoft Excel and IBM SPSS statistical analysis software to conduct statistical tests. The project manager cleaned the data and then entered the data collected into the SPSS statistical analysis software. SPSS was used to perform descriptive statistics and a McNemar test. A completed power analysis required a sample size of 78 participants to determine statistical significance ($p < .05$) utilizing the McNemar test. The sample size of 78 participants was not met to complete a McNemar test, thus data analysis was completed using

percentage change to establish statistical significance. The data was then analyzed to determine if the aims and outcomes of the project were met.

Dissemination Plan

The project was disseminated via a written format in the DNP Project manuscript and in a formal presentation to the University of Saint Francis Nurse Anesthesia Program and Doctor of Nursing Practice faculty. The written DNP Project manuscript was submitted for approval from the DNP faculty in the summer of 2022. The formal presentation was presented to DNP faculty and University of Saint Francis DNP-NAP students in June 2022. The project was published in the University of Saint Francis DNP Project Repository. The written and formal presentations include background and knowledge gap on the problem and data analysis that was completed after project implementation to determine if the aims and outcomes of the DNP Project were achieved. An executive summary of the DNP Project outlining an overview of the project was also shared with the INANA upon completion of the dissemination of the DNP Project.

Implementation Process Analysis

The initial plan for the DNP Project Suffering in Silence: Healing the Healer was to initiate the building of a second victim support program at a specific facility like the forYOU Program from the University of Missouri Health Care or the RISK Program from John Hopkins University. Although after realizing the complexities of creating such a program, the DNP Project was redirected into an educational presentation. The new idea of an educational presentation was going to originally be implemented at a specific facility. Although after a thorough discussion with the DNP Project Advisor (Dr. Gregory Louck) on implementation strategies it was decided to have the greatest impact on the economic, social, and political environment was to implement the project at the INANA Fall 2021 Conference. In doing so

anesthesia providers from various facilities could gain information on the second victim phenomenon and then act as messengers to disperse the information across multiple healthcare facilities.

Effective marketing strategies were implemented to build participation in the DNP Project educational presentation by having the presentation listed in the itinerary of scheduled presentations during the INANA Fall 2021 Conference. The itinerary of the INANA Fall 2021 Conference was easily accessible via their online website for potential attendees to the conference. From the itinerary section individuals could further read a brief description about the presentation in hope to further gain interest from attendees.

The support from key INANA organizational leaders for advancing professional growth in CRNA practice aided in the success of the implementation of the DNP Project. Feedback from the INANA Association Manager Gail Brooks and DNP Project Advisor Gregory Louck provided the DNP Project with a sense of direction and how to formulate a presentation for a professional conference setting. The biggest threat to the implementation of the DNP Project was the uncertainty of the COVID-19 pandemic and how it may affect in-person attendance at the conference. The educational presentation would not have changed in terms of content but there was a threat that data retrieval may have been potentially lower. If the virtual conference setting was utilized individuals who did not have the means to complete the online questionnaires such as not having a smartphone or phone malfunctions would not have had the opportunity to complete the demographic questionnaire, pretest survey, or the post-test survey. Additionally, if questionnaires were emailed to individuals without the capability of scanning a QR code with a smartphone there is the potential they would not open the email nor receive if they were to be delivered in their spam folder.

Chapter 4: Results and Outcome Analysis

Data Collection Techniques

Data collection was completed in person during the presentation timeframe on October 10, 2021, at the INANA Fall 2021 Conference. Before the PowerPoint presentation on the second victim phenomenon, each participant filled out the demographic questionnaire, and the pre-test survey. Following the PowerPoint presentation, each participant completed the post-test survey. The n for the presentation was 39 participants, with all participants completing the demographic questionnaire, pre-test, and post-test surveys. A previously completed power analysis required sample size of 78 participants to determine statistical significance ($p < .05$) utilizing the McNemar test. The sample size of 78 participants was not met to complete a McNemar test; thus, data analysis was completed using percentage change to establish statistical significance. Data were then entered into SPSS Version 28 to calculate descriptive statistics and percent change to determine if statistical significance was achieved.

Measures/Indicators

The data was evaluated on the ability to achieve the aims and outcomes of the DNP Project. The pre-test and post-test survey scores were used to determine the DNP Project's success in achieving the aims and outcomes. The following were the aims and outcomes used to evaluate the DNP Project's success:

Aim 1: Increase knowledge of the second victim phenomenon among anesthesia providers.

1a: Anesthesia providers' total scores on second victim phenomenon knowledge will increase from pre-test to post-test by 30% by the end of the educational presentation. Questions 1-8 on the pre-test and post-test survey were utilized to evaluate a 30% increase in the

participants' scores. Refer to Appendix N for pre-test and post-test survey questions. Refer to Appendix O for the pre-test/post-test data analysis table. Upon completion of data analysis, there was an increase of >30% or more for questions two, six, and seven. There was only a 5% increase for question eight, and a 3% increase for questions three, four, and five. There was no change in question one as participants scored 100% on the pre-test and post-test. As a group, the 39 participants only had a 28% increase from pre-test to post-test scores, which did not meet the objective for this aim.

1b: Anesthesia providers will be able to correctly identify with 80% accuracy common signs and symptoms associated with the second victim phenomenon. This outcome was determined by questions five and six on the pre-test/post-test survey. Refer to Appendix O for the pre-test/post-test data analysis table. On the pre-test survey, participants answered question five correctly 94% and question six correctly only 15% of the time. On the post-test survey, participants answered question five correctly 97% and question six correctly 67% of the time. Using both questions to measure the outcome, participants correctly identified with 82% accuracy common signs and symptoms associated with the second victim phenomenon. This outcome for the DNP Project was met.

Aim 2: Influence future recognition of the second victim phenomenon and use of peer support coping strategies in the anesthesia community.

2a: 50% of anesthesia providers will state an increase in recognizing the second victim phenomenon after future traumatic clinical events. This outcome was not met using the pre-test and post-test survey questions nine and ten. Using both questions to measure the outcome, participants only increased their response from pre-test to post-test to question nine by 33.3% and only increased their response to question ten by 52.7%. Combined the percent change was

only 43% which fell below 50% of anesthesia providers stating an increase in recognition of the second victim phenomenon in future clinical events. Refer to Appendix O for influencing future recognition of the second victim phenomenon and use of peer support table and pre-test/post-test confidence level analysis table.

2b: 60% of anesthesia providers will state an increase in using peer support coping strategies (offer colleague support, active listening, reaffirming colleague clinical skills) for future traumatic clinical events. This outcome was not met using the pre-test and post-test survey questions 11, 12, and 13. Refer to Appendix O for influencing future recognition of the second victim phenomenon and use of peer support table and pre-test/post-test confidence level analysis table. Using all three questions to measure the outcome, participants only increased their response from pre-test to post-test to question 11 by 5%, question 12 by 16%, and question 13 by 16.4%. Combined the percent changes was only 12.5% which fell below 60% of anesthesia providers stating an increase in the future use of peer support coping strategies. Therefore, this outcome was not met and failed to meet project expectations by 47.5%.

Data Analysis Inferences

The participant population was N = 39, and all 39 participants who completed the informed consent, demographic questionnaire, and pre-test also completed the post-test. Following data analysis of the demographic questionnaire completed by participants, it has shown that the majority of the participant population was <40 years old, consisting of 57% of the population. There was no significant difference in gender population as 54% of participants were female and 46% were male. The majority of the population had a current education level of a Bachelor's Degree at 51%, which correlates with years of experience of 0-2 years at 56%. This

result can infer that most participants during the presentation were SRNAs who have yet to complete their Doctorate Degrees.

90% of participants had been involved in a traumatic clinical event at least once in their career, with the most common types of traumatic clinical events being unexpected patient demise (30%), first death experience (24%), and failure to rescue (21%). The participants' least common traumatic clinical events have experienced wrong side peripheral block insertion (2%) and others (6%). Participants stated other traumatic clinical events they were involved in included intravenous air infusion, unexpected intensive care unit admission, the wrong dose of a drug, and wrong-site surgery. Despite 80% of participants having psychological or physical distress from a traumatic clinical event, only 36% received support. The most common types of support utilized after a traumatic clinical event were colleague support (22%) and non-work-related support (22%), such as family and friends. The least common types of support included institutional support (4%) and other methods (5%). Participants stated other support methods included therapy, alcoholics anonymous, and working in a root cause analysis to prevent future reoccurrence of the event. Refer to Appendix O for the demographic characteristics of the participant's table.

The eight-question pre-test mean score for the participants was 71%, with a mode of 75% (n = 18). The lowest score on the pre-test was 37.50% (n = 1) and the highest score was 100% (n = 1). Question number seven on the pre-test was the most missed question, with only 8% of participants answering correctly. Question number one on the pre-test was answered correctly 100% of the pre-test. The post-test mean score was 91%, with a mode of 100%. The lowest score on the post-test was 37.50% (n = 1) and the highest score was 100% (n = 23). The most missed question on the post-test was question six, with only 67% of participants answering correctly.

Questions number one, three, and four were answered correctly 100% of the post-test. Refer to Appendix O for mean, median, and mode chart and graph representation of the pre-test and post-test score frequencies.

Mental health breakdown in healthcare providers can have detrimental effects on the providers and their future patients. Although only one outcome was met for the DNP Project, the project itself has practical significance in being meaningful to anesthesia providers and their mental health. Utilizing Cohen's d to determine effect size the score was 1.484. With a Cohen's $d > 0.8$ the effect size was large, meaning the difference between the pre-test and post-test means were practically significant.

Gaps Between Expected and Actual Outcomes

A gap that was identified in the data analysis was the sample size. The original statistical test that was going to be utilized for data analysis was a McNemar test. A non-parametric test such as the McNemar test was initially chosen to compare the paired data between the pre-test and the post-test. A G power analysis utilizing G*Power 3.1 software recommended sample size of 78 to obtain statistically significant data when calculating a McNemar test. The G power sample size was calculated with a power of 0.8 and an alpha of 0.05. Since the sample size of 78 was not met, a percent change was determined to be the choice calculation for data analysis. Another limitation that created a gap between expected and actual outcomes is the ability to change an individual's mindset and emotional outlook on how to handle a traumatic clinical event. Data analysis for outcomes 2a and 2b were well below the expected outcomes. The timeframe from pre-test to the post-test survey was less than 45 minutes; this gave participants a minimal amount of time to digest the information presented and comprehend how it applies to their clinical situations. The timeframe limited the ability for a participant to change their

mindset and attitude toward the second victim phenomenon, traumatic clinical events, and use of peer support coping strategies. The short timeframe from pre-test to post-test survey may have skewed the results; thus, scores did not change as desired.

Unanticipated Consequences

The unanticipated consequences in the DNP Project were minor, only causing minimal disruption in the implementation process. The first consequence was the looming impact of COVID-19 and its potential disruption on in-person conferences. Due to this potential, the project needed to be created in a way that could be implemented in-person but could also pivot to a completely online format if a virtual conference was to occur. The limitation of a virtual conference was the potential for a lower response rate on the pre-test and post-test surveys because of "email fatigue," where participants' email boxes are so bogged down with email that emails from the presentation are either missed or accidentally deleted. Luckily, an in-person conference occurred, and the DNP Project did not have to be exposed to the potential consequences of a virtual conference. Another unanticipated consequence was the limited number of participants. The INANA Fall 2021 Conference was held on a Saturday and Sunday. The bulk of the conference presentations were held on Saturday and subsequently had more individuals in attendance. Being the DNP Project was presented on Sunday with a smaller number of presentations, fewer individuals were in attendance for the presentation than Saturday. Ultimately, a Sunday presentation limited the presentation's exposure to more anesthesia providers and limited the number of participants for the pre-test/post-test survey data collection.

Expenditures

An item of expenditure for the data analysis of the DNP Project was the purchase of IBM SPSS statistical analysis software. The software cost was $76 and was funded by the project manager. Refer to Appendix A for the cost breakdown of the DNP Project.

Chapter 5: Leadership and Management of the DNP Project

Organizational Assessment Model

The INANA is the primary governing body for nurse anesthetists in Indiana to promote education and support legislation for the nurse anesthesia scope of practice. The INANA has a strong foundation of leadership and management, exemplified by the Burke-Litwin Organizational Change Model. The Burke-Litwin Model proposes linkages that work in a feedback loop to hypothesize how organization performance is affected by internal and external factors (Reflect & Learn, n.d.). The Burke-Litwin Model uses 12 organizational dimensions that break down into external factors, transformational factors, transactional factors, and outputs (Burke & Litwin, 1992). Refer to Appendix P for a figure demonstrating the Burke-Litwin Organizational Change Model.

The INANA is an organization that promulgates education, practice standards, and guidelines to drive innovation and patient-centered care in anesthesia and healthcare (Indiana Association of Nurse Anesthetists, 2021). The INANA holds an educational conference to address external factors to promote the best practice of anesthesia in Indiana. External factors such as changes in practice standards, policies, and developments in research aid in molding the needs for change in the organization.

Transformational Factors

The factors of leadership style, mission, and organizational culture create transformational change in the Burke-Litwin Model. Transformational change is vital for the organization's success (World of Work Project, 2020). Transformational change occurs in response to the external environment that directly affects organization values, leadership, and culture (Burke & Litwin, 1992). The instigator for change in the external environment for the

DNP Project was the second victim phenomenon and the need to raise awareness of the phenomenon to support peers and advocate for support systems to meet the needs of healthcare providers in the dynamic healthcare environment. The mission of the INANA is to protect, defend, and advocate for the right to practice as a CRNA. Additionally, the INANA promotes the advancement of the professional growth of CRNAs and their practice (Indiana Association of Nurse Anesthetists, 2021). A stated mission describes the organization's purpose for individuals and provides a vision for achieving organizational goals.

Leadership Style

Strong organizational leadership was required to promote changes and leadership from the DNP Project team leader to guide INANA members into translating evidence into practice to improve health outcomes (White et al., 2021). The leadership style enacted through organizational leaders and the project manager as the DNP Project team leader was transformational leadership. Transformational leadership allows leaders and followers to rise to higher levels of motivation and morality (Grossman & Valiga, 2017). By leading through transformational leadership, the organization and the project manager could heighten followers' awareness to accomplish a shared goal to facilitate change. Utilizing the INANA educational conference, leaders in the organization could promote knowledge and understanding of current evidence-based practice regarding healthcare provider mental health and the second victim phenomenon.

The second victim phenomenon DNP Project guided in changing the mindset of CRNAs in awareness of the phenomenon, stimulating the development of individualized coping strategies, and an understanding that each individual is not alone in the second victim recovery trajectory. Transformational leaders emphasize following a vision, assisting peers to make the

vision a reality, communicating their values and beliefs, and creating an environment of trust and respect for peers to follow in the vision (Grossman & Valiga, 2017). Additionally, for constructive educational seminars to occur at INANA conferences, the organizational leaders create a positive learning environment for all individuals in attendance. Components of a positive learning environment include establishing a supportive learning culture and addressing learners' needs (Movchan, 2018). Incorporating these components of a positive learning environment into the INANA conference, organizational leaders promote a feeling of connectedness, belonging, competence, and engagement to establish a positive relationship with peers.

The project manager must have the emotional intelligence to promote an effective DNP Project implementation. Emotional intelligence groups self-awareness, self-management, social awareness, and empathy to influence an individual's ability to understand the vision of the DNP Project (Grossman & Valiga, 2017). Furthermore, having emotional intelligence, through the DNP Project, the project manager can teach CRNAs to not only become aware of the second victim phenomenon but also become more self-aware about themselves to recognize feelings or thoughts of the second victim phenomenon.

The project manager used transformational leadership to develop the educational presentation and implementation of the DNP Project. The project manager lead by example, and empowered team members to orchestrate ideas and opinions to create a successful project. Through motivation, goals were set for the vision of the project. The project team success weighed heavily on team member input and continuous communication centered around the project's goals and vision. The project manager developed the DNP Project by utilizing team members as crucial components in the project development.

Organizational Culture

An organization's culture is the basic patterns of attitudes, beliefs, and values serving the organization's structure (White et al., 2021). Each organization has its own cultural DNA made up of core values to shape the organizational environment to provide a cornerstone of culture to develop attitudes and behaviors to make the organization successful (Osborne & Plastrik, 1997). The INANA organizational culture aligns its core values with the American Association of Nurse Anesthetists (AANA). The INANA builds continuous alignment to promote the vision and goals to serve members in advancing the profession and the continued ability to care for patients to the nurse anesthetists' full scope of practice. INANA culture promotes professionalism and advocacy by accountability for high standards of care and to ensure patient access to safe, cost-effective anesthesia care. The INANA advocates for anesthesia practice at the local, state, and federal levels with coordination with hired management with lobbyist groups to advance CRNA practice. Utilizing biannual state membership meetings, the INANA provides educational opportunities and member resources for overall patient improved care and safety.

The INANA also values innovative solutions through diversity and inclusion in its members. Creating a platform such as educational conferences, the INANA empowers CRNAs to advance the profession and patient care through research, evidence-based practice, and collaboration with other healthcare professionals. Forming an organizational culture that values diversity and inclusion allows for many new ideas and beliefs to be shared in the CRNA community from individuals from various backgrounds and experiences that can be utilized to strengthen each healthcare provider. The INANA organizational culture distinguishes itself as being resilient with a high level of integrity. The healthcare environment is highly complex and dynamic. The INANA culture responds to healthcare practices and research changes with ease by

disseminating evidence-based research to the CRNA community. The INANA culture guides its actions with integrity to continually promote the vision of the CRNA profession and scope of practice.

An example of recent INANA actions to promote the CRNA profession was through member outreach through legislative advocacy with lobbyists for Senate Bill 98 in 2020. The bill was presented to improve access to care for rural populations to remove supervision guidelines; thus, CRNAs could work with podiatry and dentistry. By advocating, the INANA achieved a bill to pass out of the Senate for the first time by a vote of 30 to 18. Unfortunately, the bill did not pass through the House Health Committee because of legislative efforts from opposing state medical groups legislation. Although the bill did not pass through the House, it was shown that the INANA can make an impact on legislative decisions that impact CRNA practice.

Transactional Factors

The transactional factors relate to the day-to-day operations within the organization (Accipio, 2021). Change in the transactional factors can only occur once there is buy-in from the transformational factors such as the leaders (Burke & Litwin, 1992). The transactional factors can further be broken into operating factors such as structure, management practices, system policies, and individual factors such as individual needs, work climate, and motivation. The structure of the INANA provides the organization the ability to function with decision-making, communication, and relationships with other state and national CRNA organizations. The structure assures the implementation of the organization's mission is effective (Burke & Litwin, 1992). The management practices, such as quarterly meetings implemented by the board members of the INANA, aid in the advancement of the agenda on supporting CRNAs in Indiana. Board members also discuss resources and finances available for the organization and plan for

upcoming educational conferences. System policies implemented in the INANA consist of goal and budget development and having legislative and legal resources readily available for its members.

Individual needs are met with the vision and values implemented in the INANA organization. The INANA provides a robust government relations infrastructure to demand respect and a seat at the legislative table to direct legislators in understanding the CRNA's worth to healthcare (Indiana Association of Nurse Anesthetists, 2021). Additionally, individual needs are met through the work climate, specifically during educational conferences. The INANA educational conferences are a positive learning environment for all attendees to feel connected and supported with psychological safety thus; each individual feels comfortable contributing during the conferences.

Interprofessional Collaboration

Interprofessional collaboration relates to working jointly with other professionals with shared or overlapping knowledge, skills, abilities, and roles to improve quality and cost-effective care (Moran et al., 2020). Cronenwett et al. (2011) add that the optimal DNP project environment is with doctorly-prepared members actively engaged in teaching, translational science, and systems improvement characterized with interprofessional opportunities. Collaborating with DNP Project Advisor and current President of the INANA Dr. Greg Louck, DNAP, CRNA, allowed the second victim phenomenon project to become a reality. Implementation of extensive communication and coordination with the DNP Project Advisor has created a shared purpose and goal for the project benefiting CRNAs in Indiana.

Additionally, collaborating with the Association Manager of the INANA Gail Brooks, CMP, assisted in developing an educational program for CRNAs that effectively reaches the

INANA organization's endeavors to improve the mental health awareness of CRNAs. Active participation from DNP Project team members allowed for constructive team building, improved communication processes, and careful planning of translation of evidence. Completing project tasks instills trust in all team members. Integrating Dr. Greg Louck and Gail Brooks as project team members provided the DNP Project with organizational support and time allocation for developing the education module and has created a delivery method to share the translational evidence with CRNAs in Indiana. Creating a project team with team members from various backgrounds aided in shared decision-making in the progression and implementation of the DNP Project and guided in identifying potential barriers and ways to mitigate those barriers in the implementation process. The most significant barrier to the DNP Project was the COVID-19 pandemic. The pandemic created an environment of uncertainty related to the project's implementation and whether the INANA Fall Conference would be in an in-person or virtual format. The barrier was easily handled with open communication among team members and creating the DNP Project in PowerPoint format thus, and the presentation could easily transition to either format. Once INANA officials decided to be in-person, it created another barrier in the uncertainty of attendance and subsequent participation in the DNP Project. The potential lack of attendance could have limited the results gained. The barrier was handled by being open to altering the statistical test accordingly to factor in the number of participants for the DNP Project.

Change Strategy

Change strategy assisted the DNP Project's planning, implementation, and intervention process (Moran et al., 2020). The change strategy that guided the project is Lewin’s Change Management Model. Lewin (1947) argued that motivation for change needs to be created before

change can occur, and an individual must be helped to recognize current assumptions about themselves. The second victim phenomenon on healthcare providers is detrimental to their personal and professional mental health. Wands (2021) states that current practice standards support an environment of perfectionism, not compassion, with no acknowledgment of subsequent effects on providers or future patients. Supporting CRNA peers is paramount after a traumatic event because each healthcare provider is a human whose mental health needs support.

Lewin's Change Management Model has three stages: unfreeze, change, and refreeze. The theory describes the three stages with the idea that change is balanced by forces that restrict change and those that promote change. Permanent change comes from building awareness and educating individuals. The use of an educational presentation on the second victim phenomenon helps promote widespread change in beliefs and attitudes of anesthesia providers.

The unfreeze stage change involves preparing the organization to accept the change of the existing status quo (Mind Tools, 2021). An organization must either decrease restricting forces or increase driving forces to promote change. This is accomplished by altering perceptions of practice and giving reasoning why the existing practice attitudes cannot continue. In the DNP Project, the goal was to move away from the perception that traumatic clinical events are "part of the job" and stay silent with your head down mentality in the aftermath of a traumatic event. Once this goal has been achieved, a new "just culture" on mental health can drive change.

The change stage occurs to move individuals to the new desired state. This stage can only occur once the ideas of "culture of blame" and "just culture" on mental health are unfrozen. The education module on the second victim phenomenon challenges organizational and practice beliefs and attitudes. Support is gathered from organizational leadership to build awareness of the second victim phenomenon; strategy is developed to communicate the need to change current

standards of care of healthcare providers after a traumatic event. During the DNP Project implementation, communication was imperative to show current practice standards and where they need to be. As DNP Project leader, engaging the INANA organization and members to encourage action about evidence-based behaviors and mindsets in awareness and support of peers can empower individuals to make permanent change occur.

Refreezing the second victim phenomenon, CRNAs in Indiana are better informed and supported on the second victim phenomenon. The refreeze change aids in reinforcing desired changes in the organization and the profession of CRNAs, and ensuring the changes are widely accepted (Bridges, 2019). Once the refreeze stage has been achieved, change is permanent and prevents the anesthesia providers from returning to their old habits. Additionally, ensuring leadership support and identifying the needs for change in current practice aided in anchoring the changes into the organizational culture of the INANA and its members. Utilizing a SWOT Analysis to guide change to build a strategic plan to meet the goals of the DNP project and make a positive impact on the organizational culture and its members. The SWOT Analysis will help determine the strengths, weaknesses, opportunities, and threats to analyze the greatest possible chance for success. Refer to Appendix Q for the SWOT Analysis.

Conflict Management

Having strategies to manage conflict in the implementation process of the DNP Project before they arise allowed for a smooth transition to mitigate the conflict. Early in the implementation process, spotting conflict could prevent them from becoming detrimental to the DNP Project (Moran et al., 2020). Moran et al. (2020) describe many skills to utilize for conflict management, such as depersonalizing and questioning. Depersonalizing the conflict allows for constructive discussions on the conflicting topic instead of the person raising the issue.

Questioning relates to asking team members for specific concerns and asking for potential solutions (Moran et al., 2020). Discussing the second victim phenomenon and healthcare provider mental health is a commonly sensitive topic in the healthcare community, and conflict could occur on how to deliver the DNP Project.

However, actively listening and being engaged in conversation created an opportunity to understand a team member's concerns and aid in finding solutions to the conflict. Incorporating a Force Field Analysis into the DNP Project, forces driving movement and restraining forces blocking movement toward a goal can be identified. With Lewin's Change Management Model, restraining forces can be reduced using the three distinguished stages of Lewin's model: unfreeze, change, and refreeze, which will minimize the restraining forces of the DNP Project. Refer to Appendix R for the Force Field Analysis. There were only minor conflicts that arose in the DNP Project. One was in the initial planning of the DNP Project on whether to implement at the Fall 2021 INANA Conference or Spring 2022 INANA Conference. The conflict was quickly resolved, and the Fall conference was decided upon through continued communication and active listening between the DNP Project Advisor and the Project Manager. The other conflict resulted from deciding on having the implementation occur at the Fall 2021 Conference. Due to the timeframe of the DNP coursework and the Fall 2021 Conference, the DNP Project expedited implementation timeline needed to be approved by the doctoral faculty. Again, the conflict was quickly resolved with continued open communication via email and telephone between the DNP Project Advisor, the Project Manager, and the doctoral faculty. Due to the quickly resolved conflicts, the DNP Project implementation was successful.

Chapter 6: Discussion

Impact of DNP Project

The goal of the DNP Project Suffering in Silence: Healing the Healer was to educate nurse anesthesia providers and students on the second victim phenomenon to enhance mental health awareness. Unfortunately, three of the four outcomes for the DNP Project were not achieved. Furthermore, although the actual outcomes failed to meet the project's expected outcomes, it does not signify that the DNP Project was a failure. Knowledge increased and there was a positive influence for future recognition of the second victim phenomenon and for the use of peer support coping strategies. The DNP Project intended to address anesthesia providers' mental health and well-being in a world and profession where speaking about mental health, and the physical and psychological ramifications of a traumatic clinical event are considered taboo. The term second victim phenomenon is a relatively new term that gives meaning to the effects of a traumatic clinical event on a healthcare provider. Increasing knowledge on the second victim phenomenon provides a structure to the effects a healthcare provider is feeling and provides peer support coping strategies providers can translate that into future recognition of the second victim phenomenon in the clinical setting.

Another impact the DNP Project had was the sharing of new knowledge. Not only can the participants in attendance increase their knowledge and future recognition of the second victim phenomenon, but they can also share their new knowledge with other anesthesia providers in their clinical settings. The sharing of knowledge will only further spread the DNP Project's impact on the anesthesia community.

Recommendations for Future Practice

The decision to implement an educational presentation at an INANA conference compared to a single clinical facility was to help promote the spread of evidence-based research regarding the second victim phenomenon. Implementing at a single facility only provides information to providers who currently work at the facility, whereas implementing at a conference provides an opportunity to spread knowledge to providers who work at various facilities across the Indiana region. Due to the educational presentation being well received by nurse anesthesia providers and students who participated in the INANA conference, a recommendation for future students is to implement a similar educational presentation at other state conferences or even at the national conference setting. An additional recommendation is to assess providers' future recognition at a future timeframe such as three months after implementation to determine if outcomes are met on outcomes 2a and 2b. These recommendations will only further the spread of knowledge on the second victim phenomenon and aid providers' future recognition of the phenomenon.

Limitations of DNP Project

A limitation to the DNP Project was the turnout for the presentation day. Due to the bulk of presentations being completed on Saturday, Sunday presentations' attendance was approximately half of Saturday attendance. Another limitation was that the pre-test and post-test assessments were completed within 45 minutes. Humans are creatures of habit in that it is challenging to change an individual's way of thinking and feeling, especially in such a short timeframe. This limitation could have had a considerable factor in the actual outcomes of 2a and 2b failing to meet the expected outcomes. Studying long-term practice impacts of the educational presentation would better assess future change in habits of thinking, feeling, and intervening to use peer support.

Application to Other Professions

Applying the DNP Project Suffering in Silence: Healing the Healer to other settings and professions is an easy transition. The second victim phenomenon can occur to anyone in healthcare; no one healthcare professional is immune. Much of the current literature on the second victim phenomenon already relates to the nursing profession. The DNP Project could very easily be applied to numerous healthcare professions, including but not limited to physicians, surgeons, pharmacists, different types of therapists, and healthcare trainees. The DNP Project could create a more robust education on the second victim phenomenon in other nurse anesthesia programs where the current education is limited.

Strategies to Maintain and Sustain Change

This is not a sustained change project. Instead, the evidence-based information was provided once during the INANA Fall 2021 Conference. The project was published in the University of Saint Francis DNP repository for future use. The idea of having the project published in the repository can be used as a guideline for future students of anesthesia or other professions to build their projects. Additionally, the information created from the project can be utilized to expand the development of peer support programs and peer support techniques that effectively mitigate the second victim phenomenon.

Lessons Learned from DNP Project

The initial thought on the DNP Project was that the implementation itself would be the most significant component of the project when in fact, the implementation was the smallest. The planning that leads up to the implementation was the most significant component as it helps create a foundation and structure for a successful implementation. The core idea of education on the second victim phenomenon never changed, but it was the vehicle on how that information

would be disseminated that continually changed. Ideas such as implementing at a single facility, voice-over presentation, audio podcast, or implementing at another university's anesthesia program were all ideas that circulated until the idea of implementing at an Indiana state conference was decided on. Having a well-built team, including the project manager, project advisor, and practice mentor, is necessary to create a successful project and guide through the evolving challenges and changes that occur in implementing a project. The project was implemented months ahead of schedule due to the timing of the INANA conference schedule. Thus, the planning process had to be expedited, such as tool approval for data collection and IRB approval. Even with an expedited implementation schedule having a solid foundation and continued communication within the project team, any challenges that arose were minimal and did not hinder the success of the DNP Project.

Addition to Body of Knowledge about Practice Change

The DNP Project Suffering in Silence: Healing the Healer has provided an insight into how poor the second victim phenomenon is understood in the nurse anesthesia community. It shows that there is still a stigma around mental health and mental health awareness, even as healthcare providers. The barriers to erase the stigma cannot change in a 45-minute educational presentation but rather a generational change that occurs over time. Habits such as thinking, feeling, and emotions regarding a traumatic clinical event cannot change quickly but is a gradual process. Second victim phenomenon education and individual discussion related to traumatic events are pivotal steps in changing the mental health culture in the nurse anesthesia community.

Chapter 7: Conclusion

DNP Project Health Outcomes Outside Implementation Site

A traumatic clinical event can occur when its least expected and can affect even a seasoned anesthesia provider. The impact a traumatic clinical event can have on a provider may hinder the care provided to future patients' physical and psychological well-being and can be costly to healthcare systems with provider turnover. The knowledge learned from the DNP Project by participants can mitigate the second victim phenomenon after future involvement in a traumatic clinical event for both the participants and their colleagues. The DNP Project has the potential to decrease barriers that commonly block anesthesia providers from discussing their mental health and create generational change to make it acceptable to discuss mental health without stigma.

The DNP Project will have a future impact on other students' projects to create similar presentations at other state conferences or national conferences. Additionally, the DNP Project can be utilized by future students in association with a healthcare system to create a second victim support program like the successful programs implemented in literature.

Health Policy Implications of DNP Project

Many policies regarding mental health that have been created in both state and federal governments. Organizations such as the World Health Organization (WHO) have developed action plans that recognize the role of an individual’s mental health and well-being. By recognizing the importance of mental health, strategies have been implemented to promote mental health and prevent stressors that deteriorate an individual’s mental health.

Future Direction for Practice

The future direction for practice is to continually raise awareness of the second victim phenomenon and utilize peer support coping strategies to prevent the second victim phenomenon among anesthesia providers. Practicing anesthesia requires continuous vigilance and rapid problem-solving skills, and these skills should not be deterred due to a traumatic clinical event. Without awareness, mitigating and preventing the second victim phenomenon's mental stress on individuals would not be possible. Anesthesia providers do not need to suffer in silence after a traumatic event.

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Appendix A

DNP Project Budget Breakdown

DNP Project Budget	**Jordan Foster**	
Legend	Direct Costs	
	Indirect Costs	
	In-Kind Costs	
Project Expenses		
Salaries and Wages	**Description**	**Total**
DNP Project Manager	No salary is dedicated to myself as DNP Project Manager	0
Total Salary Costs		0
Startup Costs	**Description**	**Total**
Marketing	DNP Presentation details are on the INANA events webpage	0
Focus Groups		0
Project Training		0
Total Start Up Costs		0
Supplies and Materials	**Description**	**Total**
Handouts	Informed consent forms	25
	Post-presentation questionnaire survey	25
Total Supplies and Materials		50
Capital Costs (costs >2,000)	**Description**	**Total**
IBM SPSS Statistics	Statistics software for data evaluation	76
Conference room, utilities	Cost absorbed through INANA Conference registration fees	0
Total Capital Costs		76
Total Expenses		126

Appendix B

Informed Consent Form

INFORMED CONSENT FORM

Title: Suffering in Silence: Healing the Healer

Project Manager: Jordan Foster, BSN, RN, CCRN, SRNA
DNP Scholarly Project Advisor: Dr. Gregory Louck, DNAP, CRNA

Introduction and Explanation of the Purpose:

I am Jordan Foster a doctoral student of the Department of Nurse Anesthesia at the University of Saint Francis. I am conducting a translation of evidence project involving certified registered nurse anesthetists (CRNAs), student registered nurse anesthetists (SRNAs), and the second victim phenomenon. The project aims to improve CRNAs and SRNAs awareness of the second victim phenomenon. We would appreciate your participation in this educational presentation, as it will improve your awareness of the second victim phenomenon and available resources for mental health support.

Definitions:

According to Wu (2000), the term "second victim" originally described healthcare providers' negative emotional and mental responses to a medical error. Scott and Halverson (2020) have expanded on the original definition to state a second victim is an individual in a caring environment traumatized by exposure to clinically challenging cases and events. A traumatic event can affect the patient, family, individuals who witnessed the event firsthand, and even the most experienced and skilled provider. Traumatic events have a heightened sense of horror, helplessness, injury or threat of injury, and death (Center for Disease Control, n.d.).

Procedures:

1. You will be asked to fill out an online questionnaire prior to the educational module and a questionnaire immediately following the educational module.
2. The demographic questionnaire and pretest survey will take approximately 5 minutes to complete.
3. The post-test survey will take approximately 5 minutes to complete.
4. The duration of the educational presentation is approximately 30 minutes.
5. The total amount of participation time required is approximately 45 minutes.

Risks and Benefits:

Risks: Although minimal, CRNAs or SRNAs may feel anxious or discomfort related to troubling memory reoccurrence after learning about the second victim phenomenon. To mitigate feelings of anxiety or discomfort participant may remove themselves from presentation at any time. If further resources needed to mediate anxiety or discomfort participants should consult their health care practitioner.

Benefits: Increase awareness of the second victim phenomenon and available resources for mental health support.

Safeguards:

1. The data collected via anonymous surveys and informed consents will be kept confidential.
2. Data collected will be secured on coded encryption cloud storage and access to the data will be limited to the Project Manager and DNP Scholarly Project Advisor.
3. The data will be stored for one (1) year after the completion of the study. All paper records will be shredded and recycled. All computer records will be erased from the storage device.
4. Any published data will be in aggregate form with no identifying information.

Freedom to Withdraw:

1. CRNA and SRNA participation is completely voluntary and may withdraw from the study at any time and for any reason without penalty.
2. SRNA participation or decision not to participate will have no impact on their grade or educational program.
3. If you choose to withdraw from participation in the study, any information gathered from your participation, will be securely disposed of and not used in the study.

Answer to Inquiries:

If you wish to receive the results please contact me via email provided below. If you have any questions they can be directed to:

Jordan Foster, SRNA
University of Saint Francis
Department of Nurse Anesthesia
2701 Spring Street
Fort Wayne, Indiana 46808
(260) 399-7700
Email: Fosterjd1@cougars.sf.edu

Any complaints about your treatment as a participant in this study, please call or write the University of Saint Francis IRB Chairperson at:

2701 Spring Street
Fort Wayne, Indiana 46808
(260) 399-7700
Administration email: IRB@sf.edu

I have received an explanation of this study and agree to participate. I understand that my participation in this study is strictly voluntary.

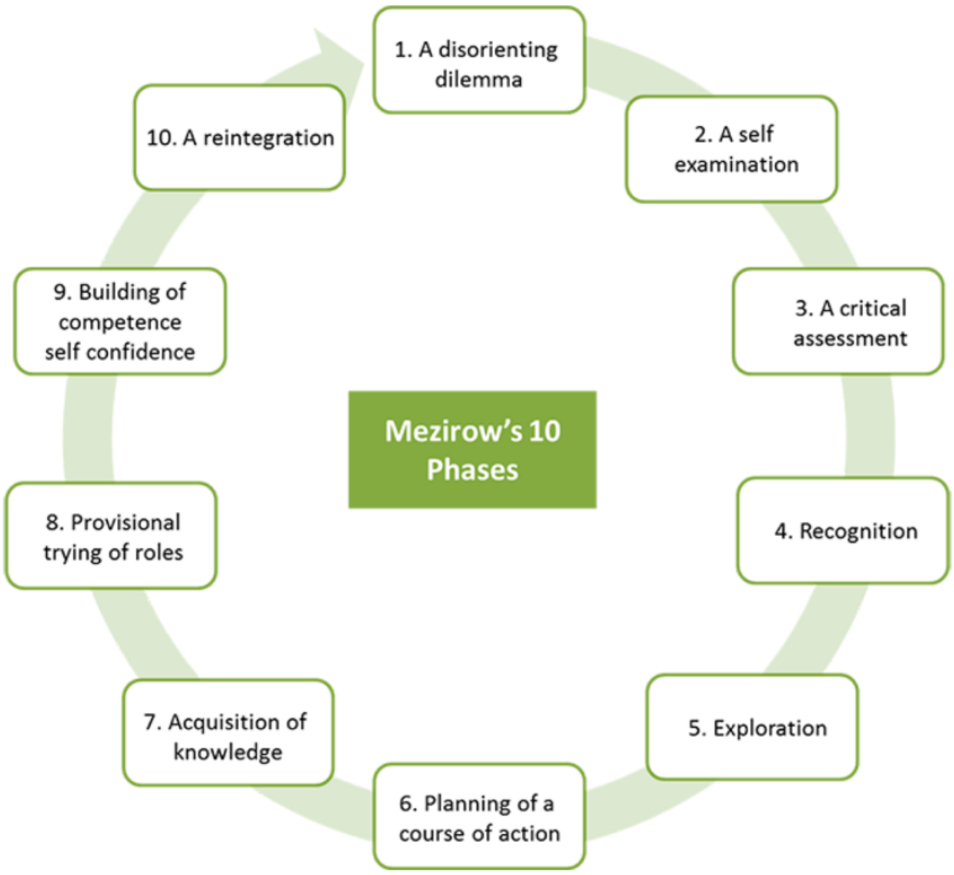
Signature:

Date:

This project has been approved by the University of Saint Francis' Institutional Review Board for the Protection of Human Subjects for a one-year period.

Appendix C

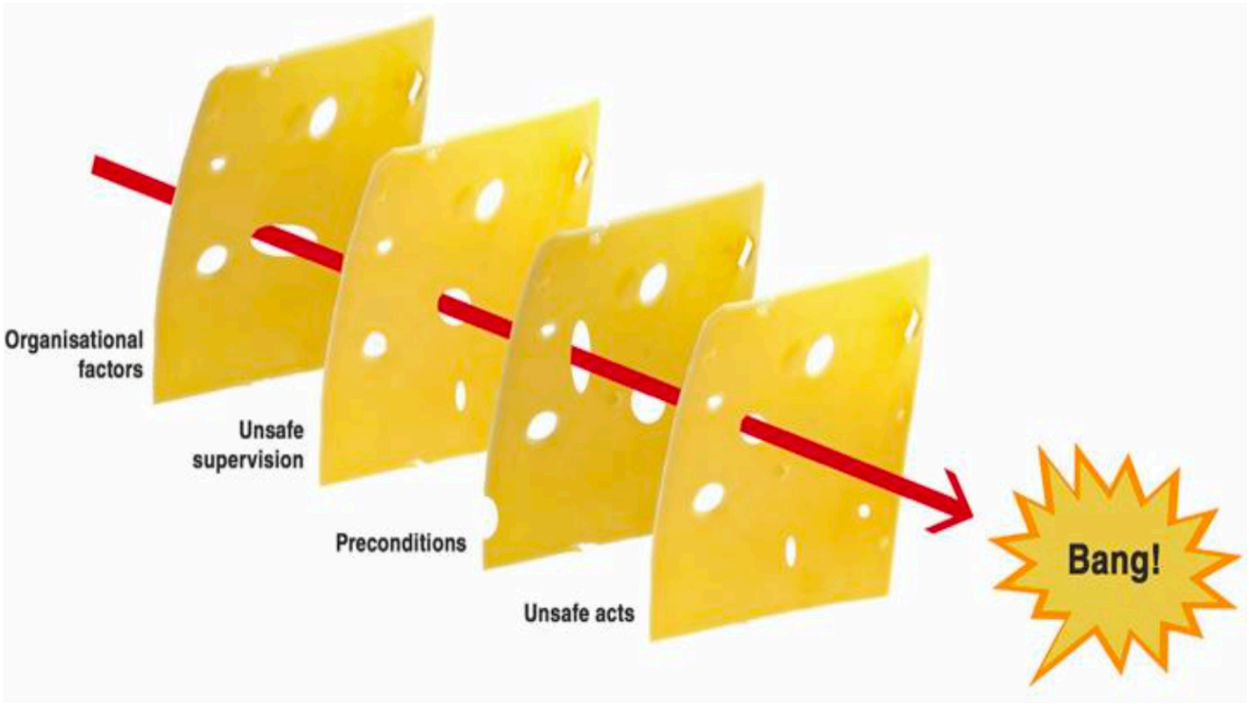
Mezirow's 10 Phases of Transformative Learning Theory



Kolagani, 2020

Appendix D

Reason's Swiss Cheese Model of Systematic Error



Reason, 2000

Appendix E

Educational Presentation via Microsoft PowerPoint

Suffering in Silence: Healing the Healer

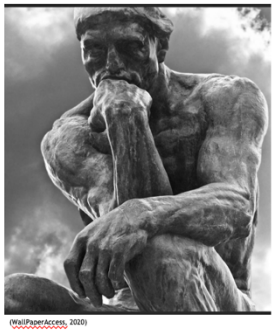
Jordan Foster, BSN, RN, DNP-NAP Student
University of Saint Francis Doctor of Nurse Anesthesia Program

Demographic Questionnaire

Pretest Survey

Objectives

- Define the second victim phenomenon and the impact on healthcare providers.
- Describe the second victim phenomenon and high-risk scenarios for the experience to occur.
- Discuss the signs and symptoms of the second victim phenomenon.
- Identify the stages of healing and recovery for second victims.
- Describe coping strategies and peer support strategies for second victims.



(WallPaperAccess, 2020)

A Moment to Think

(Lowy, 2018)

Background of the Second Victim Phenomenon

(Scott & Halverson, 2020)

- Almost 50% of healthcare professionals will experience a traumatic event at least once in their career (Ozeke et al., 2019).
- The patient and their family are considered the first victim in a traumatic event and are supported immediately (Busch et al., 2019; Nydoo et al., 2019; Tamburri, 2017).
- After a traumatic event, healthcare providers feel they have failed the patient and begin to doubt their clinical expertise and question their judgment in future practice (Scott et al., 2009).

What is a Second Victim?

- Original definition:
  - Second victims are healthcare workers who are involved in an unanticipated patient event, causing a negative patient outcome who becomes victimized by the traumatic event (Wu, 2000).
- Expanded definition:
  - Second victims are healthcare workers who provide care to individuals and are traumatized by clinically challenging events (Scott & Halverson, 2020).

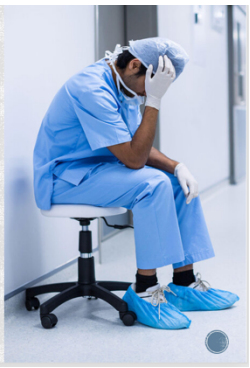
(Padula, 2017)

Second Victim Phenomenon in Healthcare

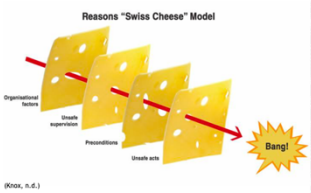
- Who does it affect?
  - No one healthcare provider is immune to the potential for the second victim phenomenon (Burlison et al., 2017; Ozeke et al., 2019).
- High-risk scenarios for the second victim phenomenon to occur:
  - Pediatrics
  - Obstetrics
  - Medical errors
  - First death experiences
  - Failure to rescue cases
  - Global pandemics (Nydoo et al., 2020; Scott & Halverson, 2020)

Second Victim Phenomenon in Anesthesia

- 65-84% of providers will experience the second victim phenomenon at least once in their career (Gazoni et al., 2012; Van Pelt et al., 2019).
- Additionally, 35% of anesthesia providers feel solely responsible for operating room traumatic events, even with the increased safety measures such as advancements in monitoring technology, video laryngoscopy, and medication safety (Pratt & Jachna, 2015).
- A traumatic event in the operating room can affect even the most seasoned anesthesia provider.



(Wilson, 2020)



(Knox, n.d.)

Swiss Cheese Model of Systematic Error

- Two ways to view traumatic event occurrence:
  - Person Approach
  - System Approach (Reason, 2000)
- Demonstrates that despite error-prevention strategies, opportunities for a traumatic event will always be present due to human fallibility (Busch et al., 2019; Cabilan & Kynoch, 2017; Ozeke et al., 2019).
- Each slice of cheese represents a barrier or "checkpoint" that prevents errors from occurring. Swiss cheese has holes that correlate to flaws or weaknesses in the system (Reason, 2000).

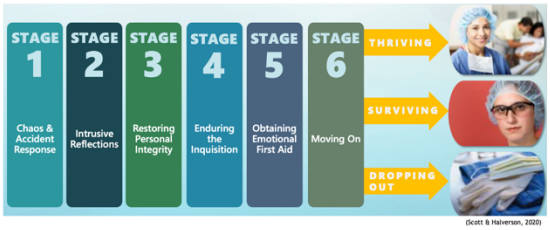
Risk Factors for the Second Victim Phenomenon

- Not one risk factor predominates another as each healthcare provider has their own individualized experience with the second victim phenomenon.
- Risk factors:
  - Severe harm to the patient
  - Degree of responsibility
  - Relationship between the patient and healthcare provider
  - Traumatic events from routine procedures
  - Colleague reaction
  - Fear of litigation
  - Occupational tenure (Daniels & McCorkle, 2016; Helo & Moulton, 2017; Nydoo et al., 2020; Pratt & Jachna, 2015; Scott & Halverson, 2020).

Second Victim Phenomenon Impact on Healthcare Providers

- Individuals who identify as second victims report a standard set of symptoms that commonly characterize post-traumatic stress disorder (PTSD) (Burlison et al., 2016; Quillivan et al., 2016).
- Symptoms:
  - Troubling memories
  - Anxiety
  - Sleep disturbances
  - Fatigue
  - Fear of making another error
  - Decreased job satisfaction
  - Questioning career path
  - Burnout
  - Depression
  - Suicidal ideation (Busch et al., 2019; Cabilan & Kynoch, 2017; McLennan et al., 2015; Ozeke et al., 2019; Schless et al., 2018; Seys et al., 2013; Tamburi, 2017)

Second Victim Recovery Trajectory



(Scott & Halverson, 2020)

Stage 1: Chaos and Accident Response

- Characteristics:
  - Immediately when the healthcare provider realizes a traumatic clinical event has occurred.
  - Immersed in self reflection while managing the patient in crisis (Scott & Halverson 2020; Scott & McCoig, 2016; Wands, 2021).
- Common Questions:
  - How did this happen?
  - Why did this happen?
- Interventions for CRNAs:
  - Demobilize, defuse, consult with the Chief CRNA, obtain peer support (Wands, 2021).

Stage 2: Intrusive Reflections

- Characteristics:
  - Haunting re-enactments, looming thoughts of "what if".
  - Point where PTSD sets in (Scott & Halverson 2020; Scott & McCoig, 2016; Wands, 2021).
- Common Question:
  - What did I miss?
- Interventions for CRNAs:
  - Informal debriefing with team members (individuals within the same OR suite during that procedure) (Wands, 2021).

Stage 3: Restoring Personal Integrity

- Characteristics:
  - Individuals fear the events potential impact on their employment and social status among colleagues.
  - Seeks support from an individual whom the healthcare provider can trust.
  - Providers are hoping for reacceptance (Scott & Halverson 2020; Scott & McCoig, 2016; Wands, 2021).
- Common Questions:
  - What will others think?
  - How much trouble am I in?
- Interventions for CRNAs:
  - Obtain support from anesthesia peers.
  - Seek support from family and friends (Wands, 2021).

Stage 4: Enduring the Inquisition

- Characteristics:
  - Meet with various organization departments questioning the incident (such as risk management).
  - Wonder about repercussions from the event (Scott & Halverson 2020; Scott & McCoig, 2016; Wands, 2021).
- Common Questions:
  - What happens next?
  - Who can I talk to?
- Interventions for CRNAs:
  - Obtain formal support from peer professionals (Wands, 2021).

Stage 5: Obtaining Emotional First Aid

- Characteristics:
  - Desire for guidance but is unsure how or whom to ask for support.
  - Many second victims will suffer in silence and internalize their feelings and emotions (Scott & Halverson 2020; Scott & McCoig, 2016; Wands, 2021).
- Common Questions:
  - Do I need help?
  - Is this the profession I should be in?
- Interventions for CRNAs:
  - Participate in formal institutional debriefing (Employee Assistance Programs) (Wands, 2021).

Stage 6: Moving On (Thrive, Survive, or Drop Out)

- Characteristics:
  - Thriving - allows second victims to cope and acquire a positive experience to become a better clinician to avoid similar events in future practice (Cabilan & Kynoch, 2017; Ozeke et al., 2019; Scott & Halverson, 2020).
  - Surviving - second victims continue to cope with the traumatic event while never returning to baseline performance levels (Scott & Halverson 2020; Scott & McCoig, 2016).
  - Dropping out - change in the professional role either by new location for practice, or leaving the healthcare profession (Scott & McCoig, 2016). Some providers whom the second victim phenomenon has so drastically impacted may drop out through suicide to end their suffering (Scott & Halverson 2020; Scott & McCoig, 2016; Wands, 2021).
- Common Questions:
  - Why do I still feel so badly?
  - What can I learn from this?
- Interventions for CRNAs:
  - Become apart of the quality improvement process (Wands, 2021).

Coping Mechanisms

- Most Common Coping Mechanisms:
  - Support from colleagues
  - Family and friends
  - Exercising
  - Hobbies
  - Religious activities (Edrees & Wu, 2017; Merandi et al., 2017; Scott & McCoig, 2016)
- Dysfunctional Coping Mechanisms:
  - Drug abuse
  - Alcohol abuse (Baas et al., 2018; Helo & Moulton, 2017)

(Healthy Living, 2017)

(Hirschinger et al., 2015)

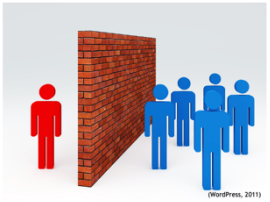
Support for Second Victims

- 90% of healthcare providers find current resources are unstructured and inadequate to support second victims (Mira et al., 2015; Stukalin et al., 2019).
- Current Successful Second Victim Support Programs:
  - forYOU Program - University of Missouri Health Care
  - Resilience in Stressful Events Program (RISK) - John Hopkins University

Methods to Support Peers

- Department Leaders
  - Connect with involved providers
  - Reaffirm their skill and confidence
  - Check on staff regularly (Scott et al., 2009)
- Peers
  - Be "there" for coworkers
  - Be an active listener
  - Offer support
  - Focus on colleague's feelings (Scott et al., 2009)
- AANA Peer Assistance
  - Phone: 1-800-654-5167
  - Email: wellness@aana.com

(INANA, 2021)



(WordPress, 2011)

Challenges to Supporting Peers

- Organizational culture greatly determines the success a second victim has in coping with a traumatic event.
  - Positive, supportive, patient-safety focused cultures enhance the ability to cope (Wands, 2021).
- Barriers:
  - Uncertainty about the error
  - Confidentiality
  - Professional culture (stigma, perfection) (Edrees & Wu, 2017; Hirschinger et al., 2015; Schiess et al., 2018).

Recommendations for Practice

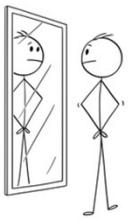
- The Five Rights: (TRUST)
  - Treatment that is just
  - Respect
  - Understanding and compassion
  - Supportive care
  - Transparency with the opportunity to contribute to learning (Denham, 2007; Ozeke et al., 2019)
- Transition the healthcare environment from "culture of blame" to " just culture"

(Burlison et al., 2016; Chan et al., 2016; Edrees & Wu, 2017; Ozeke et al., 2019) .

Summary

- Anesthesia providers are involved in high-risk, high-stress scenarios daily.
- Even giving a quality anesthetic, the second victim experience can happen to even the most seasoned providers.
- With the potential for a second victim experience to occur, very few providers are aware of the phenomenon.
- Without awareness, mitigating and preventing the mental stress the second victim phenomenon has on individuals would not be possible.

Reflection



Post-Test Survey

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Appendix F

CITI Training Certificates

CITI PROGRAM

Completion Date 03-Feb-2021
Expiration Date 03-Feb-2024
Record ID 40693514

This is to certify that:

Jordan Foster

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

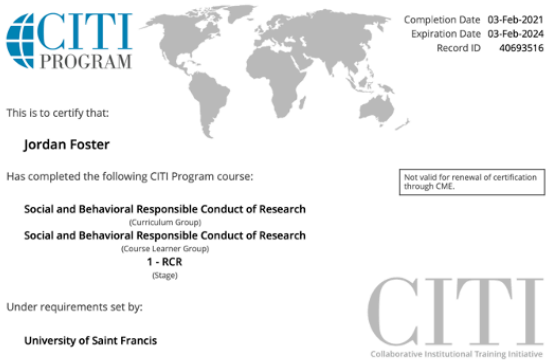
Social & Behavioral Research - Basic/Refresher
(Curriculum Group)
Social & Behavioral Research
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

University of Saint Francis

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wb3e6cbf6-c4a5-44d5-9b6a-19cfe67c9828-40693514



CITI PROGRAM

Completion Date 03-Feb-2021
Expiration Date 03-Feb-2024
Record ID 40693516

This is to certify that:

Jordan Foster

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

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

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wcba1e8f6-fe25-44a0-8686-d2b3953d3708-40693516

CITI PROGRAM

Completion Date 31-Jan-2021
Expiration Date 31-Jan-2024
Record ID 40693517

This is to certify that:

Jordan Foster

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

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

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w30967244-3375-4761-86b1-208666443b1d-40693517

CITI PROGRAM

Completion Date 01-Feb-2021
Expiration Date N/A
Record ID 40693515

This is to certify that:

Jordan Foster

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

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

Under requirements set by:

University of Saint Francis

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?w6a6e3bdf-b9af-4eca-b270-5b0345ba0412-40693515

CITI PROGRAM

Completion Date 31-Jan-2021
Expiration Date 31-Jan-2024
Record ID 40693518

This is to certify that:

Jordan Foster

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

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

Under requirements set by:

University of Saint Francis

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wef2c0d7b-797d-4bd7-8124-5128046b6c3e-40693518

Appendix G

University of Saint Francis Institutional Review Board Approval Documentation

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

Protocol Number: 16314464887
Reviewed by (underline one): HSRC ACUC IBC
Date Reviewed: Tuesday, September 21, 2021
Principal Investigator: Jordan D. Foster
Faculty Advisor: Carla Mueller
Protocol Title: Suffering in Silence: Healing the Healer
Study Site(s): University of Saint Francis, Main Campus

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: Email request was made for waiver

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

Approval:
☒Approval granted on Tuesday, September 21, 2021 for a period of one year.
☐Conditional approval* granted on _____for a period of one year.
☐Not approved*
☐IRB approval is not required:
☐Other

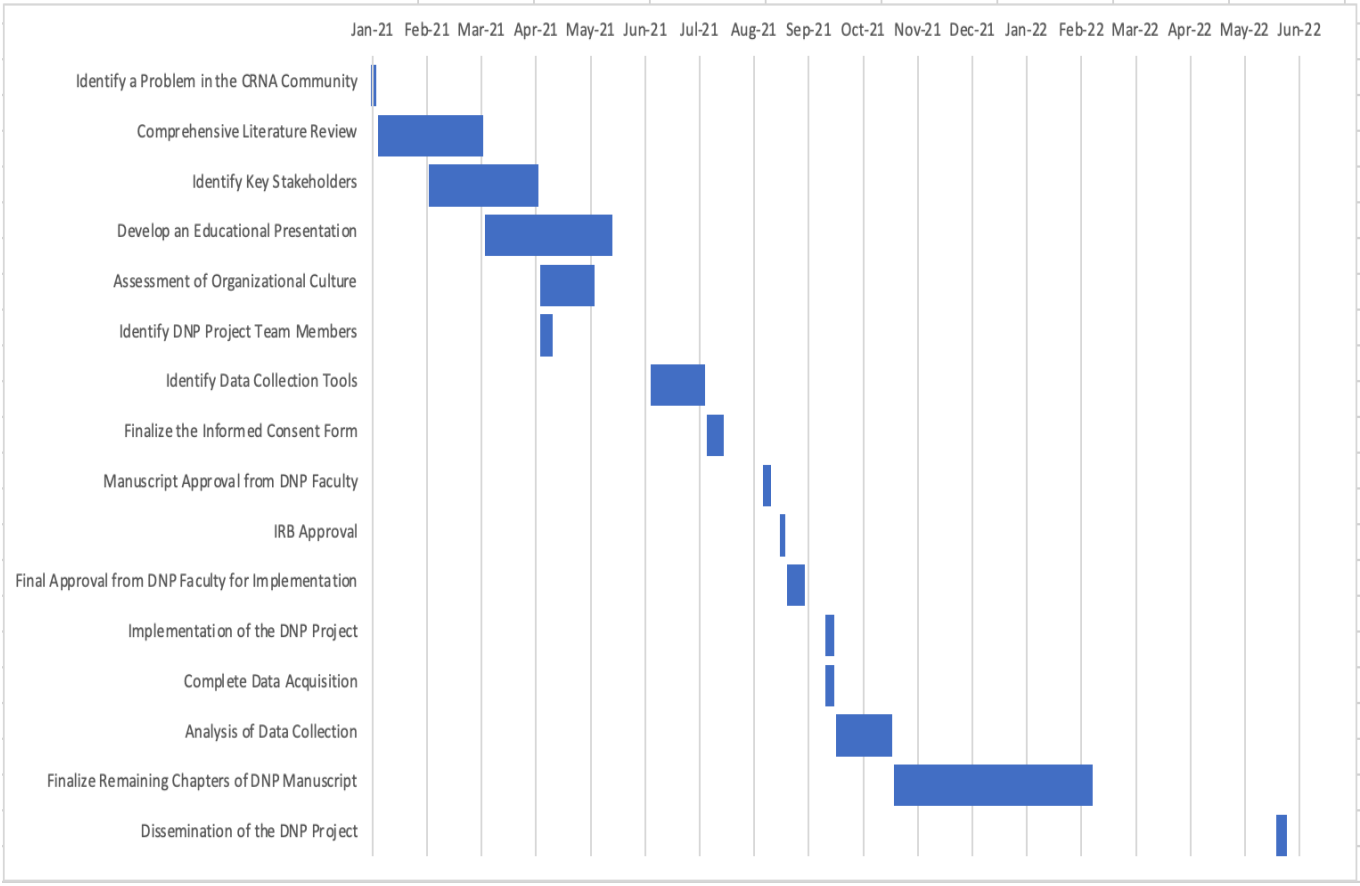
*Comments:

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

Michael P. Bechill, IRB Chair	Michael P. Bechill	2021.09.21
Printed Name (Chair or designee)	Signature	Date

Appendix H

Gantt Chart



Appendix I

Letter of Support from DNP Project Facility

August 26, 2021

To the University of Saint Francis Institutional Review Board:

This letter is being written in support of University of Saint Francis NAP/DNP student Jordan Foster's Doctor of Nursing Practice Project Scholarly Project entitled Suffering in Silence: Healing the Healer. The Indiana Association of Nurse Anesthetists understands that the aims of the DNP Scholarly Project are to increase the knowledge of the second victim phenomenon among nurse anesthesia providers and students.

The Indiana Association of Nurse Anesthetists is supportive of the aims of the project. The Indiana Association of Nurse Anesthetists is committed to providing time for the educational presentation to take place during the Fall 2021 Conference for the purpose of educating nurse anesthesia providers and students on the second victim phenomenon. The Indiana Assocation of Nurse Anesthetists does not require the project to go through the institutional IRB.

The Indiana Association of Nurse Anesthetists and its leadership commend Jordan Foster for his work to increase knowledge of the second victim phenomenon in the DNP Scholarly Project Suffering in Silence: Healing the Healer.

Sincerely,

Gail Brooks

Gail A. Brooks, CMP
Association Manager
INANA Association Mangement Team
gail@frontlineco.com

100 East Washington Street
Springfield, IL 62701
Office: (217) 528-3434

Appendix J

Policy 4.15.1
Created June 2019

DNP Scholarly Project Proposal Initial Approval

TO: Caitlin Krouse, DNP, FNP-BC, RN
Assistant Professor and Graduate Nursing Program Director

FROM: Jordan Foster, BSN, RN, DNP-NAP Student

RE: DNP Project Proposal Review Council Endorsement

DATE: November 12, 2021

DNP Scholarly Project Title: Suffering in Silence: Healing the Healer

DNP Scholarly Project Review Council:

DNP Project Advisor Signature: DNAP CRNA
Dr. Gregory Louck

DNP Project Proposal Review Council Member Signature: Susan Lown, DNP, RN, CNE
Dr. Susan Lown

DNP Project Proposal Review Council Member Signature: DNP/NA, CRNA
Dr. Keith Cotrell

Date of initial approval: November 12, 2021

Appendix K

Demographic Questionnaire

Please read each question and answer either by filling in the blank or circle an answer that best matches your response. Please note some questions are select all that apply and will be noted accordingly in the question.

1. What is your current age?
    a.

2. What is your gender?
    a. Male
    b. Female

3. Please specify your ethnicity:
    a. African/Black American
    b. Asian/Pacific Islander
    c. Hispanic/Latino
    d. Native American or American Indian
    e. White
    f. Other

4. What is your highest level of education?
    a. Anesthesia Certificate
    b. Bachelor's Degree
    c. Master's Degree
    d. Doctorate Degree

5. How many years of Nurse Anesthesia practice/training have you completed?
    a. 0-2
    b. 2-4
    c. 4-6
    d. 6-8
    e. 8-10
    f. 10-20
    g. >20

6. Have you ever been a part of or witnessed a traumatic event (first death experience, unexpected patient demise, failure to rescue, wrong side peripheral block insertion, wrong medication, etc.) in the clinical setting?
    a. Yes
    b. No

7. If you answered "Yes" to the previous question, which of the following traumatic events were you a part of or witnessed? (Select all that apply)

   a. First death experience
   b. Unexpected patient demise
   c. Failure to rescue
   d. Wrong side peripheral block insertion
   e. Wrong medication
   f. Other (Please specify)
   g. N/A

8. Did you experience any psychological or physical distress from the traumatic clinical event such as fear of future reoccurrences, fatigue, insomnia, troubling memories?
   a. Yes
   b. No

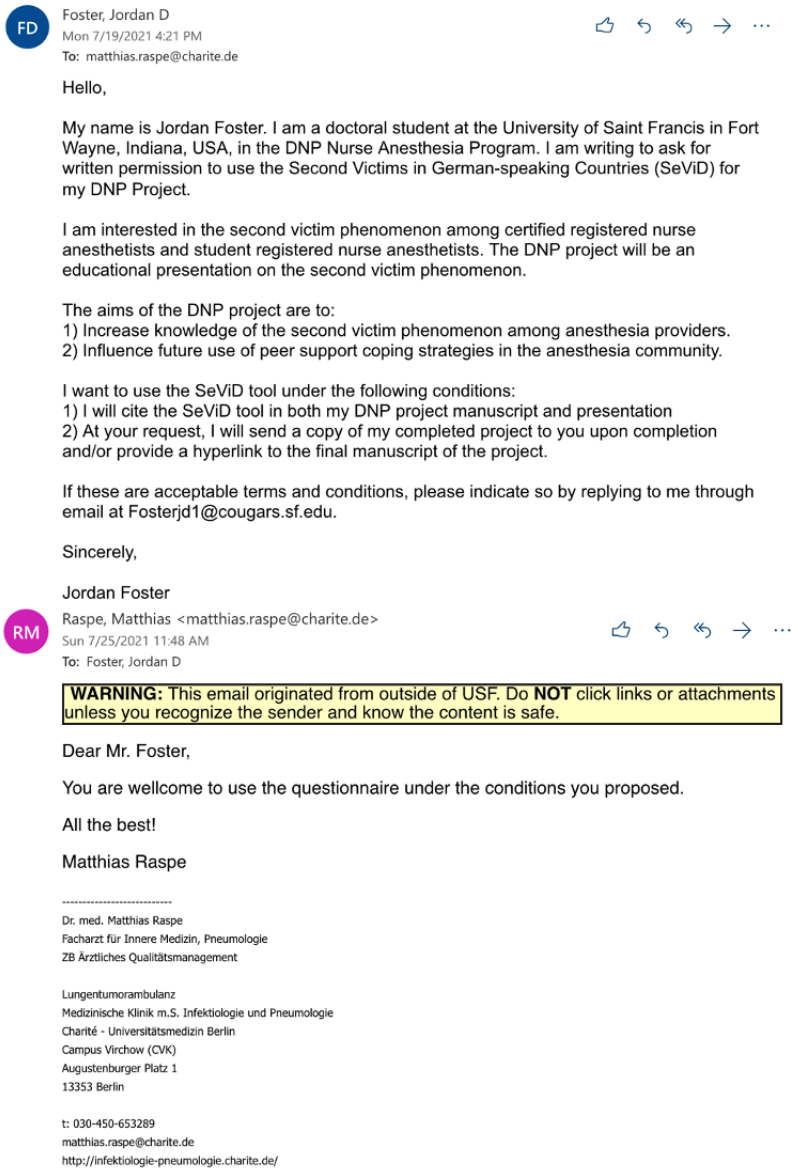
9. If you answered "Yes" to question #8, did you receive any support after the traumatic clinical event?
   a. Yes
   b. No
   c. N/A

10. If you answered "Yes" to question #9, which of the following support mechanisms were utilized after the traumatic clinical event? (Select all that apply)
   a. Colleague support
   b. Supervisor support
   c. Institutional support
   d. Non-work-related support (Friends and family)
   e. Other (Please specify)
   f. N/A

Appendix L

Citation and Proof of Authorization to Use SeViD Survey

Strametz, R., Abloescher, M., Wolfgang, H., Brigitte, E., & Raspe, M. (2020). Development and validation of a questionnaire to assess incidence and reactions of second victims in German speaking countries (SeViD). *Research Square, 1*, 1-13. https://10.21203/rs.2.22033/v1



FD

Foster, Jordan D
Mon 7/19/2021 4:21 PM
To: matthias.raspe@charite.de

Hello,

My name is Jordan Foster. I am a doctoral student at the University of Saint Francis in Fort Wayne, Indiana, USA, in the DNP Nurse Anesthesia Program. I am writing to ask for written permission to use the Second Victims in German-speaking Countries (SeViD) for my DNP Project.

I am interested in the second victim phenomenon among certified registered nurse anesthetists and student registered nurse anesthetists. The DNP project will be an educational presentation on the second victim phenomenon.

The aims of the DNP project are to:
1) Increase knowledge of the second victim phenomenon among anesthesia providers.
2) Influence future use of peer support coping strategies in the anesthesia community.

I want to use the SeViD tool under the following conditions:
1) I will cite the SeViD tool in both my DNP project manuscript and presentation
2) At your request, I will send a copy of my completed project to you upon completion and/or provide a hyperlink to the final manuscript of the project.

If these are acceptable terms and conditions, please indicate so by replying to me through email at Fosterjd1@cougars.sf.edu.

Sincerely,

Jordan Foster

RM

Raspe, Matthias <matthias.raspe@charite.de>
Sun 7/25/2021 11:48 AM
To: Foster, Jordan D

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.

Dear Mr. Foster,

You are wellcome to use the questionnaire under the conditions you proposed.

All the best!

Matthias Raspe

Dr. med. Matthias Raspe
Facharzt für Innere Medizin, Pneumologie
ZB Ärztliches Qualitätsmanagement

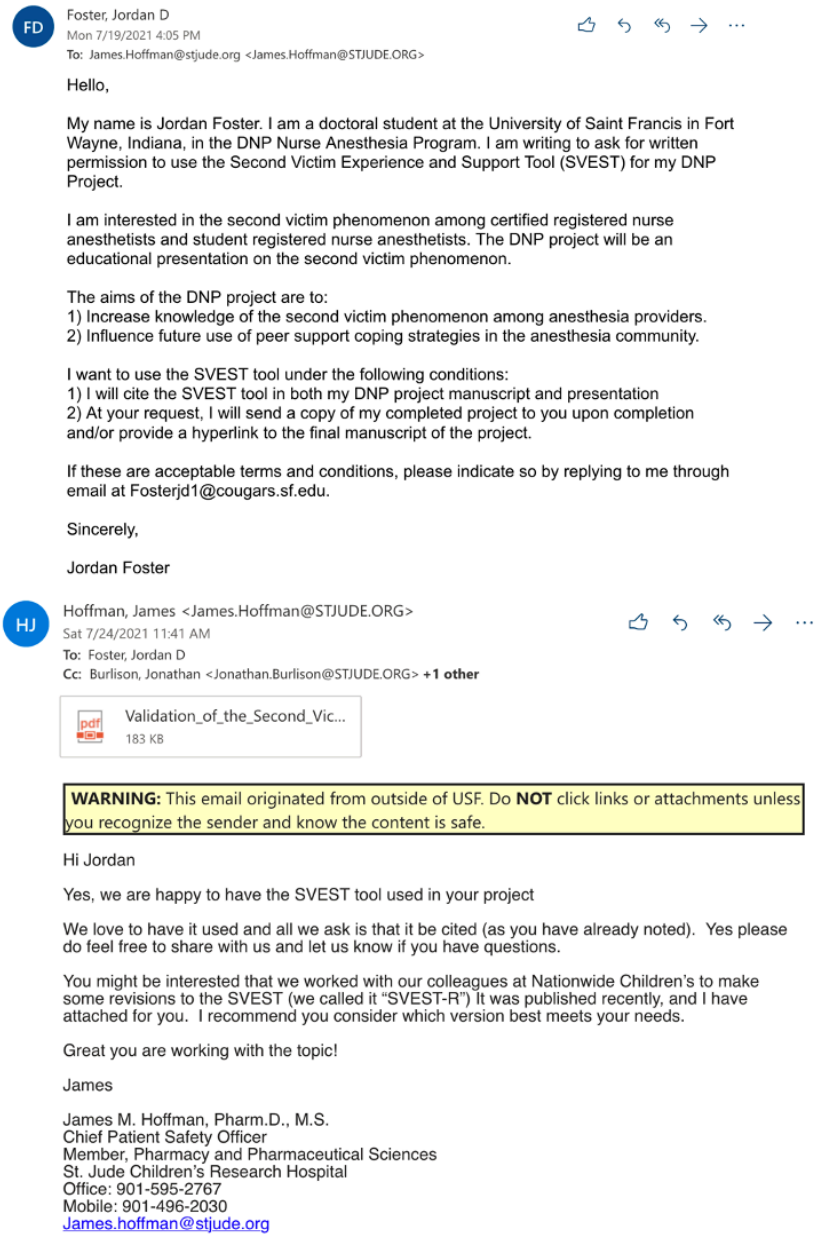
Lungentumorambulanz
Medizinische Klinik m.S. Infektiologie und Pneumologie
Charité - Universitätsmedizin Berlin
Campus Virchow (CVK)
Augustenburger Platz 1
13353 Berlin

t: 030-450-653289
matthias.raspe@charite.de
http://infektiologie-pneumologie.charite.de/

Appendix M

Citation and Proof of Authorization to Use SVEST Survey

Burlison, J. D., Scott, S. D., Browne, E. K., Thompson, S. G., & Hoffman, J. M. (2017). The second victim experience and support tool: Validation of an organizational resource for assessing second victim effects and the quality of support resources. *Journal of Patient Safety, 13*(2), 93-102. https://doi.org/10.1097/pts.0000000000000301



FD

Foster, Jordan D
Mon 7/19/2021 4:05 PM
To: James.Hoffman@stjude.org <James.Hoffman@STJUDE.ORG>

Hello,

My name is Jordan Foster. I am a doctoral student at the University of Saint Francis in Fort Wayne, Indiana, in the DNP Nurse Anesthesia Program. I am writing to ask for written permission to use the Second Victim Experience and Support Tool (SVEST) for my DNP Project.

I am interested in the second victim phenomenon among certified registered nurse anesthetists and student registered nurse anesthetists. The DNP project will be an educational presentation on the second victim phenomenon.

The aims of the DNP project are to:
1) Increase knowledge of the second victim phenomenon among anesthesia providers.
2) Influence future use of peer support coping strategies in the anesthesia community.

I want to use the SVEST tool under the following conditions:
1) I will cite the SVEST tool in both my DNP project manuscript and presentation
2) At your request, I will send a copy of my completed project to you upon completion and/or provide a hyperlink to the final manuscript of the project.

If these are acceptable terms and conditions, please indicate so by replying to me through email at Fosterjd1@cougars.sf.edu.

Sincerely,

Jordan Foster

HJ

Hoffman, James <James.Hoffman@STJUDE.ORG>
Sat 7/24/2021 11:41 AM
To: Foster, Jordan D
Cc: Burlison, Jonathan <Jonathan.Burlison@STJUDE.ORG> **+1 other**

Validation_of_the_Second_Vic...
183 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.

Hi Jordan

Yes, we are happy to have the SVEST tool used in your project

We love to have it used and all we ask is that it be cited (as you have already noted). Yes please do feel free to share with us and let us know if you have questions.

You might be interested that we worked with our colleagues at Nationwide Children's to make some revisions to the SVEST (we called it "SVEST-R") It was published recently, and I have attached for you. I recommend you consider which version best meets your needs.

Great you are working with the topic!

James

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Appendix N

Pre/Post-Test Survey

Please read each question and answer by circling an answer that best matches your response. Please note some questions are multiple response questions and will be noted accordingly in the question.

1. What is a second victim?
    a. A second victim is someone who has been victimized twice by the same crime
    b. A second victim is the family member of a patient who has died
    c. A second victim is the healthcare worker who has been traumatized by a clinically challenging event
    d. A second victim is the patient who has been neglected of care

2. Who can be considered the second victim after a traumatic clinical event? (Choose 3 answers)
    a. Anesthesia providers
    b. Surgeons
    c. Patients
    d. The hospital
    e. Healthcare trainees (Resident physicians and nursing students)
    f. Family members of a patient

3. A traumatic event in the operating room can affect even the most seasoned anesthesia provider?
    a. True
    b. False

4. What are common risk factors for the second victim phenomenon? (Select all that apply)
    a. Degree of responsibility to the patient
    b. Severe harm to the patient
    c. Traumatic event from a routine procedure
    d. Colleague reaction
    e. All the above

5. Individuals who identify as second victims report a standard set of symptoms that commonly characterize what disorder?
    a. Reactive attachment disorder (RAD)
    b. Disinhibited social engagement disorder (DSED)
    c. Major depressive disorder
    d. Post-traumatic stress disorder (PTSD)

6. What are the 2 most common signs/symptoms of the second victim phenomenon? (Select 2 answers)
    a. Troubling memories
    b. Anxiety

   c. Fear of making another error
   d. Questioning career path
   e. Suicidal ideation

7. All of the following are components of Stage 6 “Moving On” in the second victim recovery trajectory except:
   a. Thriving
   b. Surviving
   c. Grieving
   d. Dropping Out

8. All of the following are appropriate methods to support peers after a traumatic clinical event except:
   a. Department leaders can connect with involved providers
   b. Isolate the second victim from other providers
   c. Be an active listener for colleagues
   d. Contact AANA Peer Assistance Hotline

9. What is your confidence level in being able to recognize second victim phenomenon signs/symptoms in yourself?
   a. Very low
   b. Low
   c. Neutral
   d. High
   e. Very High

10. What is your confidence level in being able to recognize second victim phenomenon sign/symptoms in a clinical peer?
   a. Very Low
   b. Low
   c. Neutral
   d. High
   e. Very High

11. How likely are you to use peer support strategies (offer colleague support, active listening, reaffirming colleague clinical skills) in the clinical setting following a clinically challenging event?
   a. Very unlikely
   b. Unlikely
   c. Neutral
   d. Likely
   e. Very Likely

12. How likely are you to discuss a traumatic clinical event with a respected peer?
   a. Very unlikely
   b. Unlikely

c. Neutral
d. Likely
e. Very Likely

13. What is your confidence level that discussing traumatic clinical events with colleagues will provide you with a sense of relief?
    a. Very Low
    b. Low
    c. Neutral
    d. High
    e. Very High

Appendix O

Pre-test/Post-test Data Analysis Table

Pre-test and Post-test Survey Question #	Pre-test Score	Post-test Score	% Change
1	100%	100%	-
2	66%	87%	32%
3	97%	100%	3%
4	97%	100%	3%
5	94%	97%	3%
6	15%	67%	346%
7	8%	80%	900%
8	92%	97%	5%
Total	71%	91%	28%

Pre-test/Post-test Confidence Level Analysis Table

Pre-test and Post-test Survey Question #	Pre-test Score	Post-test Score	% Change
9	2.46	3.28	33.3%
10	2.05	3.13	52.7%
11	3.00	3.15	5%
12	2.87	3.33	16%
13	2.62	3.05	16.4%

Influencing Future Recognition of the Second Victim Phenomenon and Use of Peer Support Table

Participant Reponses	Pre-test n	Pre-test %	Post-test n	Post-test %
Confidence Level to Recognize Second Victim Phenomenon in Yourself				
Very Low	2	5	0	0
Low	4	10	0	0
Neutral	12	31	1	3
High	16	41	26	66
Very High	5	13	12	31
Confidence Level to Recognize Second Victim Phenomenon in a Peer				
Very Low	2	5	0	0
Low	9	23	0	0
Neutral	13	33	5	13
High	15	39	23	59
Very High	0	0	11	28
Confidence Level to Utilize Peer Support Strategies				
Very Unlikely	6	15	1	3
Unlikely	3	7	0	0
Neutral	15	39	4	10
Likely	15	39	20	51
Very Likely	0	0	14	36
Confidence Level to Discuss Traumatic Clinical Event with a Peer				
Very Unlikely	1	3	0	0
Unlikely	4	10	1	3
Neutral	6	15	2	5
Likely	16	41	18	46
Very Likely	12	31	18	46
Confidence Level Discussion of Traumatic Clinical Event will Provide Relief				
Very Low	1	3	0	0
Low	2	5	1	3
Neutral	14	36	4	10
High	16	41	25	64
Very High	6	15	9	23

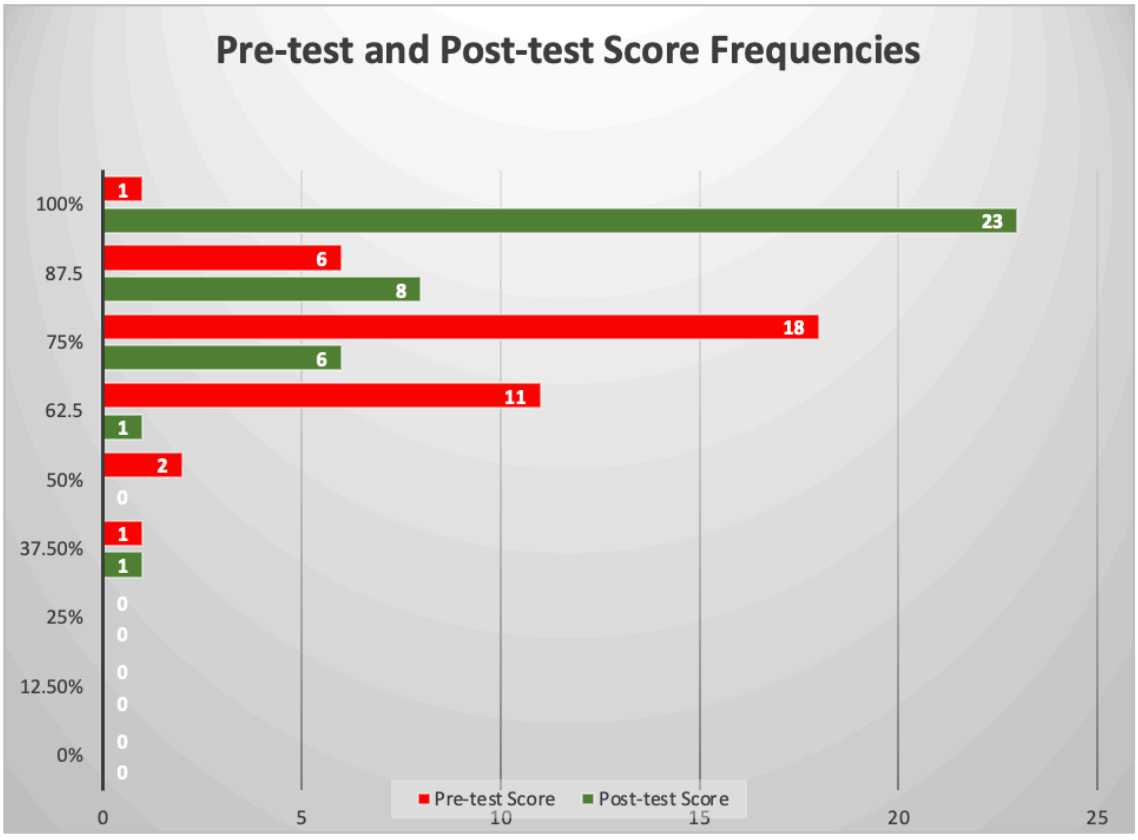
Demographic Characteristics of the Participants Table

Participant Characteristics	n	%
Age		
20-29	12	31
30-39	10	26
40-49	5	13
50-59	6	15
60-69	6	15
Gender		
Male	18	46
Female	21	54
Ethnicity		
African/Black American	2	5
Asian/Pacific Islander	0	0
Hispanic/Latino	3	8
Native American or American Indian	0	0
White	31	79
Other	3	8
Level of Education		
Anesthesia Certificate	0	0
Bachelor's Degree	20	51
Master's Degree	11	28
Doctorate Degree	8	21
Years of Experience		
0-2	22	56
2-4	2	5
4-6	2	5
8-10	1	3
10-20	8	21
>20	4	10
Involved in Traumatic Clinical Event		
Yes	35	90
No	4	10
Type of Traumatic Clinical Event		
Participant Involved In (Select All That Apply)		
First Death Experience	22	24
Unexpected Patient Demise	27	30
Failure to Rescue	19	21
Wrong Side Peripheral Block Insertion	2	2
Wrong Medication	14	15
Other Event	5	6

N/A Event	2	2
Traumatic Clinical Event Caused Psychological or Physical Distress		
Yes	31	80
No	8	20
Support Received After Traumatic Clinical Event		
Yes	14	36
No	17	44
N/A	8	20
Type of Support Utilized After Traumatic Clinical Event (Select All That Apply)		
Colleague Support	12	22
Supervisor Support	5	9
Institutional Support	2	4
Non-Work-Related Support	12	22
Other Support	3	5
N/A Support	21	38

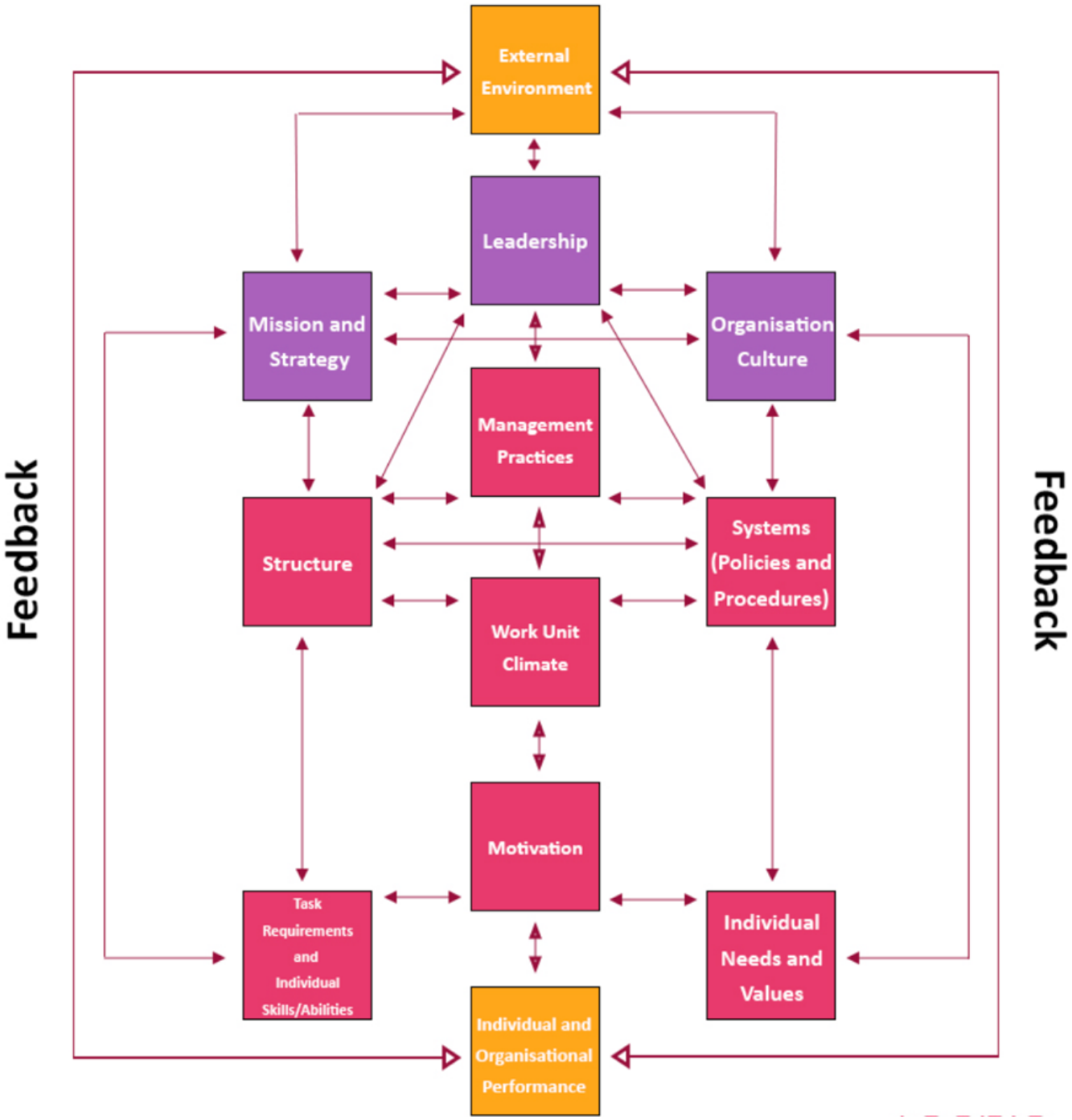
Mean, Median, and Mode Chart

	Pre-test	Post-test
Mean	71%	91%
Median	75%	100%
Mode	75%	100%



Appendix P

Burke-Litwin Organizational Change Model



Accipio, 2021

Appendix Q

SWOT Analysis for an Educational Seminar on the Second Victim Phenomenon

Strengths	**Weaknesses**
∇ Raises awareness of the second victim phenomenon among CRNAs in Indiana. ∇ Support of key organizational leaders for advancing professional growth in CRNA practice. ∇ Supports healthcare provider mental health. ∇ INANA is highly engaged in the vision of utilizing educational seminars to guide CRNA practice standards. ∇ INANA promotes professionalism and accountability for high standards of care for patients. ∇ Values inclusion and diversity to form new ideas and beliefs.	∇ No current procedure to support CRNA members after a traumatic event. ∇ Lack of professional education on the effects of the second victim phenomenon on CRNAs. ∇ Lack of professional education on the second victim recovery trajectory to stimulate the development of coping strategies among providers. ∇ No formal culture to provide ongoing support to second victims following an educational program.
Opportunities	**Threats**
∇ Tools and resources DNP student has learned through extensive research and attending a workshop on supporting second victims. ∇ INANA organizational leadership is eager to raise awareness of the second victim phenomenon. ∇ INANA poised to improve CRNA mental health care in Indiana. ∇ High potential to impact national standards of practice of supporting CRNAs after a traumatic event. ∇ Continued publishing on recognizing the second victim phenomenon in healthcare providers in AANA journals.	∇ Lack of interest among CRNAs because current knowledge views compassion fatigue and job burnout as "part of the job." ∇ Fear of confidentiality, trust among providers, and uncertainty about best practices. ∇ Push for time efficiency in completion of cases and busy OR limits time for support of healthcare providers. ∇ Resistance among INANA members to accept current evidence-based research.

Appendix R

Force Field Analysis for an Educational Seminar on the Second Victim Phenomenon

Forces		
Driving Forces (For)	**Restraining Forces (Against)**	**Action to be Taken**
• Support from key INANA organizational leaders for advancing professional growth in CRNA practice. • An organizational culture that guides its standards with a mission of resilience and a high level of integrity to improve practice standards and safety for patients. • Professional education can increase awareness of the second victim phenomenon and stimulate the development of coping strategies among CRNAs (Wands, 2021). • Stress the urgency for awareness of the second victim phenomenon as a patient safety issue (Wands, 2021). • Effective communication among DNP Project team members will guide identifying project goals.	• Current professional culture standards are "culture of blame" instead of "just culture" to mitigate traumatic events from occurring. • Lack of interest among CRNAs because current knowledge views compassion fatigue and job burnout as "part of the job." • The stigma of mental health among healthcare professionals may cause discomfort in discussing second victim-related topics. • Public opinion and professional culture are perfection in practice and not compassion toward providers involved in traumatic events (Wands, 2021).	• Utilize Lewin's Change Management Model with three distinguished stages: unfreeze, change, and refreeze. • Reduce the effects of the restraining forces against the DNP project. • Unfreeze current professional cultural standards and reduce restraining forces by providing an evidence-based education module. The education module will improve awareness of the second victim phenomenon and the need for change in the professional culture not to blame individuals for traumatic events but instead support peers. The education module will allow a refreeze to change the professional culture toward second victims. • Integrate descriptive statistics into the education module to describe to CRNAs compassion fatigue and job burnout are components of the second victim phenomenon. And these effects can impact healthcare providers personal and professional lives on a much larger scale. • Create a positive learning environment for members in attendance of the educational conference, promote a supportive learning culture, and address learners' needs to minimize the stigma related to mental health (Moychan, 2018).