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## **Utilization of a Focus Group to Evaluate the Perceived Stress Levels and Coping Mechanisms of Student Registered Nurse Anesthetists**

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UTILIZATION OF A FOCUS GROUP TO EVALUATE THE PERCEIVED STRESS  
LEVELS AND COPING MECHANISMS OF STUDENT  
REGISTERED NURSE ANESTHETISTS

by

Cillora Hicks

Abstract of a Capstone Project  
Submitted to the Graduate School  
and the Department of Advanced Practice  
at The University of Southern Mississippi  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Nursing Practice

December 2015

## ABSTRACT

# UTILIZATION OF A FOCUS GROUP TO EVALUATE THE PERCEIVED STRESS LEVELS AND COPING MECHANISMS OF STUDENT REGISTERED NURSE ANESTHETISTS

by Cillora Hicks

December 2015

Each year, thousands of Student Registered Nurse Anesthetists (SRNAs) matriculate into a nurse anesthesia educational program, confronted with unforeseen challenges and stressors. Although a certain amount of stress is essential to stimulate learning, excessive stress can have dire consequences in delaying a students' academic and clinical progression. The purpose of this Capstone Project was to explore and describe the perceptions of 12 SRNAs relevant to their stress levels and coping behaviors in the management of academic and personal stress. The clinical research questions guiding the study examined the stress levels and coping behaviors of the SRNAs as measured by the Perceived Stress Survey (PSS) and the Ways of Coping Questionnaire (WOCQ) instruments. The data were analyzed through content analysis identifying common themes that evolved from the focus groups. The results of the study clearly indicated that the majority (75%) of SRNAs perceived themselves as highly stressed. Academic stressors identified by the participants included ineffective time management, workload, and poor communication. Personal stressors acknowledged by the participants comprised of inadequate personal time, familial relationships, and financial problems. To

foster an atmosphere of learning in the academic and clinical setting, effective coping mechanisms must be established.

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## DEDICATION

I dedicate this capstone project to my family and friends. A special sentiment of gratitude to my loving deceased mother, Lena Beth Hicks whose words of inspiration and ambition for greatness continuously ring in my ears. You will forever have a special place in my heart. My father, Amos Hicks Jr., I thank you for instilling in me at a young age compassion, aspiration, and most importantly love. I also dedicate this capstone project to my sisters Sheila Cheatham, Angela Strong, and Precious Hicks who have been a constant source of support throughout my life. I thank my brother, Samuel Hicks, who has been my number one supporter and whose steadfast determination for success has taught me to work hard for the things I aspire to achieve.

I thank my extended family and friends Michael Grace, Mary Grace, Sherita Moore, LaVonia Grace, LaKeitha Grace, LaKeith Grace, Sabria Grace, Astara Barker, Ruth and Jim Spillers, LaTonya Hardy, Grace Allen, and Patsy Rhodes for prayers and continued encouragement. I will always appreciate the unwavering support and unconditional love they have shown me throughout the entire doctorate process. Last but certainly not least, I thank my heavenly father Jesus Christ for guiding my life to places where I never even dreamt of going.

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## LIST OF ABBREVIATIONS

|              |  |
|--------------|--|
| <i>SRNAs</i> | Student Registered Nurse Anesthetists          |
| <i>DNP</i>   | Doctor of Nursing Practice                     |
| <i>PSS</i>   | Perceived Stress Scale                         |
| <i>WOC</i>   | Ways of Coping                                 |
| <i>IOM</i>   | Institute of Medicine                          |
| <i>AACN</i>  | American Association of the College of Nursing |
| <i>ICU</i>   | Intensive Care Unit                            |
| <i>RN</i>    | Registered Nurse                               |
| <i>CRNA</i>  | Certified Registered Nurse Anesthetist         |
| <i>SPSS</i>  | Statistical Package for the Social Science     |
| <i>USM</i>   | University of Southern Mississippi             |
| <i>NAP</i>   | Nurse Anesthesia Program                       |
| <i>IRB</i>   | Institutional Review Board                     |

## CHAPTER I

### INTRODUCTION

The field of nurse anesthesia is extremely competitive. Often, student registered nurse anesthetists (SRNAs) find themselves immersed in challenging situations, which leads to a substantial rise in their measure of stress. SRNAs are faced with a rigorous schedule, challenging coursework, and an unfamiliar academic and clinical environment (Chipas & McKenna, 2011). Not only do SRNAs have to master the unique art of anesthesia, SRNAs must also commit to the demanding requirements of the Doctor of Nursing Practice (DNP) curriculum. As stress continues to rise beyond overwhelming levels, untoward consequences may ensue (Chipas & McKenna, 2011).

An SRNA is a bachelor prepared registered nurse enrolled in an accredited nurse anesthesia program. Typically, the program includes 36 months of graduate course work incorporating both didactic and clinical experience. According to Dreifurest (2009), thousands of SRNAs are accepted into nurse anesthesia programs across the country each year. Transitioning from the expert intensive care nurse to an advanced practitioner who must make split-second decisions requires an immense amount of critical thinking and can be at times, extremely stressful (Dreifurest, 2009). To promote success in anesthesia education, stressors must be addressed with the implementation of effective coping mechanisms while facilitating an environment of learning. Thus, this capstone project served to examine the perceived stress levels and coping behaviors of 12 senior level SRNAs.

## Background of the Study

Over the years, stress among SRNAs has been extensively explored; however, few studies have allowed nursing anesthesia students to describe their experience (Chipas & McKenna, 2011; Perez & Carroll-Perez, 1999; Wildgust, 1986). Seyle (1936), coined the term stress as the general reaction of the body to any condition for change. Seyle (1950) stated that, unwarranted stress outside one's capacity could trigger physical or emotional illness. These rudiments lead to the elements of individuals describing what stress means to them, and at what levels that stress becomes dangerous.

Lazarus and Folkman (1984) examined stress and coping, which included this statement:

As one moves away from the most extreme life conditions to milder and more ambiguous ones, that is, to the more ordinary, garden-variety life stressors, the variability of response grows even greater. What now is stressful for some is not for others. No longer can we pretend that there is an objective way to define stress at the level of environmental conditions without reference to the characteristics of the person. (p. 19)

This statement guides the need for meaningful qualitative research to be conducted in the distinct area of nurse anesthesia students and stress. The importance of appreciating what produces excessive stress among anesthesia students, and, when possible, controlling that stress with positive coping mechanisms is a significant area of concern. For decades, theorists have attempted to rationalize the various dynamics of stress. The Yerkes-Dodson Law stated that increasing stress levels have shown to arouse enthusiasm and attention, but only to a certain degree (Yerkes & Dodson, 1908). Yerkes and Dodson

(1908) found that without some motivating stress, individuals have no reason to act. Researchers have determined that individuals respond very differently to stressors, and do not always fit the Yerkes-Dodson Law (Lazarus & Eriksen, 1952).

Lazarus and Folkman (1984) reported that, “one cannot predict performance simply by reference to stressful stimuli, and that to predict performance outcomes required attention to the psychological process that created individual differences in reaction” (p. 7). Individuals react differently to stress, and if one were to attempt to speculate how an individual will react, it would necessitate an understanding of the psychological characteristics inherent to that particular individual. Trailing these principles, it can be concluded that research has shown that stress is an individualized phenomenon, defined by each individual. With this evidence, a qualitative study in which SRNAs themselves identify their stressors and coping mechanisms will add essential data to the field of nurse anesthesia research.

#### Problem Statement

The problem this study addressed was the academic and personal stressors experienced by SRNAs and the coping strategies they used to manage their stress. The research questions guiding this capstone project were:

1. What are the perceived stress levels of SRNAs as measured by the Perceived Stress Survey (PSS)?
2. What are the coping behaviors used among SRNAs as measured by the Ways of Coping Questionnaire (WOC)?
3. What coping strategies do SRNAs perceive as effective to reduce academic and clinical related stress?

### Purpose of Project

The purpose of this Capstone Project was to explore and describe the perceptions of 12 senior level SRNAs in regards to the academic and personal stress levels experienced and the coping strategies used to manage their stressors. Data were acquired through primarily three sources: Two validated and reliable survey instruments and a focus group discussion. The American Association of Nurse Anesthetists (AANA) acknowledged the influence of stress among SRNAs as an important concern (AANA, 2004). The AANA recognized that anesthesia professionals are continuously exposed to critical incidents that may lead to increased stress levels (AANA, 2004).

### Significance of the Study

This capstone project was significant to address the research and knowledge gap regarding the academic and personal stressors faced among SRNAs. In addition, the results of this study provided valuable insight into understanding the coping behaviors of the SRNAs in the management of their stressors. Former research has validated that SRNAs have markedly increased levels of stress than other health care professionals. It is imperative that SRNAs as well as academic administrators become aware before personal and academic stressors reach the over exert untoward effects when stress becomes (Perez & Carroll-Perez, 1999). This understanding may lead to the development of best practices that may reduce SRNA attrition and optimize success.



## CHAPTER II

### REVIEW OF RELATED LITERATURE

This segment contains a synthesis of literature on the topics of stress and coping in the anesthesia profession, in general, and specifically as it relates to the practice of nursing. The search revealed that there was minimal qualitative research conducted on the topic of the perceptions of stress among SRNAs returning for the DNP degree. The following databases were searched: The Cochrane Library, CINAHL, MEDLINE, Google Scholar, and EBSCOhost. The literature reviews were gathered from both printed and electronic sources. The key words used in the search engines included nursing, stress, coping mechanisms, SRNAs, focus groups, and graduate student stress.

#### RNs Returning to Graduate School

The Institute of Medicine (IOM) has recognized impediments within the healthcare system and the delivery of patient safety (IOM, 1999, 2001, 2003). One report published by the IOM in 1999 entitled, *“To Err is Human: Building a Safer Health System,”* shed light on the increased errors in health care delivery due to the fragmented nature of the health care system (IOM, 1999). In 2001, *“Crossing the Quality Chasm: A New Health Care System in the 21<sup>st</sup> Century,”* was reported, which encompassed implications for refining quality of care in America. This report charged health care organizations and groups to promote safe, patient-centered, proficient, and competent health care (IOM, 2001). The American Association of Colleges of Nursing (AACN) has used the aforementioned reports as a basis for educational requirements for professional nurses who will be practicing at the highest level. Chism (2013) documents that the

implementation of an additional terminal degree serves as a resolution to the appeal recommended by the IOM reports.

In 2004, the AACN proposed a position statement, which directed that the DNP become entry level into advanced nursing practice by 2015 for the future generation of advanced practice providers (AACN, 2004). The ongoing discussion of the DNP in nursing is essential due to implementation of the Affordable Care Act, advancements in technology, and the innovative roles future DNP nurses.

Pursuing a doctoral degree is the movement of the future of nursing. In the process of becoming a bachelor prepared registered nurse, one must accept the challenge of committing to a lifetime of education. Due to advances in technology and cutting edge nursing research, many RNs have returned to school to complete graduate level nursing educational requirements. Transitioning from the BSN to the DNP prepared professional can be, at time, very stressful. SRNAs have to revert and appreciate the graduate student role instead of the expert, clinical ICU nurse. According to Chipas, Cordrey, Floyd, Grubbs, Miller, and Tyre (2012), “three major types of stressors may be present during nurse anesthesia education: academic stressors, clinical stressors, and external stressors” (p. 49). As a graduate student pursuing a DNP degree, students engage in a challenging, yet rewarding, transformative experience. Soon after the student is enrolled in the doctoral program, the student begins the initial steps in completing the scholarly project.

Studies illustrated that anesthesia students are constantly faced with ongoing stressors throughout academic and clinical studies (Perez & Carroll-Perez, 1999; Wildgust, 1986). The major stressors associated with the didactic portion of the SRNAs curriculum includes overload, test anxiety, fear of failing the national certification

examination, fear that instructors may perceive the student as incompetent, ineffective time management, increased fatigue and course workload, and fear of failing out of school (Perez & Carroll-Perez, 1999; Wildgust, 1986). Stressors associated with the clinical portion of an anesthesia program includes fear of making clinical errors, lack of autonomy and control over assignments, fear of patient death, increased independence, as well as the lack of preparation for graduation (Perez & Perez, 1999; Wildgust, 1986). Hence, the didactic and clinical portions of the anesthesia educational process unquestionably lead to high stress levels.

Health care professionals are at a particularly increased risk for developing chronic stress due to the nature of their work. One study showed that 60 percent of health care career college students described as having increased levels of stress (Makrides, Veinot, Richard, McKee, & Gallivan, 1998). Phillips (2010) explored stressors and coping of 12 nurse anesthesia graduates using grounded theory methodology. The 12 nurse anesthesia graduates identified stressors as role strain, financial problems, clinical assignments, fatigue and workload as well as fear of clinical instructors' perception of incompetence. As the anesthesia students progressed through the program, three evolving phases were noted, "transitioning in, finding their way, and transitioning out" (Phillips, 2010, p. 474). The graduates reported problem-focused and emotion-focused coping mechanisms, which included utilizing time management and organizational tools in their daily routine (Phillips, 2010). It was noted that stress was associated with internal and external events that played a major role in their lives. Participants in this study recommended future actions for nurse faculty which included modifying the first semester course load, implementing group counseling sessions, and implementing stress

management programs and debriefing sessions. Furthermore, the availability of stress management programs and social support groups were recommended for future improvements.

### SRNAs and Stress

Stress is well-documented in the nursing literature. Over two decades ago, Wildgust (1986) studied the stress levels of 18 SRNAs at different phases throughout their education. Students acknowledged the major sources of stress as information overload, and fear of academic and clinical error. Three major levels of the stress reaction were illustrated: (a) the environment, (b) the evaluation and assessment of the environment, and (c) the response of emotional and physical stimulation (Wildgust, 1986). It was found that stress is experienced on an individual basis and that consequences of stress on the body have found to be individualized. One important theme that was revealed illustrated that how an individual interprets the stressor determines whether it is perceived as positive or negative. Additionally, the lead researcher found that students who were not able to cope well with stress might not comprehend information as effectively as students who are less stressed (Wildgust, 1986).

A study conducted by Perez and Carroll-Perez (1999) surveyed 2,200 anesthesia students. Authors developed a survey to assess students' perceptions of stress management programs and open door policies within their nurse anesthesia programs (Perez & Carroll-Perez, 1999). Results illustrated a 68.4% response rate, which showed that students experienced markedly high levels of stress. Responses from the survey showed that most of the schools did not have a stress management program. Additionally, students reported that the open-door policy at their school did not meet their expectations.

According to Perez and Carroll-Perez (1999), ventilation of frustrations to classmates and personal support systems were noted by 89% of respondents as the most frequently used methods of coping. Students were questioned about the open-door policy that was implemented at a nurse anesthesia school and expressed concerns that they did not feel comfortable about voicing their distresses to school administrators (Perez & Carroll-Perez, 1999). Perez and Carroll-Perez (1999) concluded that in order to bring about constructive change, students must be able to express their thoughts and concerns in a nonthreatening environment to school administrators.

Chipas and McKenna (2011) conducted research focused on stress and burnout in the anesthesia profession. This study explored the stress levels and its physical implications among Certified Registered Nurse Anesthetists (CRNAs) and SRNAs (Chipas & McKenna, 2011). Researchers conducted surveys of 7,537 students. Surprisingly, researchers discovered that even constructive situations led to increased stress levels. As reported on a 10-point Likert-type scale, the overall stress level was 7.2 for SRNAs. Students attributed 67% of their stress to academic coursework. When students were questioned about how they dealt with stress, 27% of students implied they had requested professional assistance. Students also indicated the use of support from others and prescription medication. Students noted the use of relaxation, music, meditation, and exercise as de-stressing techniques (Chipas & McKenna, 2011). Participants provided suggestions for wellness initiatives which included (a) provide peer support, (b) offer personal wellness and stress management techniques, (c) offer recommendations how to foster a stress-free lifestyle, and (d) necessitate academic institutions to incorporate wellness into anesthesia program curriculums.

Chipas et al., (2012) used qualitative research to investigate stressors and coping mechanisms among SRNAs. A descriptive study was designed to explore stress in both practicing CRNAs and SRNAs. A study specific questionnaire was formulated and administered to 1,374 SRNAs who reported mean overall stress levels as 7.2. Students reported that many external events attributed to their increased stress levels. To optimize wellness, students suggestions included: “provide peer support, exercise program, affordable gyms, personal health and stress management techniques, integrate wellness into anesthesia school, and give large discounts towards massage” (Chipas et al., 2012, p. 53).

#### Coping Mechanisms used among SRNAs

For centuries, humans have pondered diverse mechanisms of how to effectively deal with stress. The typical clinical setting of a SRNA consistently parallels the conditions that define a stressful environment. The stress resulting from anesthesia academics along with DNP studies can cause psychological stress for the SRNA. According to McDonough (1990), “stress is an imbalance that seeks to be relieved” (p. 195). McDonough (1990) found that personalities and addictive tendencies of individuals caused some individuals to abuse drugs. A survey was administered to 150 students to assess addictive personality traits. Results indicated that anesthesia students had significantly higher scores in excitement seeking behaviors. McDonough (1990) also suggested the creation of support system to aid students in finding effective coping skills. Findings from this study provided the anesthesia literature with insight into substance abuse among SRNAs.

SRNAs develop various coping mechanisms to relieve stressors. Kless (1989) studied the effectiveness of social support groups in reducing stress among anesthesia students. A trial group was conducted to assess the effectiveness of a student support group. Students responded positively to the evaluation of support groups in decreasing personal stress levels. Kless (1989) found that a student support group promotes clinical growth. Kless (1989) suggested that in order for a social support group to be effective, the group leader must not become defensive and must be able to keep the group “on task” (Kless, 1989).

The notion that all healthcare professionals will experience stress to a certain degree has been widely accepted (Cavagnaro, 1983). Cavagnaro (1983) conducted a comparison study of stress factors as they affect CRNAs and RNs. Cavagnaro (1983) found that unclear job description, attitudes of MDs, inadequate staffing, and attitudes of nursing administration were identified as common stressors among CRNAs and registered nurses (RNs). Moreover, Cavagnaro (1983) noted that the use of “gripe sessions” could be used as an outlet for anesthesia professionals to prevent stress from building up. A gripe session is a discussion consisting primarily of complaints (The Dictionary of American Slang, 2007). Healthcare professionals can reduce stress by developing a greater awareness of ones self, increasing exercise, practicing relaxation skills, and accept the responsibility for learning to deal with stress (Cavagnaro, 1983).

Wildgust (1986) noted that junior and senior level students rated information overload as their highest stressor. Additionally, junior students reported distress of failing exams and fear of letdown as major stressors. As the students progressed, exam failure and fear of letdown were only noted as minor stressors. Junior students also reported that

their academic professors actions served as major stressors. At the senior level, the concerns related to passing boards was ranked as very stressful. Students indicated that planning for graduation and upholding scholastic achievement also contributed to stress as they increased clinical workload and responsibility.

In a study conducted by Perez and Carroll-Perez (1999) 89% of SRNAs illustrated that ventilation of frustrations to fellow classmates and reliance on personal support system as the most commonly means of coping. Other coping mechanisms for dealing with stress included religious beliefs and time spent with family (Perez & Carroll-Perez, 1999).

Phillips (2010) noted that students used a variety of methods to deal with stress described as: “problem-focused, emotion-focused, and combination coping approach” (p. 475). Participants described problem-focused techniques as lack of time, acquiring additional clinical information, and being able to use preprinted care plan forms (Phillips, 2010). Students described emotion-focused coping as physical activity, avoidance, partying, postponing, and spirituality (Phillips, 2010). Combination coping included the use of support groups, involvement with peers, and participating in events held by the school (Phillips, 2010).

Chipas et al., (2012) reported that numerous students admitted to seeking professional help to aid in managing stress. Additionally, admitted to using prescription drug therapy to assist in alleviating the symptoms of stress. Authors found that students who participated in regular physical activity had considerably reduced stress levels (Chipas et al., 2012). Students also reported maladaptive coping methods such as



drinking alcohol and airing improper emotions (Chipas et al., 2012). Positive coping skills used by students included music, meditation, and exercise (Chipas et al., 2012).

Faculty and students must develop a mutual framework so that complete utilization and accomplishment of individual potential can be achieved (Wildgust, 1986). By developing effective coping mechanisms, SRNAs can have the methods to effectively reduce stress during their matriculation through school, thus, transitioning as skilled practitioners.

### Stress as a Determinant of Health

Researchers have found that extreme stress can lead to chronic problems, which typically are unnoticed until harm is done. Studies have shown that acute stress—especially anger—can increase the potential for heart attacks, headaches, high blood pressure, loss of sleep, arrhythmias, and even death (Krants, Whittaker, & Sheps, 2011). Stress has been linked to the major leading causes of death in the United States (Cohen, Janicki-Deverts, & Miller, 2007). One major consequence of chronic stress is burnout. Chipas and McKenna (2011) stated that “burnout is a state of physical, emotional, and mental exhaustion caused by long-term exposure to demanding work situations, or the cumulative result of stress” (p. 2). Research showed that some students’ work well under stress; however, excessive stress contributes to depression and failure (Perez & Carroll-Perez, 1999). Therefore, not all stress is perceived as harmful. The problem arises when excessive stress ensues and the individual is not able to cope with the demands of the stressful stimulus. For anesthesia students to be successful in practice, collaborative efforts among students and faculty must be adopted to establish grounds to effectively

cope with anticipated stressors that SRNAs will encounter during their educational process.

### Focus Groups to Reduce Stress

Qualitative research offers participants an opportunity to describe lived experiences through group discussion. It gives the researcher a chance to gain insight of the human experience as well as providing significant inquiry to the body of nursing. An exploratory-descriptive qualitative study design is used to “understand the needs of a specific population, desired outcomes of, or views on appropriate interventions held by the members of the group” (Grove, Burns, & Gray, 2013, p. 66). The ultimate objective is to generate interventions and techniques to optimize patient outcomes. During a federally sponsored study of healthy individual living with HIV infection, Tuck and Thinganjana (2007) conducted qualitative research of stress management interventions. The researchers goal was to appreciate the participants’ perceptions of spirituality as the first step in developing an operative meaning for measurement of spirituality. Vincent (2009) used qualitative research to explore interventions for Mexican-Americans with diabetes for constructive behavior change. Vincent (2009) demonstrated that by incorporating qualitative research, the intervention group was content with the noted intervention.

Focus groups were designed to gather the participants’ perceptions in a setting that is nonthreatening and permissive (Grove, Burns, & Gray, 2013). Focus groups have been integrated into research to understand the experiences of people. A major theme essential to the use of focus groups is that communication among individuals who share similar characteristics can help each other express their feelings in ways that are less

likely to occur in an individual dialog (Gray, 2009). Typically, people in a focus group share similar lifestyle characteristics such as experiences and views.

The use of focus groups in qualitative research serves a variety of purposes. In this study, the incorporation of a focus group will be used as an intervention to explore common stressors and coping mechanisms among SRNAs. The focus group will allow participants the opportunity to share lived experiences in a non-threatening environment.

Focus groups have been used to investigate the fatigue of stroke victims (Finn & Stube, 2010) and the social support necessities of older African Americans who have endured cancer (Hamilton, Moore, Powe, Agarwai, & Martin, 2010). The usage of prescription medications without medicinal care of Latino migrants (Coffman, Shobe, & O'Connell, 2008) and the extreme consumption of alcohol among college students (Dodd, Glassman, Arthur, Webb, & Miller, 2010) have also been researched by measures of focus groups. With the incorporation of focus groups, researchers have studied nurses' understandings such as the stressors of delivering comforting care for children with terminal illnesses (McCloskey & Taggart, 2010) and the approaches used in intensive care units to preclude and correct medical disasters (Henneman, Gawlinski, Blank, Henneman, Jordan, & McKenzie, 2010). Focus groups have also been used as a data collection approach for studies of the barriers school nurses face when speaking to parents about their children's weight (Steele, Wu, Jensen, Pankey, Davis, & Aylward, 2011).

#### Needs Assessment

According to Lazarus and Folkman (1984), "since the 1960s there has been growing recognition that while stress is an inevitable aspect of the human condition, it is

coping that makes the big difference in adaptational outcome” (p. 6). As stress is an individualized perception, it is pivotal to have some conception of what affects the individual perception of stress in order to fully understand this process. Additionally, it is necessary to explore what each individual finds as effective in managing his or her own stress. The concern of identifying things that increase stress for SRNAs and finding effective ways to cope has many facets. The researchers goal was to utilize this understanding to develop a systematic framework for nurse anesthesia programs to utilize as a foundation to fill the gap in the body of knowledge. This will aid SRNAs in understanding the dynamics of stress and will provide anesthesia administrators in understanding and assisting students. There is no question that the stress exists; the question lies in finding effective means of managing stress. This study employed mixed methods in an attempt to accomplish the goal of understanding the perceived stressors of senior level SRNAs. Such a study will also equip future SRNAs with appropriate tools deemed vital for success in anesthesia education.

The desired outcome for this project was to promote healthy coping mechanisms. By decreasing stress among SRNAs, it is expected that student outcomes will improve and wellness will be optimized. Additionally, anesthesia faculty administrators will have a foundation to guide the future practice of stress reduction techniques. A focus group and two surveys were used for data collection. There were not any added costs. The outcome analysis of this capstone was to reveal the perceptions of SRNAs as they dealt and managed stress. Thus results served to enhance the body of anesthesia knowledge.

Twelve BSN-DNP students were selected by the researcher to participate in a focus group. During the initial meeting, students were administered the PSS, WOCQ, and

a demographics survey. Participants were allotted extra space to share additional comments, as this gave the researcher the opportunity to explore whether the scales listed above adequately covered important topics that were not listed on the surveys.

After collecting scores from the surveys, data was entered into Statistical Package for the Social Science (SPSS) to measure and interpret results. Data from the PSS and WOCQ served as a foundation to conduct a focus group interview. Two weeks after the completion of the questionnaires, the first focus group interview was conducted.

### Conceptual and Theoretical Framework

Richard Lazarus developed The Stress and Coping model, which served as the guiding theoretical context for this study. The Stress and Coping model described the cognitive process of stress and coping. As defined by Lazarus and Folkman (1984) psychological stress is “a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being” (p. 21). Lazarus (1984) depicted stress as a two-way process; comprising the production of stressors by the environment, and the reaction of the individual subjected to the stressors. These notions led to the theory of cognitive appraisal. Appraisal is an evaluative practice that classifies occurrences according to their qualities, importance and outcome on wellness. Appraisal is subject to personal variances based on ideal coping styles, coping success, meaning and adaptation. Cognitive appraisal is divided into two parts: primary and secondary appraisal. Primary appraisal is described as ones appraisal of whether a stressor is perceived as a threat or a challenge. Secondary appraisal involves how the person handles the stressor and the available resources used to manage the situation. Personal differences such as individual

vulnerability or one's self-beliefs affect the appraisal process and the quality of emotions experienced (Lazarus and Folkman, 1984). Individuals experienced environmental hassles and their own responsive reactions by assessing their coping resources and choosing the suitable coping strategies (Lazarus and Folkman, 1984). This, in turn, affects the ongoing appraisal of the situation as further information is collected about the event and effectiveness of the coping response.

#### Doctor of Nursing Practice Essentials

DNP Essential I is scientific underpinnings for practice (AACN, 2006). The doctorate of nursing practice allows graduates to use scientific concepts to describe actions and strategies to enhance the delivery of healthcare (AACN, 2006). The Stress and Coping Model served as the guiding framework for this study. This model described the cognitive process of stress and coping. The overall concept of wellness was integrated into this study to promote awareness and enhance knowledge transfer.

DNP Essential II is organizational and systems leadership for quality improvement and systems thinking (AACN, 2006). This capstone project addressed the knowledge gap regarding the academic and personal stressors encountered by SRNAs. The results focused on effective coping behaviors SRNAs can utilize to effectively manage their stress levels. The implications may lead to the enactment of best practices that may ultimately improve patient outcomes. The utilization of qualitative research in the form of a focus group interview offered SRNAs the prospect to vent their frustrations in a calm, non-threatening environment. The focus group served as a measure for quality improvement allowing the researcher to collect qualitative data to supplement the frame of anesthesia research.

DNP Essential III is clinical scholarship and analytical methods for evidence-based practice. The application of research has been viewed as pivotal for academic pursuit (AACN, 2006). The integration of a mixed method research design allowed both quantitative and qualitative data to be collected. This capstone project illustrated that there is a significant need to implement effective coping behaviors into the anesthesia curriculum. Strategies to improve stress levels and coping behaviors were recommended to improve outcomes for future students.

DNP Essential IV is information systems or technology and patient care technology for the improvement and transformation of healthcare (AACN, 2006). Performing a focus group allowed the researcher to record, transcribe, and analyze data through electronic software such as Microsoft Excel, SPSS, and Atlas ti 6.0. The primary investigator also completed CITI Training course in accordance with IRB standards.

DNP Essential V is healthcare policy for advocacy in healthcare (AACN, 2006). This capstone project allowed participants to share their perceptions of stress and coping. It is important to appreciate these concerns in efforts of effectively establishing strategies to adopt for future students. The primary investigator's goal was to educate administrators at all levels on the importance of implementing stress reduction techniques, ultimately improving outcomes. Advocacy for the implementation of a practice change is expected due to the markedly increased stress levels reported by anesthesia students.

DNP Essential VI is interprofessional collaboration for improving patient outcomes (AACN, 2006). The primary researcher incorporated an interdisciplinary capstone committee of DNP and anesthesia professionals to gain research guidance and

expertise. Additionally, the nursing literature was explored to assess how other anesthesia students combated stressful situations, the use of focus groups to reduce stress, and the stressors of returning to graduate school.

DNP Essential VII is clinical prevention and population health for improving the nation's health. AACN (2006) defines clinical prevention as, "health promotion and risk reduction/illness prevention for individuals and families" (p. 15). The integration of clinical strategies and common healthy behaviors is pivotal to achieving the general purpose of cultivating the health status of the nation (AACN, 2006). The implementation of strategies to reduce stress levels and improve coping behaviors serves as a means of health promotion. It is important that DNP graduates combine the use of evidenced-based strategies to improve the nation's health.

DNP Essential VIII is advanced nursing practice. The hallmark merit of a DNP professional is to be able to practice in the larger domain of a specialty (AACN, 2006). This project assimilated multiple levels of competency including effective communication, implementation, and evaluation of interventions to improve the education process. The nurse anesthesia field is vastly growing. The exploration of anesthesia students stress levels provides a solid foundation for future educational enhancement.



## CHAPTER III

### METHODS

#### Research Design

A mixed methods design was used due to the phenomenon of interest being studied. This mixed methods study used a purposeful sample with the PSS and WOCQ instruments (Grove, Burns, & Gray, 2013). This design allowed qualitative data to be collected, allowing the researcher to develop themes to fill the gap in the anesthesia literature regarding stress among SRNAs. A quantitative design was used in order to obtain statistical data from the PSS and WOCQ. This design allowed data to be quantified, which allowed the researcher to identify stressors and coping mechanisms of SRNAs using the PSS and WOC scales. The mixed method design allowed the researcher to explore the perceived stress levels and coping mechanisms of 12 senior level SRNAs.

#### Setting and Sample

The focus group interviews took place in a quiet, private conference room. A purposeful sample of twelve participants representing the inaugural class of 3rd year SRNAs attending the USM NAP was selected to participate in the survey and focus groups. The students were contacted via email to participate in the study. The inclusion criterion included the following: (a) bachelor prepared registered nurses, (b) employed as a registered nurse for more than one year, (c) currently attending graduate classes and anesthesia clinical, and d) agreed to complete the questionnaire and actively participate in focus group interviews. Exclusion criterion included SRNAs who did not agree to complete the questionnaires and did not agree to participate in the focus group session.

### Instrumentation

Participants stress levels were measured using the PSS. The PSS is a 10-question self-evaluation tool developed by Sheldon Cohen (Cohen, Kamarck, & Mermelstein, 1983). The PSS was developed to measure the “degree to which a situation in one’s life is perceived as stressful” (Cohen, Kamarck, & Mermelstein, 1983, p. 385). The PSS was printed in 1983 and has emerged as one of the most broadly used psychological instruments for appraising nonspecific perceived stress.

Perceived stress occurs when, “the demands of a particular situation are assessed by the individual as greater than their coping attributes” (Gill & Loh, 2010, p. 348). The questions are common and are uninhibited of subject matter certain to any sub-population. The questions in the PSS examine thoughts, mindsets, and reflections within the past month. Participants were asked to denote on a 5-point Likert-type scale (0 = never to 4 = very often) their reply to each question. The PSS questionnaire took approximately 10 minutes to complete and was distributed by paper and pencil.

Selecting a method of measurement requires extensive examination of its reliability and validity. There was a vast amount of evidence in the research literature that supports the reliability and validity of the PSS. Reliability measures the consistency of the instrument (Grove, Burns, & Gray, 2013). The validity of an instrument depicts how well the questionnaire measures what it is projected to measure (Waltz, Strickland, & Lenz (2010). Gill and Loh (2010) used the PSS to measure stress in primiparous mothers, internal reliability of the PSS measured as .78, and sufficient construct validity was illustrated (Cohen & Williamson, 1988). Cronbach’s alpha for the PSS was reported as .75 (Gill & Loh, 2010).

The modified WOCQ was used to examine coping strategies. The WOCQ developed in 1984 by Lazarus and Folkman has become one of the most commonly used coping questionnaires. It is a 66-questionnaire used to examine feelings and actions individuals use to cope with stress. The subscales of this survey include one problem-focused scale (problem-focused coping), six emotion-focused scales (wishful thinking, detachment, focusing on the positive, self blame, tension reduction, and keep to self), and an eighth scale containing both problem-focused and emotion-focused items (seeking social support). Typical reliability across subscale scores ranged from .60 to .75 (Lazarus & Folkman, 1984).

### Research Strategies

A capstone project was conducted to explore and describe the perceptions of 12 senior level SRNAs. Data were acquired through primarily two sources: audiotaped semi-structured focus groups and distributed surveys. Two multi-question surveys were used to assess and evaluate perceived stress levels and coping mechanisms.

This researcher used a mixed-method approach using a quantitative and qualitative design ascribed by Creswell (2012). Following approval and permission from the Institutional Review Board (IRB) to use students as participants, the researcher began data collection by administering the two surveys.

The researcher met with the participants at the agreed time in a conference room on campus. The focus group interviews were conducted face-to-face for an hour. The researcher wrote field notes immediately following the interviews to keep significance. The researcher transcribed the focus group interviews immediately following the sessions while listening to each corresponding taped interview in its entirety.

The individually coded data were analyzed and stored on a password-protected computer. On completion of the study, all audiotapes and files will be stored at the college of nursing in a locked file cabinet for 6 years and then deleted or shredded.

#### Analysis

Data were analyzed descriptively and inferentially using the scoring guides published by the authors and explained in detail in Chapter IV. Interview responses were converted into coded transcripts. The researcher sorted the transcripts by categories, identifying similar phrases, patterns, relationships, and other common themes. The identified patterns were noted on paper and tabulated accurately. The data was reviewed repeatedly after the first coding to rule out any new emerging themes. Four themes emerged from the analysis process.

#### Human Rights Protection

Prior to the initiation of this study, approval was obtained from the USM Graduate School IRB. Before the start of the focus groups, the participants willingly signed a written letter of consent and retain a copy for themselves. The letter of consent described the study and the individuals' rights as subjects. The letter also included the right to confidentiality and privacy. The participants were aware of their rights to renounce from the research study at any time. They were reassured that removal from the study would not have any personal penalties or outcome on their program of study. The participants were informed that no financial remunerations would be given or awarded for their involvement.

### Target Outcome

The desired outcome of this capstone project was to explore the stressors of SRNAs and to investigate coping mechanisms. Enlightenment of these concepts will inform future SRNAs and encourage nurse anesthesia programs to include effective stress management techniques into the nurse anesthesia curriculum.

### Barriers

As a SRNA, making the decision to return to graduate is life changing. Balancing changes in their personal lives, family modifications, clinical assignments, and didactic demands can place an enormous amount of stress on ones life. According to Perez and Carroll-Perez (1999), 73% of SRNAs tested on the Social Readjustment Rating Scale were found to be in the major life crisis category. Lees and Ellis (1990) illustrated that a stressful work environment encompasses five characteristics: “an unpredicted workload, the use of high-technology equipment, high levels of environmental stimuli, the possibility of crisis occurring, and frequent needs assessment of priorities” (p. 949). The clinical environment of a SRNA consistently parallels the conditions that typically define a stressful workplace. Failure to meet demands of the workplace can result in severe consequences. This study stands to prepare students to meet the demands of the workplace with confidence, healthy coping mechanisms, and awareness of stressors

## CHAPTER IV

### ANALYSIS OF DATA

The purpose of this Capstone Project was to explore and describe the perceptions of 12 senior level SRNAs. Data were acquired through primarily two sources: audiotaped semi-structured focus groups and distributed surveys. Two multi-question surveys were used to assess and evaluate perceived stress levels and coping mechanisms.

The participants were 12 senior level SRNAs currently pursuing studies in nurse anesthesia. All participants agreed to actively participate in the focus group interviews and respond to the surveys. The research questions guiding this study were:

1. What are the perceived stress levels of SRNAs as measured by the Perceived Stress Survey (PSS).
2. What are coping mechanisms used among SRNAs as measured by the Ways of Coping Questionnaire (WOC).
3. What coping strategies do SRNAs perceive as effective to reduce academic and clinical related stress?

The focus of this chapter is the data analysis process and a discussion of the results. The sections will include the methodology, the reliability measures, and a detailed discussion of the findings.

#### Methodology

Upon approval from the USM Graduate School IRB, 12 senior level SRNAs were invited to partake in the study. All participants willingly signed a written letter of consent and retained a copy for themselves. The letter of consent described the study and the individuals' rights to confidentiality and privacy. The participants were informed that

they could withdraw from the study without personal penalties or retribution on their program of study. In an effort to protect the privacy and confidentiality of participants, all information was de-identified from transcripts.

#### Instrumentation

The Perceived Stress Survey (PSS) is a 10-question self-evaluation tool used to measure situational perceived stress in an individual (Cohen, Kamarck, & Mermelstein, 1983). The primary investigator asked participants to indicate on a 5-point Likert-type scale (0 = never to 4 = very often) their reply to each item. The scoring method was reversed for positive worded items, and the scores were totaled, with higher score representing additional perceived stress. The questionnaire took approximately 10 minutes to complete and was distributed by paper and pencil, two weeks before the focus group.

The reliability of the instrument was tested in previous studies using Cronbach's alpha. The internal reliability of the PSS was determined to be .78 and satisfactory construct validity was indicated (Gill & Loh, 2010). Consistent with previous studies, the Cronbach's alpha test for reliability in the present study was .74 (see Table 1).

Table 1

*Reliability Statistics for PSS*

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| .744             | .732   | 10         |

The WOCQ was used to examine coping strategies. The WOCQ is a 66-item questionnaire used to assess feelings and actions people use to deal with stressful situations. The subscales of this survey include one problem-focused scale (problem-focused coping), six emotion-focused scales (wishful thinking, detachment, focusing on the positive, self blame, tension reduction, and keep to self), and an eighth scale containing both problem-focused and emotion-focused items (seeking social support). To respond to the statements in this questionnaire, participants were asked to take several minutes and reflect on the most stressful encounter they has faced in the past week.

In the current study, the Cronbach's alpha test for reliability in SPSS for the WOCQ was .962, an indication of high reliability (see Table 2). Typical reliability across subscale scores ranged form .60 to .75 (Lazarus & Folkman, 1984).



Table 2

*Reliability Statistics for WOCQ*

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| .962             | .960   | 66         |

## Focus Group Interviews

A purposeful sample of twelve participants representing senior level students enrolled in the USM NAP formed the focus group interview. The researcher used an interview guide based on a predetermined set of questions based on the information gained from the participant's survey responses. The setting was a small private conference room at the USM College of Nursing. The interview was audio-recorded, transcribed verbatim, and checked for accuracy.

## Demographics

Prior to completing the questionnaires, the participants were asked to complete a brief demographic survey. The participants who responded to survey also made up the focus group (see Table 3).

Table 3

*Age and Gender Demographics*

| Characteristics |       | Frequency | Percent | Valid Percent |
|-----------------|-------|-----------|---------|---------------|
| Age             | 26-40 | 10        | 83.3    | 83.3          |
|                 | 41-55 | 2         | 16.7    | 16.7          |
|                 | Total | 12        | 100.0   | 100.0         |
| Gender          | 1     | 5         | 41.7    | 41.7          |
|                 | 2     | 7         | 58.3    | 58.3          |
|                 | Total | 12        | 100.0   | 100.0         |

Gender: 1=female, 2=male

As shown in Table 3, the participants' ages ranged from 26-55. The majority (83.3%) were in the 26-40 age range. Five of the participants were female and there were seven male. The number of years as nurses ranged from less than two years to greater than 20 years.

#### Data Analysis and Results

The PSS was scored according to the guide recommended by Cohen, Kamarck, and Mermelstein (1983). Each element was measured on a 5-point scale ranging from never (0) to almost always (4). The scoring method for positive worded items was reversed. The ratings were obtained by summing across the scale scores of all 10 items. The higher scores indicated more perceived stress (see Table 4).

Table 4

*Ratings of all 10 Items*

| Summed Scores | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------|-----------|---------|---------------|--------------------|
| 17.00         | 1         | 8.3     | 8.3           | 8.3                |
| 18.00         | 1         | 8.3     | 8.3           | 16.7               |
| 19.00         | 1         | 8.3     | 8.3           | 25.0               |
| 20.00         | 2         | 16.7    | 16.7          | 41.7               |
| 23.00         | 1         | 8.3     | 8.3           | 50.0               |
| 25.00         | 4         | 33.3    | 33.3          | 83.3               |
| 27.00         | 1         | 8.3     | 8.3           | 91.7               |
| 29.00         | 1         | 8.3     | 8.3           | 100.0              |
| Total         | 12        | 100.0   | 100.0         |                    |

As shown in Table 4, three participants (25%) scored 19 and below on the PSS, whereas nine (75%) scored 20 and higher. Scores in the teens are considered average. Cohen (1983) found that individuals with scores of 20 or beyond are measured as highly stressed.

The WOCQ was scored according to the scoring guide provided by Folkman and Lazarus (1988). The raw score was totaled for each individual item on the scale to get an overall score. The four potential responses included 0, 1, 2, and 3. Table 5 illustrates the sum of significances that must be used to acquire the raw score. Raw scores measured the

coping effort for the eight types of coping. If the raw scores were high, the individual likely used the actions described by that scale while coping with the stressful experience.

Table 5

*Types of Coping*

| # of Items | Items in the scale             | Scale                    |
|------------|--------------------------------|--------------------------|
| 6          | 6, 7, 17, 28, 34, 46           | Confrontive Coping       |
| 6          | 12, 13, 15, 21, 41, 44         | Distancing               |
| 7          | 10, 14, 35, 43, 54, 62, 63     | Self-Controlling         |
| 6          | 8, 18, 22, 31, 42, 45          | Seeking Social Support   |
| 4          | 9, 25, 29, 51                  | Accepting Responsibility |
| 8          | 11, 16, 33, 40, 47, 50, 58, 59 | Escape-Avoidance         |
| 6          | 1, 26, 39, 48, 49, 52          | Planful Problem Solving  |
| 7          | 20, 23, 30, 36, 38, 56, 60     | Positive Reappraisal     |

Citation: Folkman, S. & Lazarus, R. (1988). Ways of coping questionnaire instrument and scoring guide. Received from Mind Garden, Inc. on August 28, 2015

The results of WOCQ computed raw scores indicated that the coping behaviors presented by the SRNAs during the perceived stressful situation varied, however not widely. Based on the sum of average raw scores, the most frequently used coping behaviors in descending order were: (1) planful problem solving (17.3), self-controlling (17.0), seeking social support and accepting responsibility (tied at 15.0), distancing (14.66), positive reappraisal (13.57), escape-avoidance (11.3), and confrontive coping (10).

In addition to the raw scores, the WOCQ relative scores were calculated according to the scoring guide. The relative scores depicted the segment of effort denoted for each element of coping and is expressed as a percentage that ranges from 0 to 100. If the relative scores measured high, the individual used those coping behavior more than they used other behaviors. To determine the relative scores, the researcher took the following steps: First, the researcher computed the average reply in each scale by dividing the total raw score by the total number of elements in each scale. Then the eight average results for each measure were divided by the sum of the averages for all eight scales. The results were expressed as a percentage.

In summary, the final WOCQ results indicated that all participants used all eight types of coping methods at least somewhat. The group (n=12) relative scores indicated that most of the eight coping ways were nearly equally distributed. Less than 1% (.08) used *confrontive coping*, whereas, 15% used *playful problem solving*, 14 % used *self-controlling*. *Seeking social support* and *accepting responsibility* tied at 13%, *Distancing and positive reappraisal* tied at 12%; and *escape-avoidance* at 9%.

#### Results of Focus Group Discussion

In addition to the survey data collected, a focus group discussion was conducted with all 12 of the respondents. Hatch (2002) suggested the ideal size for a focus group is between six and twelve people. The purpose of the focus group was to expand on responses from the surveys, stimulate new ideas, and establish dialogue collectively on effective ways for coping with workplace stress among the SRNAs. Participants selected for the focus group were the same for surveys.

The focus group interviews took place in a quiet, distraction free, private conference room. All data were digitally recorded. The discussion was led from a list of several prepared open-ended guiding questions. Participants were told that during this session, participants would be referred to as Participant 1, Participant 2, etc. to protect the privacy of participants on recorded data. The group discussion lasted for approximately one hour. The recorded data were transcribed immediately following the focus group session.

After transcribing the data, the transcripts were examined and coded to search for identifying similar phrases, patterns, and relationships. Key phrases and responses were categorized and interpreted in terms of common themes. Atlas ti 6.0., a qualitative software, was used to store and manage the transcripts. Excerpts from the discussion and findings are presented in the following sections.

*Moderator:* After reviewing your Perceived Stress Scale scores, I observed that the scores ranged from the lowest score of 17 to the highest score of 25 (mean 21). According to the PSS scoring guide, a score of 13 is perceived as average or normal, a score of 20 or higher indicates that you are highly stressed. Nine or 75% scored 20 and above, suggesting that SRNAs are highly stressed.

How surprised are you to find that most of your scores were in the high range?

*Responses:* Three (25%) participants said they were not surprised at all “considering the stuff” they deal with everyday. Participant 1 said, “ Not at all, I am aware that I am stressed.” All participants nodded or echoed the same.

*Moderator (Follow up):* Most of you did not seem surprised at all considering the “stuff” you have been through. Can you describe the type of academic and clinical situations that you consider as most stressful?

*Responses:* Five of the 12 participants responded to this question. A summary of their responses include the following: Capstone Project, not having enough time to study anesthesia, disorganization of the capstone process, useless Saturday classes, and not having time to study for boards.

*Moderator:* Collectively, what do you believe is the major cause of stress as it relates to being a student?

*Responses:* The responses varied widely. The majority of the participants felt the most prevalent cause of academic stress was a lack of time. Family responsibilities, finances, and poor communication were mentioned as other stress related sources. See Table 6 that follows for a summary of excerpts of responses.

Table 6

*Summary of Causes of Stress*

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Causes of Academic Stress for SRNAs

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Lack of money, finances

Lack of time for clinical, capstone, and studying for boards

Deadlines, clinical vs. academic

Time constraints

Family

Table 6 (continued).

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Lack of time to accomplish all of our work and perform at our best during clinical, the workload

Decreased time to accomplish mandatory projects/work

Juggling clinical and academics

Communication is not good between the DNP program, anesthesia department and students. I feel like we don't have any support

---

*Moderator:* What are some key strategies that you find helpful in coping with your stressors?

*Responses:* Four (25%) of the participants said drinking was a way to relieve stress. Other stress relievers included prayer, eating more, exercising, recreational reading, and dancing. One participant said, "I like to shoot things," such as going hunting.

The results of the transcribed and analyzed transcripts yielded four key themes: Time management, academic stressors, personal stressors, and self-applied coping strategies. These themes were generated from coding similarities and frequencies of recurring phrases in the group. Not having enough time was mentioned more than 15 times during the session. This included study time, not enough time to prepare for clinicals, and not enough time to work on school projects. The second theme centered on stress related academic challenges with recurring statements such as disorganization of the Capstone process, useless Saturday classes, not having time to study for boards, and poor communication between nursing administrators and students. The third theme



focused on stress related personal challenges as indicated by a discussion of family issues and personal finance problems. The last theme was self-applied coping strategies. All (100%) of the participants expressed that they used personal coping strategies such as drinking, reading, praying, and exercising.

In summary, the overall purpose of this Capstone Project was to explore and describe the stress and coping mechanisms perceptions of SRNAs. To achieve this, the researcher addressed three research questions. The results were the following:

*Research Question One:* What are the perceived stress levels of SRNAs as measured by the Perceived Stress Survey (PSS)? The majority (n=9) of participants scored 20 and higher which researcher concluded were high stress groups. Four were determined to be average (19 and below).

*Research Question Two:* What are the coping mechanisms used among SRNAs as measured by the WOC? The group (n=12) relative scores indicated that most of the eight coping methods used by the SRNAs were nearly equally distributed. *Planful problem solving* was the most frequently used coping behavior (15% of the time), followed by *self-controlling* (14%), *seeking social support* and *accepting responsibility* (tied at 13%), *distancing and positive reappraisal* (tied at 12%), and escape-avoidance at 9%. Less than 1% (.08) used *confrontive coping*,

*Research Question Three:* What coping strategies do SRNAs perceive as effective to reduce academic and clinical related stress? The focus group discussion indicated that the most prevalent cause of stress for SRNAs was academic related. Time management was the main overlapping theme. Three other themes were academic stressors, personal

stressors, and self-applied coping strategies. The primary self-applied coping strategies used were personal, which included drinking, praying, exercising, and reading.

## CHAPTER V

### SUMMARY

The purpose of this Capstone Project was to explore and describe the perceptions of 12 senior students relevant to their stress levels and coping behaviors in the management of their stressors. Data were acquired through primarily three sources: Two validated and reliable survey instruments and a focus group discussion. The participants who completed the survey and participated in the focus group discussion were registered nurses pursuing anesthesia graduate studies. The clinical research questions guiding the study examined the stress levels and coping behaviors of the SRNAs as measured by the Perceived Stress Survey (PSS) and the Ways of Coping Questionnaire (WOCQ) instruments.

The focus of Chapter V is a detailed discussion of the results, implications for practices of nurse anesthetists, and recommendations for future research.

### Discussion

The first research question examined the perceived stress levels of SRNAs as measured by the PSS. The results of the study clearly indicated that the majority (75%) of SRNAs perceived themselves as highly stressed. This was not at all surprising because previous researchers widely accepted the notion that all healthcare professionals will experience stress to a certain degree in the literature (Cavagnaro, 1983). The stress resulting from the SRNA education along with the DNP program can be a major source of psychological stress for the SRNA (McDonough, 1990; Perez & Perez, 1999).

Understanding the stress levels of the SRNAs was really important. Perez and Perez (1999) posited that excessive stress beyond the student's adaptive capacity can

serve as a catalyst to physical or emotional disease. In addition, high stress levels of the student can interfere with performance and affect learning. Subsequently, students may not complete their education and drop out.

The second research question examined the coping behaviors used among SRNAs as measured by the WOCQ. The group (n=12) relative scores indicated that most of the eight coping ways used by the SRNAs were nearly equally distributed. The findings indicated that most of the SRNAs favored *planful problem solving* (15% of the time) followed by *self-controlling* (14%), *seeking social support* and *accepting responsibility* (tied at 13%), *distancing and positive reappraisal* (tied at 12%), and *escape-avoidance* at 9%. *Confrontive coping* (<1%) was the least favored.

Sandover, Jonas-Dwyer, and Marr (2015) explained and defined coping methods of the WOCQ, which was used to assess how the SRNAs coped with the problems in their daily lives. The WOCQ was recommended by Folkman and Lazarus (1988) as a research instrument in academic and clinical settings. The eight scales of the WOCQ included the following:

1. *Confrontative coping*, the individual uses aggressive or hostility efforts to alter the situation.
2. *Distancing*, cognitive efforts are made to detach oneself and to minimize the significance of the situation.
3. *Self-controlling*, where the individual tries to regulate one's feelings and actions.
4. *Seeking social support*, individual seeks informational support, tangible support, and emotional support.

5. *Accepting responsibility*, the individual acknowledges one's own role in the problem and try to make it right.
6. *Escape avoidance*, wishful thinking to escape or avoid the problem.
7. *Planful problem solving*, deliberate problem-focused efforts are made to alter the situation, coupled with an analytic approach to solving the problem (Folkman & Lazarus, 1988; Sandover, Jonas- Dwyer, & Marr, 2015)
8. *Positive reappraisal*, efforts are made to create positive meaning by focusing on personal growth. It also has a religious dimension (Folkman & Lazarus, 1988; Sandover, Jonas- Dwyer, & Marr, 2015).

The findings from the focus group indicated that SRNAs embraced an array of approaches to help them deal with stressful circumstances. Many of the coping behaviors expressed during focus group were imbedded in the WOC. Four (25%) of the participants said drinking was a way to relieve stress. Other stress relievers included prayer, eating more, exercising, recreational reading, and dancing. One participant said, "I like to shoot things," such as going hunting. Chipas et al., (2012) argued that many students often use maladaptive coping methods such as alcohol and expressing inappropriate feelings. Students indicated that positive coping skills included music, meditation, and exercise. Researchers found that students who practiced everyday physical activity had considerably decreased stress levels (Chipas et al., 2012).

#### Limitations

Limitations are restrictions in a research study that may reduce the generalizability of the results (Grove, Burns, & Gray, 2013). Limitations must be appreciated when interpreting the results of this project. The participants were a

purposeful, small sample size that was comparatively homogenous in regards to cohort level and geographic data. This nonrandomized process may affect the results through self-selection bias (Grove, Burns, & Gray, 2013). Secondly, the participants in this study attended the same academic program reducing generalizability of results. The results of this study do not reflect the national body of anesthesia students.

#### Benefits

The benefit of conducting a focus group instead of one-on-one interviews gave participants the freedom to express their views in a non-threatening environment. One notion that supports focus group methodology is that communication among peers can assist in describing their perspectives in a manner that does not typically occur in an individual dialogue (Grove, Burns, & Gray, 2013). Participants in a focus group who share homogenous characteristics may feel more comfortable and less stressed when talking about uncomfortable experiences (Grove, Burns, & Gray, 2013).

#### Future Directions

Research regarding the enhancement and improvement of the nurse anesthesia is always warranted. Future research is needed that may expound upon this capstone project. A national study incorporating random sampling procedures to determine if the findings are comparative based on a larger sample size of participants. A longitudinal study would provide data of how students' perceptions on the doctoral process may change over time. A systematic review can be conducted to assess the efficacy of stress reduction interventions that are in place at doctorate level anesthesia programs across the United States.

## Conclusion

The purpose of this project served to explore the perceived stress levels and coping mechanisms of senior level SRNAs. The intent was to explore these stressors with the use of the PSS and WOCQ instruments. This study undoubtedly illustrated that SRNAs have increased stress levels, which is consistent with existing literature. Stressors identified in this study were categorized into four themes: time management, academic stressors, personal stressors, and self-applied coping strategies. Academic stressors, overlapping with time management, identified by the participants included ineffective time management, workload, and poor communication. Personal stressors documented by the participants included lack of personal time, relationships with family, and financial constraints. To foster an atmosphere of learning in the academic and clinical setting, effective coping mechanisms must be established.

The study generated numerous questions as it serves as a beginning to gaining a greater understanding of stress and coping mechanisms among SRNAs. Study findings may have implications for future and current SRNAs and nurse anesthesia administrators. The findings suggest that nurse anesthesia school administrators take an active role in implementing coping techniques/programs in the anesthesia curriculum. Effective coping mechanisms should be discussed and implemented. The NAP should consider establishing stress-counseling programs for students and encourage participation. These programs can in turn lead to the development of best practices that may enhance student success and improve patient outcomes.

APPENDIX A  
INFORMATION LETTER

August 28, 2015

University of Southern Mississippi  
118 College Drive  
Hattiesburg, MS 39406

Dear Student Registered Nurse Anesthetist:

I, Cillora Hicks, am a candidate for the Doctor of Nursing Practice Degree in the Nurse Anesthesia Program at the University of Southern Mississippi. As partial fulfillments for the requirements for the degree, I am conducting a capstone project entitled "*Utilization of a Focus Group to Evaluate the Perceived Stress Levels and Coping Mechanisms of Student Registered Nurse Anesthetists.*" You are being invited to participate in a focus group designed to identify stressors and coping mechanisms of student registered nurse anesthetists (SRNAs) in an accredited nurse anesthesia program. I would greatly appreciate your help in gaining this information.

This research may help facilitate the entry of nurses into nurse anesthesia programs by identifying stressors early or dispelling what fears they may have about the anesthesia program. There is no financial compensation for your participation in this research project. If you decide to participate in this study, you will be asked to meet with the researcher on three different intervals.

Participants will be asked to meet on-campus in the designated area provided by the primary investigator. Upon arrival to the initial meeting, each participant will be debriefed regarding the purpose of the interview. The primary investigator will administer two questionnaires, Perceived Stress Scale and Ways of Coping Questionnaire and a demographics form. The initial meeting should take no more than 30 minutes of your time. The primary investigator will collect the questionnaires and inform participants of the date, time, and location of the first focus group interview.

Two weeks following the preliminary meeting, participants will reconvene for the initial focus group interview. Before the focus group begins, the primary investigator will introduce the moderator and explain her role to the participants. The purpose and goals of the study will be explained. During the interviews, participants will be asked to describe the stressors of an SRNA and their methods of coping. Participants will also be asked to practice a healthy coping mechanism that they typically do not use, for two weeks. During the next focus group session, the moderator will ask the participants to discuss their coping mechanism and tell if the new coping mechanism impacted their stress



levels. At the end of the second focus group, the two questionnaires will be re-administered to determine the effectiveness of the use of the new coping mechanism.

The interviews will last at most 60 minutes and will be audiotape recorded. Data from the focus groups sessions will be analyzed and transcribed for accuracy and common themes that will be used to determine the overall effectiveness of the coping mechanism.

Your privacy and confidentiality is a priority. Please do not include your name on any of the forms. You will not be identified in any reports in this study. The results of the study may be published for scientific purposes but will not give your name or include any identifiable references to you. The focus groups will be held Friday, September 4, 2015 and Friday, September 11, 2015 immediately following Friday classes.

Each participant will be asked, on completion of the interview, to agree on a date for the confirmatory interview that will last approximately 10 to 15 minutes. The confirmatory interview will give each research participant the opportunity to add or delete information from the initial interview if needed.

The Institutional Review Board (IRB) of the University of Southern Mississippi, the research committee, and statistician may review any records or data obtained as a result of your participation, by any relevant government agency, or by the person completing this study provided that such inspectors are legally obligated to protect any identifiable information from public disclosure.

You are free to choose whether or not to participate and there is no penalty if you decide not to participate. In giving your consent, understand that consent does not take away any legal rights in the case of negligence or legal fault of anyone who is involved in this study. If you are interested in participating in this study, you will be asked to complete a letter of consent prior to completing the two surveys.

Any questions you may have about this study will be answered by the Principle Investigator, Cillora Hicks, BSN, SRNA (228) 235-4472.

Any questions you may have about your rights as a research subject will be answered by: Rowena Elliott, Ph.D. – Chair, IRB Committee-University of Southern Mississippi.

APPENDIX B  
LETTER OF CONSENT



INSTITUTIONAL REVIEW BOARD  
**LONG FORM CONSENT**

| LONG FORM CONSENT PROCEDURES   |
|--|
| <p>This completed document must be signed by each consenting research participant.</p> <ul style="list-style-type: none"> <li>· The Project Information and Research Description sections of this form should be completed by the Principal Investigator before submitting this form for IRB approval.</li> <li>· Signed copies of the long form consent should be provided to all participants.</li> </ul> <p style="text-align: right; font-size: small;">Last Edited August 28<sup>th</sup>, 2014</p> |

|   |                              |                                     |
|---|------------------------------|-------------------------------------|
| Today's date:08/29/2015   |                              |                                     |
| <b>PROJECT INFORMATION</b>  |                              |                                     |
| Project Title: Utilization of a Focus Group to Evaluate the Perceived Stress Levels and Coping Mechanisms of Student Registered Nurse Anesthetists  |                              |                                     |
| Principal Investigator: Cillora Hicks BSN   | Phone: 2282354472            | Email: cillora.hicks@eagles.usm.edu |
| College: University of Southern Mississippi College of Nursing  | Department: Nurse Anesthesia |                                     |
| <b>RESEARCH DESCRIPTION</b>   |                              |                                     |
| <p><b>1. Purpose:</b></p> <p>The purpose of this research is to explore the perceived stress levels among BSN-DNP student registered nurse anesthetists (SRNAs); and secondly, to identify coping mechanisms used among SRNAs. Three research questions will be addressed in this study: (a) "What are the major causes of stress as a SRNA?" (b) "What coping mechanisms are used among SRNAs?" and (c) "What are perceived levels of stress among SRNAs?" Perceived stress levels of SRNAs as related to how you identify your stress level.</p> <p><b>2. Description of Study:</b></p> <p>I will invite 10 SRNAs to participate in three face-to-face focus group discussions. If you agree to be part of the research study, you will be asked to participate in three face-to-face sessions one week apart. At the first focus group session, you will complete a demographics survey along with two questionnaires, the Perceived Stress Scale (PSS) and the Ways of Coping Questionnaire (WAYS). The demographics survey will ask you your age, gender, race, years of nursing experience, and marital status. The PSS will be used to measure your perception of stress. The PSS will ask questions about your feelings and thoughts during the last month, you will be asked to indicate how often you felt or thought a certain way. It is designed to measure which situations in your life are considered as stressful. The WAYS will be used to assess and identify thoughts and actions that you use to cope with stressful encounters of everyday living. The first focus group session will take no more than one hour. The second focus group session will take place the following week. At the second focus group session, you will be asked to discuss things that cause stress and things you do to cope with stress. A member of the research team will help guide the focus group discussion. You will be also asked to practice a healthy coping mechanism that you do not typically use for one week. The second focus group session will last no more than one hour. During the final focus group session, you will be asked to discuss the coping mechanism you used and tell if the new coping mechanism affected your stress level. At the end of the second focus group session, the PSS and WAYS questionnaires will be re-administered. Each focus group session will last no more than one hour. The amount of time commitment for this study is a total of three hours. To protect the privacy of focus group members, all transcripts will be coded with numbers. The research investigators request that you do not discuss any of the information on the questionnaires or during the focus group discussions. With your permission, I will audiotape each focus group session so as to make</p> |                              |                                     |

sure that all information is recorded accurately. I will also take notes. Your identity will not be revealed to anyone who hears the audiotape. All study procedures will take place in a conference room located at the University of Southern Mississippi College of Nursing. You may stop participation at any time and for any reason.

**3. Benefits:**

By participating in this study, you may adopt a new coping mechanism to improve your life. The information that you provide may aid nurse anesthesia administrators to better understand the stressors and coping mechanisms of student registered nurse anesthetists. The potential for medical injury does not exist. No incentives such as gifts, raffle prizes, cash payments, or extra credit will be given for your participation.

**4. Risks:**

If you are uncomfortable with questions or topics that are discussed, you are free to not answer or skip to the next question. At any time during the interview, if you feel uncomfortable, tell the interviewer to take a break or stop the interview.

**5. Confidentiality:**

Any information that is provided during the study will be recorded in such a manner that identity is confidential and will be disclosed only with your permission or as required by law. The use of number codes rather than names will be used on the consent forms, tapes, and the transcripts to record information, and these materials will be securely stored in a locked file cabinet in the faculty advisor's office. Your name and any other fact that might point to you will not appear when results of this study are presented or published. All data entered in computers will be password protected. Participant identity will not be revealed and the information about the study will be reported in group form only. A codebook will be kept with the data collection forms, all to maintain confidentiality. All data will be transcribed and destroyed; no link will be maintained that could connect your identity with your responses. The tapes will be accessible only to the research team and the tapes will be destroyed after data analysis is complete. All data will be kept for three years after the study is complete and then destroyed.

**6. Alternative Procedures:**

Participation in this study is voluntary. If at any time and for any reason, you would prefer not to participate in this study, please feel free not to. If at any time you would like to stop participating, please notify a member of the research team immediately. We can take a break, stop and continue at a later date, or stop altogether. You may withdraw from this study at any time, and you will not be penalized in any way for deciding to stop participation. If you decide to withdraw from this study, the researcher will ask you if the information already collected from you can be used.

**7. Participant's Assurance:**

This project has been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations.

Any questions or concerns about rights as a research participant should be directed to the Chair of the IRB at 601-266-5997. Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits.

Any questions about the research should be directed to the Principal Investigator using the contact information provided in Project Information Section above.

**CONSENT TO PARTICIPATE IN RESEARCH**

Participant's Name: \_\_\_\_\_

Consent is hereby given to participate in this research project. All procedures and/or investigations to be followed and their purpose, including any experimental procedures, were explained to me. Information was given about all benefits, risks, inconveniences, or discomforts that might be expected.

The opportunity to ask questions regarding the research and procedures was given. Participation in the project is completely voluntary, and participants may withdraw at any time without penalty, prejudice, or loss of benefits. All personal information is strictly confidential, and no names will be disclosed. Any new information that develops during the project will be provided if that information may affect the willingness to continue participation in the project.

Questions concerning the research, at any time during or after the project, should be directed to the Principal Investigator with the contact information provided above. This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-5997.

\_\_\_\_\_  
**Research Participant**

\_\_\_\_\_  
**Person Explaining the Study**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Date**

APPENDIX C  
MIND GARDEN



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To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material for his/her thesis or dissertation research:

Instrument: ***Ways of Coping Questionnaire***

Authors: ***Susan Folkman, Ph.D. and Richard S. Lazarus, Ph.D.***

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Sincerely,

Robert Most  
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**Ways of Coping Questionnaire  
Instrument and Scoring Guide**

**Susan Folkman, Ph.D.  
Richard S. Lazarus, Ph.D.**

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**Please provide the following information:**

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Month / Day / Year

Identification Number (optional): \_\_\_\_\_ Gender (Circle): **M** **F** Age: \_\_\_\_\_

Marital Status (check):  Single  Married  Widowed  Separate/Divorced

**TO THE COUNSELOR**

Fill out your Institutional Address below:

\_\_\_\_\_  
 Name/ Institution:

\_\_\_\_\_  
 Address

**Instructions**

To respond to the statements in this questionnaire, you must have a specific stressful situation in mind. Take a few moments and think about the most stressful situation that you have experienced in the *past week*.

By "stressful" we mean a situation that was difficult or troubling for you, either because you felt distressed about what happened, or because you had to use considerable effort to deal with the situation. The situation may have involved your family, your job, your friends, or something else important to you. Before responding to the statements, think about the details of this stressful situation, such as where it happened, who was involved, how you acted, and why it was important to you. While you may still be involved in the situation, or it could have already happened, it should be the most stressful situation that you experienced during the week.

As you respond to each of the statements, please keep this stressful situation in mind.

**Read each statement carefully and indicate, by circling 0, 1, 2 or 3, to what extent you used it in the situation.**

**Key:**            0 = Does not apply or not used            1 = Used somewhat  
                       2 = Used quite a bit                        3 = Used a great deal

**Please try to respond to every question.**

**0 = Does not apply or not used    1 = Used somewhat    2 = Used quite a bit    3 = Used a great deal**

1. I just concentrated on what I had to do next – the next step. .... 0    1    2    3
2. I tried to analyze the problem in order to understand it better. .... 0    1    2    3
3. I turned to work or another activity to take my mind off things. .... 0    1    2    3
4. I felt that time would have made a difference –  
the only thing was to wait..... 0    1    2    3
5. I bargained or compromised to get something positive  
from the situation. .... 0    1    2    3
6. I did something that I didn't think would work,  
but at least I was doing something. .... 0    1    2    3
7. I tried to get the person responsible to change his or her mind. .... 0    1    2    3
8. I talked to someone to find out more about the situation. .... 0    1    2    3
9. I criticized or lectured myself. .... 0    1    2    3
10. I tried not to burn my bridges, but leave things open somewhat. .... 0    1    2    3
11. I hoped for a miracle. .... 0    1    2    3
12. I went along with fate; sometimes I just have bad luck. .... 0    1    2    3
13. I went on as if nothing had happened. .... 0    1    2    3
14. I tried to keep my feelings to myself. .... 0    1    2    3
15. I looked for the silver lining, so to speak;  
I tried to look on the bright side of things. .... 0    1    2    3
16. I slept more than usual. .... 0    1    2    3
17. I expressed anger to the person(s) who caused the problem. .... 0    1    2    3
18. I accepted sympathy and understanding from someone. .... 0    1    2    3
19. I told myself things that helped me feel better. .... 0    1    2    3
20. I was inspired to do something creative about the problem. .... 0    1    2    3
21. I tried to forget the whole thing. .... 0    1    2    3
22. I got professional help. .... 0    1    2    3

**Go on to next page**



**0 = Does not apply or not used    1 = Used somewhat    2 = Used quite a bit    3 = Used a great deal**

23. I changed or grew as a person..... 0 1 2 3
24. I waited to see what would happen before doing anything. .... 0 1 2 3
25. I apologized or did something to make up..... 0 1 2 3
26. I made a plan of action and followed it..... 0 1 2 3
27. I accepted the next best thing to what I wanted..... 0 1 2 3
28. I let my feelings out somehow..... 0 1 2 3
29. I realized that I had brought the problem on myself..... 0 1 2 3
30. I came out of the experience better than when I went in. .... 0 1 2 3
31. I talked to someone who could do something concrete  
about the problem. .... 0 1 2 3
32. I tried to get away from it for a while by resting or taking a vacation ..... 0 1 2 3
33. I tried to make myself feel better by eating, drinking,  
smoking, using drugs, or medications, etc. .... 0 1 2 3
34. I took a big chance or did something very risky  
to solve the problem. .... 0 1 2 3
35. I tried not to act too hastily or follow my first hunch..... 0 1 2 3
36. I found new faith..... 0 1 2 3
37. I maintained my pride and kept a stiff upper lip. .... 0 1 2 3
38. I rediscovered what is important in life. .... 0 1 2 3
39. I changed something so things would turn out all right. .... 0 1 2 3
40. I generally avoided being with people. .... 0 1 2 3
41. I didn't let it get to me; I refused to think too much about it..... 0 1 2 3
42. I asked advice from a relative or friend I respected. .... 0 1 2 3
43. I kept others from knowing how bad things were. .... 0 1 2 3
44. I made light of the situation; I refused to get too serious about it. .... 0 1 2 3

**Go on to next page**

**0 = Does not apply or not used    1 = Used somewhat    2 = Used quite a bit    3 = Used a great deal**

45. I talked to someone about how I was feeling..... 0    1    2    3
46. I stood my ground and fought for what I wanted..... 0    1    2    3
47. I took it out on other people..... 0    1    2    3
48. I drew on my past experiences; I was in a similar situation before..... 0    1    2    3
49. I knew what had to be done, so I doubled my efforts  
to make things work..... 0    1    2    3
50. I refused to believe that it had happened..... 0    1    2    3
51. I promised myself that things would be different next time..... 0    1    2    3
52. I came up with a couple of different solutions to the problem..... 0    1    2    3
53. I accepted the situation, since nothing could be done..... 0    1    2    3
54. I tried to keep my feeling about the problem from interfering  
with other things..... 0    1    2    3
55. I wished that I could change what had happened or how I felt..... 0    1    2    3
56. I changed something about myself..... 0    1    2    3
57. I daydreamed or imagined a better time or place  
than the one I was in..... 0    1    2    3
58. I wished that the situation would go away or somehow  
be over with..... 0    1    2    3
59. I had fantasies or wishes about how things might turn out..... 0    1    2    3
60. I prayed..... 0    1    2    3
61. I prepared myself for the worst..... 0    1    2    3
62. I went over in my mind what I would say or do..... 0    1    2    3
63. I thought about how a person I admire would handle  
this situation and used that as a model..... 0    1    2    3
64. I tried to see things from the other person's point of view..... 0    1    2    3
65. I reminded myself how much worse things could be..... 0    1    2    3
66. I jogged or exercised..... 0    1    2    3

**Stop Here.**

## Scoring the Ways of Coping Questionnaire

### Raw Scores

To score the Ways of Coping Questionnaire, add the raw score for each item on the scale to get a total score. There are four possible responses 0, 1, 2, and 3. These are also the weights that should be used to get the raw score. Note that not all 66 items are scaled.

| # of items | Item in the scale              | Scale                    |
|------------|--------------------------------|--------------------------|
| 6          | 6, 7, 17, 28, 34, 46           | Confrontive Coping       |
| 6          | 12, 13, 15, 21, 41, 44         | Distancing               |
| 7          | 10, 14, 35, 43, 54, 62, 63     | Self-Controlling         |
| 6          | 8, 18, 22, 31, 42, 45          | Seeking Social Support   |
| 4          | 9, 25, 29, 51                  | Accepting Responsibility |
| 8          | 11, 16, 33, 40, 47, 50, 58, 59 | Escape-Avoidance         |
| 6          | 1, 26, 39, 48, 49, 52          | Planful Problem Solving  |
| 7          | 20, 23, 30, 36, 38, 56, 60     | Positive Reappraisal     |

Raw scores describe the coping effort for each of the eight types of coping. High raw scores indicate that the person often used the behaviors described by that scale in coping with the stressful event.

### Relative Scores

Relative scores describe the proportion of effort represented for each type of coping and are expressed as a percentage that ranges from 0 to 100. A high relative score on a scale means that the person used those coping behaviors more often than they used other behaviors.

To calculate the relative scores:

1. Calculate the average response per scale by dividing the total raw score by the number of items in the scale. For example, if the raw score for Confrontive Coping is 15 then the average response is 2.5 because there are 6 items on this scale.
2. Sum the average responses per scale across all the scales. For example, take the eight averages derived from 1 above and sum them.
3. Divide the average score for each scale (from 1) by the sum of the of the averages (from 2 above) for all 8 scales. This value is the relative score for the scale.

**For Dissertation and Thesis Appendices:**

You cannot include an entire instrument in your thesis or dissertation, however you can use up to five sample items. Academic committees understand the requirements of copyright and are satisfied with sample items for appendices and tables. For customers needing permission to reproduce five sample items in a proposal, thesis, or dissertation the following page includes the permission form and reference information needed to satisfy the requirements of an academic committee.

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## APPENDIX D

## PERMISSION FOR PERCEIVED STRESS SCALE

June 20, 2015

Sheldon Cohen, Ph.D.  
Department of Psychology  
Carnegie Mellon University  
5000 Forbes Avenue  
Pittsburg, PA 15213

Dear Dr. Cohen,

I, Cillora Hicks am a doctoral student at The University of Southern Mississippi. I am writing my capstone project entitled, "Utilization of a Focus Group to Evaluate the Perceived Stress Levels and Coping Mechanisms of Student Registered Nurse Anesthetists" under the direction my capstone committee chaired by Dr. Rowena Elliott.

I would like your permission to use the Perceived Stress Scale in my research study. I would like to use and print your survey under the following conditions:

- I will use this survey only for my research study and will not sell or use it with any compensated or curriculum development activities.
- I will include the copyright statement on all copies of the instrument.

If these are acceptable terms and conditions, please indicate so by signing one copy of this letter and returning it to me in the stamped envelope provided. If you have any questions or concerns, please feel free to email ([Cillora.hicks@eagles.usm.edu](mailto:Cillora.hicks@eagles.usm.edu)) or call (228-235-4472) me at your convenience.

Sincerely,

Cillora Hicks  
Doctoral Candidate

Cillora Hicks  
Cillora Hicks

Signature Sheldon Cohen

## APPENDIX E

## COHEN PERCEIVED STRESS

## COHEN PERCEIVED STRESS

*The following questions ask about your feelings and thoughts during THE PAST MONTH. In each question, you will be asked HOW OFTEN you felt or thought a certain way. Although some of the questions are similar, there are small differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the exact number of times you felt a particular way, but tell me the answer that in general seems the best.*

*For each statement, please tell me if you have had these thoughts or feelings: never, almost never, sometimes, fairly often, or very often. (Read all answer choices each time)*

|  | Never | Almost<br>Never | Sometimes | Fairly<br>Often | Very<br>Often |
|--|-------|-----------------|-----------|-----------------|---------------|
| <b>B.1. In the past month, how often have you been upset because of something that happened unexpectedly?</b>      | 0     | 1               | 2         | 3               | 4             |
| <b>B.2. In the past month, how often have you felt unable to control the important things in your life?</b>        | 0     | 1               | 2         | 3               | 4             |
| <b>B.3. In the past month, how often have you felt nervous or stressed?</b>  | 0     | 1               | 2         | 3               | 4             |
| <b>B.4. In the past month, how often have you felt confident about your ability to handle personal problems?</b>   | 0     | 1               | 2         | 3               | 4             |
| <b>B.5. In the past month, how often have you felt that things were going your way?</b>                            | 0     | 1               | 2         | 3               | 4             |
| <b>B.6. In the past month, how often have you found that you could not cope with all the things you had to do?</b> | 0     | 1               | 2         | 3               | 4             |
| <b>B.7. In the past month, how often have you been able to control irritations in your life?</b>                   | 0     | 1               | 2         | 3               | 4             |

|  |   |   |   |   |   |
|--|---|---|---|---|---|
| <b>B.8. In the past month, how often have you felt that you were on top of things?</b>   | 0 | 1 | 2 | 3 | 4 |
| <b>B.9. In the past month, how often have you been angry because of things that happened that were outside of your control?</b>    | 0 | 1 | 2 | 3 | 4 |
| <b>B.10. In the past month, how often have you felt that difficulties were piling up so high that you could not overcome them?</b> | 0 | 1 | 2 | 3 | 4 |

### **Perceived Stress Scale Scoring**

Each item is rated on a 5-point scale ranging from never (0) to almost always (4). Positively worded items are reverse scored, and the ratings are summed, with higher scores indicating more perceived stress.

PSS-10 scores are obtained by reversing the scores on the four positive items: For example, 0=4, 1=3, 2=2, etc. and then summing across all 10 items. Items 4, 5, 7, and 8 are the positively stated items.

Your Perceived Stress Level was \_\_\_\_\_

Scores around 13 are considered average. In our own research, we have found that high stress groups usually have a stress score of around 20 points. Scores of 20 or higher are considered high stress, and if you are in this range, you might consider learning new stress reduction techniques as well as increasing your exercise to at least three times a week. High psychological stress is associated with high blood pressure, higher BMI, larger waist to hip ratio, shorter telomere length, higher cortisol levels, suppressed immune function, decreased sleep, and increased alcohol consumption. These are all important risk factors for cardiovascular disease.

## APPENDIX F

## IRB COMMITTEE ACTION



**INSTITUTIONAL REVIEW BOARD**  
 118 College Drive #5147 | Hattiesburg, MS 39406-0001  
 Phone: 601.266.5997 | Fax: 601.266.4377 | [www.usm.edu/research/institutional\\_review\\_board](http://www.usm.edu/research/institutional_review_board)

**NOTICE OF COMMITTEE ACTION**

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.  
 Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 15060101

PROJECT TITLE: Utilization of a Focus Group to Evaluate the Perceived Stress Levels and Coping Mechanisms of Student Registered Nurse Anesthetists (SRNAs)

PROJECT TYPE: New Project

RESEARCHER(S): Cillora Hicks

COLLEGE/DIVISION: College of Nursing

DEPARTMENT: Advanced Practice/Nurse Anesthesia

FUNDING AGENCY/SPONSOR: N/A

IRB COMMITTEE ACTION: Expedited Review Approval

PERIOD OF APPROVAL: 08/18/2015 to 08/17/2016

**Lawrence A. Hosman, Ph.D.**

**Institutional Review Board**



## APPENDIX G

## DNP ESSENTIALS

| DNP Essentials  | Clinical Implications   |
|---|---|
| DNP Essentials I – Scientific Underpinnings for Practice  | <ul style="list-style-type: none"> <li>• Integrating The Stress and Coping Model as the theoretical framework</li> <li>• Incorporating the concept of wellness to enhance awareness and promote knowledge transfer</li> </ul>   |
| DNP Essentials II – Organizational and Systems Leadership for Quality Improvement and Systems Thinking                                  | <ul style="list-style-type: none"> <li>• Collaborating with anesthesia administration to incorporate effective coping mechanisms into the anesthesia curriculum</li> <li>• Conducting a focus group with anesthesia students to identify perceived stressors and effective coping mechanisms</li> </ul> |
| DNP Essentials III – Clinical scholarship and analytical methods for evidence-based practice  | <ul style="list-style-type: none"> <li>• Recommending strategies to incorporate into anesthesia practice to improve outcomes for future anesthesia students</li> <li>• Evaluating the data to improve patient and student outcomes</li> </ul>   |
| DNP Essentials IV – Information systems or technology and patient care technology for the improvement and transformation of health care | <ul style="list-style-type: none"> <li>• Completion of CITI Training Course</li> <li>• Analyzing data with SPSS, Microsoft Excel</li> </ul>   |
| DNP Essentials V – Healthcare policy for advocacy in healthcare   | <ul style="list-style-type: none"> <li>• Active student member of American Association of Nurse Anesthetists (AANA)</li> <li>• Active student member of Mississippi’s Association of Nurse Anesthetists (MANA)</li> </ul>   |
| DNP Essentials VI – Interprofessional collaboration for improving patient and   | <ul style="list-style-type: none"> <li>• Incorporated a interdisciplinary capstone committee of DNP and Anesthesia professionals</li> <li>•</li> </ul>  |

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| population health outcomes   | <ul style="list-style-type: none"> <li>• Established a Capstone committee and Chair</li> <li>• Collaborated with my Capstone committee as clinical/research experts</li> </ul>   |
| DNP Essentials VII – Clinical prevention and population health for improving the nation’s health | <ul style="list-style-type: none"> <li>• Conducted qualitative research to promote positive wellness and to reduce SRNA stress</li> <li>• Utilized biostatistics and epidemiology in analyzing, transcribing, and processing data</li> </ul> |
| DNP Essentials VIII – Advanced nursing practice  | <ul style="list-style-type: none"> <li>• Recommended evidenced-based interventions to reduce stress</li> <li>• Educated and guided students through a focus group interview</li> </ul>   |

## APPENDIX H

## LITERATURE REVIEW TABLE

| <b>Author(s) &amp; Date</b>                            | <b>Purpose or Research Question(s)</b>   | <b>Research Design</b> | <b>Sampling Method and Size</b>  | <b>Key Findings</b>   | <b>Results</b>  |
|--|--|------------------------|--|---|---|
| Chipas and McKenna, 2011                               | This article determined the stress levels and its physical manifestations among Certified Registered Nurse Anesthetists (CRNAs) and student registered nurse anesthetists. | Quantitative           | A multifactorial questionnaire was undertaken using a survey (www.SurveyMonkey.com) was sent to approximately 28,000 CRNAs and SRNAs. There were 7,537 respondents, or 26.9% of all eligible anesthesia providers. | Burnout, stress, stressors, symptoms                                      | This study found that anesthesia professionals are under considerable stress and seek help in diverse ways.   |
| Chipas, Cordrey, Floyd, Grubbs, Miller, and Tyre, 2012 | This article explored the stressors of SRNAs with the objective of identifying trends in the coping mechanisms.  | Qualitative            | An online (www.SurveyMonkey.com) questionnaire composed of 54 questions was developed to assess stress levels among SRNAs. The study yielded a sample of 1,2882 SRNA participants                                  | Coping, depression, stress, student registered nurse anesthetist, suicide | Analysis revealed significant relationships between self-reported stress and negative outcomes. This study indicates that SRNAs have a higher level of stress than do practitioners |

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| Phillip, 2010                 | The initial research questions for this study were: From the graduates' perspective, what were the stressors that they encountered during their nurse anesthesia program? And how did they successfully negotiate those stressors in order to graduate from their program? | Qualitative  | Data were collected by individual interviews with 12 recent nurse anesthesia graduates, from 5 different nurse anesthesia programs, who had been out of school for less than 2 years.  | Graduate student stress, grounded theory, nurse anesthesia and stress, stress and coping, student nurse anesthetist | This exploration into SRNA stress and coping yielded three phases of development as students progressed through their program. The phases are transitioning in, refining their way, and transitioning out.                          |
| Perez and Carroll-Perez, 1999 | This article examined the perception SRNA stress, explored the presence and use of stress management programs and open-door policies existing in nurse anesthesia schools.   | Quantitative | An author-developed questionnaire assessed the stress management programs and open-door policies of nurse anesthesia programs. The study surveyed all 2,200 of the nation's nurse anesthesia students, with a 68.4% (1,504) response rate. | Anxiety, nurse anesthesia student, stress, stress management, student anxiety                                       | Results indicated that there was a high level of stress among nurse anesthesia students and a high demand for effective and accessible stress management initiatives should be implemented as a part of nurse anesthesia education. |
| Elisha and                    | This article   | Quantitative | This   | Clinical  | Verbal  |

|   |   |             |   |   |   |
|---|---|-------------|---|---|---|
| Rutledge, 2011                                      | summarized the experiences and attitudes of SRNAs related to clinical instruction.  | e           | descriptive study used a cross-sectional survey method with a randomly selected sample of SRNAs members from the AANA data bank. A total of 2,673 SRNAs were invited by email to respond to an online, 54-item questionnaire; 696 SRNAs participated. | education, clinical educator development, clinical learning, graduate nursing education | abuse was reported by almost 70% of SRNA participants. SRNAs reported that their CRNA preceptors most often served as positive role models. These SRNAs found that preceptors, unique cases, reading, and clinical lectures are more helpful to their clinical learning compared with grand rounds, surgeons, and anesthesiology residents. |
| Makrides, Veino, Richard, McKee, and Gallivan, 1998 | The purpose of this article was to assess the cardiovascular health needs of college students through the use of a focus group. | Qualitative | This mixed methods study used a focus group and a survey to examine the perceived stressors and physical activity behaviors of 1,100 university   | Stress management, healthy food alternatives, exercising                                | Results showed a decrease in the amount of exercise activities among university students and a low percentage intake of fruits and vegetables per an  |

|                |  |              |   |   |  |
|----------------|--|--------------|---|---|--|
|                |  |              | students.   |   | administered survey. This study showed that health initiatives for university students are warranted to decrease the incidence of obesity and other health related issues.               |
| Cavagnaro,1983 | This articles explored stress viewed by CRNAs and RNs who worked in critical care units. | Quantitative | 118 questionnaires were distributed to the CRNA group, and 100 surveys were given to the critical care RN group. There was a 70% return of the surveys form both groups. The completed surveys were random sampled to select the two groups to be used for comparison . | Stressors, job satisfactions, coping with stress, CRNA stress | Questionnaire results revealed that CRNAs and RNs are highly stressed and that preventive action should be taken to relieve stressful situations, which occur in anesthesia departments. |

|                |  |              |  |   |  |
|----------------|--|--------------|--|---|--|
| Kless, 1989    | This study explored the use of faculty intervention through the implementation of a student support group.   | Qualitative  | A trial group was selected to meet every 2 weeks over the course of one semester to discuss student stress.  | Stress, coping mechanisms, student support group                  | Results revealed that the use of a student support group showed positive effects in reducing stress levels among SRNAs in identifying stress factors and decreasing tension. |
| Wildgust, 1986 | This study explored the identification of potential stressors, manifestations of stress, and the need to recognize and help the student cope with stress in a positive manner. | Qualitative  | Eight junior students and ten senior students who were enrolled in a two-year anesthesia program were polled as two separate groups to identify major sources of stress. | Stress, coping mechanisms, eustress, distress                     | Results from this study showed that the two most important coping mechanisms for faculty and students were a sense of humor and a support system.                            |
| McDonouh, 1990 | The purpose of the research was to explore factors related to personality and addictive tendencies that might predispose nurse anesthetists to substance abuse as well.        | Quantitative | Of the 150 graduate nursing students in this study, those specializing in anesthesia formed the study group while those pursuing general                                 | Addiction, anesthesia, graduate nursing students, substance abuse | Results revealed that anesthesia subjects exhibited a higher mean score for excitement seeking and a greater number of   |

|                                    |   |                          |  |   |   |
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|                                    |   |                          | nursing graduate degrees comprised the control group.  |   | positive MacAndrew scores. Findings showed that subjects with positive MacAndrew scores had higher excitement seeking scores. |
| Krantz, Whittaker, and Sheps, 2011 | This study explored the association between psychological stress and diseases.                    | Observational            | Studies were located in peer-reviewed journals of the effects of stress and its association with depression, Cardiovascular Disease (CVD), and HIV/AIDS. | Nursing education, stress, disease risks                            | Evidence showed support that stress is a common factor associated with diseases but did not show an underlying relationship.  |
| Tuck and Thinganjana m, 2007       | This study presented an examination of spirituality in healthy adults and adults living with HIV. | Qualitative              | A comparison analysis of 75 healthy adults and 75 adults living with HIV was examined.   | Stress interventions, coping, chronic illness, spirituality         | This article summarized a historical examination of several themes. Spirituality was determined a common theme.               |
| Vincent, 2009                      | The purpose of this article was to report the results of lifestyle change Mexican                 | Qualitative, Focus Group | A focus group was conducted with 17 Mexican Americans living with  | Diabetes, stress, diabetic teaching, education, learning techniques | This review illustrates gaps that exist in our understanding  |



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|   | Americans living with Type 2 diabetes.   |                          | type 2 diabetes.  |   | ding of the role of teaching in the Mexican American diabetic community. A self-management diabetic teaching program in needed to reduce the rising epidemic of diabetes. |
| Gray, 2009                                  | The author of this article created guidelines for the researcher considering a qualitative, focus group study. | Qualitative, Focus Group | This article provides an overview of qualitative research focusing on focus groups that incorporates a wide spectrum of tools and guidelines. | Focus groups, qualitative research          | This article provided recommendations to conduct qualitative research specifically a focus group.   |
| Finn and Stube, 2010                        | This study used focus groups to identify the impact of fatigue from 19 post stroke survivors.                  | Qualitative, Focus Group | This article explored 19 community post-stroke survivors to explore the impact of fatigue.  | Focus groups, qualitative research, fatigue | This study provided interventions that post stroke survivors used to reduce fatigue such as exercise and assistive devices.   |
| Hamilton, Moore, Powe, Agarwai, and Martin, | This article explored the perceived social support needs of adult  | Qualitative, Focus Group | A sample of 22 adult African American cancer  | Clinical judgment, social support, focus    | Data generated from focus group   |

|  |  |                          |   |   |   |
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| 2010   | African American survivor cancer patients.   |                          | survivors were used to identify social support needs.   | groups  | interviews suggested that early identifications factors attributed to positive outcomes among African American survivor cancer patients.  |
| Coffman, Shobe, and O'Connell, 2008            | This study explored how Latino immigrants obtain and use prescriptions medication without medical care.                                      | Qualitative, Focus Group | Three focus groups were conducted with 19 Latino adult immigrants who were new residents in the United States.  | Focus groups, immigrants, barriers to healthcare  | Results showed that Latino immigrants experienced significant barriers to assessing formal healthcare. Nurses should continually education immigrants on the importance of proper medication practices. |
| Dodd, Glassman, Arthur, Webb, and Miller, 2010 | The authors of this study explored why underage youth engage in high-risk drinking and examined motivational cues that served as deterrents. | Qualitative, Focus Group | Authors structured focus groups with underage college students. All participants reported drinking five or more | Focus groups, social support, anxiety, stress, cues, peer influence, student motivation | This article was conducted to address underage drinking among college students. Students reported that the negative   |

|                             |   |                           |  |  |  |
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|                             |   |                           | drinks in one setting.   |  | influences such as embarrassment and relationship issues outweighed positive influences. Results indicate that interventions are needed to deter underage students from drinking.  |
| McCloskey and Taggart, 2010 | This study explored the experiences of stress in nurses providing children's palliative care in the UK. | Qualitative, Focus Group  | Four focus groups took place with children's hospice nurses, community children's nurses, and children's nurse specialist. | Nursing education, safety, patient safety, stress, anxiety | Authors found four common themes of which emerged: work demands, relationships, maintaining control, and support and relationships. Results showed that individuals and organizations play pivotal roles in reducing stress among nursing providers. |
| Henneman, Gawlinki, Blank,  | The purpose of this study was to describe   | Qualitative, Focus Groups | This study examined 20 nurses  | Nursing education, nurses,                                 | This study suggested that nurses   |

|  |   |                           |  |   |  |
|--|---|---------------------------|--|---|--|
| Henneman, Jordan, and McKenzie, 2010                 | error related strategies used by critical care nurses.  |                           | from 5 critical care units. Analyses of focus groups illustrated that nurses used various strategies to identify, interrupt, and correct medical errors.   | error prevention strategies, focus groups                             | play an important role in reducing medical errors and optimizing patient safety.   |
| Steele, Wu, Jensen, Pankey, Davis, and Aylward, 2011 | The purpose of this study was to explore school nurses perceived barriers to addressing weight related health issues. | Qualitative, Focus Groups | This study used focus groups to explore the perceptions of perceived barriers of 22 school nurses. Nurses identified lack of education, personal weight struggles, and lack of administrative support as barriers to discuss weight with students and parents. | Focus groups, school nurses, barriers, communication, family dynamics | Results illustrated a plethora of interventions that could be implemented to improve communication barriers between nurses and students. |

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