Fall 12-11-2015

The Use of Peer Mentoring to Decrease Stress in Student Registered Nurse Anesthetists

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THE USE OF PEER MENTORING TO DECREASE STRESS IN STUDENT REGISTERED NURSE ANESTHETISTS

by

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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

THE USE OF PEER MENTORING TO DECREASE STRESS IN

STUDENT REGISTERED NURSE ANESTHETISTS

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Nurse anesthesia programs throughout the nation are extremely competitive with strict admissions criteria and demanding curriculum. Students enrolled in these programs, termed Student Registered Nurse Anesthetists (SRNAs), experience high average daily stress levels throughout their enrollment in a nurse anesthesia program (NAP). This quantitative study examined whether there is a decrease in SRNA average daily perceived stress when peer mentoring is employed. Inclusion criterion was all SRNAs enrolled in a single 3 year, post-baccalaureate Doctor of Nursing Practice (DNP) NAP at a comprehensive Carnegie research university with Southern Regional Education Board-Level 1 designation. Fifty-six SRNAs were surveyed using a modified version of Dr. Anthony Chipas' tool for measuring SRNA stress. Thirty-seven surveys were returned for a response rate of 66.1%. The sample group (n=26) consisted of participants who had a peer mentor. These results were compared with the control group (n=11) who did not have a peer mentor. Independent sample t-tests, a Kruskal-Wallis test, and descriptive analysis were performed. An independent sample t-test revealed a statistically significant difference between the mean daily stress levels of the mentored group (M=5.46, SD $\pm$1.48) and non-mentored group (M=6.73, SD$\pm$1.56), t(35)=2.35, p=0.025. This finding would imply that mentoring is effective at decreasing stress in SRNAs. However, this study lacked an adequate sample size to retain confidence in the result. Although the

researcher cannot be confident in the statistical significance of the data, the data supports the hypothesis that peer mentoring may decrease stress levels in SRNAs.

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A Capstone Project
Submitted to the Graduate School
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December 2015

DEDICATION

I would like to thank my exceedingly patient husband for his love and support throughout the process of obtaining my Doctorate of Nursing Practice degree. Thank you.

I would also like to thank my parents, family, and friends who have been generous with their time, understanding, and kind words. I could not have done it without all of you.

ACKNOWLEDGMENTS

I would like to offer a special thanks to Dr. Vickie Stuart, my committee chair, and to my other committee members, Dr. Lachel Story and Dr. Les Wallace, for offering me their guidance and expertise throughout this capstone project.

I would also like to thank Dr. Anthony Chipas at the Medical University of South Carolina for allowing me to utilize his survey tool, and Sun Gu Park, Biostatistics Data Analyst for his invaluable assistance in compiling the statistical data.

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CHAPTER I

INTRODUCTION

Nurse anesthesia programs demand excellence in the clinical and didactic settings. The curriculum of these programs is rigorous, requiring a large time commitment and the development of new knowledge and skills. Nurse anesthesia students across the nation report experiencing stress at higher levels than their professional counterparts (Chipas & McKenna, 2011). Although feeling some stress is motivational, having too much stress has been shown to have deleterious effects on performance in the classroom and the clinical setting (Chipas et al., 2012; Chipas & McKenna, 2011; Tunajek, 2006). One coping mechanism that has been found effective in decreasing nursing student's stress is participation in a peer mentoring program. Numerous studies have shown that peer mentoring among nursing students is effective at decreasing stress and anxiety, improving confidence, and improving retention and satisfaction rates (Locken & Norberg, 2005; Sprengal & Job, 2004; Yates, Cunningham, Moyle, & Wollin, 1997). However, little data exists regarding the use of peer mentoring programs to decrease stress levels among Student Registered Nurse Anesthetists (SRNAs).

Clinical Question

Is the use of peer mentoring successful at decreasing stress in SRNAs? Confounding variables such as recent stressful life events were examined.

Problem Statement

High stress levels can be combated by providing positive coping mechanisms. One such coping mechanism is peer mentoring. This study sought to determine if the use

of a low-cost peer mentoring program may be successful at reducing average daily perceived stress in SRNAs.

Purpose of the Project

The purpose of this capstone project was to determine whether participation in a peer mentoring program is effective at reducing stress in SRNAs in the didactic and clinical environments. The literature suggested that SRNAs experience stress during the nurse anesthesia educational process (Chipas et al., 2012). Successful completion of a nurse anesthesia program is largely dependent upon the SRNA's utilization of positive coping mechanisms to manage and reduce stress. The 2006 Council for Public Interest in Anesthesia within the American Association of Nurse Anesthetists stated that the goal for faculty is not to remove all stress but to play an active role in helping students develop positive coping skills (Tunajek, 2006). The implementation and use of peer mentoring programs has been identified as one such positive coping resource. The low cost of implementation and the potential benefits received by mentees and mentors makes peer mentoring a feasible and responsible option for reducing stress among SRNAs. Despite the high number of studies regarding stress reduction through peer mentoring in undergraduate nursing students, research is lacking in the use of peer mentoring to reduce stress in graduate level nurse anesthesia programs.

To reduce stress levels in SRNAs we asked the question is peer mentoring an effective method of reducing stress in SRNAs? High stress levels have been shown to potentially negatively affect the ability of students to become proficient practitioners of anesthesia. The purpose of this study was to uncover answers about the efficacy of peer mentoring to decrease SRNA stress in this population.

CHAPTER II

REVIEW OF RELATED LITERATURE

To understand the relationship between peer mentoring and stress adequately, numerous articles were reviewed. This literature review was conducted using the EBSCOhost search engine by searching a combination of the key terms stress, mentoring, peer mentoring, and nursing. The initial search yielded 57 articles. Articles were excluded based on full text not available, non-English language, animal studies, letters, editorials, and article reviews. Additionally, a Google Scholar search was conducted using the same keywords and exclusion criteria. Thirty-two studies covering various aspects of peer mentoring and stress were cited in compiling research information to address the issue of decreasing stress in Student Registered Nurse Anesthetists (SRNAs).

Stress

Stress is a collection of physical and psychological responses to change. As is common among most healthcare professions, SRNAs will necessarily experience increased levels of stress in their new roles as students and autonomous clinicians (Perez & Caroll-Perez, 1999). Mild stress leads to increased motivation, productivity, and a sense of accomplishment. According to Chipas et al. (2012), "Stress in the learning environment is important to the positive motivation of a student, but stress beyond a motivational level can lead the student toward negative consequences" (p. S49). Excessive stress can have negative physical and psychological impacts on the SRNA and can impede learning and skills performance (Jimenez, Navia-Osorio, & Diaz, 2010; McKay, Buen, Bohan, & Maye, 2010). The amount of stress that determines healthy versus unhealthy responses is correlated to the intensity of stress felt, the duration of

stress, and the individual student's coping mechanisms though research is scarce regarding at exactly what point one's stress level turns from motivational to overwhelming (Perez & Caroll-Perez, 1999).

High levels of stress for extended durations can lead to negative physical and physiological changes in the SRNA (Chipas et al., 2012; Chipas & McKenna, 2011; Tunajek, 2006). A high level of chronic stress is mentally and physically draining. Chipas and McKenna (2011) elaborated on the effects of chronic stress. "Personal resources, both mental and physical, become depleted, leading to illnesses such as obesity, hypertension . . . depression, substance abuse, and decreased ability to concentrate and learn. These physical, mental, and emotional reactions result in exhaustion . . ." (p. 123). McKay et al., in a 2010 study, suggested a negative correlation between anxiety and academic performance. Savtchouk and Liu (2011) reported that stress and anxiety affect information processing within the cerebellum, causing decreases in memory formation, coordination, and overall learning. This phenomenon may partially explain the previous finding that stress in the academic environment hinders conceptual learning, memory retention, and recall (Dye, 1974). Clinical performance is also significantly impeded in times of chronic stress. Chronic stress has been implicated in hampering spatial memory (Luine, Villegas, Martinez, & McEwen, 1994). This impairment could translate to poor skills performance in the clinical environment. SRNAs under high stress may suffer physiologically and mentally in the academic and clinical environments.

Peer Mentoring

Peer mentoring is the pairing of a more experienced person with someone who is less experienced in a relationship that encourages mutual growth and success (Dorsey & Baker, 2004). The mentors serve as role models for their mentees as well as provide encouragement, guidance, support, education, and counsel (Milmer & Bossers, 2004). Numerous benefits of peer mentoring have been found, particularly when used within the medical field. Reduced anxiety and confusion were two of the most common benefits reported along with an increase in confidence, time management skills, communication skills, and perceived career preparation (Becker & Neuwirth, 2002; Locken & Norberg, 2005; Ramanan, Taylor, Davis, & Phillips, 2006; Sprengel & Job, 2004; Yates et al., 1997). Mentees almost universally reported feeling that their mentor created a nurturing environment in which the mentee was encouraged and supported (Dorsey & Baker, 2004; Glass & Walter, 2000; Helton & Hope, 2010). In addition to the benefits previously mentioned, researchers also reported f increased preparedness and student interaction (Becker & Neuwirth, 2002; Colalillo, 2007). Two studies reported improved retention rates and higher student satisfaction following the implementation of peer mentoring (Colalillo, 2007; Dorsey & Baker, 2004). Colalillo (2007) suggested that peer mentoring increases the student's commitment and persistence in the academic program and reported a 100% retention rate over 3 semesters among mentored students compared to a 79.3% retention rate among non-mentored students. Peer mentoring seems to provide a network of support that enhances many facets of didactic and clinical education, particularly within healthcare professions.

Peer mentoring does not only benefit the mentee, it also benefits the mentor (Becker & Neuwirth, 2002; Hall & Jaugietis, 2011; Heirdsfield et al., 2008; Sprengel & Job, 2004). This relationship creates a 'virtuous learning circle' in which both parties receive benefit (Bellodi, 2011). Although the mentees reported receiving a significant benefit from the peer mentoring program, the mentors reported even more so (Becker & Neuwirth, 2002). Common themes among mentor feedback were the development of an appreciation of their own progress, thinking of peer mentoring as a refreshing opportunity to be in a leadership role, a sense of satisfaction, and improved self-confidence (Becker & Neuwirth, 2002; Hall & Jaugietis, 2011; Heirdsfield et al., 2008; Sprengel & Job, 2004). Mentors in Hall and Jaugietis's (2011) study also reported improvements in their communication and organizational skills.

Numerous studies recommended the implementation of peer mentoring programs to ease stress and facilitate the transition of first year students (Becker & Neuwirth, 2002; Dorsey & Baker, 2004; Giordana & Wedin, 2010; Sprengel & Job, 2004). In a systematic review of 16 mentoring programs, every program suggested the use of peer mentoring to enhance learning (Dorsey & Baker, 2004). In the education field, professors are constantly seeking new andragogy to improve education. The implementation of low-cost peer mentoring programs is likely to be a successful and worthwhile effort (Becker & Neuwirth, 2002; Sprengel & Job, 2004).

Successful Mentoring Efforts

The use of peer mentoring has been a frequent topic of discussion and research within the past decade. Numerous studies have reported the positive effects of mentoring. The results of mentoring appear to be overwhelmingly successful despite

little standardization within study implementation and measurement. One study examined the outcomes of a newly implemented peer mentoring program in a diverse, urban community college (Colalillo, 2007). Colalillo employed a quasi-experimental design to determine if participation in a formal mentoring program would increase student success in a first-year nursing course and increase the retention rate. This mentoring program consisted of associate degree nursing students enrolled in a first-semester clinical nursing course. All students enrolled in the class were invited to participate though participation was optional. Questionnaires were used at the end of the program to evaluate the student's perception of the mentoring program. Results were based on a 3-semester timeframe. Sixty-three students volunteered to participate in semester 1, 49 students participated in semester 2, and 45 students participated in semester 3. Outcomes were measured based on the students' satisfaction with the program, a passing grade in the course, and enrollment in the subsequent semester.

Colalillo reported that mentoring increased the student's commitment and persistence in the academic program and reported a 100% retention rate over 3 semesters among mentored students compared to a 79.3% retention rate among non-mentored students. Approximately 70% of the students found the mentoring program to be helpful in attaining success in the nursing program and commented that learning good study skills and practicing test-taking techniques were among the most beneficial components of the mentoring program. One noteworthy point is the student sample examined in Colalillo's study consisted of primarily non-traditional students, which may provide a contextual issue when studying a group of tradition students.

A study was performed on a newly implemented peer mentoring program between 40 first- and second-year nursing students (Giordana & Wedin, 2010). The mentor-mentee pair worked together in the clinical setting on the first-year student's first day of providing care to nursing home residents. On day one, the pair worked together for a 2-hour period. Several days after this experience, students were invited to participate in one of four focus groups in which they would provide feedback on their perception of the experience. The focus group meetings were recorded, and the discussions were transcribed. The authors utilized Giorgi and Giorgi's (2003) method for data analysis. Following analysis, the data were organized into summative narrative descriptions. Mentees and mentors reported positive experiences. Mentees stated they had felt reassured by their mentor's presence and said they felt much less anxious upon attending their second week at the nursing home. The mentees also reported feeling more confident following the mentoring experience. Mentors, too, perceived the mentoring experience to be a positive one. Mentors commented that they enjoyed the change of being in a teaching position and improved leadership skills. Clinical faculty anecdotally remarked that mentored students seemed more confident and efficient on their second clinical day than non-mentored students. The authors of this study recommended the use of mentoring in clinical nursing education.

Glass and Walter (2000) conducted a unique study of seven female researchers, six of whom were students enrolled in their second year of a three-year undergraduate nursing program as well as the program director. The ages of the participants ranged from 26 to 45 years. Data were qualitatively collected using individual reflective journaling and taped focus groups/interviews. The focus groups met 1 hour each week

for 12 consecutive weeks. The participants discussed issues that were impacting their lives at the time, both personal and professional. Following the data collection phase, the information was transcribed and underwent a thematic analysis.

Five themes were present amongst the seven participants: sensing belonging, being acknowledged, feeling validated, verbalizing vulnerability, and understanding dualisms. The authors reported that the most prominent finding was of the potential for a peer mentoring program to create an open, nurturing environment for the person and professional development of the participants. Though the topics discussed were largely personal, the authors found it necessary for the participants to share personal information before feeling free to confess professional fears or hindrances. Glass and Walter (2000) write, "The interpersonal aspects associated with educating nurses cannot be ignored. This research introduced the student participants to a supportive, educative environment where personal and professional ideas were able to be disclosed and explored constructively" (p. 159).

Sprengal and Job (2004) evaluated a peer mentoring program of baccalaureate students enrolled in a foundations nursing course at a Midwest university. Thirty second-year mentors and 30 first-year mentees participated in a peer mentoring program in which the mentor-mentee pair attended the mentee's first clinical day together in order for the mentor to personally orient the mentee to the clinical setting. The authors placed emphasis on the preparation of the mentors and mentees, stressing that proper preparation of all parties is imperative to a successful mentoring program.

The authors found numerous benefits to the mentees and mentors. Mentees reported feeling less anxious and more at ease with a mentor there and rated the peer

mentoring experience a 4.49 (range 3.20-5.00). The mentors expressed appreciation at their clinical advancement and reported increased self-confidence following the mentoring experience, rating the experience a 4.60 (range 3.20-5.00). Sprengal and Job (2004) described the benefits of peer mentoring such as decreased anxiety and confusion as well as a positive, encouraging environment in which learning can occur.

Dorsey and Baker (2004) performed an integrative review of mentoring data published between 1992 and 2002. The authors focused solely on data-based studies and searched for these studies using the keywords mentoring, mentor, undergraduate nursing student, attrition, retention, satisfaction, peer, and faculty. The authors identified 16 studies that qualified for inclusion in their review. The authors in collaboration with a health-researcher developed a data extraction tool. In analyzing the data, the authors identified conceptual and theoretical frameworks, research methodology, and findings. The 16 studies were also analyzed for themes and content and were organized according to the types of mentoring programs, the mentoring process, and the program's outcome. Following the data analysis, the authors assessed the state of the science, which included the "conceptualization of mentoring, theoretical processes of mentoring programs, methodological issues, contextual factors, and research priorities" (p. 261).

Dorsey and Baker (2004) noted that all 16 studies reported positive outcomes with the implementation of mentoring programs. Several studies reported improved retention rates while others noted increased student satisfaction. In spite of the universally positive results, the manner in which programs were theorized, implemented, processed, and assessed varied greatly. For example, only half of the articles defined the term 'mentoring,' and a mere 4 of the 16 studies included a theoretical framework. The

authors reported that the mentors in half of the studies were clinical staff and five studies utilized peer mentors. Dorsey and Baker's analysis led to their recommendation of four goals for further research: to continue refining the conceptualization of mentoring, to compare the effectiveness of a chosen mentor versus an assigned mentor, to determine the most effective type of mentoring program, and to determine the most effective program duration. Despite the differences in study design and program implementation, all 16 programs suggested the use of peer mentoring to enhance learning.

Needs Assessment

Chipas and McKenna (2011) conducted a study of 7,537 American Association of Nurse Anesthetists (AANA) members regarding various aspects of their stressors, coping mechanisms, and job satisfaction. About 15% of the responding participants were student members, and 70% of these were female. The survey reported that Student Registered Nurse Anesthetists (SRNAs) experience an average daily perceived stress level of 7.2 on a10 point Likert-type scale as compared to an average daily perceived stress level of 4.7 in professional Certified Registered Nurse Anesthetists (CRNAs). The researchers noted higher average stress levels among SRNAs who are female, of minority race, or were enrolled in an integrated degree program. No statistical significance was found among average perceived stress levels between singles, single with children, married, or married with children. Additionally, the survey reported that only 80% of associate members reported they were either "Extremely Satisfied" or "Satisfied" with their career, compared to 93.4% of CRNAs. These numbers highlight the need for providing stress-reducing opportunities to SRNAs. Jimenez, Navia-Osorio, and Diaz (2010) noted three major types of stressors experienced by nursing students— academic, clinical, and external. These results correlate strongly with SRNA stressors identified by

Phillips (2010). The highest levels of stress were reported in the areas of clinical assignments, academic pressures, relationships with spouse or significant other, information overload, and fear of clinical error (Phillips, 2010; Wildgust, 1986). Peer mentoring can decrease uncertainty and reduce stress in each of these areas, and a significant need to reduce stress in SRNAs has been reported.

The review of literature identifies stress as a significant problem in the SRNA population. The studies elucidated in the previous section have demonstrated the need to address SRNA stress and have provided a strong foundation upon which to study the use of peer mentoring as a method of decreasing stress within this population.

CHAPTER III

CONCEPTUAL AND THEORETICAL FRAMEWORK

Theoretical Background

A middle range theory is most appropriate in guiding this research due to the narrow scope and practice-based nature of this project. An explanatory theory, a type of middle range theory that explains how two concepts relate to each other and is supported by quantitative data, suits this project well (Butts, 2011). In this project, the relationship between peer mentoring and stress were explored.

The "science of caring" is a prominent theme within nursing practice (Clarke, Watson, & Brewer, 2009). For many nurses, a strong sense of caring is what initially drew them to the profession (Watson, 2009). In 1979, Jean Watson proposed the theory of human caring which emphasizes the transpersonal nature of caring (Butts, 2011). The quality of the transpersonal relationship is of utmost importance in the area of peer mentoring. This capstone project studied the use of peer mentoring to decrease stress in first year nurse anesthesia students. Watson's theory of human caring correlates well with the concept of peer mentoring and provided a strong foundation for the basis of this capstone project.

Jean Watson's theory of human caring is an explanatory, middle range theory, which provides a relevant framework for this project (Watson, 1988). The major elements of the theory of human caring are carative factors, the transpersonal caring relationship, and the caring moment. Carative factors include activities such as developing a helping-trusting relationship, encouraging the expression of both positive and negative feelings, and involving teaching-learning experiences that stay within the

learner's frame of reference (Watson, 1988). The transpersonal caring relationship is described as honoring and respecting others in order to develop the helping-trusting relationship. Finally, the "caring moment" occurs when two people communicate openly and honestly in order to expand their worldview (Watson, 1988).

Watson's theory is relevant to aiding in the development of a strong mentor-mentee relationship, which could improve the peer mentoring experience. Using peer mentoring, the hypothesis stated a decrease in stress in the sample population is expected. The application of Watson's theory of human caring fosters a positive mentoring environment for this project. The implementation of the theory of human caring provided this research project a firm foundation and allowed this study to proceed within a defined framework.

Exploration of the Theory

Watson described several major components to the theory of human caring. Central to this theory are carative factors, which must be present in order to form a truly transpersonal relationship. The carative factors are (a) formation of an altruistic value system; (b) inspiration of hope; (c) growth of awareness of oneself and to others; (d) promotion of a helping-trusting relationship; (e) recognition of the expression of positive and negative feelings; (f) use of a systematic problem-solving process; (g) encouragement of interpersonal teaching-learning; (h) support for a compassionate, caring, or curative psychological, physical, communal, and spiritual atmosphere; (i) aid in the fulfillment of human necessities; and (j) acceptance of the potential for existential-phenomenological-spiritual forces (Watson, 1988). When two people with their own unique backgrounds communicate using these factors to better understand the others'

worldview, a caring moment occurs defining the meaning of a transpersonal relationship – a relationship that is unified through body, mind, and spirit (Nelson, 2011). By utilizing transpersonal relationships, we can better understand another person and experience personal growth.

Application of the Theory

In a peer mentoring relationship, the mentors serve as role models for their mentees as well as provide encouragement, guidance, support, education, and counsel (Milmer & Bossers, 2004). Numerous benefits of peer mentoring have been found, particularly when used within the medical field. The use of mentoring has been shown to decrease apprehension and confusion (Becker & Neuwirth, 2002; Sprengel & Job, 2004). Reduced anxiety and confusion were two of the most common benefits found along with an increase in confidence, time management skills, communication skills, and perceived career preparation (Locken & Norberg, 2005; Ramanan et al., 2006; Yates et al., 1997). However, the quality of the mentoring experience has an enormous impact on the success of mentoring programs (Ragins & Cotton, 1999). In order to ensure mentees participating in this capstone project received appropriate mentoring, the theory of human caring was emphasized throughout all phases of the mentoring program. This research project utilized the theory of human caring with the expectation that it has a positive effect on the capstone project's outcome.

Analysis of Theory-Capstone Fit

Watson's theory of human caring fit this area of interest well. The theory of human caring is a middle range, explanatory theory. Middle range theories are narrower in scope than grand theories and thus align well with clinical practice. Middle range

theories are frequently used in research due to their alignment with clinical practice and because middle-range theories are supported by data. Explanatory theories, also known as knowledge building theories, are sub-types of middle range theories that describe how two concepts relate to each other (Butts, 2011). In this project, the concepts analyzed were peer mentoring and stress.

Benefit received from mentoring is largely based on the strength of the relationship between the mentor and mentee, illuminating the need for a strong mentor-mentee relationship (Ragins & Cotton, 1999). The middle range, explanatory nature of this theory as well as Watson's emphasis on the importance of transpersonal relationships makes this theory a solid fit for peer mentoring. The theory of human caring is well-respected within nursing practice and is highly applicable to a capstone project regarding mentoring in advanced nursing practice.

CHAPTER IV

METHODOLOGY

Population

The population of this study is all Student Registered Nurse Anesthetists (SRNAs) attending doctoral-level nurse anesthesia programs throughout the United States. The sample for this project included three classes of SRNAs enrolled in a single doctoral-level Nurse Anesthesia Program (NAP) at a comprehensive Carnegie research university with Southern Regional Education Board-Level 1 designation. The NAP included 57 students, 17 who have not had peer mentors and 39 who have. Inclusion criterion for this project was enrollment of the student in the NAP. No exclusions were made based on demographic data, length of time in the NAP, or previous experience with a mentor. The author of this study was excluded from the survey. The demographic information of the sample is discussed in further detail in the statistical analysis.

All students were enrolled in the same mentoring program with the exception of the control group, third-year SRNAs who did not receive any peer mentoring. The NAP mentoring program was characterized by matching a first-year student with a second-year student in a mentoring relationship. When first implementing the mentoring program, mentor-mentee pairs were matched by a student-led mentoring committee. This committee was comprised of four second year SRNAs, including the primary researcher, who were elected onto the committee by their classmates. The mentoring committee modified a mentor-mentee matching questionnaire utilized by Memorial Hospital in Belleville, Illinois in order to match mentors to mentees (Memorial Hospital, n.d.). A paper questionnaire was administered to every student in the mentoring program.

Matching was based first upon student request for a particular mentor or mentee. If no request was made or several requests were made for the same mentor/mentee, matching was performed by similarities in interests and desired communication preferences, which were gathered from the administered questionnaire.

No formal training was provided for the mentee or mentor. A member of the mentoring committee spoke to each participant regarding their expected roles within the mentoring program, tips for establishing a beneficial mentoring relationship, and contact information for reaching the mentoring committee in the event a problem arose. Each participant was provided a brochure containing this information.

The mentor and mentee were notified of their match via email, and the mentors were encouraged to reach out to their mentees. From this point onward, communication between the mentor and mentee was voluntary, although occasional reminders were sent out in order to encourage mentors and mentees to remain in contact. This mentoring relationship will last 2 years in order to span from the first semester of didactic education to semester 6, when the mentees will have completed 1 year of clinical rotations.

Methods

Upon approval by the institutional review board (IRB), a convenience sample of 56 SRNAs enrolled in a 3 year, doctoral-level nurse anesthesia program at a comprehensive Carnegie research university with Southern Regional Education Board-Level 1 designation as of July 2015, were invited via e-mail to participate in a survey regarding stress and peer mentoring. The College of Nursing Student Services office sent the e-mail invitation. The population included 3 classes of SRNAs, 17 students who have not had a peer mentor and 39 who have.

Data were obtained by administering a 13-item Likert-type survey, for which the researcher acquired approval to modify and administer Dr. Anthony Chipas' 2011 survey designed to determine perceived stress levels of SRNAs (Chipas & McKenna, 2011). The survey was administered using the online survey tool Qualtrics.

The researcher sent an e-mail to each class of students one week prior to the survey opening in order to inform the students about the survey they would be receiving and how their data would be protected. The survey was open for 2 weeks between August 10 and August 24 of 2015. On the date that the survey opened, an e-mail was sent by the College of Nursing Student Services office to all eligible students including a link to participate in the survey. A follow-up invitation was sent on August 17, 2015 and the survey close date was August 24, 2015. Completion of the survey was voluntary, and all data gathered is entirely anonymous and confidential.

This research project focused on the problem of SRNA stress within a 3 year, doctoral-level nurse anesthesia program. The methods outlined were followed precisely as described in order determine whether the use of mentoring as implemented at this comprehensive Carnegie research university with Southern Regional Education Board-Level 1 designation medium-sized university in the Southeast is effective in decreasing SRNA stress.

CHAPTER V

ANALYSIS OF DATA

Statistical Analysis Methods

The hypothesis of this research project stated that peer mentoring decreases the perceived stress level of the Student Registered Nurse Anesthetists (SRNAs). The null hypothesis stated that having a peer mentor increases or does not change perceived stress in the SRNA. An alpha value of 0.05 was utilized in determining the level of significance for the data in accordance with contemporary scientific standards. A relative power of 70% necessitates 54 participants to detect a moderate to high relationship between peer mentoring and stress.

Demographic information was analyzed and included gender, age, and race/ethnicity. The survey was provided in English only as all students invited to participate in the study were English-speaking. Incomplete surveys remained included in data analysis. The data provided on incomplete surveys was included in the analysis due to the small sample size. The survey was not provided in any form other than electronic. This analysis yielded sufficient information to address the clinical practice problem and add to the growing body of data regarding mentoring while also enhancing the clinical practice of SRNAs with peer mentoring.

With a relative power of 70%, the sample size recommended is 54 participants. Due to the small sample size to draw from totaling 56 students, a minimum survey return rate of 96.4% would be necessary to have a large enough sample size to indicate with statistical significance that peer mentoring impacts stress in this population. A return of this size was unlikely considering the average response rate for surveys administered by individuals is approximately 52% (Baruch & Holtom, 2008). Because the minimum

number of participants needed to show a statistically significant relationship between peer mentoring and stress was not met, a descriptive review of the obtained data were also performed. The mean of the average stress level experienced was calculated. Standard deviation from the average stress level was also determined. The number and frequency of stress symptoms experienced and of coping mechanisms utilized was also examined. In order to analyze the data regarding the number of total stressors and total coping mechanisms that each student experienced, a coding system was implemented based upon Dr. Tony Chipas' reliable, valid tool that assigned a value to each selection in the multiple response questions (Chipas et al., 2012). Stress symptoms that were "never" utilized were coded as 0. Those that were used "intermittently" were assigned a 1, "monthly" a 2, and "weekly" a 3. The number of symptoms and frequency experienced were then summed to form a total stress symptom value. The same process was used for coding the multiple response question regarding coping mechanism use and frequency. This question was coded as follows: Never = 0, Very Rarely = 1, Rarely = 2, Occasionally = 3, Frequently = 4, Very frequently =5. These occurrences were summed into a total coping mechanism value. The data obtained is presented numerically and graphically.

Using the statistical analysis program SPSS, independent sample t-tests were performed comparing the average daily stress level with non-mentored and mentored students, percent of stress from school, number of major life stressors experienced, number and frequency of stress symptoms experienced, and number and frequency of coping mechanisms used. A Kruskal-Wallis test was conducted in order to compare the average daily stress level with what phase of the nurse anesthesia program (0-3) the

student experienced the greatest stress. A post hoc descriptive test was conducted to explore the relationship between average daily stress and enrollment in the first year of the nurse anesthesia program. Significance was set at p values below 0.05.

Presentation of Findings

Fifty-six students were eligible for inclusion in this survey. Of these, 37 students completed surveys for a 66.1% response rate. The sample included 11 non-mentored students and 26 mentored students. Sixteen respondents were male and 20 were female. One respondent chose to omit their gender. Fourteen respondents were age 25-29, 12 respondents were 30-34, 7 respondents were 35-39, and 4 respondents were 40-44. Four respondents classified their ethnicity as Asian, 4 classified themselves as black or African American, 27 identified as white (non-Hispanic), and 2 respondents chose to omit their ethnicity.

Results are reported as mean $\pm$ standard deviation. The mean of the average daily stress level for all students (N=37) was 5.84 ± 1.59 with $75.68 \pm 1.5\%$ of their stress attributed to enrollment in the nurse anesthesia program. Average daily stress of non-mentored students (n=11) was 6.73 ± 1.56 while the average daily stress of mentored students (n=26) was 5.46 ± 1.48 ($t(35)=2.35$, $p=0.025$). Non-mentored students attributed $78.2 \pm 1.25\%$ (n=11) of their stress to enrollment in the nurse anesthesia program while mentored students (n=26) reported $74.6 \pm 1.61\%$ of their stress being caused by school ($t(35)=0.66$, $p=0.52$). The number of major life stressors experienced in the past year for non-mentored students and mentored students is 1.36 ± 1.12 (n=11) and 2.12 ± 1.63 (n=26) respectively ($t(35)= -1.39$, $p=0.17$). Non-mentored students (n=11) experienced an average total stress symptom score of 45 ± 18.05 while mentored students (n=26)

experienced an average score of 32.7±18.35 (t(35)=1.87, p=0.07). The total coping mechanism score was 26.73±11.64 (n=11) for non-mentored students and 24.85±7.67 (n=26) for mentored students (t(35)=0.58, p=0.56). A Kruskal-Wallis test and post hoc descriptive analysis were performed. The Kruskal-Wallis test found a significant correlation between average daily stress level and students who have not yet entered the clinical portion of the nurse anesthesia program (X^2 (3, N=37) = 9.45, p=0.02). The average daily stress level of didactic-only students who have not yet begun clinical training (n=11) was 4.64±1.57 compared to (n=26) 6.35±1.32 for students enrolled in both didactic and clinical components of the NAP.

Table 1

Sample Demographic Characteristics

Characteristic	Non-Mentored		Mentored	
	n	%	n	%
Participants (n)	11	29.73	26	70.27
Gender				
Male	5	13.51	11	29.73
Female	6	16.22	14	37.84
Not specified	0	0	1	2.7

Table 1 (continued).

Characteristic	Non-Mentored		Mentored	
	n	%	n	%
Age				
25-29	2	5.41	12	32.43
30-34	3	8.11	9	24.32
35-39	3	8.11	4	10.81
40-44	3	8.11	1	2.7
Ethnicity				
Asian	1	2.7	3	8.11
Black or African American	1	2.7	3	8.11
White (Non-Hispanic)	8	21.62	19	51.35
Not specified	1	2.7	1	2.7

Note. n=number.

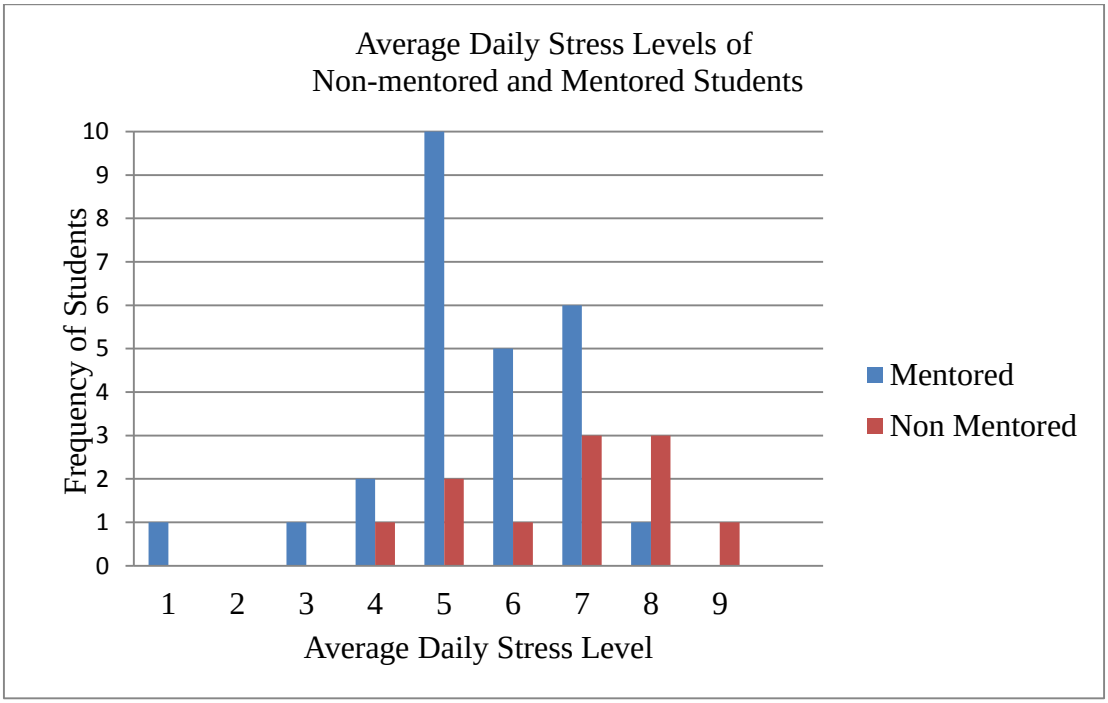

Figure 1. Average Daily Stress Level of Non-mentored and Mentored Students.

Table 2

Sample Descriptives Using t-test for Equality of Means

	Non-Mentored	Mentored	t-test	P-Value
Participants (n)	11	26		
Average Daily Stress Level	6.73 ± 1.56	5.46 ± 1.48	2.35	0.025
Percent Stress from School	7.82 ± 1.25	7.46 ± 1.61	0.66	0.52
Num Major Life Stressors	1.36 ± 1.12	2.12 ± 1.63	-1.39	0.17
Total Stress Symptoms	45.0 ± 18.05	32.7 ± 18.35	1.87	0.07
Total Coping Mechanisms	26.73 ± 11.64	24.85 ± 7.67	0.58	0.56

Note. n=number; Results are reported as mean + standard deviation. P value is significant at <0.05.

Discussion of the Data

A difference in average daily stress levels was found between the control and treatment groups. An independent t-test showed this difference to be statistically significant ($t(35)=2.35$, $p=0.025$). This finding would imply that mentoring is effective at decreasing stress in SRNAs. However, a power analysis for this study recommended the inclusion of 54 participants in order to be confident in the result. The researcher received 37 survey responses. Although the mentored group did have a significantly lower daily stress level than the non-mentored group, the researcher cannot be confident that this significance would be exhibited with a higher sample size. In addition to whether or not the student had a mentor, the phase of the NAP in which the student is enrolled also correlated with average daily stress level. Students who have not yet reached the clinical portion of their training rated their stress lower than SRNAs who have reached the

clinical portion of training. This finding implies that a considerable portion of student stress comes during clinical training. This may be related to difficulty transitioning from the role of an expert intensive care nurse to a novice SRNA. No significant differences were found between the control and treatment groups for percent of stress attributed to enrollment in the nurse anesthesia program, number of major life stressors experienced in the past year, total stress symptoms experienced, or total number of coping mechanisms utilized.

The most frequent stress symptoms experienced and coping mechanisms utilized were also analyzed. This data was compared to the results of Chipas et al., 2012 survey from which this survey was modified.

The 3 most frequent stress symptoms reported in this study are agitation/anxious/irritable, annoyed by trivial things, and too busy for things I used to do. The 3 most frequent coping mechanisms utilized are listening to music, trying to see things in a more positive light, and criticizing myself.

Findings for stress symptoms were very similar between the 2 surveys. This study found that 7 out of 10 of the most frequently experienced stress symptoms were also reported in the 10 most frequently experienced stress symptoms in Chipas et al., 2012. Just 2 out of 10 of the most frequent coping mechanisms utilized were reported in the top 10 of Chipas et al., 2012. While 4 of the 10 most frequent coping mechanisms reported in Chipas et al., 2012 were maladaptive behaviors, only 1 maladaptive coping behavior was reported in the top 10 coping mechanisms of this study.

Table 3

Stress Symptoms by Frequency

Stress Symptom	No. of SRNAs Experiencing Weekly	Mean	Difference in Means
Agitation/Anxious/Irritable	21	1.61	0.31
Annoyed by trivial things	19	1.69	0.09
Too busy for things I used to do	17	1.68	-0.02
Digestion problems (include heart burn/GERD)	15	1.77	0.07
Cravings/Compulsions	14	1.90	0.4
Decreased ability to concentrate	13	1.81	0.31
Impatient with others	12	1.90	0.6
Eating disorders/Over or under eating	10	1.85	0.05
Finger tapping/Nail biting	10	1.86	N/A
Avoid interactions with others	10	2.00	N/A

Note. Boldface indicates that the response was also reported in the 10 most frequent stress symptoms in Chipas et al., 2012; the lower the mean number, the more frequent the use of the mechanism; difference in means refers to the mean found in this study minus the mean found in Chipas et al., 2012; N/A indicates that no data was reported in Chipas et al., 2012. Abbreviations: SRNA, student registered nurse anesthetist; GERD, gastro-esophageal reflux disease.

Table 4

Coping Mechanisms by Frequency

Coping Mechanisms	No. of SRNAs Experiencing Weekly	Mean	Difference in Means
Listening to music	13	2.08	-0.62
Trying to see things in a more positive light	12	1.95	-0.15
Criticizing myself	12	2.38	0.28
Exercising	9	2.62	-0.58
Trying to find comfort in my religion or spiritual beliefs	8	2.51	-0.89
Making jokes about things	7	2.40	-0.2
Playing with my favorite pet	7	3.41	-0.29
Doings things to think less, movies/TV	6	2.62	-0.28
Getting emotional support from others	5	2.62	0.22
Sleeping	5	2.89	N/A

Note. Boldface indicates that the response was also reported in the 10 most frequent stress symptoms in Chipas et al., 2012; the lower the mean number, the more frequent the use of the mechanism; difference in means refers to the mean found in this study minus the mean found in Chipas et al., 2012; N/A indicates that no data was reported in Chipas et al., 2012. Abbreviation: SRNA, student registered nurse anesthetist.

Barriers

Several barriers were encountered and mitigated order to receive meaningful results in this project. The greatest barrier encountered was a small sample size. The maximum achievable sample size was 56 students due to the small population of students who meet the inclusion criterion of this study. Additionally, of the 56 potential participants, only 17 fall into the control group via not having had a peer mentor. The small sample size may limit the applicability of the data gathered. Because a sample size of 54 was not reached, the results of this survey do not show a statistical significance between the variables, but may serve as a description of a current student mentoring program and imply further research using a larger sample from which to draw.

Another barrier encountered due to the small sample size is the ability to keep respondents unidentifiable. To overcome this barrier, participants were given the option to abstain from answering all demographic questions in order to maintain anonymity. Other barriers to this study are the need to control confounding factors that may influence the results of this survey. Therefore, potentially confounding factors such as whether any major stressful life events have occurred recently were gathered in addition to standard demographic information. The quality of mentoring experienced is one final factor that may influence the results of this capstone project. These barriers are controlled to the greatest extent possible but should be considered when examining the results of this capstone project.

Utilizing the methods described above, relevant data were obtained, organized, analyzed, and presented. This data provides an informative view of the population in

search of an answer to the question, “Is peer mentoring an effective method to reduce stress in SRNAs?”

CHAPTER VI

FULFILLMENT OF THE EIGHT ESSENTIALS OF THE DOCTORAL EDUCATION FOR ADVANCED NURSING PRACTICE

Eight DNP Essentials

The incorporation of the eight DNP essentials is crucial in the development of a doctoral capstone project. Without the fulfillment of the DNP essentials, a capstone project would lose its nursing foundation. A capstone project lacking the DNP foundation would no longer reflect the values and tenants held by nurses worldwide and would likely fail to recognize the individual as a diverse and multi-faceted being. This capstone project was designed with each of the eight DNP essentials in mind in order to provide the greatest impact for Student Registered Nurse Anesthetists (SRNAs) enrolled in a nurse anesthesia program.

Essential One: Scientific Underpinnings for Practice

This capstone project addresses DNP essential one by acknowledging the mental and physical stressors incurred by a Student Registered Nurse Anesthetists (SRNAs) in the process of becoming a competent and proficient anesthesia provider. Only by recognizing the stress involved in this learning process could one make positive changes to mitigate stress and provide positive coping mechanisms for the SRNA.

Essential Two: Organizational and Systems Leadership for Quality Improvement and Systems Thinking

Essential two requires that the DNP graduate understand the role of organizational leadership and the conceptualization of healthcare systems in order to improve the quality of healthcare experiences. In this capstone project, this essential is demonstrated by the

researcher's ability to analyze and assess a current program to determine a measure that could be taken to improve the quality of the SRNA's experience. A peer mentoring program was implemented in an attempt to reduce stress in the SRNA, improving the overall quality of their experience in the NAP.

Essential Three: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

DNP essential three is fulfilled by the recognition of a clinical practice problem through clinical scholarship and the application of analytical methods to current research. The problem of SRNA stress and the use of peer mentoring to reduce stress was elucidated by performing an extensive review of literature which provided numerous articles regarding these topics.

Essential Four: Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care

The ability to use information systems and technology is a skill that becomes more crucial with each passing year. Recent technological advancements and the widespread use of technology in healthcare require the DNP graduate understand and be able to utilize technology for the betterment of healthcare's constituents. In this research, technology is utilized to reach out to SRNAs and gather data anonymously through the internet. This project also utilizes technology to analyze and assess the data gathered in order to form meaningful conclusions. The use of online surveying and the computer program SPSS to perform statistical analysis signify this DNP student's grasp of the use of technology to improve health care.

Essential Five: Health Care Policy for Advocacy in Health Care

Essential five is thoroughly addressed in this capstone project. The design and implementation of this project required the DNP graduate understands and can conceptualize policy and its impact on the individual. For the purpose of this project, understanding the policies of the peer mentoring program and their impact on the mentoring relationships between students is a necessity.

Essential Six: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

The ability to collaborate interprofessionally is required of all healthcare professionals in a healthcare system with many working parts. For the DNP graduate, this concept is of particular importance as partnership between advanced practice nurses and physicians, physical therapists, and other health professionals increases. This capstone project demonstrated the ability to collaborate interprofessionally by the working relationship built between the researcher and the NAP administration in order to obtain permission to survey students regarding stress and mentoring.

Essential Seven: Clinical Prevention and Population Health for Improving the Nation's Health

Clinical prevention was defined by the American Association of Colleges of Nursing (AACN) as health promotion and risk reduction/illness prevention (2006). When high levels of stress are experienced for extended durations, negative physical and psychological changes may occur (Jimenez et al., 2010; McKay et al., 2010). This capstone project met essential seven through a reduction in the high levels of stress associated with enrollment in a doctoral nurse anesthesia program.

Essential Eight: Advanced Nursing Practice

Comprehensive anesthesia training must be mastered by all graduates of a doctoral nurse anesthesia program. However, the strenuous curricular and clinical demands placed on students during enrollment in such a program are sometimes perceived as overwhelming, leading to high levels of stress that can be detrimental to the SRNA's progression (Chipas et al., 2012). This capstone project attempted to determine if a peer mentoring program is a positive coping mechanism for SRNAs in order to relieve stress and improve the SRNA's clinical and didactic performance.

The integration of these eight DNP essentials within the capstone project allows the graduate nurse to demonstrate a mastery of the core skills required for advanced practice nursing. The mastery of these skills will allow the graduate nurse to provide patients the most effective, evidence-based care available.

CHAPTER VII

SUMMARY

Significance

The significance of this capstone project is the determination that the use of a peer mentoring program may be successful at decreasing stress in Student Registered Nurse Anesthetists (SRNAs). This objective was studied using a low cost peer mentoring program based on Watson's theory of human caring. This study may be disseminated at a state or national meeting in the fields of nursing, advanced practice nursing, or nurse anesthesia. Although the results of this study were not statistically significant, they aid in determining the usefulness of peer mentoring in a doctoral nurse anesthesia program and add to the body of data regarding mentoring while satisfying the critical goal of fostering SRNA success.

Recommendations for Future Research

There is an implication that the use of peer mentoring is effective at decreasing stress in SRNAs. Although the small sample size prohibited the results of this study from being statistically significant, this study does support the hypothesis that peer mentoring is effective at decreasing SRNA stress. Nurse anesthesia programs throughout the nation should consider the implementation of peer mentoring to decrease SRNA stress. Additionally, this capstone project highlighted the high stress levels that SRNAs experience daily over the three-year enrollment period for this doctoral level NAP. Recognizing and addressing student stress levels and stress symptoms as well as promoting positive coping mechanisms is likely to be helpful in fostering SRNA success in a 3-year doctoral level NAP.

A future study of this kind should be conducted using a larger sample size. Nurse anesthesia programs with similar peer mentoring programs could be surveyed together in order to obtain a broader sample. Several types of peer mentoring programs could be studied to determine if the implementation method of a peer mentoring program is a significant factor in the efficacy of the peer mentoring program to decrease stress. The author of this study hypothesizes that several factors regarding the implementation of the mentoring program may improve the SRNA mentoring experience. These factors include providing mentor and mentee training prior to enrollment in the mentoring program, allowing the mentees to select their mentors, and arranging formal periods of engagement to increase mentor-mentee interaction. Additionally, mentors and mentees could be introduced to Watson's theory of human caring at the onset of the peer mentoring program and could be encouraged to incorporate facets of this theory into their mentoring interactions. All of these factors may be influential in the ability of a peer mentoring program to decrease stress in SRNAs. Therefore the study of the impact these factors have on SRNA stress may be a worthwhile effort.

Conclusion

The implementation of evidence-based research into the clinical environment is the keystone of practice for the advanced practice registered nurse. Stress may be a debilitating problem if not properly addressed and managed and could potentially lead to the withdrawal of an SRNA from a nurse anesthesia program if inadequate coping mechanisms are in place (Chipas et al., 2012; Chipas & McKenna, 2011; Tunajek, 2006). Experiencing stress as an SRNA is likely an unavoidable experience due to the rigorous nature of nurse anesthesia programs. In such an environment, any modality shown to

reduce stress in the SRNA has a valuable role. The use of peer mentoring programs as described in this study have been shown effective by researchers in well-controlled studies (Jimenez et al., 2010; McKay et al., 2010). This study suggests that implementation of a peer mentoring program similar to the one described will likely aid in decreasing SRNA stress. Despite the current body of research that exists regarding peer mentoring, there is much room for further research. As the body of research into peer mentoring expands, SRNAs will likely benefit through improved mentoring experiences. Only with the continuation of research and the perpetual evaluation of newly emerging studies can the issue of SRNA stress be fully addressed. Advanced practice registered nurses must continue to evaluate the results of emerging studies and implement their indications to improve the clinical environment.

APPENDIX A

SRNA STRESS SURVEY 2015

1. Gender:

- Male
- Female
- I'd rather not answer

2. What is your age group?

- < 25
- 25 - 29
- 30 - 34
- 35 - 39
- 40 - 44
- 45 - 49
- 50 - 54
- 55 - 59
- 60 - 64
- 65+
- I'd rather not answer

3. Marital status:

- Married/Partnership
- Married/Partnership (children or others at home)
- Divorced
- Divorced (children or others at home)
- Single
- Single (children or others at home)
- I'd rather not answer

4. Number of children in household:

_____

5. Race/Ethnicity

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic
- Native Hawaiian or other Pacific Islander
- White (Non-Hispanic)
- I'd rather not answer

6. While enrolled in the NAP, have you had a peer mentor?

- Yes
- No

7. During the last year, have you had any of the following occur? Please mark all that apply.

□ Salary/Benefits decreased
□ Bankruptcy/Financial crisis
□ Birth of a child
□ Caring for debilitated/chronically ill loved one
□ Change jobs
□ Death of a spouse/partner/child
□ Death of a family member/close friend
□ Demotion
□ Divorce
□ Marital/Partner reconciliation
□ Marital/Partner separation
□ Marriage/Legal union
□ Medical malpractice lawsuit
□ Military deployment – self
□ Military deployment – significant other/friend
□ Moved
□ Personal illness or injury
□ Pregnancy
□ Promotion
□ Quit a job
□ Regulatory audit (COA/JCAHO)
□ Retirement
□ Started school

8. If you have reached the clinical phase of your program, where did you find the most stress? PLEASE ANSWER ONLY IF YOU HAVE REACHED THE CLINICAL PHASE

- Didactic

- Clinical

- Both equal

- Not yet in clinical phase

9. How would you rate your stress level on an average day?

1 – Low stress

2

3

4

5 – Average stress

6

7

8

9

10 – Extreme stress

10. How much of your stress is from school?

100%

90%

80%

70%

60%

50%

40%

30%

20%

10%

0

11. Stress can be manifested in many ways. Some are more obvious than others. Please mark the frequency that each condition or feeling occurred to you during the last year.

Weekly . . . . . Occurs at least once every week

Monthly . . . . . Occurs at least once per month but not every week

Intermittent . . Occurs 3 or more times per year

N/A . . . . . Not at all

	Weekly	Monthly	Intermittent	N/A
Agitation/Anxious/Irritable				
Annoyed by trivial things				
Avoid interactions with others				
Cardiac irregularities/Arrhythmias/Chest pain/Palpitations				
Confusion				
Cravings/Compulsions				
Decreased ability to concentrate				
Decreased work accomplishments even though working hard				
Digestion problems (include heart burn/ GERD)				
Dizziness				
Eating disorders/Over or under eating				
Finger tapping/ Nail biting				
Forget deadlines and appointments				
Frequent back or neck spasms/pain				
Frequent sick days				
Frequently tardy				
Headaches				
Hives				
Hypertension				
Impatient with others				
Impotence				
Increased boredom at work				
Infertility				
Jaw pain				
Job performance sub-par				
Loss of appetite				
Low libido				
Mood swings				
Menstrual irregularities/ Amenorrhea				

Mistakes at work				
Nervousness/ Tremors				
Nightmares/ Night sweats				
Overuse of alcohol				
Rapid breathing/ Shortness of breath				
Sad, discouraged				
Sleep disturbances/ Insomnia/ Over-sleeping				
Smoke excessively				
Teams I am involved with don't work well				
Teeth grinding				
Thoughts of death or suicide				
Too busy for things I used to do				
Use of illegal substances				
Use of prescription drugs not prescribed for me				
Other				
If Other, please list:				

12. These items deal with ways you've been coping with stresses in your life. Each item says something about a particular way of coping. We want to know to what extent you have been doing what the item says. How much or how frequently, not whether it seems to be working.

I've been:

	Very Frequently	Frequently	Occasionally	Rarely	Very Rarely	Never
Turning to work						
Doing household projects						
Doing things to make the situation better						
Getting emotional support from others						
Using alcohol or other drugs to make myself feel						

better						
Giving up trying to deal with it						
Refusing to believe these things happen						
Saying things (gossip) to let my unpleasant feeling escape						
Getting help or advice from healthcare professionals						
Trying to see things in a more positive light						
Criticizing myself						
Giving up on coping						
Making jokes about things						
Doing things to think less, movies/TV						
Going out with family/friends						
Expressing my negative feelings						
Trying to find comfort in my religion or spiritual beliefs						
Meditating						
Exercising						
Listening to music						
Playing with my favorite pet						
Reading						
Having sex						

Sleeping						
Other						
If Other, please specify:						

13. Have you used any resources from the AANA Wellness Program?

- Yes
- No
- If yes, what were they and do you feel these helped? _____

APPENDIX B

LETTER OF SUPPORT

THE UNIVERSITY OF
SOUTHERN MISSISSIPPI

COLLEGE OF NURSING

118 College Drive #5095 | Hattiesburg, MS 39406-0001

Phone: 601.266.5445 | Fax: 601.266.5927 | nursing@usm.edu | www.usm.edu/nursing

June 10, 2015

Dear Dr. Stewart:

I have reviewed Elise Head's research plan for her DNP Capstone. I understand that she plans to survey nurse anesthesia students regarding their experience in a mentoring program, and that she is requesting the College of Nursing's Student Services office email the survey to potential student respondents. We are willing and capable of providing Mrs. Head's the opportunity to distribute the survey.

The College of Nursing supports Mrs. Head's project. This project is sound and has merit. Please let me know if you need anything further as you move forward. Thank you for serving as her capstone chair. I look forward to learning of her results.

Sincerely,

Lachel Story

Lachel Story, PhD, RN
Assistant Dean for Research and Evaluation
PhD Program Director
Assistant Professor
The University of Southern Mississippi
College of Nursing

APPENDIX C

IRB EXEMPT REVIEW APPROVAL

THE UNIVERSITY OF
SOUTHERN MISSISSIPPI.

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

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: 15072005
PROJECT TITLE: The Use of Peer Mentoring to Decrease Stress in Student Registered Nurse Anesthetists
PROJECT TYPE: New Project
RESEARCHER(S): Elise Head
COLLEGE/DIVISION: College of Nursing
DEPARTMENT: Nurse Anesthesia FUNDING
AGENCY/SPONSOR: N/A
IRB COMMITTEE ACTION: Exempt Review Approval
PERIOD OF APPROVAL: 07/29/2015 to 07/28/2016
Lawrence A. Hosman, Ph.D.
Institutional Review Board

APPENDIX D

CITI TRAINING MODULE 1

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI)

COMMON COURSE FOR USM GRADUATE STUDENTS CURRICULUM COMPLETION REPORT

Printed on 02/06/2014

LEARNER	Elise Head (ID: 3994760) 12/2015 409 S 11th Avenue Hattiesburg Mississippi 39401 USA
DEPARTMENT	Nursing
PHONE	601-953-7126
EMAIL	elise.garcia@eagles.usm.edu
INSTITUTION	University of Southern Mississippi
EXPIRATION DATE	02/05/2019

COMMON COURSE FOR USM GRADUATE STUDENTS

COURSE/STAGE:	RCR/1
PASSED ON:	02/06/2014
REFERENCE ID:	12264088

REQUIRED MODULES	DATE COMPLETED	SCORE
Introduction to the Responsible Conduct of Research	02/02/14	No Quiz
Research Misconduct (RCR-Biomed)	02/02/14	5/5 (100%)
Case Study Plagiarism (RCR-Biomed)	02/06/14	2/2 (100%)
Data Management (RCR-Biomed)	02/06/14	5/5 (100%)
Authorship (RCR-Biomed)	02/06/14	5/5 (100%)
Mentoring (RCR-Interdisciplinary)	02/06/14	5/5 (100%)
Conflicts of Interest (RCR-Biomed)	02/06/14	5/6 (83%)
Collaborative Research (RCR-Biomed)	02/06/14	5/5 (100%)
Internet Research - SBE	02/06/14	5/5 (100%)
Privacy and Confidentiality - SBE	02/06/14	5/5 (100%)
The University of Southern Mississippi	02/06/14	No Quiz

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI Program participating institution or be a paid Independent Learner. Falsified information and unauthorized use of the CITI Program course site is unethical, and may be considered research misconduct by your institution.

Paul Braunschweiger Ph.D.
Professor, University of Miami
Director Office of Research Education
CITI Program Course Coordinator

APPENDIX E

CITI TRAINING MODULE 2

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI)
RESEARCHERS, FACULTY, STUDENTS AND IRB MEMBER'S CURRICULUM COMPLETION REPORT
Printed on 02/06/2014

LEARNER	Elise Head (ID: 3994760) 12/2015 409 S 11th Avenue Hattiesburg Mississippi 39401 USA
DEPARTMENT	Nursing
PHONE	601-953-7126
EMAIL	elise.garcia@eagles.usm.edu
INSTITUTION	University of Southern Mississippi
EXPIRATION DATE	02/05/2019

RESEARCHERS, FACULTY, STUDENTS AND IRB MEMBERS ENGAGING IN RESEARCH INVOLVING HUMAN SUBJECTS RCR:
Researchers, Faculty, Students

COURSE/STAGE:	Stage 1/1
PASSED ON:	02/06/2014
REFERENCE ID:	12264089

REQUIRED MODULES	DATE COMPLETED	SCORE
The University of Southern Mississippi	02/06/14	No Quiz
Belmont Report and CITI Course Introduction	02/06/14	3/3 (100%)
Students in Research	02/06/14	9/10 (90%)
History and Ethical Principles - SBE	02/06/14	4/5 (80%)
Defining Research with Human Subjects - SBE	02/06/14	4/5 (80%)
The Regulations - SBE	02/06/14	4/5 (80%)
Assessing Risk - SBE	02/06/14	5/5 (100%)
Informed Consent - SBE	02/06/14	4/5 (80%)
Unanticipated Problems and Reporting Requirements in Social and Behavioral Research	02/06/14	3/3 (100%)

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI Program participating institution or be a paid Independent Learner. Falsified information and unauthorized use of the CITI Program course site is unethical, and may be considered research misconduct by your institution.

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