Exploring Student Nurse Anesthetist Stressors and Coping Using Grounded Theory Methodology

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The purpose of this qualitative study was to examine the challenges that recent graduates of nurse anesthesia programs coped with during their anesthesia curriculum from their perspective. 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? This phenomenon was studied using grounded theory methodology.

The data were collected by individual, semistructured, in-depth interviews with 12 recent nurse anesthesia program graduates, from 5 different nurse anesthesia programs, who have been out of school for less than 2 years. This exploration into student nurse anesthetist stress and coping articulates 3 phases of development as these students progressed through their program. The phases are transitioning in (first 9 months of program), finding their way (9 to 18 months into program), and transitioning out (18 to 28 months into program). Coping mechanisms employed by the participants were problem focused, emotion focused, and a combination of the 2. Recommendations for action and future research are discussed.

Keywords: Graduate student stress, grounded theory, nurse anesthesia and stress, stress and coping, student nurse anesthetist.

It is established that professional intensive care nurses enroll into nurse anesthesia programs with financial and professional identities, roles, and attributes already in place.[1-3] They undergo inherent stressors within a nurse anesthesia curriculum and egress from their program to take a very different professional role in nursing.[4]

There is a limited amount of research regarding nurse anesthesia graduate education, and most of it is dedicated to cultural competency training, attrition rates, clinical aspects of the curriculum, or a historical overview of how this education has changed through the years.[5-9] A small number of studies deal with some of the initial challenges that student nurse anesthetists must face once they make the commitment to attend their program, such as the financial commitment to the program or the stress of learning the science of anesthesia.[1,3,10] However, to the author's knowledge, there is no research that explores how recent graduates of nurse anesthesia programs viewed and negotiated the challenges of their nurse anesthesia programs. Because there is no empirical and theoretical work regarding the factors or variables that influence the student nurse anesthetist experience from the graduate's perspective, the qualitative research tradition of grounded theory was employed in this study to provide a rich, contextual understanding of this phenomenon.

The practice of anesthesia is a highly stressful nursing specialty.[11-13] Student nurse anesthetists must transition from their known professional practice as registered nurses, who care for patients under a physician's direction, to advanced nurse practitioners who must make life and death decisions. Student nurse anesthetists must learn to work with a great deal of autonomy and must refine their decision-making ability, logical reasoning, and ability to reach a conclusion on what to do under what may be life or death circumstances.[1,3,10]

Exploring and understanding the challenges these graduates have gone through—their thoughts, emotions, perceptions concerning these challenges, and what they believe they needed as they maneuvered and successfully moved through these changes—will fill a gap in the current nursing education literature. In addition, this knowledge will also help prepare nurse anesthesia faculty to assist adult students in managing the steps necessary to successfully negotiate the challenges they face throughout the program, as well as assimilate into their new professional role as nurse anesthetists.[14-17]

Materials and Methods

Grounded theory methodology was used to analyze the qualitative data collected.18 The research focused on the reflective experiences as related by the recent graduates throughout their anesthesia education. This study was approved by the institutional review board of Walden University, and written permission was obtained from all participants. 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?

The goal in sampling with qualitative research is depth of information rather than large numbers.[19] This study used theoretical sampling.[20] Coding was completed after each interview was transcribed. Theoretical saturation was considered to have occurred when the coding of an interview did not seem to reveal any new information.[21-25]

This study included 12 recent graduates of nurse anesthesia programs, representing 5 different nurse anesthesia programs, who have been out of school for less than 2 years.

Initial contact with the potential participants was made by written invitations placed in their respective mailboxes in the anesthesia lounge of the hospital explaining this study's intentions and asking them to contact this researcher via email or telephone if interested in participating. They were given a window of opportunity of 10 business days to respond before a second invitation to participate was dispersed in the same manner.

The intention of conducting these interviews was to gain a broad and in-depth understanding of recent nurse anesthesia program graduates' perceptions and experiences. Therefore, qualitative, intensive, in-depth, semi-structured interviews were conducted with each of the participants. Each of these interviews lasted between 60 to 90 minutes. The researcher determined that the sample size was adequate when density and saturation of the core categories during analysis were achieved and additional interviews did not add new information.

For this study, the researcher used member checks and triangulation to ensure the accuracy of the data and to preserve the quality of the data.[18,20,21] With respect to member checks, the researcher transcribed each interview verbatim and sent the transcripts via email to each of the participants, who were then encouraged to read them to check that they were an accurate reflection of their thoughts and perspectives. The researcher spoke with the participants after emailing them a copy of their transcript and shared her interpretation of these responses with them.

Constant comparison techniques were used to compare the data from one interview to subsequent interviews to determine how the data related to specific categories that emerged from the analysis. The data from the interviews were read multiple times; the coding procedures of open, axial, and selective coding were employed (Table 1).[20,22,24]

During the coding process, any issue that the participant identified as causing stress was considered a stressor. At the same time, these stressors were grouped into thematic categories using principles of grounded theory methodology. These categories were reduced throughout the analysis stages and divided into personal and curriculum issues (Table 2). Any action or process identified by the participant as an adaptation to stress was considered a method of coping. These methods of coping were also grouped into thematic categories, then reduced into the categories of emotion-focused coping, problem-focused coping, and combination coping.

One assumption of this study was that the participants would be helpful in explaining what stressors they experienced as they progressed through their nurse anesthesia curricula. Furthermore, the participants would provide meaningful and useful information on the critical aspects of their experience with the phenomenon. It was also assumed that despite honest attempts at truthfulness, consistency, and accuracy, participants may make recall errors, enhance their personal experiences, or minimize information that portrays them or their particular nurse anesthesia program negatively.

Results

Toward the completion of coding the interviews, the researcher noted that, while all the participants identified stressors or coping methods, there seemed to be differences in how the participants viewed their experience. Differences were also evident in the way participants responded to the stress they were experiencing. The participants perceived stressors in different ways and coped with those stressors in a variety of ways. Examinations of these differences led to a data-driven developmental framework for the student nurse anesthetist experience, as displayed in Table 3. This framework is a 3-stage process in which the students develop from a "transitioning in" stage during the first 9 months of their respective programs, to a "finding their way" stage during months 10 to 18 of their programs, to a "transitioning out" stage during the end of their programs, months 19 to 28. It is through these stages that graduate students seem to feel connected to their graduate program, feel more comfortable with the student role, and then begin to transition to more of a professional focus.

Coping was defined as any way the participants managed or adapted to their perceived stress based on the interview data collected. This included both active and passive types of coping. These participants used a variety of methods to adapt to the stress they experienced. The methods of coping represented 3 subcategories: problem-focused coping, emotion-focused coping, and a combination coping approach.

Problem-focused coping included any action steps that were directed at a problem. Participants described techniques such as time management, obtaining further information about particular clinical situations, asking for additional materials, planning ahead for study group assignments, and using preprinted clinical data care plans.

Emotion-focused coping included techniques that were used to regulate unpleasant emotion surrounding a problem area. Participants reported a variety of techniques, including exercise, avoiding thinking about the problems at hand, going out, procrastinating, relying

Code	Examples of code from interview transcripts
	Curriculum stressors
OPC: Ongoing personal conflict with peers	"I mean, she just drove us nuts with her constant asking of what we called stupid questions that the instructor just answered for us all 4 times 4 different ways…. I hated being put in groups with her."
FOR: Fear of reprimand for discussing issues with director of program, faculty, or CRNAs in clinical setting	"I was so torn about how to handle the situation. I mean, if I told the director they'd just think I was a troublemaker—like I'm some kind of baby—and couldn't handle it myself, and if I told the faculty they'd just tell the director, and I never wanted to let the CRNAs that I had in clinical know that my classmate was harassing me. I mean, they have to work with him too, and I didn't know who knew who outside of clinical, ya know? I felt trapped."
CWI: Conflict with instructor or faculty	"I knew she [faculty] just didn't like me because we were dating, and she didn't like him [fellow classmate]…that was no secret, but I shouldn't have to be deemed guilty by association just because I was dating a fellow student she didn't like. He had [expletive deleted] her off months earlier by arguing about some test questions…it was ridiculous, but it was his issue with her…not mine."
ITM: Ineffective time management	"…it was so overwhelming, I mean, you cannot believe how crazy it was trying to keep up with the books and trying to finish the generic MSN courses, and try to be a good wife and Mom too! I would just cry at home because I just didn't know how to do it all and not fail at any of it."
CA-LOC: Clinical assignment—lack of control	"…several of my fellow students had told me that she [expletive deleted] as a CRNA, but if you asked her she'd tell you that she knows it all and is above learning anything new, and you can't try anything new with her. She thought she was better than sliced bread, but we all knew that being assigned to her was a waste of a clinical day."
CA-LOA: Clinical assignment—lack of autonomy as senior student	"I had a great experience with one CRNA one day, and the next I had someone who was really reserved, and when I asked if I could try to apply what I learned the day before, which was totally safe for the patient in question, he [the CRNA] said a flat no and made me just stand there and watch him work for the rest of the day…what a waste of time for me as a senior just weeks from graduating."
CA-TMA: Clinical assignment—too much autonomy as a junior student	"…it scared the living [expletive deleted] out of me when he [the CRNA] just said, 'call me in the lounge when they are closing' and he just walked out, leaving me there [without supervision]. I was so scared. The patient did fine, but I wasn't doing too well.…I was only a junior, and I had only been in the OR for clinicals 3 days at that point."
DSI: Different styles of instruction in clinical setting	"…one day you'd have a really diligent CRNA who would really teach you something, and the next day you'd have the kind that micromanages everything and really is annoyed that you're with them, and the next you'd have the one that just walks in, barely talks to you, stays long enough for the case to start, and then leaves you for the rest of the case with the instructions of, 'call me when it's time to reverse them.' I finally kept a diary of who I like and who I didn't, and I would do anything to get into the rooms of those I liked during my down time."
CE: Clinical evaluations by individual clinical instructors (CRNAs)	"…some days you would have a great connection with the CRNA, and they'd rate your performance well and actually offer criticism that you weren't surprised by because you talked about the issues all day long, but others…it was awful because you'd get your [evaluation] back from your professor and you had no idea that the CRNA that day thought you [expletive deleted] and made comments about your performance that you didn't even know that you had issues with because they never pointed them out while you were doing them. I mean, seriously…how am I supposed to learn from that a week later?"
F&W-C: Fatigue and workload in clinicals	"…you can't quit, I mean [tearing up], what would that say about what kind of person you are—at least for me and my family. I did this to my family by going to this school and putting them through this, so…I couldn't dare complain about how hard it was.…I just cried to myself when I was alone because, it was just so hard, the pressure of clinicals and feeling inadequate, but not allowing yourself to fail, not just for yourself but for your patients on the table and, in my case, my family…my kids. I couldn't fail them at this point of the game [just starting her senior year]."
F&W-D: Fatigue and workload in didactic	"…it was crazy to start on part 2 of a course as your first introduction to the course, so I spent a ton of time backtracking over the first part of the book to read what the other medical students already knew from part 1 of the course that was taught the semester before we started anesthesia school…it was [expletive deleted] to feel like they were talking another language, and I just didn't get it. Oh, and you can't get a 'C' or you're out of the program, but the med students could fail it and retake it…no pressure there, eh?"
CCP: Competent clinical	"I hated the autonomy when I was a junior, but I loved it when I was a senior. I mean, those same CRNAs who left me alone in the beginning when they shouldn't have, left me alone as a senior

Table 1. Codes for Data Analysis of Stressors

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CRNA indicates Certified Registered Nurse Anesthetist; MSN, master of science in nursing.

Code	Examples of code from interview transcripts
practitioner as senior student	and I could actually see myself at the head of the table in a few weeks as a CRNA myself. But other days I knew I was still in way over my head, and I had to remind myself to breathe."
FCE: Fear of clinical error	"I forgot to turn on the oxygen during the preoxygenation part before intubation about 3 different times. I ran down the checklist in my head, and 3 different times I realized I put the mask on [oxygen mask placed on the patient's face] but didn't turn on the o's [slang for oxygen]. Stupid mistake as I watched their sats [oxygen saturations measured on a monitor] drop and then remembered what I didn't remember…it all was OK, so don't worry, but still…it made me feel stupid and question my ability to do this."
FCP-I: Fear of competence perception by clinical instructor (CRNA)	"I made a mistake with her [CRNA] last week, and now I was with her again and all she harped on was the mistake from last week. I was never going to live that down, and I couldn't convince her that I learned from the mistake and would never do it again.…I just knew she thought I was dumb, and she treated me like that."
TCB: Taking certification boards upon graduation	"…to go through all of this and possibly not pass boards was the worst stressor of all! What would my husband say…my kids…my family. I put them through all of this, and then I fail the boards? I had nightmares about it all.… I kid you not."
FOD: Fear of dismissal from anesthesia program (poor grades)	"…we could only have 5 credit hours worth of 'Cs' so if you made a 'C' in just one of the med school classes, you'd have your 5 credit hours right there…no more safety net and plenty of other high credit hour classes left to take. I knew I wasn't the best test taker, so this was the most stressful part of the program for me…the fear of being kicked out because I fell for the distracter question as they [the professors] call it, and I get the 'C' grade one too many times. Study time was hard enough to find, but to have this added pressure was hard for me."
EXP: Expectations in curriculum	"It just didn't seem like everyone was on the same page. My classmates, you know, and the faculty. I don't think they knew where each other stood, like maybe some of us expected more from ourselves than the faculty did, or the faculty would ask for something that we were totally not prepared for. Like we hadn't even read that far in the books yet, but we had to know it that day. I think the faculty in clinical didn't know what the faculty in class taught us, so they wanted us to know more than we did. It was stressful not knowing if I was on track or not, ya know?"
CS: Class structure	"Some of my classes were unorganized to me … compared to my undergrad anyway. So, some of them were very loosely structured. So [I] wasn't sure what was due when, and then sometimes it changed, so that added stress to me. My classes would even change time…this Friday it would be at 2 PM, but next Friday it would be at noon, and since it wasn't always at the same time, I'd have a doctor's appointment or plan something during when I didn't have clinical and thought I knew when I didn't have class, but then they'd change the time and I'd all of a sudden have class. Making appointments was almost impossible when this happened, and it happened more than not."
	Personal stressors
RCoF: Relationships with children or family	"I cried every night when I came home, and my kids would run up to me screaming 'Mommy's home' and then I'd have to turn my brain off so I could genuinely enjoy spending time with them when inside I knew I had to study or prepare for my next clinical day's case, and I couldn't spare a second of time or I'd collapse from exhaustion…mental and physical."
BI: Body image	"I used to work out everyday before I started that godforsaken program, and in 28 months of school I worked out about a handful of times, and I gained about 25 lb. I became one of those stress eaters that I despised when I had a '6-pack abs' before all of this [tapping belly]. I'm still trying to get back to what I was, but it [expletive deleted] to be single, with no social life, and watch my hard-earned body turn to flab because I just didn't have time to take care of myself the way I used to."
RS: Relationships with spouse or significant other	"…dating was a joke, are you kiddin' me? Who had time to date? I could barely keep myself awake; at times I was so exhausted, literally, and dating was the last thing on my mind. A couple of my classmates ended up separating from their spouses during my class, so I knew a new relationship would never survive if they couldn't make it knowing what they were getting into."
RCM: Relationships with classmates	"…we were dating, and since we didn't want the gossip circuit to know about us and judge us based on each other's performance, we didn't tell anyone for awhile. It was nice to have someone who really could understand what it was like right there going through it with you. We've since broken up, but I don't know how I would have handled school without him."
LPT: Lack of personal time	"I just wanted to be left alone for just a [expletive deleted] minute. The only privacy I had was in the bathroom…isn't that sad? I was constantly with someone wanting something from me. In

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CRNA indicates Certified Registered Nurse Anesthetist; MSN, master of science in nursing.

Code	Examples of code from interview transcripts
	class, in clinical, in my house, and even in my sleep. My mind was always running and worrying about all the things I wasn't doing well or at all."
PS: Problems sleeping (sleep deprivation)	"I couldn't shut my mind down, ever! I was constantly running down the day, or the next day in my mind, or worrying about any little damn thing. So sleep was horrible because it was never like it used to be before school…or like it is again now that school is over. I was a walking zombie some days, and I don't understand how I made it through."
FP: Financial problems	"…we ran out of money 3 semesters before I was supposed to graduate…it was horrible. I had to make a huge decision quick and sign a contract to work for this group in order to get the educational stipend to support my family before we were homeless. I hated to commit my family to staying here for 2 years just for money, but I had no choice."
RS: Role strain	"Oh, there's a lot of juggling.… I play multiple roles. I'm not just a student. I'm a mother, a daughter, a nurse anesthesia student, and I feel like a separate clinical student…like it's a different degree altogether. I mean, the classes are hard enough, but the clinical…it kicks my [expletive deleted]. I feel like a hockey Mom on steroids [participant laughs]. It all just blurs."

Table 1. Codes for Data Analysis of Stressors
CRNA indicates Certified Registered Nurse Anesthetist; MSN, master of science in nursing.

Type of stressors	No. of participants	No. of passages	Percentage of passages
Total	12	1,463	100
Personal stressors (in order of discussion):			
Role strain	11	102	7
Lack of personal time	11	96	7
Relationships with children or family	10	82	6
Body image	6	44	3
Relationships with spouse or significant other	12	122	8
Relationships with classmates	12	102	7
Problems sleeping (sleep deprivation)	9	78	5
Financial problems	12	113	8
Curriculum stressors (in order of discussion):			
Expectations	8	65	4
Class structure	9	42	3
Ongoing personal conflict with peers	4	28	2
Fear of reprimand	2	5	<1
Conflict with faculty or clinical instructors	5	27	2
Ineffective time management	10	84	6
Clinical assignments	12	75	5
Adjusting to different teaching styles	12	83	6
Clinical evaluations	8	22	2
Fatigue and workload	10	63	4
Competence as future clinical provider	11	70	4
Fear of clinical error	10	54	4
Fear of clinical instructors' perception of competence	6	19	1
Taking certification board examinations	12	45	3
Fear of dismissal from program (poor grades)	12	42	3

Table 2. Distribution of Reported Stressors

Stressors theme	Phase: Transitioning in (first 9 mo)	Finding their way (10-18 mo)	Transitioning out (last 9 mo)
Curriculum issues			
Major subthemes[a]: Clinical assignments Adjusting to different teaching styles Taking certification board examinations Fear of dismissal from program (poor grades) Competence as future clinical provider Ineffective time management Fatigue and workload	Making anesthesia school work for me *Problem-focused coping:* Responsibility of learning aimed at university *Emotion-focused coping:* Avoidance behaviors (eg, anger at program for feeling "in over my head") *Combination coping:* Not using	Academic pressures—clinical demands overwhelming *Problem-focused coping:* Asking for help from faculty; contemplating dropping out; trying to better manage time *Emotion-focused coping:* Socially withdrawing from support system; procrastinating; lack of exercise; complaining to fellow students *Combination coping:* Peer support	Academic pressures—clinical skills developing *Problem-focused coping:* Using time wisely; planning ahead; taking a more proactive vs reactive approach to anesthesia care *Emotion-focused coping:* Practicing self-care and relaxing; socially more comfortable in short time frames *Combination coping:* Peer support; relate more to CRNA clinical instructors
Personal issues			
Major subthemes[a]: Relationships with spouse or significant other Relationships with classmates Financial problems Role strain Lack of personal time Relationships with children or family	School extremely stressful—hard to focus on outside events *Problem-focused coping:* Responsibility of understanding and adjusting aimed at family *Emotion-focused coping:* Avoidance behaviors (eg, anger at family for nagging or lack of empathy) *Combination coping:* Not using	Not enough time to get things done, both school and personal; high expectations in program and personal life *Problem-focused coping:* Asking for help from family; weighing options if one quits the program; trying to better manage family time *Emotion-focused coping:* Socially withdrawing from support system; procrastinating; lack of exercise; complaining to fellow students *Combination coping:* Peer support; anxious to see how classmates are dealing with similar situations	Role strain, both personal and as student; nervous about personal future *Problem-focused coping:* Using family and down time wisely; planning ahead *Emotion-focused coping:* Practicing self-care and relaxing; socially more comfortable in short time frames *Combination coping:* Peer support from fellow students and CRNAs

Table 3. Three Phases of Student Nurse Anesthetist Stress and Coping Model
CRNA indicates Certified Registered Nurse Anesthetist.
*Major subthemes were those expressed by ≥ 90% of participants.

on their spirituality, and withdrawing.

Combination coping techniques include the use of social support, getting involved with other students, and attending program-sponsored functions. Participants found they were able to relieve some of the emotion around feeling stressed as well as make direct action toward solving problems or relieving stress.

Discussion

Many of the stressors identified by the participants in this study are consistent with the current literature in parallel academic communities such as law, dentistry, or medicine.[10,26-48] Stressors identified in this study were categorized into curriculum stressors and personal stressors. Personal stressors identified by the participants included role strain, lack of personal time, relationships with children or family, body image, relationships with spouse or significant other, relationships with classmates, problems sleeping (sleep deprivation), and financial problems. Curriculum stressors identified by the participants included expectations, class structure, ongoing personal conflict with peers, fear of reprimand, conflict with faculty or clinical instructors, ineffective time management, clinical assignments, adjusting to different teaching styles, clinical evaluations, fatigue and workload, competence as a future clinical provider, fear of clinical

error, fear of clinical instructors' perception of competence, taking certification board examinations, and fear of dismissal from the program (poor grades).

Data analysis generated 2 primary category areas that related to each other in a developmental process. These 2 broad primary concepts were (1) stressors and (2) adaptations or coping methods. In comparing these primary concepts across the participant cases, it seemed that participants identified different conditions as stressors and dealt with those stressors in a variety of ways. Most of the participants seemed attached to their anesthesia programs and had to ignore aspects of their lives outside their program. They reported difficulty in developing relationships, maintaining the relationships they already had in place, or dealing with the expectations of their faculty or clinical instructors. Other participants seemed to be more comfortable in the role of the graduate student nurse anesthetist and were concerned about their performance in the program academically, with their focus being more on getting though the next semester. Yet other participants seemed to be focused more on the future and preparing for their new professional roles after graduation. Their concerns surrounded being prepared to enter the profession as a Certified Registered Nurse Anesthetist (CRNA) and around plans after graduation in seeking employment.

Coping methods for dealing with stress varied as well. Although some participants avoided thinking about what they had to do entirely, others incorporated time management and organizational tools into their daily routine to assist them in managing their lives.

Upon completion of the coding process, a 3-stage model of student nurse anesthetist stress and coping developed. The first stage, "transitioning in," is focused on the student's transitioning into the role of graduate student during approximately the first 9 months of his or her program. It deals with a growing sense of connection to the graduate program and the expectation of being a student nurse anesthetist. As the students find some equilibrium in the program and begin to develop more effective coping techniques for dealing with stress, they move into the "finding their way" stage. "Finding their way" describes each student's settlement into the student role, which occurs approximately between months 10 and 18 of the program. The student understands the expectations of the faculty and takes responsibility for his or her own learning. At this stage the student understands the need to develop effective time management techniques, although he or she may not have done so yet. The third stage, "transitioning out," focuses on the student's transition out of the student role into a professional role. The stressors for the student in the third stage deal with concerns about skill competency and entry into the profession. Coping with stress stems from a position of self-care, and the student is proactive in addressing stress. Participants generally reached this stage during the last 9 months of their respective programs.

The findings of this study may be valuable to nurse anesthesia faculty and to future student nurse anesthetists. These study findings could help better prepare students in managing the steps necessary to successfully negotiate the challenges faced throughout the program. Nurse anesthesia faculty could use these findings to assist in designing services or activities that will help future students successfully negotiate a rigorous curriculum as well as assimilate into their new professional role as nurse anesthetists.

Based on the responses of these participants, the following are some recommendations for action. Nurse anesthesia faculty should explore stress reduction measures for students, such as:

1. Modifying the didactic and clinical course load in combination with each other during the first couple of semesters. One participant was quoted as saying:

> I had a heck of a time maintaining my school schedule for study time and clinical prep time. It was hard taking the noncore classes while I was in clinical because I had to spend so much time preparing for my surgeries the night before and I still had a paper due in one of the nursing courses that wasn't anesthesia related. If I had to do it all again, which I never would—it was that hard—I'd take all the noncore courses before I ever started anesthesia school, so I wouldn't have to push myself to the limits of no sleep just to finish a paper deadline and still know what I had to know to put someone to sleep the next day in clinicals. It was so stressful for me to be up without sleep until 3 AM, knowing I had to be in the OR [operating room] getting set up and doing machine checks by 6 AM, and I'm still writing a paper due in some silly nursing class that I have to take to get my MSN.

2. Increasing the motivation of the student nurse anesthetists through planned, professionally guided group counseling sessions. One participant stated:

> You can't quit, I mean [tearing up], what would that say about what kind of person you are—at least for me and my family. I did this to my family by going to this school and putting them through this, so…I couldn't dare complain about how hard it was.… I just cried to myself when I was alone because, it was just so hard, the pressure of clinicals and feeling inadequate, but not allowing yourself to fail not just for yourself but for your patients on the table and, in my case, my family…my kids. I couldn't fail them at this point of the game [just starting her senior year].

3. Seeking interventions such as stress management training programs and including the student nurse anesthetists' family and friends during group debriefing sessions to help facilitate an open forum and networking opportunity for all those sharing similar circumstances. One participant said about his relationship with his spouse:

> We never used to fight, but by the time my second semester of school was in full swing…we were fighting all the time over any little thing. I wasn't home hardly except to sleep, and that wasn't for but a few hours maybe a night. I spent every waking moment of my time focusing on the books or in my study group. I even brought my notes or whatever with me wherever I went, so even if I was getting my hair cut, I had something to read for school at all

times. I'm serious! I literally didn't leave home without something related to anesthesia within reach, and it drove my wife nuts! She jokingly called anesthesia school my [making air quotes] 'other wife,' but she really wasn't kiddin'. I don't know how we made it through those 2-plus years. It was so hard seeing her [expletive deleted] all the time knowing I couldn't do anything about it except quit school and go back to the ICU [intensive care unit]…which we both knew wasn't a real option. My schooling was really hard on her. Really hard on us…as an us.

This model of student nurse anesthetist stress and coping is the result of a preliminary grounded theory methodology investigation. A possible limitation for this study was face-to-face access to a limited number of recent nurse anesthesia program graduates who came from only a few different nurse anesthesia programs. This limits the ability to make comparisons to other cohorts.

Another limitation was that because of the personal nature of the stressors, not all students would reveal or share their personal feelings or have enough understanding of their processes of critical thinking to be able to discuss their negotiation of the challenges.

Additional research could focus on what helps a student progress through the stages, and determine the factors that could be predictive of the student's level of development. Future research is also needed to explore the relationship of age, gender, and completion of program to the stage process model. This study was completed on graduates of nurse anesthesia programs who had been out of their programs for 2 years or less. Replication of this study is needed with students who are currently enrolled in different semesters of a nurse anesthesia program, and in a variety of nurse anesthesia programs across the country, to gain a fuller understanding of the student nurse anesthetist's experience. Further research could also take each individual stressor discussed by these participants (marriage or relationships with significant others, parenting, financial strains, etc) and explore them from a larger sample of current student nurse anesthetists. Also, the results of this investigation and any further studies should be compared with student developmental models of other rigorous nurse anesthesia graduate programs to provide an integrative picture of student nurse anesthetist development.

Clearly, the topic of student nurse anesthetist stress is one that will continue to occupy the interest of future students and nurse anesthesia faculty alike. The in-depth interviews used for this study present only a partial picture of the wide variety of students currently entering nurse anesthesia graduate programs across the country and perhaps around the world. This exploratory research into the student nurse anesthetist's experiences will generate future interest, spark further questions, and drive both applied and basic research to better comprehend one of the more unique educational phenomena—the life of today's student nurse anesthetist.

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