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A Comprehensive Reentry Policy for Student Registered Nurse Anesthetists with
Substance Use Disorder

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Abstract

Substance use disorder (SUD) is a common problem in anesthesia. While there are policies in place for practicing anesthetists, there are no known studies to date discussing reentry policies specific to the student registered nurse anesthesia (SRNA) population. The purpose of this research study was to describe key stakeholders' knowledge and perspectives surrounding policies for reentry into academic programs for SRNAs in Illinois with SUD. The theoretical framework used to drive this research was based off George L. Engel's Biopsychosocial Theory. The theory examines the biological component of a person's disease process, the psychological component, and the social component.

During November 2017-January 2018, qualitative interviews were conducted using a semi-structured interview guide with chief anesthesiologists, chief certified registered nurse anesthetists (CRNAs), and directors of academic anesthesia programs from throughout Illinois. All interviews were audio recorded, transcribed, and analyzed using thematic analysis. Eleven major themes were identified: *existent and non-existent SUD policies, inconsistent methods on how to access a policy, variability in the components of SUD policies, difficulty in determining SUD among SRNAs, difficulty in confronting an individual, effectiveness of components of SUD policies are equivocal, ineffective components of a policy, knowing a person with SUD is not uncommon, variable amount of time needed for SUD treatment, differing opinions for the need for a student specific SUD policy, and reasons for need.*

The immediate goal of this research was to create a comprehensive reentry policy for SRNAs in Illinois with SUD to provide a structured reentry into an academic program. The long-term goal was to provide a tool that could be utilized in all academic anesthesia programs to assist all students suffering from SUD. All institutions that educate and utilize SRNAs should have a comprehensive reentry policy in place for SRNAs with SUD, which includes SRNA reentry to their educational program.

Background and Significance

The American Association of Nurse Anesthetists (AANA) Peer Assistance Advisors Committee (PAAC) developed recommendations and guidelines for nurse anesthetists and healthcare facilities to implement policies for the treatment of professionals with substance use disorder (SUD). Stone, Quinlan, Rice, and Wright (2016) state that the AANA strives to meet the needs of both certified registered nurse anesthetists (CRNAs) and student registered nurse anesthetists (SRNAs). However, there is a lack of comprehensive reentry policies for SRNAs with SUD.

There is a growing body of research aimed at identifying, intervening, and treating SUD in professionals while aiding with their reentry into practice. However, there is little to no research on identifying SUD in students and thus no developed model to assist SRNAs who wish to reenter their academic programs after they overcome SUD. The purpose of this

research project is to examine existing professional SUD mentorship policies, and highlight the need for a comprehensive policy for SRNAs with SUD who desire to complete or reenter their academic program.

Problem Statement and Need

Research on SRNAs who desire to complete or reenter their academic program, after recovery from SUD, is lacking: therefore, there is a need for a reentry policy for SRNAs who suffer from SUD.

Study Purpose

The purpose of this study is to conduct qualitative interviews with anesthesia leaders and professionals to highlight the need for, and develop, a comprehensive reentry policy for SRNAs who desire to reenter their academic program after recovery from SUD.

Research Question

- Are comprehensive policies in place for SRNAs in Illinois with SUD to provide a structured reentry into an academic program?

Theoretical Framework

The theoretical framework used to drive this research was based off George L. Engel's Biopsychosocial Theory which examines the biological, psychological, and social component of a person's disease process. Santrock (2007) states that a common belief is that illness stems from the malfunctioning of a person's body. The Biopsychosocial Theory includes identifying possible psychological and social causes for an illness.

SRNAs may be at risk of developing SUD due to genetic and environmental factors, such as a family history of substance abuse and cultural acceptance. They may also be at risk due to psychological components such as perceived stress during enrollment in their academic program. Social factors such as a lack of income may also play a role in the development of the disease. The three factors of the Biopsychosocial Theory were taken into consideration when attempting to highlight the need for a policy for SRNAs with SUD.

Literature Review

A systematic review of the literature was performed using the search terms: addiction, anesthesia resident, anesthesia professional, anesthesiologist, barriers to reentry, certified registered nurse anesthetists, challenges to reentry, chief CRNA, drug abuse, drugs of abuse, hidden populations, illicit drugs, nurse anesthetists, peer assistance, peer support, prevention, student registered nurse anesthetists, substance use disorder, and wellness. Thirteen articles were identified as relevant to the topic.

A study performed by Hendrix, Sabritt, McDaniel, and Field (1987) demonstrates that SUD has been considered a problem in some capacity within the nursing profession since the late 1980's. However, there were originally varying attitudes towards types of substances used. For example, some practitioners felt that although marijuana is an illegal substance, its propensity for abuse is negligible. Over a decade later, Quinlan (2003) was candid when discussing SUD in the nursing profession. She insisted that impaired practice needed attention, and that SUD be understood as a disease process. This was deemed important not only for those who suffer from SUD but also for the safety of the public. Providers impaired by substances are not only risking harm to themselves but also to the patients they treat.

Dunn (2005) authored a concise article detailing the prevalence of SUD among nurses, stating professionals with SUD need help and nurses must be able to identify signs and symptoms of addiction among colleagues. She also stated that although most nurses believed they would report an incident or help a coworker, less than half complied. This was most likely due to a lack of education about how to recognize or confront an individual with SUD.

The National Council of State Boards of Nursing (NSCBN) (2011) created a comprehensive manual detailing resources and guidelines for alternative and disciplinary monitoring programs for nurses suffering from SUD. This manual covers addiction in professional nurses, and asserts that SUD in CRNAs and SRNAs can be successfully treated. Appropriate, adequate and effective treatment is integral for a nurse returning to anesthesia

practice. Wilson and Compton (2009) state that anesthesia professionals and students have unique treatment needs for various reasons including, availability and access to controlled substances, potential loss of profession, professional guilt and shame, and a tendency to intellectualize the treatment process.

Groh and Rouen (2014) noted that the risks for substance misuse is high for SRNAs in their formative educational years. A separate study by Chipas and McKenna (2011) determined by using a 10-point Likert scale in which 10 represented the highest level of perceived stress, SRNAs had a mean of 7.2 while CRNAs had a mean of 4.3. Groh and Rouen (2014) also showed that over a period of five years between 2008 and 2012, fourteen nurse anesthesia programs in the United States had at least one incident of SRNA substance abuse, and two programs reported two incidents. Of the 16 SRNA cases that were identified, half of them were female, half were male, and one individual chose not to identify their gender. The same study attempted to identify drugs of choice among SRNAs. While opioids were the most abused drug, alcohol, cannabis, benzodiazepines, and cocaine were also abused. Therefore, there is no drug of choice for SRNAs who develop SUD. Any individual is at risk for developing SUD. Half of the SRNAs studied by Groh and Rouen (2014) had no known risk factors for substance abuse. Three SRNAs had a personal history of substance abuse and three had a family history of substance abuse.

Screening practices for nurse anesthesia programs include pre-admission drug testing, drug testing for suspicion of use, and random drug screening. Programs have also incorporated wellness teaching into their curriculum. NorthShore University HealthSystem School of Nurse Anesthesia utilizes the *Wearing Masks* video series in addition to a six-hour lecture on SUD in anesthesia providers and a one hour lecture on general wellness. Additional wellness practices include extending education to student families and completing learning modules developed by the AANA. Groh and Rouen (2014) concluded their study by stating that if future studies could

identify the effectiveness of wellness and prevention, nurse anesthesia programs could be more proactive in promoting wellness in their students as they transition from student to practitioner.

There is a growing body of research surrounding the identification, treatment, and reentry of CRNAs to practice. However, minimal resources are available which specifically cater to SRNAs with SUD and their reentry into academia. The AANA provides resources on their website for professionals and SRNAs with SUD. However, while CRNAs and SRNAs practice in the same environment, their perceived stressors are different and may play a role in a student's decision to use illicit substances.

According to a study by Chipas, Cordrey, Floyd, Grubbs, Miller, and Tyre (2012) stress affects all individuals differently. The study demonstrated that there was a statistically significant relationship between SRNAs reported stress and negative outcomes. Perez and Carroll-Perez (1999) revealed that 73% of SRNA participants reported that they were in a major life crisis, as measured by the Social Readjustment Rating Scale, putting them at increased risk for adverse outcomes- These study results indicate it is imperative that SRNAs at risk for SUD be identified separately from anesthesia professionals.

Methods

Design

This study utilized a descriptive, qualitative study design. The methodology that was employed to collect the data was a qualitative interview method utilizing snowball, or target sampling. Heckathorn (2002) states researchers studying hidden populations, such as those with substance use disorder, find that standard probability sampling methods may be inapplicable due to individual's privacy concerns or small sample size.

Sample and Setting

Chief CRNAs, clinical CRNAs, and anesthesiologists in Illinois that have policies in place designed to assist employees with SUD were asked to participate. Anesthesiology residency programs and SRNA programs in Illinois were also asked to participate. Participation was

requested through an e-mail recruitment letter. Twenty-two individuals were contacted. Three individuals chose to participate and one declined. The remaining eighteen individuals were sent a second recruitment e-mail. A fourth individual chose to participate in the study after the second recruitment e-mail for a total of four participants. Of the four participants one was a male anesthesiologist, one was a male chief CRNA, one was a female staff CRNA, and another a male staff CRNA. All interviews were face to face and last an average of sixteen minutes. The AANA describes a chief CRNA as someone who develops and interprets organizational policies for budgets and personnel; assumes responsibility for safe and proper operation and quality control of equipment, techniques, and procedures; and analyzes and evaluates activities to assure established quality patient care. (See appendices A, B, and C)

Interview Guide

Open ended questions regarding policies in place were developed from empirical literature and current research. Examples of questions asked include:

- 1) Does your facility/institution have a policy in place for individuals with SUD?
- 2) Are you familiar with your facility/institutional policy, if so can you explain it?
- 3) Have you encountered a coworker or anesthesia learner (SRNA and residents) with SUD and how was it determined that they suffered from the disorder?
- 4) Have you utilized your facility/institutional policy to assist an individual with SUD?
- 5) What aspects of the policy did you find effective/ineffective?
- 6) Do you feel that the policy in place is effective in assisting individuals with SUD, if yes/no can you explain why?
- 7) Can you provide another example of a time in which the policy was used?
- 8) Do you find your current policy effective enough that you would recommend it to other facilities/institutions, and if so why?
- 9) If you find your policy ineffective, or you do not have a policy, what aspects of a policy for those with SUD would you deem helpful?

10) Do you believe there is a need for a comprehensive policy for student anesthetists who suffer from SUD and why?

(See appendix D)

The objective of this inquiry was to identify common themes among professional and academic anesthetists. The identified themes that were found to be most effective in existing policies were used to develop a comprehensive reentry policy for student anesthetists with SUD.

Data Analytic Procedures

The interviews were recorded and transcribed using NVivo software to identify themes among answers. Upon completion, each interview was reviewed with the respective interviewee for accuracy. Each interview was transcribed separately and was reviewed with the research committee prior to conducting the next interview.

After identifying themes among interviewees and their policies on SUD, the most common and useful aspects of those policies were identified. The components of a successful SUD policy, determined by the sample interviewed, were used to identify the need for a policy specific to SRNAs which can be utilized by SRNA programs to facilitate SRNA reentry.

A qualitative snowball sampling study was the best fit for answering the proposed research question because it is the method of choice when identifying hidden populations. The individuals that were interviewed are not the target population. However, their experience and knowledge of their respective professional SUD policies is integral to identify what works best for the professional anesthesia population that suffers from SUD.

Providing interviewees with open ended questions allowed for a more candid dialogue between the interviewer and the participants. Participants could answer questions in ways that they saw fit which allowed them to feel comfortable with the research questions. Ensuring a comfortable setting and dialogue provided interviewees with an opportunity to expand upon ideas or feelings that they might not have if they were asked direct, probing questions.

Another benefit of the snowball sampling method was its simplicity of use. The research process was a three-step process. First, the concept of the interviews was presented to the anesthesia professional population. Next, the interviews were transcribed and examined for similarities. Finally, the similarities between answers were used to demonstrate the need for a policy for student anesthetists.

Marshall (1996) stated that a qualitative research study should have an inductive, holistic philosophical foundation. To explore the complex issue of anesthetists with SUD the study must be flexible and trustworthiness between the researcher and the participants must be established, as opposed to quantitative research methodology where results may be generalized. Qualitative research results must be transferable.

Trustworthiness

To ensure rigorous study methodology, the interviewer presented the topic of SUD mentorship to the described sample, and explained the rationale for the SUD research. Once common ground and a level of trustworthiness was established, the interviewer asked open-ended questions based on previous SUD research. Open-ended questioning encouraged meaningful, robust answers from the study participants by providing them with subject matter to speak about as broadly or specifically as they saw fit. Additionally, the open-ended interviews were efficacious because subjects cannot simply answer “yes” or “no.”

The immediate goal of this research was to demonstrate the need for a comprehensive policy for SRNAs in Illinois with SUD to provide a structured reentry into an academic program. The long-term goal is to provide a tool that can be utilized in all academic anesthesia programs to assist all students suffering from SUD.

Results

Four individuals from three different institutions chose to participate in the study and be interviewed. One participant was an anesthesiologist while the other three participants were CRNAs. Half of the participants were chiefs or heads of their anesthesia department. Eleven

common themes were identified among those interviewed. The major themes included: Existent and Non-existent SUD policies, inconsistent methods on how to access a policy, variability in the components of SUD policies, difficulty in determining SUD among SRNAs, difficulty in confronting an individual, effectiveness of components of SUD policies are equivocal, ineffective components of a policy, knowing a person with SUD is not uncommon, variable amount of time needed for SUD treatment, differing opinions for the need for a student specific SUD policy, and reasons for need. In addition to the common themes, each participant was given the time to speak freely about the topic of SUD in SRNAs.

Major Themes

Existent and Non-existent SUD policies. When participants were asked if their institutions had existing SUD policies, two responded that they did have policies in place and two were unsure if policies existed. Of the two participants that stated that their institutions had policies, one knew that the policy was online and the other “could think of two resources that would be primary contacts if they or someone else needed help.”

Inconsistent Methods of Access to a SUD Policy. The two individuals who were aware of their institutional SUD policy elaborated on the components of each policy. Both participants stated that if an individual was suspected of having SUD, they would have to go through “employee health.” They also stated that only employees of each institution would be eligible for insurance coverage of SUD treatment. One stated that “students would be covered by their own health insurance” and the other participant mentioned that “students would not receive financial assistance because the treatment associated with the SUD policy is an employee benefit.” An SRNA suspected to have SUD is “usually referred to their home institution” and they would “have to deal with the leadership at their school.”

Variability in SUD Policies Components exist. Some components of existing SUD policies for employees include “random drug testing, Alcoholic Anonymous (AA) once a week, financial assistance, and mental health counseling once a month for 5 years.” A separate

participant stated that employees do not lose their job, rather they are placed on a “leave of absence.” After treatment, employees are “offered their job back.” One of the participants stated that employees at their institution are also placed on “monthly naltrexone,” a drug used to treat drug and alcohol addiction.

Difficulty in Determining SUD among SRNAs. One participant stated that “when they were students another student was identified as having SUD” but “unsure of how it was determined” because by the time the participant knew, the “situation had already been formally taken care of.” Another participant had experience with identifying two individual residents with SUD. “A particular resident always wore long sleeves in the OR, and wore a cover gown over the long sleeves.” The resident would “spend a long amount of time in the bathroom.” The other resident “kept coming to work late” and had multiple excuses. A third participant had “retrospectively noticed” that a colleague had SUD. The colleague would “be nodding off at work” and “always seeming tired.”

Difficulty in Confronting SRNA with SUD. One participant spoke to the difficulty in confronting a person suspected of having SUD. Stating that it is a “difficult conversation” and “someone’s career is being placed in jeopardy.” However, a person suspected of having SUD should be “confronted.” Confronting someone is a “life stressor so it’s a big imposition on someone.” Even if the evidence isn’t convincing, if there is any thought that an individual is suffering from SUD it “must be acted on.” Those who think that they may need to confront someone are “walking a very fine line.” The same participant mentioned that confronting a member of their department was “the hardest thing” they have had to do. The participant was “shocked” upon the initial suspicion and confronting the individual was “hard, amazingly hard.” However, it must be done as individuals with SUD struggle with it and if “something isn’t done, then someone will end up dead.” Confronting someone is “saving someone’s life, but at a certain cost.”

Effectiveness of the Components of SUD Policies are Equivocal. All participants had opinions on what were, or could be effective components of an SUD policy. One participant stated that their institutional policy was “effective to the point that a colleague could come back into work” and never felt that their “colleague’s care was compromised or their teamwork was compromised.” This participant stated that an effective component of their SUD policy is “having someone who can provide a solid month of close support and someone to make sure that they are functioning okay in the work place.” Beyond a month, that participant’s institutional policy did not have a specified period for counseling. However, the participant felt “several months to a year” was appropriate to “make sure relapse doesn’t occur.”

Another participant stated that the “components of their policy are not helpful at all” and that the key is “aftercare and how you get the experts in medicine involved.” The participant added that once an individual suspected of having SUD is confronted, it is important to determine “who is there to support the confronted individual because you can’t just let them go home- you worry about them killing themselves, committing suicide.” While highlighting support as an integral component of an SUD policy, this participant made it clear that “there are a lot of very important steps” after confrontation and “you can’t mess up on any of those steps.” When a person is confronted, it should be done by a group of people. “Someone from human resources, or someone else in the department, and a family member or a friend” should be involved.

Another participant stated that they felt it was important for SRNA’s to know that it’s okay to admit if they have a problem. If an SRNA “has a substance abuse problem and they disclose that information,” it’s important for them to understand that “it isn’t the end of their career.” In addition to reassurance, this participant also stated that “a sponsor or mentor” would also be helpful and that a “mentorship should extend through the end of a career” and “not necessarily have an endpoint.” This participant also believed that they don’t think that an institution should be “required to provide financial assistance” for an SRNA, but schools should “facilitate that.” When asked to expand upon that idea, the participant stated that “schools, knowing the risk of

SUD among SRNA's, might provide some sort of insurance" or "increase in tuition for everyone to cover students" who develop SUD. This participant also stated that "education about what a person would need to do if they were to encounter someone reentering" practice would be helpful.

A fourth participant stated that at their institution, a person "cannot lose their job" and that they "receive help first." This individual stressed that "understanding that you are going to get help to treat the disease and then return to your status as a student is important" and also mentioned that having a sponsor would be helpful. "It would be beneficial to have someone to speak to every month or every six months or even a year just to check it." Or someone to speak to when they are "frazzled, on edge, and need to talk." This participant felt that "reduction of stigma, helping individuals to understand that they will not lose their position in school because they need help, financial assistance, health insurance, and mentorship" as effective components of an SUD policy specific to SRNAs.

Two participants felt that there were no ineffective components of their institutional policies. However, both agreed that the "stigma" placed on a confronted individual is "difficult to manage." One participant stated that it is difficult to look at a person with SUD and "not automatically look at them in a negative light."

Knowing a Person with SUD is Not Uncommon. All participants knew of an individual or multiple people in their institution who was found to have SUD. One participant knew of an upperclassman who was determined to have SUD while they were both students. Later in practice, another encountered a colleague who battled SUD. A third participant had encountered four individuals with SUD in their department. "Three of the four" were successful in reintegrating into practice. Similarly, a participant has known "a few residents with SUD" who have "left and chosen a different career path." A fourth participant has known two individuals with SUD. One of them, the participant had "worked close with for many years," reintegrated into

practice but it was “very hard for them because they were forced to work in an area where they could not be around narcotics.”

Variable Amount of Time for SUD Recovery. When asked about time needed to complete SUD treatment, answers between participants varied. One participant stated that “several months up to a year” was “probably appropriate but did not elaborate. Another participant stated that time needed was “not specified.” A third participant stated that they “remembered seeing something about 6 months” but they “did not know enough about “maintenance of treating SUD to know.” This individual added that time needed “may depend on severity of the disorder and substances abused” and that they “would not feel comfortable with a person returning to work until they knew that they were in a treatment program and that they completed it” or “they were returning to work under the guidance of a mental health specialist.” A fourth participant stated that they could not speak to the time needed to complete SUD treatment, frankly saying “no. I don’t know any of that.”

Differing Opinions on the Need for Student Specific SUD Policy. When participants were asked about the need for a student specific policy, two stated that a student specific SUD policy was necessary while the other two did not see the need for a separate policy. One participant stated that “addiction is the same” and that they didn’t “think there was a difference” in treating individuals with SUD. Another participant stated that the policy that their institution has in place is a “very specific policy” and that “everything is there to get an individual help and to put that person on the road to recovery” and they didn’t think that a separate policy could do a “better job.”

One participant who felt a student specific policy was necessary felt so because “I don’t think it’s sufficient to use a policy that is in place for people who are already done with school.” This individual mentioned that “student life is very different than not being a student. The stressors involved and how to try and manage something like SUD and still progress towards

graduation is difficult.” The participant stressed the need for a “separate academic policy” for students and that a policy should not “just be imported from any other hospital.”

Another participant who agreed with the need for a student specific policy believed that “there is a higher level of stress as a student.” The stress of a student is a “constant, higher level of stress.” This individual also pointed out that professionals with SUD have “already passed the certification exam.” Students who need treatment for SUD not only have to get treatment but “still haven’t passed the certification exam” creating additional stress. They also noted, a student specific policy would be their “reference” for helping students suspected of having SUD. A student specific policy would help them to know how to “alert the appropriate people.”

At the completion of each interview, each participant was given time to speak freely about the topics discussed. One participant mentioned that students “find ways to cope with stress that’s work related.” Sometimes “alcohol, and recreational drugs” are used, not only drugs that “they can get at work.” The participant stressed that “educating people on the fact that use of [drugs that can be obtained outside of the workplace] be incorporated into the diagnosis of substance use disorder.” Also, SUD in the student anesthetist population “deserves awareness and attention.”

Another participant stated that there is a moral concern when assisting SRNA’s with SUD. If an SRNA is “stealing something that would be given to a patient,” the problem is “denying patients relief for their own benefit.” If an SRNA is suspected of having SUD, something “must be done about it.”

A fourth participant stated that it was important to have a “good policy that favors the person, wants them to recover, and be successful at their job.”

Discussion

The AANA (2018) lists twelve criteria that CRNAs must meet prior to considering re-entry into practice. CRNAs must have been evaluated by a licensed provider with experience

treating substance abuse and dependency; they must have successfully completed a rehabilitation program; they must accept the chronic nature of substance use disorder; they must show evidence of a supportive spouse, significant other, or other supportive individual; they must be willing to take naltrexone under direction and supervision of a medical professional; they must have no untreated psychological comorbidities; they must participate in a monitoring program with random drug testing; they must understand that recovery is improved when random drug testing occurs because of the consequences of a positive test; they must understand that monitoring will take place for five-years and the potential exists for monitoring for the duration of clinical practice; they must have supportive colleagues at their worksite familiar with their needs; they must have grounding in a recovery community (AA is considered most effective); and they must be participating in a 12-step program. The AANA believes that intensive inpatient treatment and follow-up care increases the possibility of recovery for anesthesia professionals with SUD.

The American Nurses Association (ANA) references the NCSBN (2011) which states that monitoring the recovery of nurses with a history of SUD requires a well-informed re-entry plan that includes the following criteria: a supportive spouse or significant other, no untreated psychological co-morbidities, acceptance of the chronic nature of SUD, being grounded in the recovery community (having a sponsor), a supportive work site or department for re-entry, willingness to commit to monitoring as recommended by a monitoring program, willingness to take medication such as naltrexone as an adjunctive therapy, willingness to participate in toxicology screening on a random basis, and having supportive colleagues at their workplace who are familiar with their history and needs. Effectiveness is measured in the ability of an SUD policy to rehabilitate the nurse and protect the public. The ANA believes that comprehensive support services assure the safe rehabilitation and return of nurses to his/her professional community.

Roche (2007) states that when anesthesia departments, practice groups, and educational programs are confronted with a chemically impaired individual, they are unable to intervene effectively due to a lack of knowledge and inadequate SUD policies and procedures. SUD is not limited to any economic, social or professional group, and occurs in anesthesia providers. CRNAs are at high risk for developing SUD due to high levels of stress, disturbed sleep patterns, in-depth knowledge of drugs, and easy access to drugs. A variety of anesthetic drugs are abused by CRNAs including ketamine, midazolam, propofol, and inhalation agents. Fentanyl is the most commonly abused drug by anesthesia providers.

It is also reported by Roche (2007) that one out of every two fentanyl abusers will become chemically dependent. The prevalence of anesthesia providers with SUD is approximately 10%. Also, approximately 75% of anesthesiology and nurse anesthesia training programs have identified at least one suspected episode of abuse. Additionally, 20% of nurse anesthesia programs have had at least one incident of a chemically impaired SRNA. It is advised by Roche (2007) that for an SRNA to resume their educational program, their reentry requirements should parallel those of any other professional anesthesia provider. A supportive environment is mandatory for their successful reentry to the educational program.

Half of the participants interviewed stated that their institution had an SUD policy in place. All participants were aware of who they could contact if they suspected a colleague of having SUD or if they personally needed help. The SUD policies in place were not specific to SRNA's nor did they appear to be of use to any anesthesia provider that was not an employee. Although none of the discussed SUD policies are available to students, half of the participants knew a student who had suffered from SUD. Therefore, it is suggested that an SUD reentry policy specific to SRNA's be created and implemented in institutions teaching and or utilizing SRNAs.

Each participant identified familiar components of their department SUD policies that were effective. These components included confrontation of the suspected individual, inpatient

and or outpatient rehab, and reintroduction into practice. Each of these components are integral to a comprehensive SRNA reentry policy. Participants noted that the cost of rehabilitation for anesthesiologists and CRNA's is typically covered by their insurance plans. Remaining costs are typically covered by the anesthesia provider's group or hospital. Since the financial burden is significantly greater in SRNA's than the professional anesthesia population, it is recommended that financial assistance be available to SRNAs as part of an SRNA specific SUD reentry policy.

All participants agreed that confronting an anesthesia provider with suspected SUD is a difficult yet necessary act. Regardless of their role as anesthesia professional or student, if an anesthesia provider is suspected of having SUD, the situation must be addressed. Approaching an individual with suspected SUD should not be done alone. The individual who is suspicious of the SRNA should be joined by a close family member or friend, and a person who can assist them in beginning treatment. Developing an intervention team to appropriately confront an SRNA suspected of having SUD is another integral part of an SUD reentry policy specific to SRNAs.

Another common theme among participants was inclusion of aftercare criteria within an SUD reentry policy. In addition to confronting an individual suspected of SUD and the initiation of treatment, a SUD reentry policy specific to SRNA's should detail aftercare. Once an SRNA is reintegrated into their academic program, aftercare is essential in preventing relapse. Preventing relapse is not only essential for completing their academic program but also for transitioning an SRNA into their professional role as a CRNA.

Assisting SRNA's transition into professional practice should be the goal of a student specific SUD policy. None of the SUD policies discussed by participants were similar when detailing the amount of time required for treatment and reentry into practice. However, it was noted that the longer periods of treatment and mentoring were preferred by the colleagues of

those who were attempting to reenter anesthesia practice. Therefore, treatment and mentoring should be available for the SRNA with SUD throughout their enrollment and up to graduation.

Alignment of identified themes with suggestions made by the AANA, the ANA, and the model substance abuse policy for anesthesia developed by Roche (2007) are identified in the following table:

Identified Theme	AANA Recommendations	ANA Recommendations	Roche Policy
Existent and Non-existent SUD policies Inconsistent methods on how to access a policy	Lists twelve criteria that CRNAs must meet prior to considering re-entry into practice	Requires a well-informed re-entry plan for the recovery of nurses with SUD	Recommends SUD policy in place at any location that employs anesthesia providers Policy should include mandatory education on SA and CD for anesthesiologists and CRNAs.
Variability in the components of SUD policies	Lists twelve criteria that CRNAs must meet prior to considering re-entry into practice	Lists nine criteria that nurses must meet prior to considering reentry into practice	Policy composed of 15 recommendations
Difficulty in determining SUD among SRNAs Difficulty in confronting an individual	Details signs and behaviors associated with SUD and drug diversion in CRNAs Must show evidence of supportive spouse, significant other, or other supportive individual CRNA must accept the chronic nature of the disorder CRNA must have supportive colleagues at their worksite familiar with their needs	Lists behavioral changes associated with nurses diverting or suffering from SUD Must have a supportive spouse or significant other Nurse must accept the chronic nature of SUD Having supportive colleagues at the workplace who are familiar with a nurse's history and needs	Department should have procedure for the identification, intervention, referral for assessment and treatment, and monitored reentry of an individual with SA or CD.
Effectiveness of components of	Research on effectiveness of 12	Effectiveness measured in ability	Reentry requirements should parallel those

SUD policies are equivocal Ineffective components of a policy	recommendations is lacking. Most practitioners indicate AA is the most helpful recommendation	of SUD policy to rehabilitate nurse and protect the public	of professional anesthesia providers. A supportive environment is mandatory for successful SRNA reentry to an educational program.
Knowing a person with SUD is not uncommon	SUD is the number one occupational hazard. 10-15% of practicing CRNAs will struggle with SUD at some point during their career	Estimation that 6-8% of nurses use alcohol or drugs to an extent that it impairs their professional performance	Approximately 75% of anesthesiology and nurse anesthesia training programs have identified at least one suspected episode of abuse. 20% of nurse anesthesia programs have had at least one incident of a chemically impaired SRNA
Variable amount of time needed for SUD treatment	Monitoring will take place for five-years and the potential exists for monitoring for the duration of clinical practice	No recommended time frame needed for treatment but states nurse must have willingness to commit to monitoring as recommended by a monitoring program	A leave of absence will be granted for the purpose of assessment, counseling, and/or treatment.
Differing opinions for the need for a student specific SUD policy Reasons for need	Intensive inpatient treatment and follow-up care increases possibility of recovery for anesthesia professionals with SUD.	Comprehensive support services assure the safe rehabilitation and return of nurses to his/her professional community.	Educational programs are unable to intervene effectively due to a lack of knowledge and inadequate SUD policies and procedures.

Alignment of Themes

The first themes identified by the principle investigator during interviews were the existence and non-existence of SUD policies. Also, there were inconsistent methods on how to access a policy. The AANA, ANA, and Roche (2007) call for the existence and availability of an SUD policy. The AANA lists criteria that a CRNA must meet prior to considering re-entry into

practice. The ANA requires a well-informed re-entry plan for the recovery of nurses with SUD. Roche (2007) recommends an SUD policy in place at any location that employs anesthesia providers and education on SUD in anesthesia providers. These themes align and support the need for an existing and easily accessible comprehensive reentry policy for SRNA's. SRNA's should also be provided with education on SUD within the anesthesia profession.

Another theme identified in the interviews was variability in the components of SUD policies. The AANA lists twelve criteria that CRNAs must meet prior to reentry into practice, the ANA lists nine criteria, and the policy by Roche (2007) is composed of fifteen recommendations. The variety of recommendations of each policy and those suggested by the interview participants were utilized as a basis when developing the template for a comprehensive reentry policy for SRNAs.

Two additional themes that were identified during interviews were difficulty in determining SUD among SRNAs and difficulty in confronting an individual. The AANA details signs and behaviors associated with SUD and drug diversion in CRNAs. They also state that CRNAs must be able to demonstrate evidence of a supportive spouse or significant other, accept the chronic nature of the disease, and have supportive colleagues at their worksite familiar with their needs. Similarly, the ANA lists signs and behaviors associated with nurses with SUD. They also stress the existence of a supportive spouse or significant other, and supportive colleagues in the workplace who are familiar with them. Roche (2007) calls for anesthesia departments to have a procedure in place to identify, intervene, and refer for assessment and treatment of an anesthesia provider with SUD- ultimately leading to the monitored reentry of a provider with SUD. The alignment of these themes support the need for a method in place to identify SUD in SRNAs, confront them, and refer them for treatment.

Additional themes identified during interviews were that effective components were equivocal and that ineffective components of SUD policies existed. The ANA states that research on the effectiveness of their twelve recommendations is lacking. However, most

practitioners indicate that attending AA is the most helpful recommendation. The ANA measures the effectiveness in the ability of an SUD policy to rehabilitate a nurse and protect the public.

Roche (2007) states that reentry requirements for SRNAs should parallel those of professional anesthesia providers. Also, a supportive environment is mandatory for successful SRNA reentry to an educational program. Although components of various policies may be open to interpretation, these themes align and support the belief that SRNAs should have access to a personalized reentry policy with the primary goal of rehabilitation.

Interviewees stated that knowing a person with SUD was not uncommon. The AANA states that SUD is the number one occupational hazard. The ANA states that 6-8% of nurses use alcohol or drugs to an extent that it impairs their practice. Roche (2007) explains that approximately 75% of anesthesia training programs have identified at least one suspected episode of abuse. Twenty percent of SRNA programs have had at least one incident of a chemically impaired SRNA. These themes align and show that the issue of SUD in SRNAs is not trivial and that a comprehensive reentry policy for SRNAs is necessary.

Another theme identified during interviews was that there was a variable amount of time needed for SUD treatment. The AANA states that monitoring of an individual with SUD takes place for five years with the potential of monitoring for the duration of clinical practice. The ANA does not have a recommended time frame for treatment but states that nurses must have the willingness to commit to monitoring as recommended by a monitoring program. Roche (2007) states that a leave of absence should be granted for assessment, counseling, and/or treatment. Each of these themes support the fact that rehabilitation of an SRNA with SUD does not follow a finite period. Instead, appropriate assessment of an SRNA with SUD should be the start of developing a rehabilitation program specific to the individual.

Two additional themes identified during interviews were that there were differing opinions for the need of a student specific policy and that there were reasons for need. The AANA states that intensive inpatient treatment and follow up care increases the possibility of

recovery for anesthesia providers with SUD. The ANA explains that providing nurses with comprehensive support services assures their safe rehabilitation into the professional community. Roche (2007) states that educational programs are often unable to intervene effectively due to inadequate SUD policies and procedures. Both the AANA and ANA support the existence of SUD policies to appropriately guide the rehabilitation of an individual with SUD. Knowledge and adequate SUD policies and procedures for SRNAs is lacking. Therefore, a comprehensive reentry policy for SRNAs is necessary to effectively guide the rehabilitation of SRNAs with SUD.

Recommendation

The recommendations of the AANA, ANA, Roche (2007), and the suggestions made by each participant have been combined to develop a template for a comprehensive reentry policy for SRNAs with SUD.

Policy Template

The policy is adapted with permission from the model substance abuse policy for anesthesia developed by Roche (2007).

1. The (name of school/institution that SRNA is part of) will provide mandatory education on SUD in SRNAs. Education should include information on how to access the SUD policy for SRNAs.
2. If an SRNA is suspected of or exhibiting signs of SUD, the (name of school/institution that SRNA is part of) has a procedure for the intervention, referral for assessment and treatment, and monitored reentry of an SRNA with SUD.
3. The (name of school/institution that SRNA is part of) is responsible for identifying SRNAs with deteriorating clinical performance, behavioral changes, and excessive absenteeism but is not responsible for diagnosing the nature of the problem.
4. Upon identification of SUD in an SRNA the (name of school/institution that SRNA is part of) must develop an intervention team to confront the SRNA. The intervention

- team should include the person who initially identified the SRNA in question, a faculty member of (name of school/institution that SRNA is part of), a close family member or friend of the SRNA, and a professional who can assist the SRNA in beginning treatment.
5. Self-referral will be encouraged and a SRNA position in the (name of school/institution that SRNA is part of) will not be jeopardized by a voluntary request for assistance with SUD. The (name of school/institution that SRNA is part of) must be notified if the individual enters treatment.
 6. A leave of absence will be granted for assessment, and/or treatment.
 7. The cost of assessment, treatment, and recovery programs is the responsibility of the SRNA. However, if the SRNA is unable to finance their treatment, (name of school/institution that SRNA is part of) will aid with identification of possible sources of financial support.
 8. Prior to reentry of an SRNA to (name of school/institution that SRNA is part of), a reentry plan will be developed. The reentry plan will detail when the SRNA will reenter (name of school/institution that SRNA is part of), when the SRNA will start or resume their clinical rotations, who will act as a faculty mentor, what resources are available at (name of school/institution that SRNA is part of), measures that will be taken to bridge the SRNA into professional practice, any additional educational requirement, and expected date of graduation.
 9. Mentoring for the SRNA with SUD should be required by (name of school/institution that SRNA is part of) throughout their enrollment as a student and up to graduation.
 10. Confidentiality is essential. No information regarding a SRNA participation in drug testing, intervention, assessment, or treatment will be documented in the SRNAs academic file. A separate, confidential file will be maintained by the (director of the

school or institution/designee) and will be available for review by the individual SRNA at any time.

11. The written consent of the SRNA will be required for disclosure of any information related to their assessment, intervention, or treatment for SUD.
12. Violations of this policy constitute professional misconduct and are subject to disciplinary action including suspension or dismissal from (name of school/institution that SRNA is part of), or conditional reentry following treatment.
13. SRNAs have the right to due process and may appeal any decision that adversely affects their student/practice status to the (grievance/problem resolution committee.)

Limitations

Twenty-two individuals that were asked to be interviewed, only four chose to participate in the study. No participants were heads of academic departments at either anesthesiology residency programs or SRNA programs in the state of Illinois. Two participants were employed at the same institution. Due to the low number of participants, identifiers were limited to profession and gender.

During interviews, open ended questions were asked without the principal researcher providing subjective opinions. However, participant bias may have played a role in their answers. The demeanor, body language, verbal responses, or questions presented by the principal researcher may have influenced participant answers.

The identified themes were aligned with the recommendations by the AANA, ANA, and the model policy template by Roche (2007). It is possible that the interpretation of any of the recommendations or model policy components by the principal investigator were not as intended.

It is possible that one or more of the major themes identified were not agreeable to any of the participants. However, that limitation was reduced by examination of interview transcripts by two separate parties and an agreement of identified themes.

Conclusion

Seventy-five percent of participants knew of at least one SRNA who developed SUD. However, half of the participants were unsure if their departments had an SUD policy. Student life has been described as more stressful than life after graduation. All participants agreed that SRNAs are exposed to a significant amount of stress. That stress may result in an abuse of substances and SUD ultimately creating a burden that is inescapable.

It is imperative that further research is performed to determine all appropriate components of a successful SUD reentry policy for SRNAs. This study lays groundwork for future research on the topic of SRNAs with SUD and reentry. The identified themes of this study and the developed reentry policy may be used by any anesthesia provider researching SUD with intent to expand the literature on the topic of SUD and reentry in SRNAs. This policy can be used as the basis for a plan of action aimed at assisting an SRNA with SUD who desires to reenter their academic program and successfully transition into a professional role. The presented comprehensive reentry policy may be utilized by any academic anesthesia program that is lacking a SUD reentry policy specific to SRNA's or has no SUD reentry policy in place.

Ultimately, all institutions that educate and utilize SRNAs should have a comprehensive reentry policy in place for SRNAs with SUD, which includes SRNA reentry to their educational program.

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Appendix A

Recruitment E-mail

Hello,

My name is Tom Nigro, Jr. and I am a Senior Nurse Anesthesia Trainee at NorthShore University HealthSystem School of Nurse Anesthesia. I am conducting research on substance use disorder (SUD) in student registered nurse anesthetists and would like to know more about your institution's policy on anesthesia providers with SUD. If you are interested in participating in this research and would like to know more, I have attached an information sheet detailing what would be asked from you as a participant in this study. Thank you for your time and I look forward to hearing from you.

Tom Nigro, Jr. MS, RN

Appendix B

Recruitment E-mail Second Attempt

Hello,

You are receiving this message because I have not received a response from you regarding the initial e-mail invitation to participate.

My name is Tom Nigro, Jr. and I am a Senior Nurse Anesthesia Trainee at NorthShore University HealthSystem School of Nurse Anesthesia. I am conducting research on substance use disorder (SUD) in student anesthetists and would like to know more about your institution's policy on anesthesia providers with SUD. This e-mail is being sent because I have not received a response from you regarding the initial invitation to participate. If you are interested in participating in this research and would like to know more, I have attached an information sheet detailing what would be asked from you as a participant in this study. Thank you for your time and I look forward to hearing from you.

Tom Nigro, Jr. MS, RN

Appendix C

INFORMATION SHEET FOR PARTICIPATION IN RESEARCH STUDY**A Comprehensive Policy for Student Anesthetists with Substance Use Disorder**

Principal Investigator: Thomas Nigro Jr. MS, RN – graduate student

Institution: DePaul University, USA

Faculty Advisor: Dr. Pamela Schwartz CRNA, DNP – Program Director, NorthShore University HealthSystem School of Nurse Anesthesia. Also Dr. Bernadette Roche CRNA, EdD

Research Team: Not applicable.

Collaborators: Not applicable.

I am conducting a research study because I am trying to learn more about reentry policies available to student registered nurse anesthetist's suffering from substance use disorder (SUD). I ask that you participate in the research because of your professional title and role in your academic and/or anesthesia department. If you agree to be in this study, you will be asked to complete an interview with myself, the principal researcher. The interview will include questions about your department's and/or institution's policy for coworkers/students who suffer from SUD. The interviews will be conducted in person at a time and location that is convenient to you. If any questions are asked that you do not want to answer, you may skip them

The interview will take approximately forty-five minutes of your time. Research data will be collected from you and audio recorded. The data will be kept confidential. The purpose of the recording is to compare your answers with the answers of other anesthesia professionals who are also participating in the study. At the completion of the study, all recordings will be destroyed.

Your participation is voluntary, which means you can choose not to participate. There will be no negative consequences if you decide not to participate or change your mind later after you begin the study. You may request to remove your responses up until the time the responses from you and other participants are combined. Once the data is combined, your responses will be unable to be removed from the study because all data will be anonymous and it will be impossible to determine which responses belong to you. Your decision to be a part of the research will not affect your employment, your status, or your affiliation with the NorthShore University HealthSystem School of Nurse Anesthesia or DePaul University.

If you choose to participate in the study, please respond within 10 days of being informed. If you do not respond within 10 days, you a second attempt at contacting you will be made. After the second attempt at contacting you, an additional 5 days will be provided for you to respond.

Once choosing to participate in the study the next step will be to determine a time and location for your interview. You will be asked to provide a location that works best for you and any dates and times in which you can meet within a three week period. Your schedule will be accommodated for.

If you have questions, concerns, or complaints about this study or you want to get additional information or provide input about this research, please contact Thomas Nigro, Jr. at TNigroJr@gmail.com or (440)823-8141 or Dr. Pamela Schwartz at PSchwartz@northshore.org.

If you have questions about your rights as a research subject, you may contact Susan Loess-Perez, DePaul University's Director of Research Compliance, in the Office of Research Services at 312-362-7593 or by email at sloesspe@depaul.edu. You may also contact DePaul's Office of Research Services if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.

You may keep [or print] this information for your records.

Appendix D

Sample Interview Questions

When conducting interviews for the project titled “A Comprehensive Policy for Student Registered Nurse Anesthetists with Substance Use Disorder,” open-ended questions will be directed towards participants. The interview will begin by stating the Chicago-mandated recording language: “This interview is being recorded for research purposes. If you would like recording to stop at any point, please let me know. Recording starts now.” Questions that will be asked include:

- Does your facility/institution have a policy in place for individuals with SUD?
- Are you familiar with your facility/institutional policy, if so can you explain it?
- Have you encountered a coworker or anesthesia learner (SRNA and residents) with SUD and how was it determined that they suffered from the disorder?
- Have you utilized your facility/institutional policy to assist an individual with SUD?
- What aspects of the policy did you find effective/ineffective?
- Do you feel that the policy in place is effective in assisting individuals with SUD, if yes/no can you explain why?
- Can you provide another example of a time in which the policy was used?
- Do you find your current policy effective enough that you would recommend it to other facilities/institutions, and if so why?
- If you find your policy ineffective, or you do not have a policy, what aspects of a policy for those with SUD would you deem helpful?
- Do you believe there is a need for a comprehensive policy for student anesthetists who suffer from SUD and why?