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Preventing Substance Use Disorder in Anesthesia Providers

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Executive Summary

Title

Preventing Substance Use Disorder in Anesthesia Providers

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Introduction to the Problem

Developing substance use disorder is considered one of the most serious occupational risk factors for anesthesia providers. Substance use disorder is continuing to occur due to the repeated exposure of causative factors, the lack of awareness, and lack of early education. It is crucial that anesthesia providers have adequate resources and education on how to recognize and prevent substance use disorder early in their training. In order to change the occurrence rate, education revolving around substance use disorder needs to be developed and implemented into the nurse anesthesia program as early as possible.

Literature Review

The purpose of this literature review was to examine current research regarding the prevalence, the risk factors, and the prevention of substance use disorder among anesthesia providers and student registered nurse anesthetists (SRNAs). Substance use disorder is an occupational hazard for all anesthesia providers and affects approximately 10% to 15% of anesthesia providers (Valdes, 2014). This percentage of 10% to 15% only represents the number of reported anesthesia providers with substance use disorder (Neft, 2018). Obtaining an education in anesthesia can increase one's risk for developing substance use disorder due to the

knowledge of medications, ease of access and the demanding work environment (Wright et al., 2012). Literature suggests that prevention and early identification is the best method to deter misuse (Wright et al., 2012).

In both physicians and CRNAs, the incidence of addiction is highest during the first five years of administering an anesthetic (Tetzlaff, 2015). This statistic is indicative that anesthesia providers may develop maladaptive coping mechanisms before obtaining a professional license, possibly during undergraduate or graduate training (Neft, 2018). Student registered nurse anesthetists are thought to have less chance of diversion due to prevention by the preceptor (Bozimowski et al., 2014). Because there is less chance for diversion as a student, it could explain why most anesthesia providers that are battling substance use disorder are reported within the first five years of practice (Tetzlaff, 2015).

Early education is thought to be one of the primary methods to deter substance use disorder (Neft, 2018). Currently, students of anesthesia are behind as they were not taught the importance of recognizing substance use disorder and the effects of wellness in their undergraduate training. By providing early education and recognition about substance use disorder and wellness, they can begin to overcome and effectively deal with the alarming statistics that place them at an increased risk of developing substance use disorder earlier.

Project Methods

The purpose of this project was to identify the prevalence and risk factors of substance use disorder within the anesthesia community and to signify the importance of early education and awareness to help prevent the development of substance use disorder through early education, identification, and awareness.

A PowerPoint presentation on “Preventing Substance Use Disorder in Anesthesia Providers” was implemented on the wellness website for SRNAs at Southern Illinois University Edwardsville. In order to find the PowerPoint students were sent an email on how to locate and navigate the wellness website, which includes the prevalence, risk factors, signs and symptoms, the need for early education, and the clinical relevance of substance use disorder among anesthesia providers and SRNAs. The target audience consisted of third- year nurse anesthesia students. Participants evaluated the intervention using a nine-question anonymous survey. The survey utilized a rating scale to assess improved understanding and awareness of substance use disorder, user-friendliness of the substance use disorder and wellness requirement modules, likelihood to use the information in the future, the occurrence of weekly stress, and whether or not the substance use disorder PowerPoint should be introduced into the new student orientation. Three demographic questions were included and included age, sex, and years as a nurse prior to anesthesia school.

IRB Information. The institutional review board at Southern Illinois University Edwardsville (SIUE) determined that this project was exempt IRB. This design of this project is non-experimental.

Setting and sample population. The setting of the project was at Southern Illinois University Edwardsville campus. The sample population was comprised of third year nurse anesthesia students enrolled in SIUE’s Nurse Anesthesia program.

Evaluation

The results of this project show the importance of education and awareness concerning substance use disorder within the profession. Based on the responses, several interpretations can

be made. Ninety-five percent of anesthesia students agree that information regarding substance use disorder should be included in the new student orientation. The results correlate closely with the new evidence that early education, early identification, and awareness are key factors in the prevention of developing substance use disorder in the anesthesia provider.

When asked how often in a typical week the nurse anesthesia student feels stressed, almost eighty percent of the participants feel stressed either extremely often or very often and all participants feel stressed at least somewhat often during a typical week. The responses show a need for the implementation of wellness and substance use disorder education among nurse anesthesia programs. As stress is considered a risk factor for the development of substance use disorder, the anesthesia student is at increased risk for developing substance use disorder. The inability to manage these stressors adequately can lead to maladaptive coping mechanisms and the development of depression, substance use disorder, and even death. Because of the risk factors and stress associated with anesthesia training programs, it is vital that adequate education and resources be provided to these trainees in order for them to understand the importance and the associated risk factors of entering the anesthesia profession.

All participants showed they would likely use information regarding substance use disorder in their everyday work lives. Using the information regarding substance use disorder in everyday life as a student or a nurse anesthetist can have a major influence on the provider, patient and the profession. This information has the ability to reduce adverse outcomes, increase the overall wellness of the provider and peers, as well as save the lives of both anesthesia providers and the patients they serve. Research demonstrates that adverse coping mechanisms may begin early on in the education process, so it is important that the information regarding

substance use disorder is presented as early as possible to individuals entering the nurse anesthesia profession.

Limitations of the Project

The limitations of this project are that the success of the project will depend on the student's willingness to learn about substance use disorder in an already demanding didactic program. Another limitation is that there are already wellness modules that include substance use disorder assigned by the Nurse Anesthesia Program at SIUE.

Impact on Practice

This project could benefit all anesthesia providers and individuals they encounter both immediately and long term. The immediate impact of this project would include the safety of both the anesthesia provider and the patient. Patients are at increased risk of adverse outcomes if their anesthesia provider is suffering from substance use disorder as anesthesia providers need to be focused on their role to treat rapidly changing hemodynamics. A lack of attention can cause harm and even death to the patient during the perioperative period. Another immediate impact could be the life of the student or an anesthesia provider they are working with, as the first sign of substance use disorder is usually an overdose or death.

The long-term impact can be significant for patients, providers, the profession, and institutions where anesthesia providers train or are employed. Early education, identification, and awareness can lead to the prevention of substance use disorder and all possible adverse outcomes that coincide with individuals experiencing substance use disorder. Combined with wellness, the provider can have a more positive career, provide safer care, and the avoidance of litigation

throughout their career. The effects of an addiction free environment will extend to upcoming anesthesia students and providers.

Changes to the implementation of this project would include the timing of the implementation. Implementation and education should be given to first-year anesthesia students rather than third-year anesthesia students. Doing so, would help to improve awareness prior to developing maladaptive coping mechanisms. Providing earlier education would help the anesthesia student understand the importance of substance use disorder and help to signify additional requirements by Southern Illinois University regarding substance use disorder.

Conclusions

Student registered nurse anesthetists are involved in a rigorous didactic program along with an exceptionally stressful clinical environment. It is essential to educate and increase awareness early in anesthesia training as students will be exposed to multiple causative factors for developing a substance use disorder including sleep deprivation, educational stress, loss of income, and lack of personal time. Stress is known to play a significant role in the anesthesia provider developing substance use disorder and that the stress of the nurse anesthesia education may contribute to the development of substance use disorder. It is imperative that the anesthesia provider knows how to deal with stressful situations when they arise.

Recommendations for future efforts include a detailed plan on how to deal with stress and the temptations of drug and alcohol use. The addition of adding a specific protocol to deal with someone experiencing substance use disorder based on national, state, and institutional recommendations would benefit this project.

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