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Developing a Peer Mentoring Program for SRNAs

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Problem statement

Faculty of a nurse anesthesia program at a Midwestern University identified concerns regarding students' wellbeing and stress levels. To address these concerns, faculty requested the initiation of an evidence based peer mentoring program designed to reduce student stress.

Literature review

Stress experienced by SRNAs can affect their health and, if not addressed, also potentially compromise their patients' safety in the clinical setting (Conner, 2015; Flexman & Gelb, 2011; McKay et al., 2010). Symptoms of stress experienced by SRNAs include, but are not limited to, hypertension, inability to concentrate, digestive problems, cardiac arrhythmias, and overuse of alcohol (Chipas and Mckenna, 2011; Chipas et al., 2012). In addition, evidence suggests that the stresses of anesthesia education can lead to the development of substance abuse among SRNAs (Chipas & Mckenna, 2011; Wright, McGuiness, Moneyham, Schumacher, Zwerling, & Stullenbarger, 2012) and result in potential harm to patients and jeopardize students' future as CRNAs (Conner, 2015). Addressing stress in SRNA programs can reduce adverse patient outcomes and support the physical, emotional, mental, and spiritual health of anesthesia students and providers (Chipas and McKenna, 2011; Foxwell et al., 2017; Harris et al., 2016; Head, 2015; Nowell et al., 2016; Tahlluri, 2016; Taylor et al., 2013; Tracy 2017).

The academic course load that SRNAs embark on is significant and expectations are high. Due to the demands of anesthesia programs, most students are not able to earn an income concurrently. The financial strains, tensions on personal relationships, the stresses of starting school, and being in unfamiliar locations are all various stressors experienced by SRNAs (Chipas & McKenna, 2011). Other sources of stress come from the classroom, clinical sites, as well as stress from a multitude of sources in the students' personal lives (Chipas et al., 2012). The

Council on Accreditation has set a deadline of January 2022 for the transition of all nurse anesthesia programs to the doctorate degree format ("*Standards for Accreditation",* 2015). Therefore, all SRNAs will be working towards doctoral degrees; this requires additional coursework, a longer duration of time spent in school, and the completion of a doctorate level project. These heightened expectations and requirements may cause more stress and a greater need for students to find effective coping strategies.

The American Association of Nurse Anesthetists (AANA) has countless webpages, journal articles and resources available for its members related to promoting physical and emotional wellness, potential for substance use disorders, and peer assistance for drug use and addiction. The AANA has additional resources for SRNAs with depression and suicidal ideation, nurse burnout, and coping with adverse medical events. The AANA has identified student stress, drug diversion and drug abuse as major concerns, and in response, has developed online educational modules for CRNA programs to use as part of their wellness initiatives.

Objectives

Objectives of the project were to: 1. Review current evidence-based literature to determine how peer mentoring in nurse anesthesia training could impact stress levels experienced by SRNAs. 2. Develop, distribute, and evaluate the results from surveys distributed to the university's SRNAs and national CRNA program directors to identify the levels of perceived stress of students, and the helpfulness, or lack thereof, of mentoring programs across the country. 3. Meet with administrators of the university's CRNA program to present survey findings and offer suggestions for the development of a peer mentoring program.

Project Design

This practice project involved the development, distribution, and evaluation of two surveys designed to evaluate student and program director perceptions of the effectiveness of peer mentoring to reduce stress for SRNA students. The first step of the project was to develop a survey for nurse anesthesia students regarding their perceived level of stress. Based on the literature and faculty expertise, a survey was developed to identify the university's SRNAs' perspectives of how a peer mentoring program could impact their stress. Once the survey was completed, it was then reviewed by faculty experts. A survey was also developed for program directors of CRNA programs across the country to learn if peer mentoring was being used in their program, and if so, if directors perceived the program benefited students. Both surveys were created using the online survey platform Qualtrics. Each survey was piloted among small groups of faculty and students for feedback and were revised as appropriate. Once finalized, the surveys were sent to students within the university's CRNA program and to 118 program directors across the country. A cover letter accompanied both surveys to describe their purpose and assured confidentiality of responses.

The stakeholders of this project are Dr. Kevin Stein, Dr. Leah Baecht, and Dr. Cynthia Schmidt. Dr. Kevin Stein assisted with the development of surveys to participating students and CRNA program directors in addition to evaluation of the project. Dr. Leah Baecht and Dr. Cynthia Schmidt also overlooked the project to find any gaps or areas for improvement to ensure a successful distribution of the surveys. The results from the survey serve as a guide for developing and evaluating a peer mentoring program at this university.

Institutional Review Board (IRB) approval

This project was submitted to the university IRB and was approved for exempt status.

Evaluation

A six step approach defined by Braun and Clarke (2006) guided a thematic analysis to identify themes from the qualitative data; quantitative data was analyzed using independent sample t-tests. A survey was sent to 81 doctoral nurse anesthesia students at the study site, with a response rate of 68% (n=55). For students in all years of the program, there was a significant increase in baseline stress from prior to anesthesia school to during anesthesia school ($p < 0.05$). There was also a statistically significant increase in peak stress levels from prior to anesthesia school to those reported during anesthesia school ($p < 0.05$). The samples were then broken down into separate genders for comparison. On a scale from 0-10 where 0 is no stress, and 10 is extremely high levels of stress, the mean baseline stress levels for females before starting the CRNA program was 2.9 and the mean baseline stress levels for males was 1.9 ($p=.06$). Using the same scale, the mean baseline stress levels for females during the program was 5.6, and 5.1 for males ($p=0.37$). The mean peak levels in stress for females before the program was 5.3, and 4.7 for males ($p=0.28$). The mean peak levels in stress for females during the program 8.8, and 8 for males ($p=0.13$). At no time was there a significant difference in baseline or peak stress levels between the male and female SRNAs, nor was there a significant difference in baseline or peak stress levels between any of the cohorts in total.

After review of the qualitative data, the most frequently mentioned stressors among first, second, and third year students consisted of program requirements such as “class, studying, and exams” (n=38). “Traveling, responsibility of finding [their] own lodging, adapting to preceptor personalities, and frequency of clinical site changes” (n=28) were also mentioned as stressors. Inability or lack of opportunity to balance school/work life with family was the third most frequently reported stressor (n=24). Students reported additional stressors as: frequent emails from faculty over scheduled breaks, lack of time for family/relationships, poor communication from faculty, virtual learning/technology, and financial burdens.

The most frequently identified coping mechanism reported by the 55 respondents was physical exercise, including hiking, biking and sports (n=38). The second most frequently reported coping mechanism was support systems such as family, friends, classmates, and pets (n=36) followed by the shifting of attention away from school when given scheduled university breaks (n = 15). Alcohol use and prescription medication use is tied with using "music/tv/social media" to cope with stress (n=10). Other notable coping mechanisms included cleaning/organizing (n=5), leisure reading (n=5), self-care (n=4), junk food (n=4), religion (n=2), and counseling (n=2).

Students were asked to rate on a scale of 0-10 (with 10 being the most helpful), how useful they believed a peer mentoring program would be. Overall, the mean score among all students was 6.9, with third year students rating a mentoring program the highest with a mean score of 7.4 for helpfulness. From a list of potential mentors, students were asked to select two mentors that they believed would serve as the best mentors. This list included alumni, clinical preceptors, school faculty, students further along in the program, and others. Over half of respondents indicated students one to two years ahead in the program (n= 44, n= 30 respectively) would serve as the best mentor compared to other options. Over half of respondents (n= 37) chose text as their preferred method of communication. The second preferred method of communication was in-person meetings (n=23) as opposed to zoom (n=16), phone (n=13), and email (n=11).

The Program Director survey was sent to 118 directors, with a response rate of 32.2% (n=38). Of these programs, 87% were doctoral programs and 13% were masters; degree programs. Most programs were integrated programs (n=22) versus front-loaded (n=16), indicating clinical experience begins early in the first year and both didactic learning and clinical hours are provided during the duration of the program. Over half of the program directors stated that most of their programs were utilizing a peer mentoring program with students (n=14), faculty (n=7), or alumni (n=3) as mentors. Of the programs with assigned peer mentors, nearly all stated that these were faculty assigned

relationships, not student selected. None of these schools received financial support for their peer mentoring program.

When asked open-ended questions to program directors about their overall perception of the effectiveness of their mentorship program, most stated that the program was "fair," "good," "positive," or "still in the piloting phase and hasn't been evaluated." Directors were asked to identify the most effective features of their peer mentoring program. The majority of directors reflected on the student to student support and the academic success. Additional responses included "relationship building," "students being invested," and "allowing the students a choice."

Program directors indicated the least effective features of their mentoring program stemmed from a lack of structure to the program, mentors that were not engaged, vague goals, and the lack of mentor training and financial support. Several program directors indicated that they would change their mentoring programs to have volunteer mentors rather than assigned mentors to improve the student to student engagement. Over half of respondents indicated that having financially sponsored events or resources would potentially lead to more involvement. In addition to this, a few directors mentioned that they believed mentor training would be beneficial.

Limitations. When initially distributed to program directors, the introduction unintentionally indicated that the survey was anonymous. However, the first question of the survey asked the respondent to state the name of their program. This could have impacted the program director response rate. In addition, the survey was sent during a global pandemic which could have skewed results for students and directors when discussing stress levels and peer mentoring participation. "Covid" was identified by two program directors as negatively impacting their mentoring program due to the inability to meet in person.

Impact on Practice

There was no immediate impact at this project site. However, CRNA program administrators indicated that the data collected from nurse anesthesia students, program directors, and the review of peer mentoring studies will serve as a solid foundation to the development of a peer mentoring program at this university. Based on feedback received from surveys, it was recommended that mentors be volunteers, and received training and time rewards. It was also recommended that financial support be established prior to peer mentorship implementation. The predicted long-term impact based on the review of literature and results from student and program director surveys is invaluable to stress reduction, student comradery, academic success, professional development, and mental health (Bass, 2017; Nowell et al., 2016; Head, 2015).

Conclusions

The literature review clearly identified that graduate students, and specifically SRNAs, experience high levels of stress and that peer mentorship programs can positively impact student stress and academic outcomes. Similarly, SRNAs responding to this survey indicated an increase in stress levels during the nurse anesthesia program not only in amplitude, but frequency as well. Also consistent with the literature, SRNA respondents indicated peer mentorship could be a positive coping mechanism to reduce stress. The program director respondents also perceived positive outcomes related to a peer mentorship program.

Based on our extensive literature review, experience as nurse anesthesia students for nearly three years, and survey data, we recommend a structured peer mentorship program be initiated for the requested nurse anesthesia program. The suggested program should be peer led by nurse anesthesia students one to two years ahead of other students, rewards such as leadership hours should be provided for volunteering mentors, mentor training should be provided, and a

clear program outline and evaluation of outcomes should be included. If possible, financial support would be included in the form of sponsored meet-up events for mentors and mentees.

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