

# Impact of Education on Professional Involvement for Student Registered Nurse Anesthetists' Political Activism: Does Education Play a Role?

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National and state legislative decisions have an impact on the care that Certified Registered Nurse Anesthetists (CRNA) provide their patients. Historically, professional advocacy resulted in CRNA title recognition and direct reimbursement for CRNA services and led to providing states an opt-out option for medical supervision when billing Medicare and Medicaid. It is critical that CRNAs continue to grow as advocacy leaders and, in preparing for this role, each CRNA must be provided with the knowledge and skills to be successful. The objective of this research project was to determine the impact that CRNA advocacy education in Pennsylvania nurse anesthesia educational programs has on students' professional involvement. Two surveys were distributed to all 12 Pennsylvania nurse anesthesia

educational programs to determine the quality and quantity of advocacy education incorporated into their program and how it affected the professional political involvement of senior student registered nurse anesthetists. Pearson *r* calculations were conducted to assess for correlations between variables. The results showed a strong positive correlation between advocacy education in nurse anesthesia educational programs and the impact it has on students' professional advocacy involvement ( $r = 0.481, P = .001$ ).

**Keywords:** Advocacy education, CRNA advocacy, CRNA advocacy education, nurse anesthesia, nurse anesthesia advocacy education.

Developing professional leadership skills, specifically, advocacy efforts for Certified Registered Nurse Anesthetists (CRNAs), early in a CRNA's career is arguably more important now than ever before. It is a pivotal time in nurse anesthesia practice when legislators are making decisions that will affect our scope of practice and title recognition as advanced practice nurses.<sup>1</sup> Political issues vary by state and are closely related to scope of practice restriction, reimbursement parity, and professional encroachment, specifically by anesthesiologist assistants. In some regions of the United States, CRNAs are not permitted to use all the skills they are trained to perform, which impedes professional autonomy and constrains scope of practice.<sup>1,2</sup> In Pennsylvania, the scope of practice for CRNAs is restricted by state and facility regulations.<sup>2</sup>

Pennsylvania is 1 of only 2 states that does not recognize the CRNA title under statute. Without an official CRNA designation, the credentialing process for CRNAs and student registered nurse anesthetists (SRNAs) can be delayed up to 6 months.<sup>2</sup> Of major importance, this lack of designation impedes military CRNAs and CRNAs who volunteer for disaster relief efforts outside Pennsylvania.<sup>2</sup> Reciprocally, CRNAs who wish to re-

locate to Pennsylvania may face similar issues. Therefore, it is critical for CRNAs to identify these challenges and maintain political vigilance to promote our profession.

A recent study demonstrated that nurses who receive advocacy education are more likely to have political skills that will enhance their ability to educate legislators on all aspects of clinical practice.<sup>3</sup> However, lack of formal education on negotiating the political arena hinders CRNAs' political astuteness.<sup>4</sup> According to Mund,<sup>4</sup> in 2012, out of 105 nurse anesthesia programs in the United States, only 25 programs required students to enroll in a health policy class. This lack of standardized advocacy education may lead to a lack of policy knowledge, resulting in weak political skills and reduced political interest.

Lack of professional advocacy may stem from 2 main factors: (1) the shortage of leaders to mentor colleagues and students and (2) limited exposure to advocacy concepts in nurse anesthesia educational programs.<sup>4</sup> The Council on Accreditation of Nurse Anesthesia Educational Programs (COA) requires that each nurse anesthesia education program include 45 hours of professional aspects content in the curriculum.<sup>5</sup> A professional aspects course in nurse anesthesia educational programs presents the SRNA with information about the profes-

**Program Administrator Survey**

1. Program administrator for which Pennsylvania nurse anesthesia education program?

Allegheny School of Anesthesia       The University of Scranton Nurse Anesthesia Program

Crozer Chester Medical Center/Villanova University Nurse Anesthesia Program       Thomas Jefferson University School of Nurse Anesthesia Program

Drexel University Nurse Anesthesia Program       University of Pennsylvania School of Nursing

Excelsa Health School of Anesthesia       University of Pittsburgh School of Nursing

Frank J. Tornetta School of Anesthesia       UPMC Hamot School of Anesthesia

Geisinger Health System Nurse Anesthesia Program       York College of Pennsylvania Nurse Anesthesia Program

2. Length of time as a program administrator?

< 5 years       15-20 years

5-10 years       >20 years

10-15 years

3. Have you personally participated in professional advocacy efforts?

Yes, please select all that apply:       Serve on a PANA and/or AANA committee

Legislative Day       Donate to the PANA and/or the AANA PAC

Attended a legislative committee meeting       Other:

Met with state legislators to discuss CRNA legislative issues       None of the above

4. Do you incorporate a professional advocacy lecture into the Professional Aspects class?

Yes, please select all that apply:       History of CRNA advocacy

"How to" advocate       Specific trends and bills that currently impact the nurse anesthesia profession

Why professional advocacy is important       None of the above

5. How many credit hours do you spend on these topics?

0-30 minutes

30 minutes to 1 hour

1 hour to 2 hours

> 2 hours

6. Who provides the advocacy lecture(s) to the nurse anesthesia students?

Program Administrator

Nurse Anesthesia Education Program Faculty

Representative from the PANA Board of Directors

Subject Matter Expert

7. Do you encourage nurse anesthesia students to become advocacy leaders?

Yes, select all that apply:       Assign nurse anesthesia students to meet with state legislators

Permit extra days off from school/clinical to attend Legislative Days, AANA Midyear Assembly and/or PANA events       None of the above

Incorporate a health policy assignment into the Professional Aspects class

8. How do you rate the importance of CRNAs politically advocating for the nurse anesthesia profession? (Rate on a scale from 0 to 5 where 0= not important and 5= very important)

0 5

9. How do you rate the importance of nurse anesthesia education programs teaching advocacy to student nurse anesthetists? (Rate on a scale from 0 to 5 where 0= not important and 5= very important)

0 5

**Figure 1. Program Administrator Survey**

Abbreviations: AANA, American Association of Nurse Anesthetists; CRNA, Certified Registered Nurse Anesthetist; PAC, Professional Advocacy Committee; PANA, Pennsylvania Association of Nurse Anesthetists.

sional discipline of nurse anesthesia, including ethical, legal, and policy issues. However, the content covered in these required courses is at the discretion of the program administrator. Some program administrators may choose to teach students about the ethical considerations of anesthesia, but place less emphasis on policy issues. As a result, many students may not be exposed to advocacy concepts during nurse anesthesia school.

The aim of this research project was to determine the impact that CRNA advocacy education in nurse anesthesia educational programs has on students' professional involvement. The first research objective was to determine, using surveys, whether Pennsylvania nurse anesthesia educational program administrators incorporate professional advocacy concepts into the curriculum. The second objective was to determine whether Pennsylvania SRNAs have received advocacy education in their nurse anesthesia educational program and whether they have participated in advocacy events. The final objective was to correlate advocacy education provided by program administrators with SRNAs' advocacy involvement.

## Review of the Literature

Using EBSCO Host and PubMed, a literature review was performed on CRNA advocacy, advanced practice registered nurse (APRN) advocacy, and advocacy education. Search terms entered into EBSCO host were *CRNA*

*AND advocacy, CRNA AND politics, APRN AND advocacy, and CRNA advocacy AND anesthesia school.* The search term entered into PubMed was *CRNA advocacy in nurse anesthesia school.* The search yielded 7 relevant articles. After a review of each article's references, another 5 articles were considered relevant. A total of 12 articles were critically appraised using John Hopkins Nursing Evidence-Based Practice Research Evidence Appraisal Tool and were considered pertinent to the research topic.<sup>6</sup> To gather data related specifically to Pennsylvania CRNA advocacy and nurse anesthesia educational programs' education requirements, the authors accessed the Pennsylvania Association of Nurse Anesthetists website and the COA website.

Each article was evaluated using John Hopkins Nursing Evidence-Based Practice Level and Quality Guide.<sup>6</sup> Of the 12 pertinent articles, none were graded Level I, 3 were Level II, 7 were Level III, none were Level IV, and 2 were Level V. Six of the articles were graded high quality, and 6 were graded good quality.

It is important to note that even though a Level V opinion article is less credible, in this case, it revealed relevant information on advocacy education pilots. For example, Barbara B. Little, DNP, MPH, a senior teaching faculty member from Florida State University Doctor of Nursing Practice (DNP) Program, implemented an advocacy program in 2015, named *Advocacy Days*. This

**Student Nurse Anesthetist Survey**

1. Are you a senior nurse anesthesia student (completed a minimum of one year of a nurse anesthesia education program) in Pennsylvania?

Yes  
 No

2. What nurse anesthesia education program do you attend?

Allegheny School of Anesthesia  
 Crozer Chester Medical Center/Villanova University Nurse Anesthesia Program  
 Drexel University Nurse Anesthesia Program  
 Exocela Health School of Anesthesia  
 Frank J. Torretta School of Anesthesia  
 Gelsinger Health System Nurse Anesthesia Program

The University of Scranton Nurse Anesthesia Program  
 Thomas Jefferson University School of Nurse Anesthesia Program  
 University of Pennsylvania School of Nursing  
 University of Pittsburgh School of Nursing  
 UPMC Hamot School of Anesthesia  
 York College of Pennsylvania Nurse Anesthesia Program

3. How would you rate your knowledge of current policy issues surrounding the profession of nurse anesthetists? (Rate on a scale from 0 to 5 where 0= no knowledge and 5= very knowledgeable)

0  \_\_\_\_\_  5

4. Prior to the start of your nurse anesthesia education program, did you participate in professional advocacy efforts (i.e. Legislative Days, legislator letter writing, meeting with legislators)?

Yes  
 No

5. Since the start of your nurse anesthesia education program, have you participated in professional advocacy efforts?

Yes, select all that apply:  
 Legislative Day  
 Attended a legislative committee meeting  
 Met with a state legislator to discuss CRNA legislative issues

Serve on a PANA and/or AANA committee  
 Legislator letter writing  
 Other:  
 None of the above

6. Have you received a lecture in your nurse anesthesia education program that covered advocacy and health policy specific to nurse anesthetists?

Yes, select all that apply:  
 "How to" advocate  
 Why professional advocacy is important

History of CRNA advocacy  
 Specific trends and bills that currently impact the nurse anesthesia profession  
 None of the above

7. How important do you think it is for advocacy education to be covered in nurse anesthesia education programs? (Rate on a scale from 0 to 5 where 0= not important and 5=very important)

0  \_\_\_\_\_  5

8. At this point in your education would you feel comfortable meeting with legislators to discuss health policy specific to the profession of nurse anesthetists?

Yes  
 No, select all that apply:  
 Lack of or insufficient advocacy education in nurse anesthesia education programs  
 Limited encouragement from program administrators to participate in professional advocacy events

Professional advocacy is not critical to the profession of nurse anesthetists  
 A lack of advocacy experts to mentor me  
 Other:

9. How do you rate the importance of nurse anesthetists politically advocating for the nurse anesthesia profession? (Rate on a scale from 0 to 5 where 0= not important and 5= very important)

0  \_\_\_\_\_  5

10. How influential was the amount of advocacy education in your nurse anesthesia education program to your rating the above question? (Rate on a scale from 0 to 5 where 0= not influential and 5=very influential)

0  \_\_\_\_\_  5

**Figure 2.** Student Registered Nurse Anesthetist Survey

Abbreviations: AANA, American Association of Nurse Anesthetists; CRNA, Certified Registered Nurse Anesthetist; PANA, Pennsylvania Association of Nurse Anesthetists.

program is a 2-day event that not only exposes DNP students to their local legislators but also allows the students to observe health policy debates by watching a committee meeting.<sup>7</sup> Thus far, the reported results are promising. Students testified that this program boosted their interest in advocacy, reporting that they would now feel less intimidated participating in professional activism.

The review of the literature also concluded that the role of a CRNA has evolved since the late 1800s.<sup>8</sup> In 1956, successful professional advocacy resulted in CRNA title recognition, and professional advocacy resulted in direct reimbursement for CRNA services in 1986. Most recently, advocacy has led to giving states an opt-out option for medical supervision. The opt-out rule permits the governor of each state to determine if the requirement for a physician to supervise a CRNA should be lifted. To date, 17 states have opted out of this federal supervision requirement, allowing CRNAs to practice without physician supervision.<sup>9</sup>

Research not only supports the importance of professional advocacy but also indicates that the nursing profession lacks formal leadership development in nursing programs.<sup>10</sup> The material covered in nursing school may focus on management techniques, but not necessarily

on leadership skills. Nurse anesthesia educational programs could set the educational framework necessary to support CRNA advocacy and leadership.

## Materials and Methods

This study received institutional review board (IRB) approval from La Roche College, Pittsburgh, Pennsylvania. Two surveys were sent to all 12 Pennsylvania nurse anesthesia educational programs. To maintain anonymity of the nurse anesthesia educational programs, each program was randomly assigned a program number from 1 to 12.

A survey was sent to program administrators to determine the quantity and quality of advocacy education presently incorporated into their program (Figure 1). A different survey was sent to all senior students (those who had completed a minimum of 1 year of anesthesia school) to determine their perception of advocacy training in their nurse anesthesia education program and whether that training has affected their professional political involvement (Figure 2). To ensure survey validity, the authors used a 7-step process established by the Association for Medical Education in Europe (AMEE) for the survey design.<sup>11</sup>

The goal of the research was to analyze program

administrators' and senior students' responses independently and then together to demonstrate a correlation between nurse anesthesia educational programs that implemented advocacy education and SRNAs' self-reporting of professional involvement.

The barriers to implementing this study included gaining program administrators' cooperation. Another barrier was procuring student involvement in the survey considering their already heavy workloads. Adding more information to a program's curriculum may not be feasible because of time constraints. However, nurse anesthesia educational programs are required to offer a doctorate entry-level program beginning in 2022. This requirement will increase the total length of nurse anesthesia educational programs to a minimum of 36 months and will subsequently increase the number of credit hours required for graduation.<sup>12</sup> Therefore, this study is well-timed because it may coincide with the addition of new advocacy curriculum to fulfill a percentage of these credit hours.

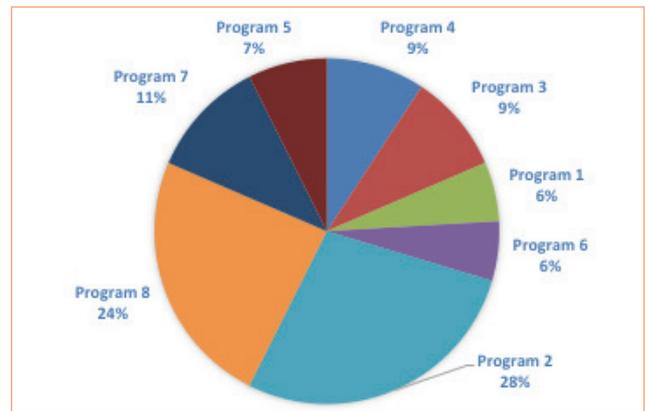
Data collection for the project started on October 31, 2016. An initial email was distributed to all nurse anesthesia program administrators advising them of the study and informing them that within the following 2 weeks they would receive an email with 2 survey links: 1 for the program administrator and the second for their SRNAs. The surveys were created in SurveyMonkey and distributed via email to each program administrator. The email requested that each program administrator complete the program administrator survey and forward the student survey to all his or her current SRNAs. Responses were anonymous and confidential. Return of the voluntary survey was considered implied participant consent.<sup>13</sup>

Four program administrators completed the survey, and 72 SRNAs completed the survey after the first request. A second email was sent as a reminder to each administrator. On January 23, 2017, data collection ended after a total of 6 program administrators and 94 SRNAs completed the survey. Surveys were analyzed in their original format. Pearson *r* calculations were conducted to look for correlations between survey response variables using statistical analysis software (IBM SPSS Statistics 21).

## Results

Of 94 responses collected from students, 54 participants from 8 nurse anesthesia educational programs self-identified as seniors who had completed a minimum of 1 year of anesthesia school. Figure 3 shows the percentage of qualifying participants by nurse anesthesia educational program. As outlined in the project design, only data for senior students were analyzed.

During the analyses, some variables were combined to create new variables that better encompass the participants' experiences within their nurse anesthesia educational programs. Questions that allowed participants to "select all that apply" were tallied to provide a total



**Figure 3.** Percentage of Qualifying Participants by Nurse Anesthesia Education Program (N = 54)

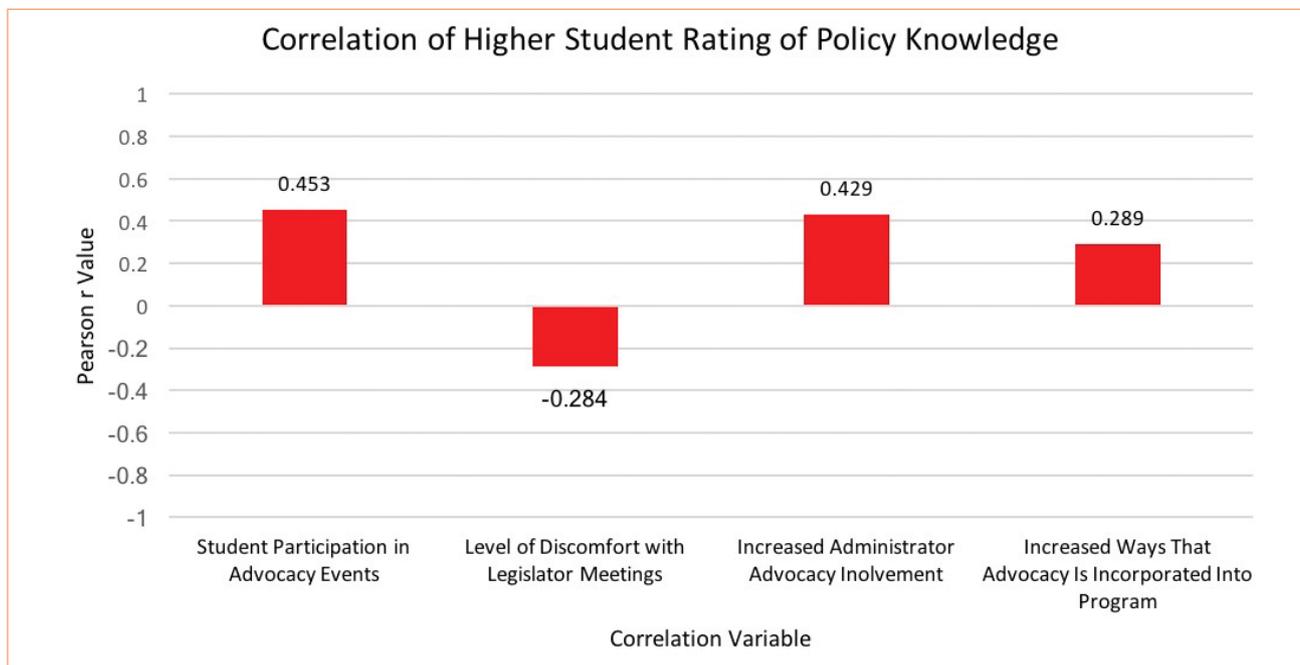
number of that event experienced. For example, one survey question asked student participants to select all the instances in which they participated in professional advocacy. If a student selected all 5 options, he or she received a score of 5 for a new variable called "number of advocacy events involved."

Analyses found that the number of ways in which administrators incorporated an advocacy lecture into the professional aspects class was significantly correlated with an increase in the ways their programs attempted to encourage advocacy in the students ( $r = 0.333, P = .027, n = 44$ ). Administrators who incorporated an advocacy lecture in more ways were also more likely to rank higher the importance of CRNAs who politically advocate for their profession ( $r = 0.746, P = .088, n = 6$ ) and to rate higher the importance of teaching advocacy to SRNAs ( $r = 0.746, P = .088, n = 6$ ).

Finally, students reported increased involvement in advocacy events as administrators reported a greater variety of incorporating advocacy into program lectures ( $r = 0.481, P = .001, n = 47$ ). As administrators reported participating in more advocacy events, students reported participating in more advocacy events ( $r = 0.744, P < .0001, n = 47$ ). The correlation between the administrators' ratings of the importance of political advocacy and the importance of teaching advocacy to students was significant and strong ( $r = 1.000, P < .0001, n = 6$ ).

Regarding the students' experiences, analyses showed significant correlations between the students' ratings of their knowledge of current policy issues facing their profession and their experiences of advocacy in general (Figure 4). Students who rated their knowledge as higher tended to report participating in professional advocacy events with more frequency since beginning school ( $r = 0.453, P = .001, n = 54$ ). Students who rated their knowledge as higher also reported fewer reasons that they would feel uncomfortable in meeting with legislators to discuss policies related to their profession ( $r = -0.284, P = .037, n = 54$ ).

Students' rating of their knowledge of current policy



**Figure 4.** Students' Ratings of Their Current Policy Knowledge With Their Experiences of Advocacy

issues also significantly correlated with their experiences in the nurse anesthesia education program. Students were more likely to rate their knowledge as higher when their administrator reported participating in more advocacy events themselves ( $r = 0.429$ ,  $P = .003$ ,  $n = 47$ ) and when their administrator reported more ways in which they incorporated an advocacy lecture into the professional aspects class ( $r = 0.289$ ,  $P = .048$ ,  $n = 47$ ).

The number of advocacy events in which students report participating since starting school was significantly correlated with their experiences in their nurse anesthesia educational programs as well. Students who reported a greater number of advocacy topics presented in their classes reported taking part in more advocacy events themselves ( $r = 0.309$ ,  $P = .023$ ,  $n = 54$ ). The number of advocacy events in which a student was involved was also correlated with fewer reported reasons the student would feel uncomfortable meeting with a legislator ( $r = -0.309$ ,  $P = .023$ ,  $n = 54$ ). Greater student participation in advocacy events was also associated with how highly they rated the influence of their program in their perception of the importance of advocacy ( $r = 0.281$ ,  $P = .040$ ,  $n = 54$ ).

A greater number of ways in which students reported advocacy in their class lectures was significantly correlated with how important the student thought it was to discuss advocacy in school ( $r = 0.410$ ,  $P = .002$ ,  $n = 54$ ) and with how influential the students thought their program was in affecting their perception of advocacy ( $r = 0.669$ ,  $P < .0001$ ,  $n = 54$ ). Students who reported more forms of advocacy lectures in their classes were more likely to report fewer reasons to feel uncomfortable

in talking with legislators regarding the profession ( $r = -0.355$ ,  $P = .008$ ,  $n = 54$ ). The reported number of ways in which administrators and students saw advocacy as being presented in class were significantly correlated ( $r = 0.373$ ,  $P = .010$ ,  $n = 47$ ).

Students who rated higher the importance of advocacy education in their nurse anesthesia educational programs also tended to rate higher both the importance of CRNAs politically advocating for their profession ( $r = 0.516$ ,  $P < .0001$ ,  $n = 54$ ) and the influence of their program on their perceptions of the value of advocating ( $r = 0.285$ ,  $P = .037$ ,  $n = 54$ ). Student ratings of the importance of CRNAs as political advocates significantly correlated with their administrators' perceptions of that importance ( $r = 0.303$ ,  $P = .038$ ,  $n = 47$ ) and their administrators' perceptions of the importance of teaching advocacy in general ( $r = 0.303$ ,  $P = .038$ ,  $n = 47$ ).

## Discussion

Advocacy by CRNAs continues to be a critical component in the survival and growth of our profession. The shortage of political advocacy mentors and the lack of formal education on professional advocacy will hinder a CRNA's political astuteness and effectiveness.<sup>4</sup> Studies are limited on nurse anesthesia education and the impact it has on advocacy; however, research has shown that nurses who receive advocacy education are more likely to have strong political skills.<sup>3</sup> The Institute of Medicine's report *The Future of Nursing* recommends that nursing education include health policy concepts, and due to the new education standards requiring doctorate-level-entry nurse anesthesia educational programs, the curricula

could be developed to support this recommendation.<sup>13</sup>

Program administrators should consider a 2-pronged approach to building a leadership foundation within their nurse anesthesia education program. First, integrating health policy concepts and advocacy activities into the curriculum will lay the groundwork for students to assume these leadership roles. The political process of state and federal governments, historic legislative efforts that affected the CRNA profession, and current political affairs should be introduced to SRNAs. Assigning students to participate in Legislative Days, attend legislation committee hearings, or meet with legislators to discuss legislative issues are activities that will empower continued participation. Second, program administrators should partner with state and national CRNA leaders to establish a mentoring program. Exposing SRNAs to advocacy experts will provide them with unique perspectives that will position them for success and inspire them to engage in health policy.<sup>12</sup>

This study has some limitations. A power analysis was not performed because the recommended sample size was not easily obtainable due to the limited number of anesthesia schools in this study.<sup>14</sup> The sample size for the SRNAs was indeterminable because of the inability to ascertain how many students received the survey. The surveys used for data collection were developed for this study; a previously validated survey was not available. By using the AMEE process, the validity and reliability of the surveys was increased.

In addition, this study included nurse anesthesia programs in Pennsylvania, resulting in a small sample size of program administrators and SRNAs. It is important to note that the relatively small sample size likely inflates the variables and the results. Last, the content expert used during the AMEE process was also a study participant, and this may have resulted in skewed results. More research should be done to evaluate the effects and correlations on a larger scale.

In the time since this study concluded, the COA revised the Standards for Accreditation of Nurse Anesthesia Programs Practice Doctorate.<sup>15</sup> Advocacy education and professional development activities are incorporated in the professional role standard: to inform the public of the role and practice of the CRNA, evaluate how public policy-making strategies have an impact on the financing and delivery of healthcare, advocate for health policy change to improve patient care, and advocate for health policy change to advance the specialty of nurse anesthesia.<sup>16</sup> The results of this study support these curricular changes for nurse anesthesia educational programs.

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## DISCLOSURES

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