Barriers and Determinants that Influence Membership in the American Association of Nurse Anesthesiology

David Samons, DNAP, CRNA

Affiliation:

AdventHealth University School of Nurse Anesthesia Graduate, Orlando, Florida

Jissel Samons, DNAP, CRNA

Affiliation:

AdventHealth University School of Nurse Anesthesia Graduate, Orlando, Florida

Manuel Tolosa, DNAP, CRNA

Affiliation:

Department Vice-Chair and Assistant Program Administrator of AdventHealth University

Abstract

The American Association of Nurse Anesthesiology (AANA) has a significant role in providing various benefits to members and advancing the profession. However, membership percentages have decreased within the last 10 years. A review of the literature discovered Florida was among the states with the highest percentages of nonmembers. A scholarly project online survey was developed and sent to all Florida Certified Registered Nurse Anesthetists (CRNAs) with the help of the Florida Association of Nurse Anesthesiology (FANA). The results of the survey revealed barriers to member-ship included dissatisfaction with the new National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) Continued Professional Certification (CPC) requirements, cost of membership, and a lack of education about the AANA. Determinants to membership identified included the benefit of CEUs and tracking, professional promotion, and the AANA's political advocacy. Sufficient information was derived to suggest implications and recom-mendations to help improve future research efforts and better understand the issue.

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
Page 1

Membership in professional associations has a significant role in providing various benefits to their members as well as the protection and advancement of the profession. Benefits include advancing professional knowledge, establishing a code of ethics and standards of practice, promoting professional growth and development, and providing networking opportunities.[1,2] For these reasons, professional associations exist in almost every field of study.[3] In addition, members who are affiliated with a professional organization feel a sense of belonging and build interpersonal relationships with others involved in the group.[2] Joining a professional association was part of one's duty and responsibility in previous years. Over time, focus has shifted to personal interest as a primary reason for joining.[2] Currently, there is evidence of a widespread decrease in the number of members, member involvement, and retention within professional organizations.[1,2,4] One organization of particular interest for this scholarly DNAP project is the American Association of Nurse Anesthesiology (AANA).

PROBLEM DESCRIPTION

AANA national data report,[5] the total number of Certified Registered Nurse Anesthetists (CRNA) has grown by 16,905, representing a 46.3% increase from 2008 to 2018. However, the total number of CRNAs who are AANA members increased by only 34.6% within that same 10-year period.[5] Membership with the AANA allows the organization to continue to provide education, guidance, and fight to maintain and further the scope of practice for CRNAs. Therefore, a professional organization is not only beneficial to its members but also helps the profession to evolve.

The State of Florida is of special interest and is one of the states with the most CRNAs but has one of the highest non-membership percentages.[1] The national average for nonmembers in 2018 was around 12%.[5] The percentage of nonmembers in Florida was 20.7% in 2016 and increased to 26% in 2018. [1,5] Understanding the factors that determine member participation is crucial to ensure satisfied members and professional growth. This can be accomplished by using a survey to help gain insight into the elements that lead to retention and future involvement by CRNAs within their professional organization.

PICOT Search Format Questions

Two questions were developed in PICOT format to assist in a systematic review of the literature. The first question addressed the problem question: **P**- For licensed Certified Registered Nurse Anesthetists (CRNAs), **I**- what are barriers and determinates professional organization, **T**- post-graduation?
A second PICOT question was developed to address a possible innovation for FANA: **P**- For Florida licensed Certified Registered Nurse Anesthetists (CRNAs), **I**- what are barriers and determinates, **O**- that influence involvement for members and nonmembers within the American Association of Nurse Anesthesiology (AANA), **T**- post-graduation?

PROJECT AIMS

The purpose of this scholarly project was to examine the factors that influenced decision-making regarding professional association membership among Florida's licensed nurse anesthetists

using an online survey. A secondary aim was to delineate the barriers and determinants of licensed nurse anesthetists residing in the State of Florida to become or remain members of national and state professional organizations. Results were disseminated to the state organization and recommendations suggested to FANA.

SEARCH STRATEGY

The search strategy included PubMed and Google Scholar databases. A total of 917 articles were screened according to the title, inclusion, and exclusion criteria. Articles were excluded from the review if they were over 10 years old, pertained to non-professional associations, and if the type of research was not described in the article. Of these, 10 research articles pertaining to nurses, pharmacy, dentistry, chiropractors, and occupational therapists were retained for review. Key Search Terms included: "AANA membership," AND "professional organization membership," AND "professional association membership." MeSH terms included: professional organization, nurse anesthetist, CRNA, membership, students, and professional associations. The search limits that were used: within the last 10 years and in the English language.

GRADE Criteria

Grading of recommendations, assessment, development, and evaluation (GRADE) criteria were used to rate the literature collected. The Working Group developed GRADE in 2000 to address the shortcomings of grading systems in healthcare. It has been used internationally and considered the standard in guideline development.[6] The GRADE scale ranges from 1 – 9 where the lower numbers represent limited importance for guiding decisions. Higher numbers represent more critical importance for guiding decisions. The literature reviewed primarily comprised qualitative studies (lower GRADE scores). However, many of the studies used quantitative measurements for qualitative data using number scales to give partial qualitative answers. This enabled statistical analysis and a more thorough understanding of data raising the
GRADE score up to 4. Inconsistent control of duplicate survey responses, low survey responses and inconsistent data validation downgraded GRADE scoring to 2. Publication bias was ruled out because the studies' results would not have benefited the researchers or publishers. The greatest concern in this literature review was the lack of research specific to nurse anesthesia professional organizations. Overall, the quality of the data collected was low, which further justified the need to conduct the scholarly project.

LITERATURE REVIEW AND SYNTHESIS OF EVIDENCE

Review of the literature was performed to identify barriers and determinants that influence membership within the AANA. Data were limited specific to nurse anesthetist's professional organizations, however, common themes and results emerged throughout the literature: benefits of professional membership, methods used to collect data, reasons why professionals do or do not join their professional organization, and involvement within the professional organization.

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
Page 2

Benefits of Professional Membership

Being a member of one's respective professional organization were very consistently deemed beneficial.[1,4,13-15] Professional organizations also were reported to advance development of the professional, encourage leadership, advocate for members, influence policy, provide continuing education, provide a source of networking, and provide members a sense of belonging and identity.[1,4,13-15] In general, membership was mutually beneficial for the individual as well as the profession. Despite the abundance of benefits that professional memberships offer, the percentages of memberships have been steadily decreasing with the newest members least likely to join.[1,4,13,14-17]

Data Collection Methods

Several common methods were used to collect data in the literature reviewed: interviews, questionnaires, and online surveys. Interviews although thorough and effective (phone or in-person) were cited to limit data collection due to time and yielded smaller sample sizes limiting generalization of results.[1,13] Survey data could have offered researchers a feasible option to reach larger populations in less time, but also risked individuals completing more than one survey and offered low response rates.[2-4,14-17] Posting the survey on the professional organization's webpage or social media account did improve response percentages.[4,15,18]

Reasons to Join Professional Organizations

The most common reasons for joining a professional organization were networking opportunities, organizational support, individual professional development, professional identity promotion, and a sense of belonging. Getting free continuing education credits was also a major reason why professionals chose to join or renew membership.[1,4,13,15.] The most common and significant reason for not joining was membership cost.[1,4,13-15] Other common reasons included lack of time, lack of benefits, poor service, inconvenience, and poor value for the cost involved.[4,14,15] It is also important to note that some nonmembers surveyed possessed a poor understanding of what professional organizations offer.[1,4,15,18] According to Farina,[1] an individual's perception of value was the key determinant for membership.

Professional Organization Involvement

The literature indicated membership and involvement within the professional organization have declined.[16,17] Professional involvement included mentoring colleagues, advocating for the profession, e-mailing senators, attending state and national conferences, and becoming politically active. [2,16,17] If the trend continues, fewer professionals will be involved in advocating for the profession. The potential reasoning behind the declining number of professionals involved within their professional organization or being politically active was education about impact of involvement and what the organization gives to members.[2,17]

Plan, Do, Study, Act (PDSA) Cycle

Understanding the factors that can improve membership percentages within the AANA is crucial to reverse the downward trend. Theoretical frameworks and conceptual models help guide and organize projects to successful completion. One model is the Plan, Do, Study, Act (PDSA) Cycle. This model provides a framework with 4 stages to help lead to improvement.[19] The "Plan" stage involves identifying the problem to be improved, creation of PICOT questions, review of literature, assembling a project committee, and developing the implementation tool. The "Do" stage is the implementation phase depicted by FANA deploying an online survey. The "Study" stage involves analyzing the data to identify key findings to meet the scholarly project's objectives. The last stage is "Act." During this stage, recommendations are made and disseminated based on the findings of the scholarly project.

METHODS

The scholarly project design was a mixed-methods design that used descriptive statistics to describe qualitative and quantitative data. The sample methodology was a purposive sampling method directed to Florida's licensed nurse anesthetists. A survey was the most logical and feasible method to collect data from a large population for this scholarly project; it was also the most frequently used method found in the literature reviewed. The project's data collection tool was a survey that used Likert scale questions to capture quantitative data. The survey also had open-ended fill-in-the-blank options to capture qualitative data. A validated survey for the data collection tool was the original goal. However, there was a problem finding a validated survey that was unique and specific to the topic's population; after further review and contacting the AANA and FANA's research department, creating an online survey specific to this target population that stems from current validated surveys was deemed the best and most reliable way to achieve desired results. A survey was created and face-validated by three AdventHealth University (AHU) doctorate nurse anesthesia program (DNAP) students, one end-user CRNA, two DNAP faculty members, one AHU faculty member outside of the DNAP department, and the President of FANA.

The survey underwent pilot testing through SurveyMonkey® to ensure all aspects of the survey were working. Once the Institutional Review Board (IRB) of AHU approved the scholarly project, FANA dispersed the survey link in a recruitment e-mail. The survey was sent out on April 1st, 2020 and was open for 30 days. Completion of the online survey would take approximately 15 minutes using a mix of Likert-type scale questions and short open-ended questions. The survey included demographic questions to assist in identifying members versus nonmembers. Inclusion criteria included all CRNAs who lived in the State of Florida and had a valid e-mail on file with the National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) who were willing to agree to the terms of the survey. Original population size was 4,180 Florida CRNAs, according to the most recent data received by FANA. However, FANA sent the survey out to 4,500 members and 1,700 nonmembers. Exclusion criteria included CRNAs under 18, people who were not Florida licensed nurse anesthetists, and CRNAs who did not have a valid e-mail on file.

Consent was obtained and approved by the Institutional Review Board of AdventHealth University. Participants were not compensated individually but were given a chance to win one of 10 Amazon $50 gift cards by entering their e-mail at the end of the survey. Demographic data were summarized using frequency counts and percentages. Descriptive analysis was used to compare

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
Page 3

group summaries and trends. For open-ended responses, an iterative narrative review seeking keywords, concepts, and emergent themes was used. Originally, Chi-square tests would be used to compare distributions of responses between members and non-members. However, this was not possible due to the low response rate from nonmembers. The sample size was determined at $n=73$ with values of power at .90 and alpha at .05 level of confidence (XLSTAT v. 2017).

RESULTS

FANA sent out the survey to 6,200 recipients, and a total of 237 participants submitted a survey for a response rate of 3.82%. There were 11 (4.64%) incomplete responses that were removed from the data set. An additional 13 (5.48%) responses were also removed because FANA identified them as a student registered nurse anesthetist (SRNA), or the respondent could not be identified. This cull left a final sample size of 213 responses. Out of the 213 respondents, 88.7% ($n=189$) were members, 10.3% ($n=22$) were nonmember, and 0.09% ($n=2$) did not answer the question.

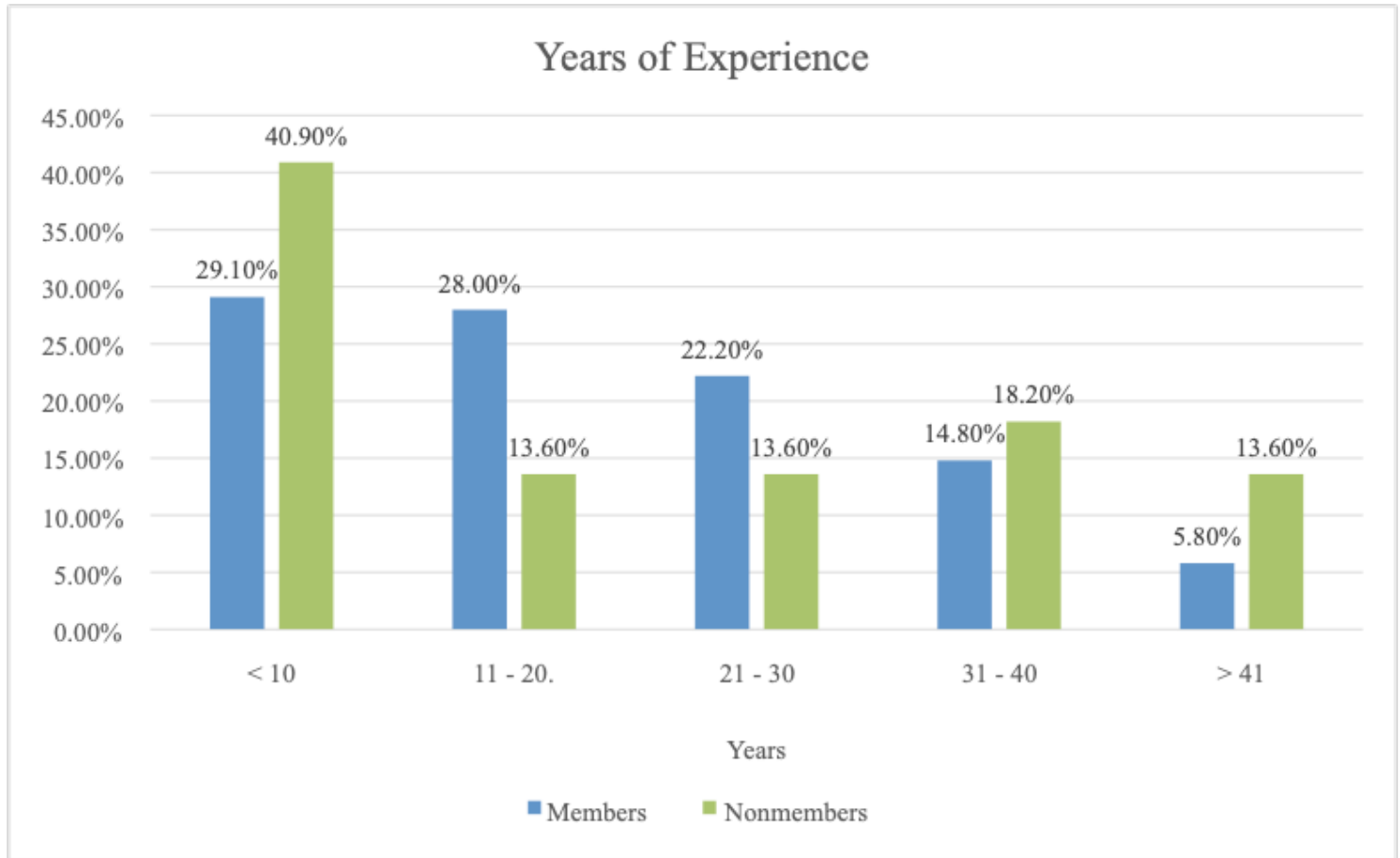Figure 1. Percentage of Florida CRNA Members and Nonmembers by Years of Experience.

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
Page 4

Figure 2. Level of Education Completed by Florida CRNAs.

What is your highest level of education completed?

Member / NonMember

	Doctorates	Masters	Bachelors	Certificate
NonMember	7.1%	10.2%	14.3%	18.2%
Member	92.9%	89.8%	85.7%	81.8%

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
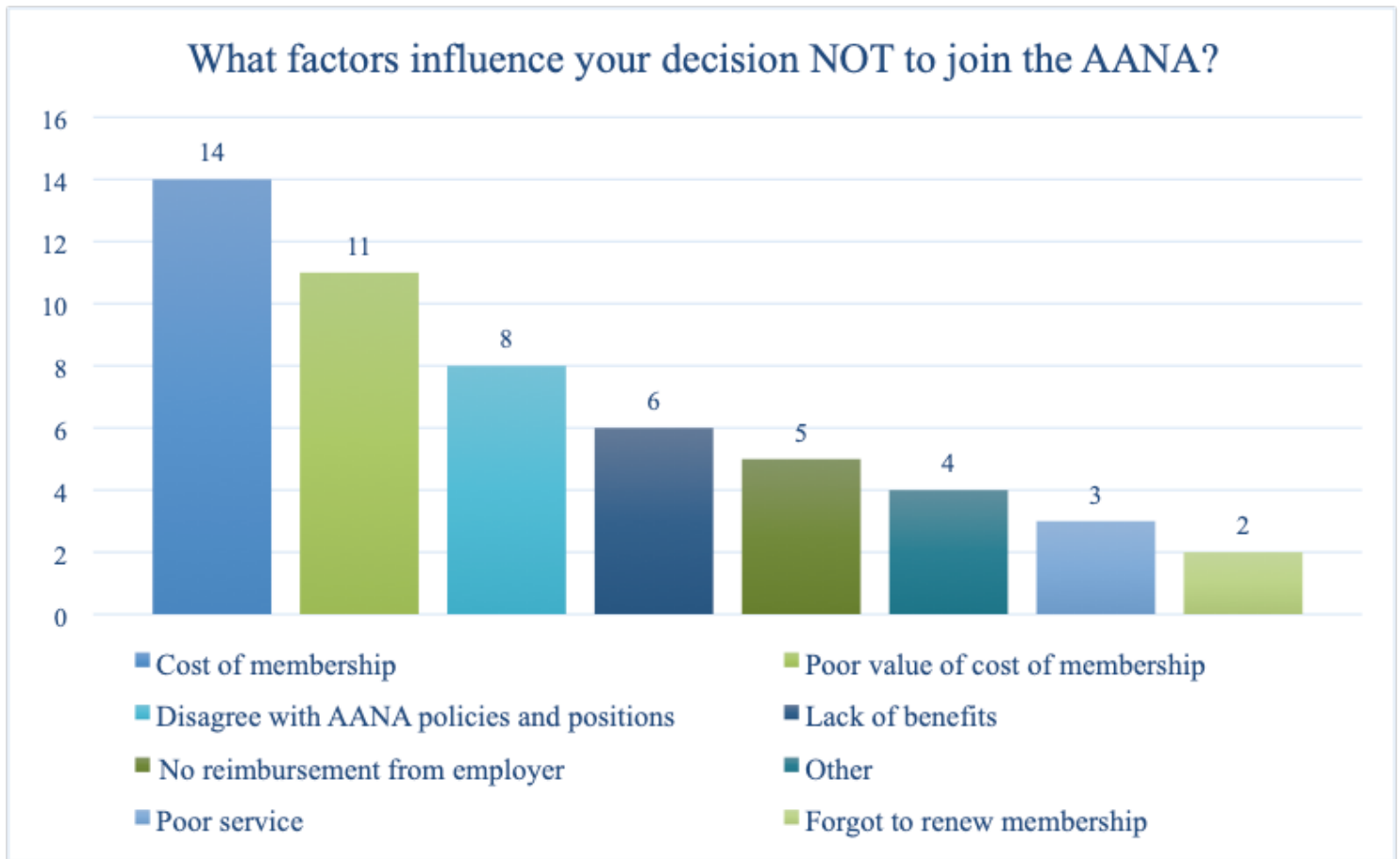*Page 5*
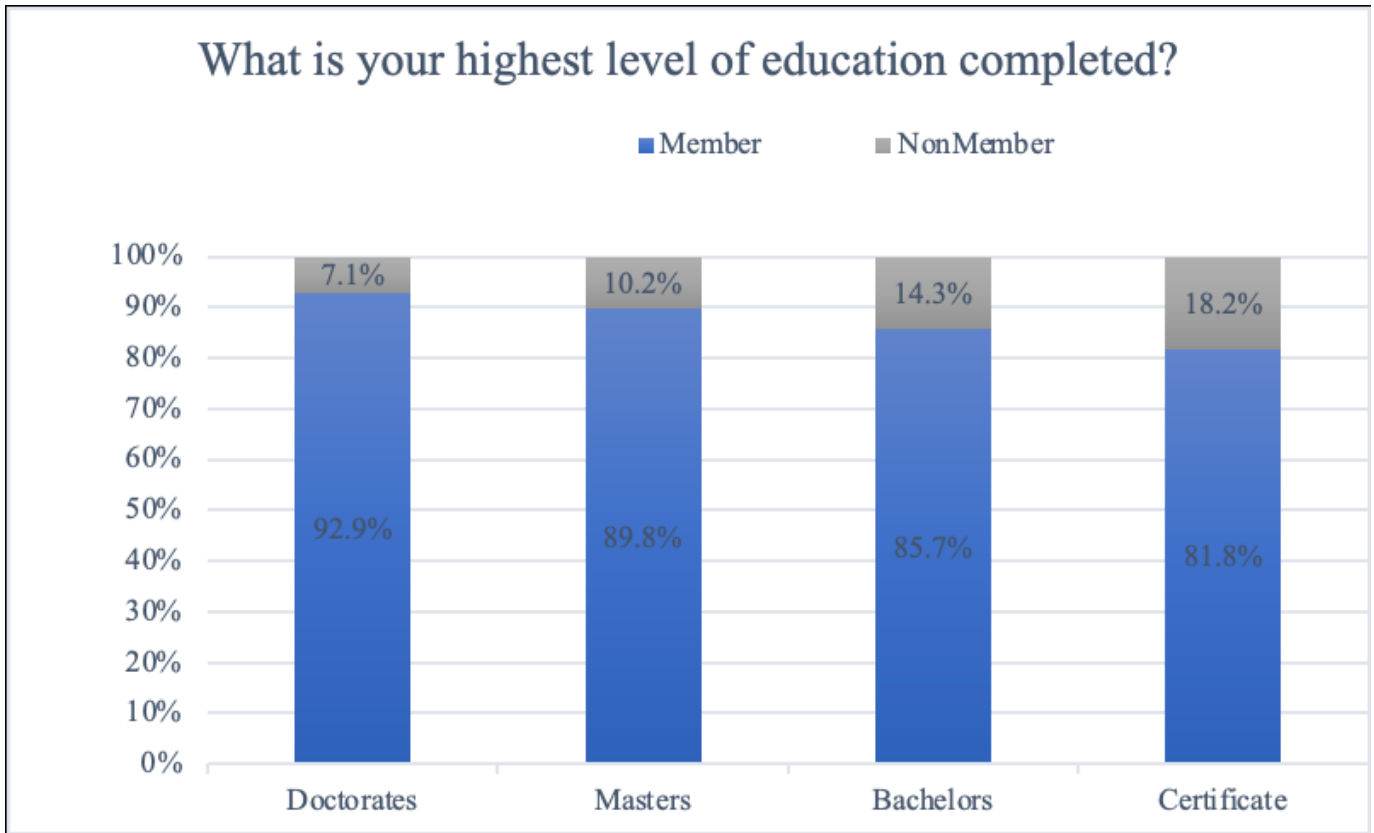
Quantitative Data

Due to the great discrepancy between the member and nonmember group sizes, statistical tests comparing the 2 groups were not plausible. The quantitative data received was used for descriptive analysis to compare group summaries and trends among members and nonmembers.

Figure 3. Factors Influencing Florida CRNAs to Join AANA
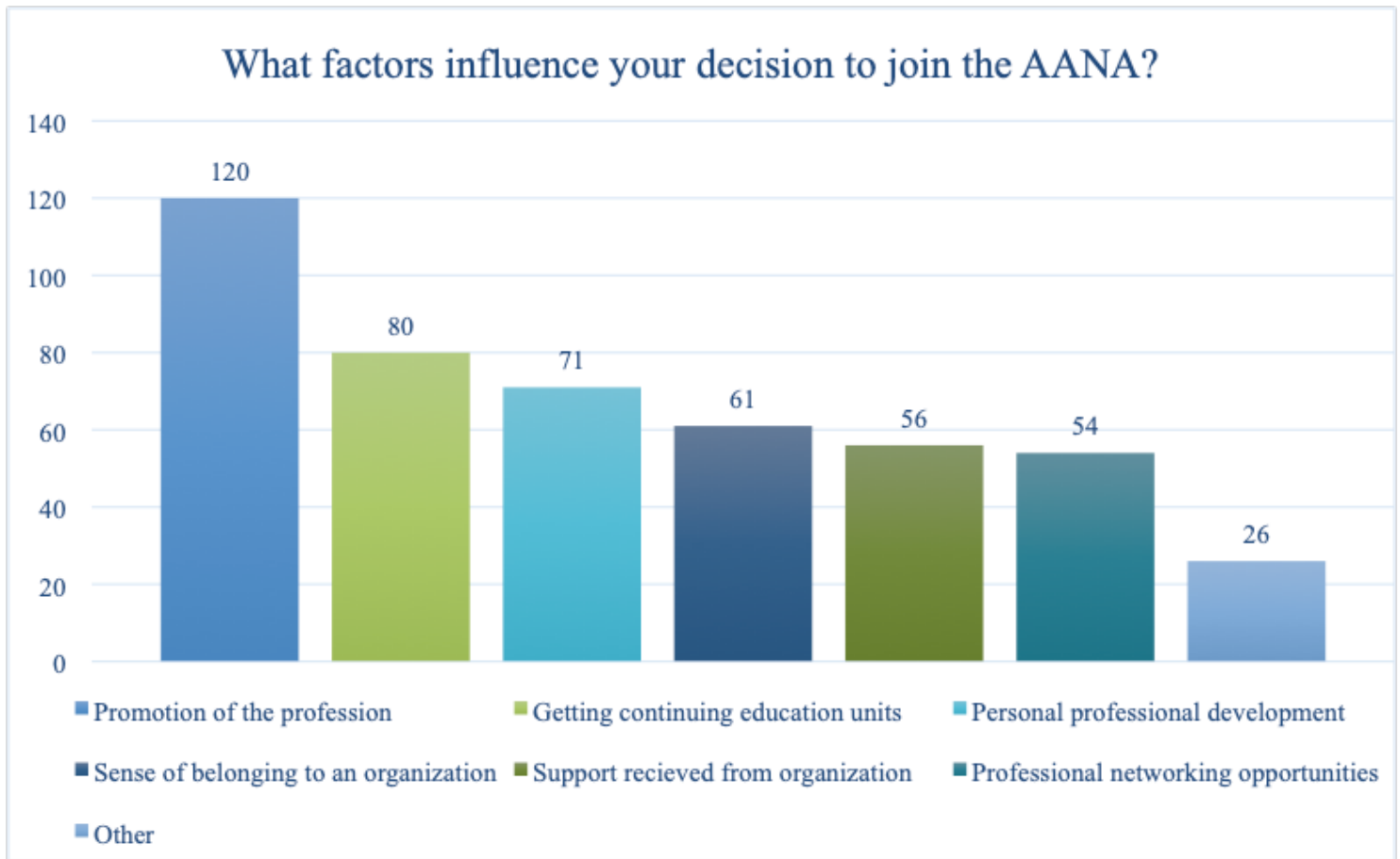
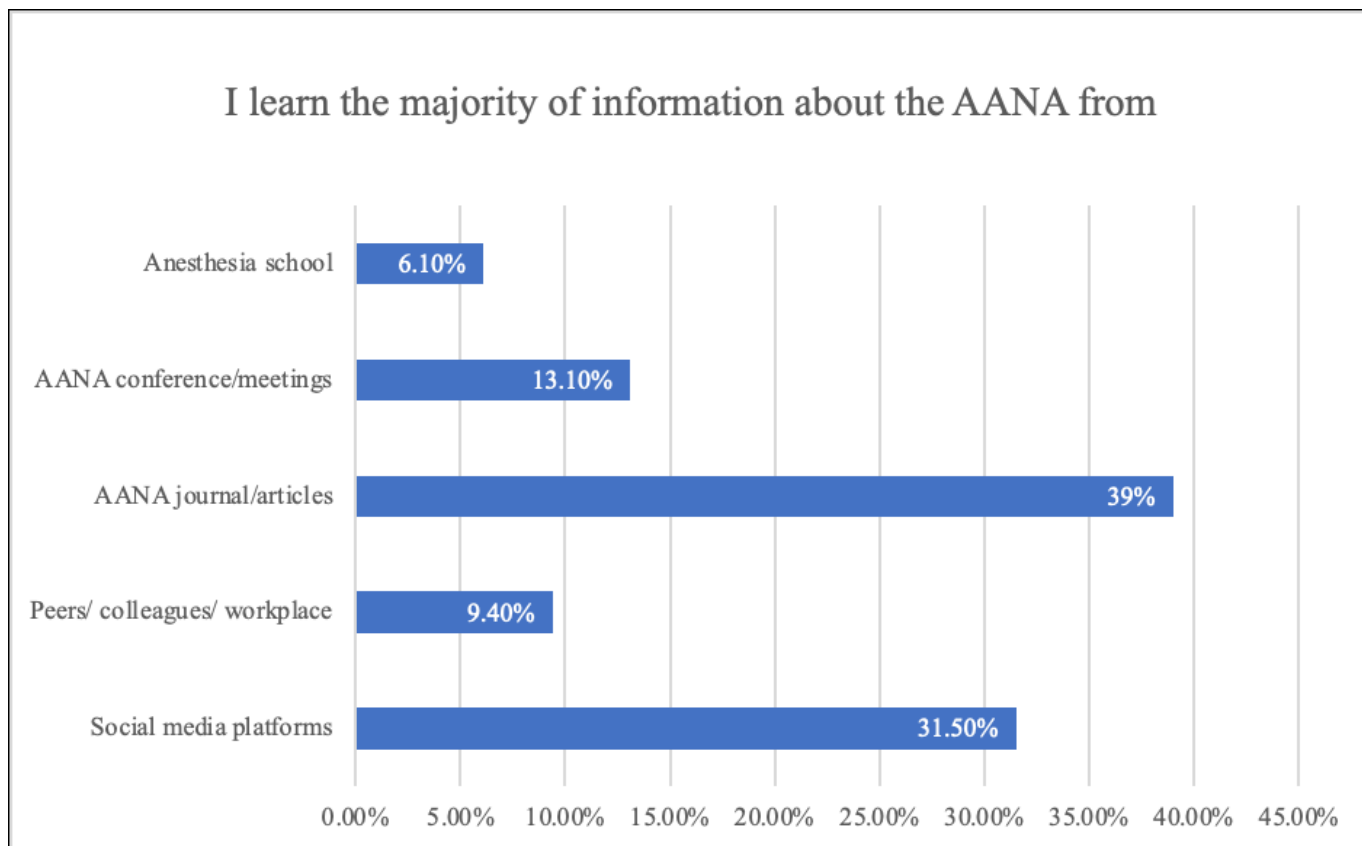Nonmembers were asked about top 3 factors that influenced their decision not to join. The most frequently chosen answers were the cost of membership (n=14), poor value for the cost of membership (n=11), and disagreement with AANA policies and positions (n=8). This is shown in Figure 4.

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
Page 6

Figure 4. Factors Influencing Florida CRNAs NOT to Join AANA.

Data also showed 12.2% (*n*=26) of members were not aware that being a member of the AANA made them a member of FANA. For the participants that were aware, the data did not show any outliers for potential barriers or determinants that influence membership. Participants were also given the opportunity the choose the main source of where they received information and education about the AANA (Figure 5). The most frequent choices were *AANA Journal* with 39.3% (*n*=83) and social media platforms with 31.8% (*n*=67)

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
Page 7

Figure 5. Source of Information Regarding the AANA

I learn the majority of information about the AANA from

- Anesthesia school: 6.10%
- AANA conference/meetings: 13.10%
- AANA journal/articles: 39%
- Peers/ colleagues/ workplace: 9.40%
- Social media platforms: 31.50%

Each member (N=189) was asked to rate how satisfied they were with their AANA membership on a 4-point Likert Scale (4=strongly agree, 1=strongly disagree). The results yielded an average of 3.09. This is displayed in Figure 6. When asked about if they were planning to renew their membership, 89.2% (n=165) selected yes, 2.2% (n=4) selected no, and 8.6% (n=16) selected undecided.

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
Page 8

Figure 6. Florida CRNAs Membership Satisfaction.

Membership Satisfaction

Statement	Value
I am aware of how my AANA membership dues are divided	3.02
I feel valued by my professional organization (AANA)	3.04
The cost of AANA dues for membership is worth the investment	3.04
My nurse anesthesia educational program educated me on the function, role, purpose and benefits of being a member of the AANA.	3.12
I am satisfied with how the AANA advocates at the federal level	3.24
I am satisfied with the educational opportunities provided by the AANA	2.97
The AANA is dedicated to my professional development	3.28
I am aware of what the AANA does for Nurse Anesthesia profession	3.45

Qualitative analysis

A total of 5 open-ended survey questions enabled an iterative narrative review to be conducted. These questions allowed the participants to choose the answers listed or fill in additional answers to the questions. The themes that were identified included benefits that members are dissatisfied with, additional factors that influence Florida CRNAs to join the AANA, and factors that influence Florida CRNAs not to join the AANA.

Benefits that dissatisfied members. The first theme that emerged frequently was issues surrounding the National Board of Certification & Recertification for Nurse Anesthetists (NBCRNA). Participants received the option to type in additional dissatisfactions. The most frequent response was that most members were not dissatisfied with any of the benefits. Other responses included continuing education units (CEU) tracking, and insurance.

A subtheme that emerged quite frequently were issues with the NBCRNA. While it is not a benefit, several members identified dissatisfaction with the NBCRNA Continued Professional Certification (CPC) program for continued certification. Some

of the quotes included "recertification changes," "having to retake boards," "allowing NBCRNA to take over certification," "CPC exam," and "keeping informed about retaking boards & re-education to prepare." Some responses showed dissatisfaction with support from AANA about the NBCRNA. This was identified by comments such as "disagree with NBCRNA. No support by AANA" and "the AANA/FANA has not stood up for CRNAs against the draconian NBCRNA CPC requirements."

Additional factors that influenced Florida CRNAs to join AANA. The most frequent was continuing education units (CEUs). The theme of political advocacy was identified as a re-occurring response by members. Some of the comments included "political advocacy," "to support our voice as CRNAs," and "most importantly by far, I'm a contributing donor to the AANA & FANA PAC." It was also very intriguing to see this answer several times, considering the other option choices. For example, members had the option to choose personal professional development and promotion of the profession. These were two of the top three answers chosen and could be associated with political advocacy. However, members purposely decided to take the time to type in those additional responses.

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
Page 9

Factors that influenced Florida CRNAs not to join AANA.
Out of the 22 nonmember participants, 5 typed in additional responses. Three of those responses addressed dissatisfaction with support from AANA and/or with the NBCRNA. This was identified with comments such as "disagree with NBCRNA. No support by AANA" and "the AANA/FANA has not stood up for CRNAs against the draconian NBCRNA CPC requirements." One nonmember wrote, "Not standing up for [the] membership, delving into politics, ignoring opinions of membership." The other responses were issues related to retirement and CEUs.

DISCUSSION AND IMPLICATIONS

The AANA is the largest professional organization for the nurse anesthesia profession that provides many benefits to its members and is very influential in the profession's growth by providing a collective voice for CRNAs. The AANA national data shows that membership percentages within the AANA have decreased over the last ten years.[5] This is very concerning because membership within the AANA is what helps sustain the professional organization.

Key Findings

- Concern by members and nonmembers with NBCRNA and new CPC requirements
- Florida CRNAs with < 10 years' experience less likely to be members AANA/FANA
- Higher degree obtained positively influenced membership within AANA/FANA
- Non-members unaware of full scope of AANA benefits
- AANA information gleaned most from *AANA Journal* and social media
- "Promotion of Profession" #1 reason to join AANA by members
- "Cost of Membership" #1 reason not to join AANA by non-members

---

RESEARCH & EDUCATIONAL IMPLICATIONS

Declining AANA membership is an important matter requiring further exploration with a larger number of nonmembers participants. Incorporating phone interviews and social media recruitment strategies as part of the methodology could increase the number of nonmembers' responses. Dissatisfaction with the new NBCRNA CPC recertification requirements, cost of membership, and education were identified as membership barriers. Further research into benefits of CPC recertification and its contribution to professional growth and promotion would help educate all CRNAs.

Lack of education about the AANA contributes to dissatisfaction about membership and could also be leading to higher nonmember percentages. Anesthesia schools provided the least amount of education regarding the AANA compared to other avenues, including social media and *AANA Journal*. A recommendation to increase AANA education and participation in schools is suggested. A recommendation to FANA leadership is to develop some type of education module or program and work with anesthesia programs to identify a good time and way to incorporate that education early on throughout an SRNAs educational journey. Considering SRNAs in the State of Florida are required to be members, this would allow them to understand better where their money is going and gain an education about the AANA from a reputable source.

LIMITATIONS

A low response rate was an anticipated limitation, and several methods were developed to increase response rates (eg, recruitment email, email reminders). Non-members were primarily the unresponsive cohort. The survey was intended for CRNAs only. However, student registered nurse anesthetists (SRNAs) also received the link to the survey to submit a response. The COVID-19 pandemic was also an unexpected limitation. The survey was released in April, which was very early during the pandemic when there was so much uncertainty and fear circulating about the virus. One noticeable effect it had was that it slowed down communication between everyone involved with the project. However, it is almost impossible to understand how this may have truly impacted the scholarly project.

The AANA is crucial for CRNAs and professional advancement. Understanding why membership percentages are declining is important. Major determinants that influence membership included benefits such as CEUs, political advocacy, and professional development. The significant barriers to membership identified included the cost of membership, issues surrounding NBCRNA CPC requirements, and overall lack of education about the AANA.

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
Page 10

REFERENCES

1. Farina CA, Wilson W, FitzSimmons K. Exploring strategies to increase and sustain membership in the American association of nurse anesthetists. *AANA J*. 2016;84(6): 396. PMID: 28235172.

2. Ki E, Wang Y. Membership benefits matter. *Nonprofit Manag Leadersh*. 2016:27(2): 199-217. doi:10.1002/nml.21230

3. Ross ST. *Factors Affecting Occupational Therapists' Decisions to Join Their State Association* [Master's thesis]. Accessed May 2020. https://scholarworks.gvsu.edu/cgi/viewcontent.cgi?article=1674&context=theses. 2009.

4. Walton K. *Barriers to Membership in a Professional Organization for Advanced Practice Nurses*. ProQuest Dissertations & Theses Full Text. Accessed May 2020 https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=5287&context=dissertations. 2017.

5. American Association of Nurse Anesthesiology. *State Membership Statistics*. Accessed May 2020. Published 2018. https://www.aana.com/states/state-membership-statistics.

6. The GRADE Working Group. *Grade*. Accessed May 2020. Published 2019. http://www.gradeworkinggroup.org.

7. Differencebetween.com. *Difference Between Association and Organization*. Accessed May 2020. Published 2011. http://www.differencebetween.com/differencre-betwwen-association-and-vs-organization/.

8. Barrier. *American Heritage® Dictionary of the English Language*. 5th ed. Boston, MA. Houghton Mifflin Harcourt. Accessed May 2020. Published 2016. http://www.thefreedictionary.com/barrier.

9. Determinate. *American Heritage® Dictionary of the English Language*. 5th ed. Boston, MA. Houghton Mifflin Harcourt. Accessed May 2020. Published 2016. http://www.thefreedictionary.com/determinate

10. Florida Association of Nurse Anesthetists. FANA home page. Accessed May 2020. Updated 2019. https://www.fana.org.

11. Ritchie L, Gilmore C. What does it mean to be a professional nurse? *Nurs N Z*. 2013;19(8):32. PMID 24279056.

12. Mori C, Mullen N, Hill EE. Describing the role of the clinical research nurse. *Research Practitioner*. 2007;8(6), 220- 228.

13. Esmaeili M, Dehghan-Nayeri N, Negarandeh R. Factors impacting membership and non-membership in nursing associations: A qualitative study. *Nurs Health Sci*. 2013;15(3):265-272. doi:10.1111/nhs.12012.

14. Petersen E, Wascher M, Kier K. Analysis of pharmacy student motivators and deterrents for professional organization involvement. *Curr Pharm Teach Learn*. 2017;9(4):543-550. doi:10.1016/j.cptl.2017.03.024.

15. Wotherspoon SE, McCarthy PW. The factors and motivations behind United Kingdom chiropractic professional association membership: A survey of the Welsh Institute Of Chiropractic Alumni. *Chiropr Man Therap*. 2016;24(1):35. doi:10.1186/s12998-016-0115.

16. Kung YM, Rudner Lugo N. Political advocacy and practice barriers: A survey of Florida APRNs. *J Am Assoc Nurse Pract*. 2015;27(3):145-51. doi:10.1002/2327-6924.12142.

17. Poole J, Borza J, Cook LA. Impact of education on professional involvement for student registered nurse anesthetists' political activism: Does education play a role? *AANA J*. 2019;87(2):138-143. PMID: 31587727.

18. Gallivan H, Tieman J. Organisational engagement: an examination of members' engagement in the Irish Dental Association. *J Ir Dent Assoc*. 2012 Dec-2013 Jan;58(6):308-15. PMID: 23420970.

19. ACT Academy. *Plan, Do, Study, Act (PDSA) Cycles and the Model for Improvement*. Accessed May 2020. Published 2021. https://improvement.nhs.uk/documents/2142/plan-do-study-act.pdf.

Texas Christian University
"The Science Behind the Art"
Volume 10 – No.2 2022

Anesthesia eJournal - Online
ISSN 2333-2611
Page 11