

Examining the Effects of a Formalized Preceptorship Program on the Confidence and Knowledge of CRNA Clinical Preceptors

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Problem

- There are **over 2,400 SRNAs** graduating each year (AANA, 2019)



- Anesthesia Clinical Preceptors
 - Critical responsibility: teach SRNAs how to deliver safe, high-quality anesthesia care
 - Currently receive limited to no formalized instruction



Purpose

- To **identify the impact a formalized preceptorship training** can have on the **confidence and knowledge of CRNA clinical preceptors** on effective teaching and communication strategies
- To help **develop and encourage the use of formalized preceptor curriculum to support clinical preceptors and optimize the development and education of future anesthesia providers**



Research Questions

- **RQ1:** What are the characteristics of CRNAs who precept SRNAs in the clinical setting?
- **RQ2:** What are the pre-intervention confidence and knowledge scores regarding effective teaching and communication strategies of CRNAs who precept in the clinical setting?
- **RQ3:** What are the post-intervention confidence and knowledge scores regarding effective teaching and communication strategies of CRNAs who precept in the clinical setting?



Research Questions

- **RQ4:** Is there a difference in confidence in effective teaching and communication strategies among CRNA clinical preceptors after a formalized preceptorship training?
- **RQ5:** Is there a difference in knowledge of effective teaching and communication strategies among CRNA clinical preceptors after a formalized preceptorship training?



Research Design

- Pre-experimental
- One group
- Pretest-posttest design

- Intervention
- Without randomization or control group



Methods: Participants

- Convenience sampling
- CRNA clinical preceptor volunteers
- Goal: minimum of 30 participants
- **Inclusion criteria:** CRNAs who currently train SRNAs in clinical setting
- **Exclusion criteria:** Other healthcare professional roles, CRNAs who do not participate in the clinical training of SRNAs



Methods: Study Site/Setting



- Online
 - Survey (Qualtrics)
 - PowerPoint (Youtube)
- E-mail
- Social Media Forums



Methods: Data Management



- Data collection from surveys
- Uploaded to password-protected database
- Self-generated identification codes



Methods: Procedure

1. Literature review to create educational curriculum

2. Develop PowerPoint

3. Create questionnaires

4. Apply for ODU IRB approval

5. Send invitations to CRNA database and social media forums

6. Pre-intervention questionnaire

7. Complete online curriculum

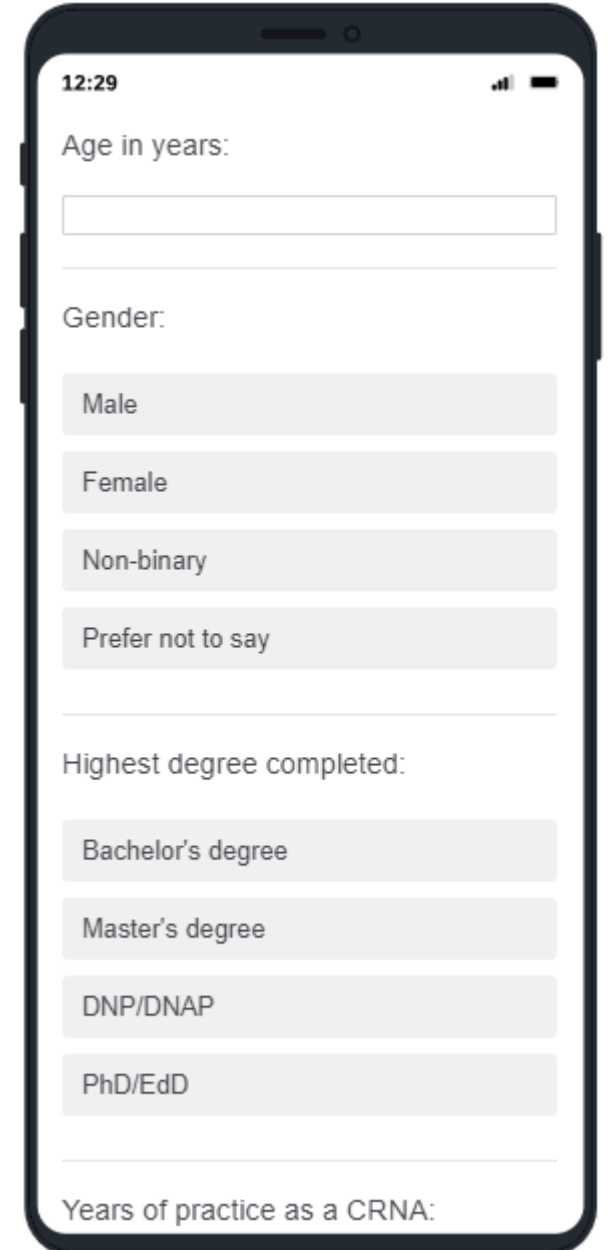
8. Post-intervention questionnaire

9. Comparison and analysis of results



Methods: Data Collection Tools

- Demographic Questionnaire (6 questions)
- Confidence Assessment Tool (6 questions)
 - Adopted from Scott-Herring's study
 - 5-point Likert scale
- Knowledge Assessment Tool (5 questions)
 - Developed to assess comprehension of material presented in clinical preceptorship training



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Age in years:

Gender:

Male

Female

Non-binary

Prefer not to say

Highest degree completed:

Bachelor's degree

Master's degree

DNP/DNAP

PhD/EdD

Years of practice as a CRNA:

Methods: Intervention

CRNA Clinical Preceptorship Workshop

Evidence-based training for effective precepting

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Methods: Intervention

- Developed by the investigators & reviewed by 5 content experts
- Content:
 - Roles and responsibilities of the clinical preceptor
 - Knowles' Adult Learning Theory
 - Dreyfus Model of Skill Acquisition
 - Recommendations for CRNA-SRNA clinical interactions
 - Debriefing tools



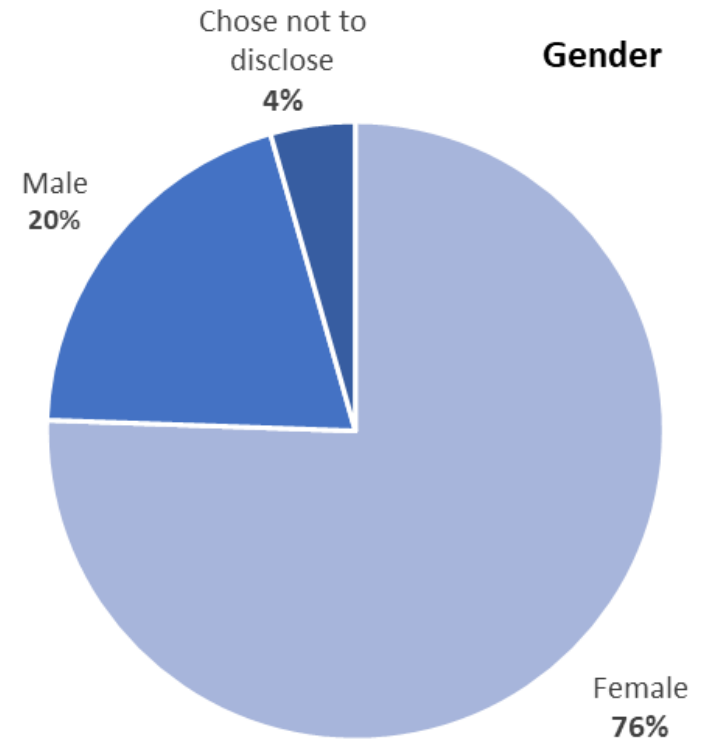
Demographic Results

Sample: 45 participants

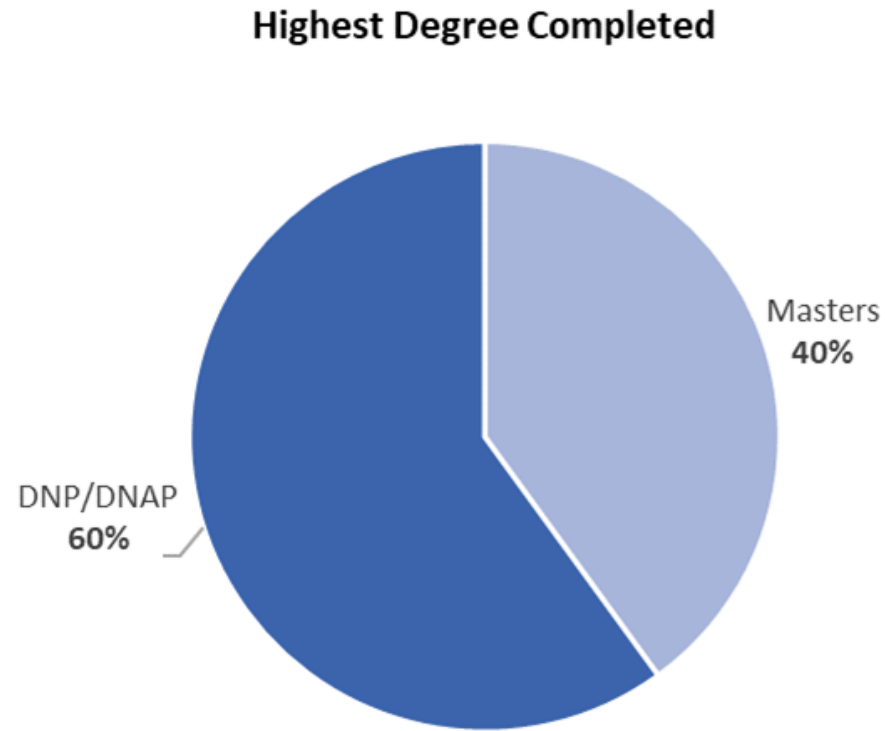
Variable	Mean (SD)	Range
Age in years	44 (9.314)	28-66
Years in practice as CRNA	11.26 (8.015)	0-27
Years precepting SRNAs	8.94 (7.718)	0-27



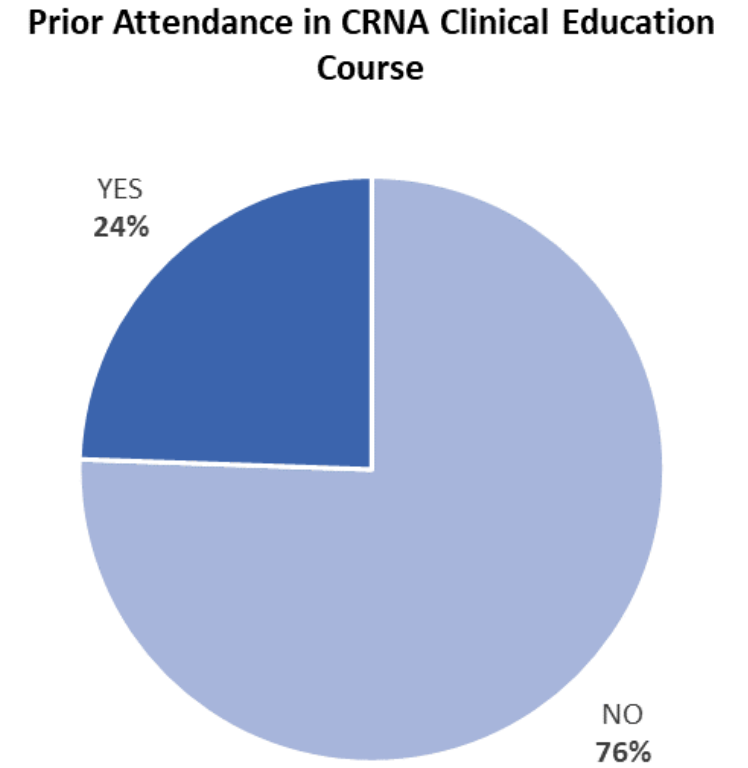
Demographic Results



■ Female ■ Male ■ Chose not to disclose



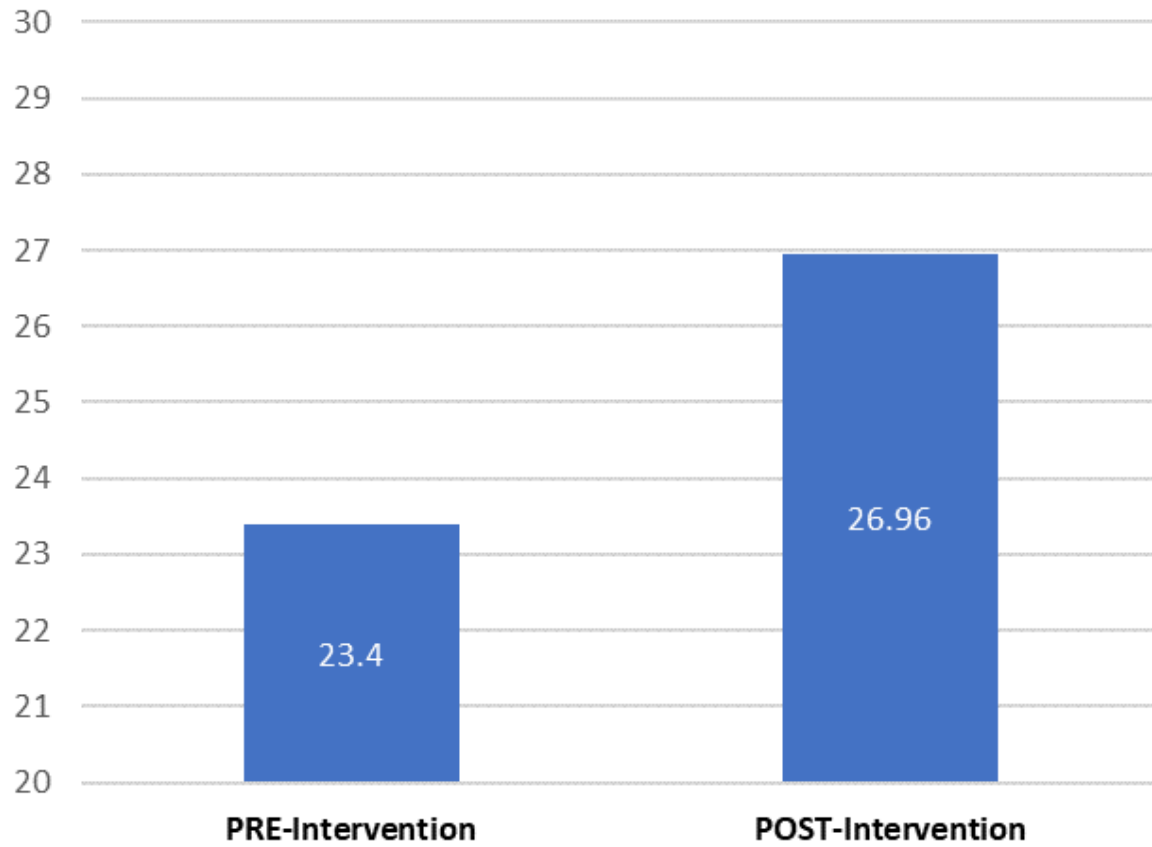
■ Masters ■ DNP/DNAP



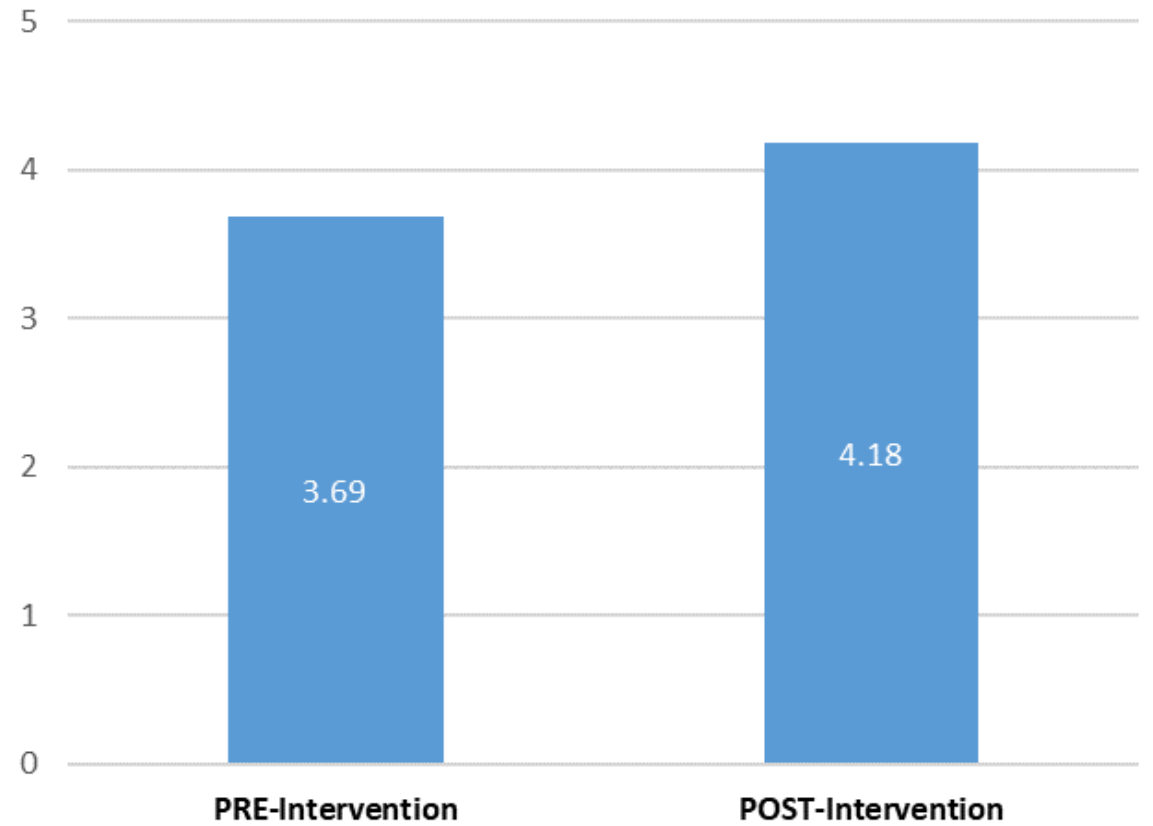
■ NO ■ YES

Results

Total Confidence Score Mean



Total Knowledge Score Mean



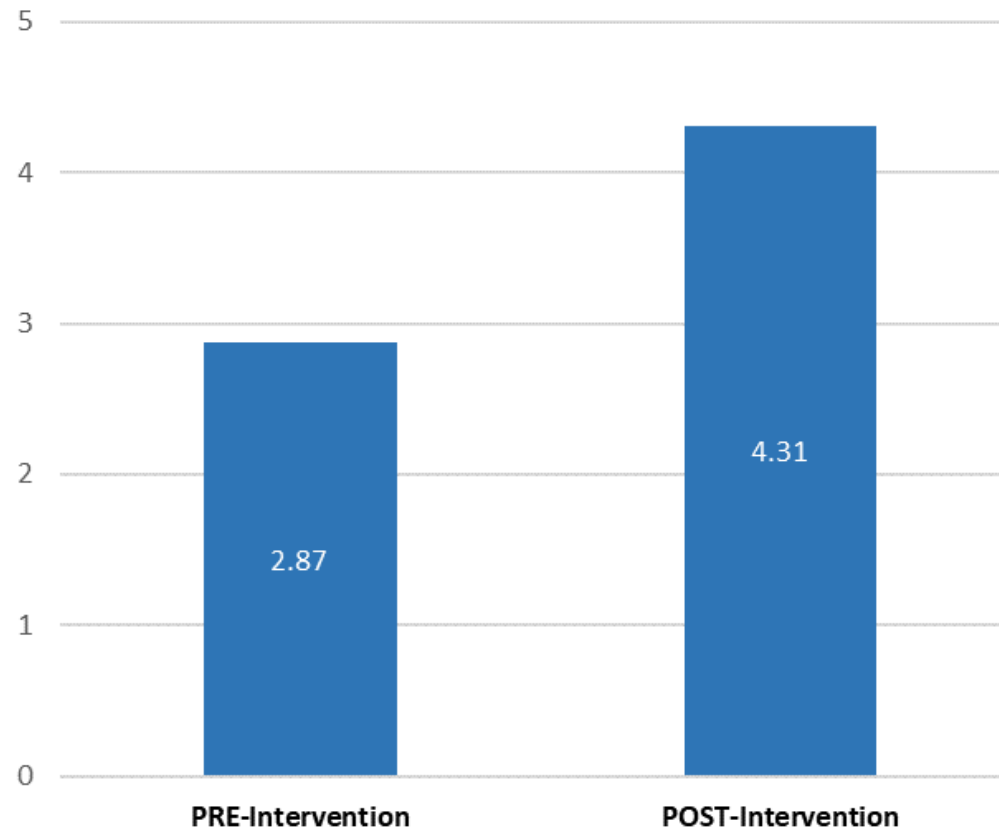
Results

	PRE- Intervention	POST- Intervention	Paired t-test (p value)
Total Confidence Score Mean (SD) [out of 30]	23.4 (3.73)	26.96 (2.992)	-8.669 (< 0.001*)
Total Knowledge Score Mean (SD) [out of 5]	3.69 (0.701)	4.18 (0.912)	-3.100 (0.002*)



Results

How satisfied are you with your preparation regarding the education of SRNAs?



Feedback



- **Praises:**

- Delivery of presentation
- Evidenced-based training
- Necessity of preceptor training

- **Improvements:**

- In-person training
- “CEU”



Feedback

“Great presentation I wish my preceptors had years ago!”

“I’m a new grad, and this was helpful to me. After working for only a couple months, I was given a student. I didn’t feel confident that my teaching techniques were effective. I now feel more confident that many of my techniques are actually evidence-based techniques. Thank you!”

“I think this is a great project and am very happy to see this being done by so many other programs. Now that we’re addressing preceptor training, I think we should look to gaining support from anesthesia department leaders in adopting preceptor training at any facility that trains RRNAs. In addition, I would like to know how others are incentivizing preceptors that agree to training. I believe that training future CRNAs is an incredible responsibility and we need to acknowledge the clinical preceptors that step up to the challenge. Wonderful project!”



Limitations

- Small sample size
 - Incomplete participation
 - Time commitment
 - Multi-step process
 - Challenge with recruitment
 - CEU Incentive



Conclusion



- A formalized CRNA clinical preceptorship training does increase both confidence and knowledge of CRNA clinical preceptors on effective teaching and communication strategies



Implications

Formalized
Preceptorship
Training

Improved
confidence &
knowledge of
CRNA clinical
preceptors

Enhanced
clinical
education &
outcomes

Excellent
anesthesia
healthcare



Questions or Feedback?



References

American Association of Nurse Anesthesiology. (2019, August 8). *Education of nurse anesthetists in the United States – at a glance*. <https://www.aana.com/membership/become-a-crna/minimum-education-and-experience-requirements>

Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9-44. <https://doi.org/10.1177/0149206311410606>

Easton, A., O'Donnell, J. M., Morrison, S. & Lutz, C. (2017). Development of an online, evidence-based CRNA preceptor training tutorial (CPiTT): A quality improvement project. *AANA Journal*, 85(5), 331-339.

Elisha, S. (2008). An educational curriculum used to improve the knowledge and the perceptions of certified registered nurse anesthetist clinical educators. *AANA Journal*, 76(4), 287-292.

Elisha, S. & Rutledge, D. N. (2011). Clinical education experiences: Perceptions of student registered nurse anesthetists. *American Association of Nurse Anesthesiology Journal*, 79(4), 35-42.

Gatewood, E., & Gagne, J. C. (2019). The one-minute preceptor model: A systematic review. *Journal of American Association of Nurse Practitioners*, 31(1), 46-57. <https://doi.org/10.1097/JXX.0000000000000099>

Hardie, P., Darley, A., Langan, L., Lafferty, A., Jarvis, S., & Redmond, C. (2022). Interpersonal and communication skills development in general nursing preceptorship education and training programmes: A scoping review. *Nurse Education in Practice*, 65, 1-16. <https://doi.org/10.1016/j.nepr.2022.103482>

References

Hong, K. J., & Yoon, H-J. (2021). Effect of nurses' preceptorship experience in educating new graduate nurses and preceptorship training courses on clinical teaching behavior. *International Journal of Environmental Research and Public Health*, 18(975), 1-12.

<https://doi.org/10.3390/ijerph18030975>

Lofgren, M., Dunn, H., Dirks, M., & Reyes, J. (2021). Perspectives, experiences, and opinions precepting advanced practice registered nurse students. *Nursing Outlook*, 69(5), 913-926. <https://doi.org/10.1016/j.outlook.2021.03.018>

MacLean, L., & Fairman, J. (2022). Innovating student registered nurse anesthetist clinical learning through United States air force pilot training practices: A review of the literature. *AANA Journal*, 90(6), 424-430.

Miura, M., Daub, K., & Hensley, P. (2020). The one-minute preceptor model for nurse practitioners: A pilot study of a preceptor training program. *Journal of American Association of Nurse Practitioners*, 32(12), 809-816. <https://doi.org/10.1097/JXX.0000000000000300>

Scott-Herring, M., & Singh, S. (2017). A CRNA preceptor workshop to increase preceptor satisfaction, confidence, and comfort: A quality improvement project. *AANA Journal*, 24-31.

Smith, C., Swain, A., & Penprase, B. (2011). Congruence of perceived effective clinical teaching characteristics between students and preceptors of nurse anesthesia programs. *American Association of Nurse Anesthesiology Journal*, 79(4), 62-68.