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An Educational Module on the Utilization of Clinical Guidelines For Advancement In Preceptor Training and Improvement of the Clinical Learning Environment For Student Registered Nurse Anesthetists

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An Educational Module on the Utilization of Clinical Guidelines For Advancement In Preceptor Training and Improvement of the Clinical Learning Environment For Student Registered Nurse Anesthetists

A DNP Project Presented to the Faculty of the
Nicole Wertheim College of Nursing and Health Sciences

Florida International University

In partial fulfillment of the requirements
For the Degree of Doctor of Nursing Practice

By

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ABSTRACT

Certified Registered Nurse Anesthetists (CRNAs) play an integral role in the clinical education arena. The preceptorship model has been widely accepted in many disciplines to enhance student learning, provide opportunities to demonstrate competence and critical thinking, and build confidence. The role of a preceptor involves many challenges. Nursing preceptors must balance their usual workload in addition to being educators. Studies report that preceptors find the lack of support from leadership most difficult. Consequently, the lack of support from leadership makes nursing preceptors less inclined to precepting. The clinical environment is critical to learning and correlates to the academic success of the student. Student perceptions and satisfaction are indicators of the quality of learning and related to several outcomes. Studies indicate that the clinical environment perpetuates students' perceptions and indirectly relates to academic success, student retention, and coping mechanisms. It is the ability to believe in one's own ability to carry out an objective. Preceptors who provide timely feedback, observe skills frequently, effectively communicate, and are willing to teach contribute to a better learning environment. This quality improvement educational module seeks to assess anesthesia providers' knowledge on the efficacy of enhancing CRNAs' roles as clinical preceptors. Anesthesia providers receiving the educational intervention included CRNA from the university alumni list. The sample included approximately 9 participants. The quality improvement project involved three phases: the pre-assessment testing, an online educational presentation, and a post-assessment exam. Pre-assessment and post-assessment testing will measure the effects of the intervention. Statistical analysis will be applied to assess the knowledge of the educational intervention.

Keywords: student nurse anesthetists, preceptorship, mentors, nursing students, mentorship, preceptorship models

INTRODUCTION

Nursing is a clinical-based practice designed to strengthen the practitioner's clinical competence by facilitating theoretical knowledge and practice-based skills.[1] Clinical practice is most complex aspect of nursing education. The role of the preceptor is multifaceted—the evaluation of an effective preceptor should be based on personality, skills, characteristics, and ability to teach.[1] Preceptorship presents the opportunity for one to not only grow clinically but also professionally. Various studies suggest that the role of a preceptor presents many challenges due to the lack of organizational support, lack of confidence in the role, increased work demands, and lack of formal training.[1] It is important to explore how formal training for preceptors can make the clinical environment more favorable.

Problem Identification

In the clinical setting, preceptorship offers a one-to-one individualized learning experience, unlike a mentorship, where individuals must seek out a mentor. The preceptorship model has been widely accepted in many disciplines to enhance student learning, provide opportunities to demonstrate competence and critical thinking, and build confidence.[1] The role of a preceptor involves many challenges. A literature review found various themes in preceptorship: increased workload, unclear reporting structure, discrepancies in how to properly evaluate students, and lack of timely feedback. Nursing preceptors must balance their usual workload in addition to being educators.[1] Studies report that preceptors find the lack of support from leadership most difficult.[1] Consequently, the lack of support from leadership makes nursing preceptors less inclined to precepting.[1] According to Dev et al.'s findings, preceptors reported not clearly understanding the expected hierarchal reporting structure regarding student performance.[2] Studies indicate that preceptors reported concerns to the clinical coordinator instead of giving direct feedback to the student.[2] Some preceptors would bypass the clinical coordinator and

express concerns to the nurse managers, which delayed identification of a student's clinical need or diffculty.[2] Preceptors were unclear about student expectations and how to effectively evaluate them.[2] A concern reported by a preceptor was discrepancies between different school policies and learning objectives.[2] Inconsistencies in various school objectives and lack of clear expectations outlined for the preceptor can lead to generic preceptorship training.[2] Dev et al. noted that some preceptors were evaluating students' clinical performances based on their own personal grading scales and not a structured evaluation.[2] Preceptors were asked by academic educators to change their evaluations because the educators did not agree with their evaluations.[2]

The clinical education should be effectively facilitated to create a positive learning environment.[3] A cross-sectional exploratory study was conducted in Malawi to examine the perceptions and experiences of students who worked with trained preceptors.[3] This study found that trained preceptors created a warm, welcoming environment conducive to learning.[3] Participants reported that trained preceptors were more inclined to seek out new opportunities, provided more support and guidance, and had positive attitudes toward students.[3] Studies indicated that preceptorship training increases the preceptor's confidence, ability to give feedback, and competence.[3] In Cambodia, preceptors attended a 1-week training program designed to educate them on methodologies, supervision over students, and how to evaluate daily progress.[4] Koy mentioned that in this study, students were asked about their perceptions of what would improve the clinical setting.[4] Many of the participants felt that a conducive environment was influenced by the preceptors' teaching abilities, interpersonal relationships, professional conduct, and personalities.[4] The question, in PICO format that was used in this review was: "In graduate-level nurse anesthesia students (P), would the implementation of formal training of the preceptor and clinical guidelines (I) compared to no formal training of the preceptor(C) facilitate a positive learning environment clinically (O)?"

Background

In the nursing profession, clinical education is an integral part of the development of nurses.[5] Clinical education ensures that nursing students are given opportunities to interact with live patients in multiple patient care settings as they apply theoretical knowledge gained from didactic learning to the clinical arena.[5] A significant portion of the nursing curricula comprises instructing students, incorporating psychomotor skills and problem solving with the goal of patient safety.[6,7] Professional nursing is a practice-based discipline—embodying nursing science and knowledge acquired from other disciplines.[7] Application of skill sets and knowledge is foundational to the science of nursing, and clinical competence is essential to entering into practice.[7] Clinical competence develops with time and progresses through various levels of proficiency.[7] The Institute of Medicine recommends that health care professionals become competent in five areas: collaborating on interdisciplinary teams, providing patient-centered care, applying quality improvement initiatives, employing evidence-based practice, and utilizing informatics.[8] The primary goal of clinical education is to prepare students for entry into practice.[9]

The ever-shifting health care system plagued with chronic health conditions, an aging population, and increased demands for quality care and patient satisfaction require competent health care professionals.[9] Many health care delivery systems utilize preceptors for the development of newer nurses or practitioners transitioning into other specialities.[9] Nurse preceptors are experienced nurses who offer the opportunity for one-on-one guidance and tailored experiences for their preceptee.[9] Preceptors play a pivotal role in organizing the students' learning activities, giving constructive feedback, setting attainable goals that are evaluated daily, and providing concerns or feedback to faculty regarding students' progression.[9] Although most nurses take on the role of being a preceptor, the majority are not formally trained to be a preceptor. Studies show that in comparison to those in countries that require formalized preceptorship training, preceptors without formal training face multiple challenges.[9] Preceptors often struggle to

provide the support their preceptee needs to be successful due to the increased workload, lack of support from management, burnout, insufficient time, lack of preparation for the role, lack of clear guidelines or expectations, and lack of satisfaction.[9]

Literature reviews revealed various perceptions that contribute to the preceptee and preceptor relationship.[1] Studies report that preceptorship aids in building confidence in the preceptee.[1] According to Kuroda et al., novice nurses tend to be more anxious without preceptorship.[10] Research shows that preceptorship improves nurse retention and assists with the socialization of the professional role into practice contexts and to narrow a theory-practice gap that exists in nursing.[10] Attributes of clinical preceptors influentially impact the perceptions of the student registered nurse anesthetist (SRNA) experience. Clinical training primarily impacts the SRNA experience by using critical thinking, psychomotor proficiency, self-awareness, and professionalism.[9] SRNAs rely on their preceptors for guidance as they navigate and learn new skills—as well as transition into their new positions in anesthesia practice.[5]

Scope of the Problem

In health care, clinical practice is designed to strengthen the practitioner's clinical skills by facilitating what is learned in didactic or simulation labs and translating it into actual practice. Research suggests that there is a linear correlation between preceptorship and developing clinical independence and best judgment. The invaluable wealth of knowledge passed down to the preceptee by the preceptor, in addition to the professional support given, helps to reduce stress in the transition into the workforce after graduation.[1]

Studies show that trained preceptors create a positive environment that leads to the preceptee becoming more receptive to corrective feedback, gaining more confidence clinically, and developing into a safe and effective clinician.[3] Preceptorship serves to offer the role of both educator and supervisor. Formalized preceptorship training leads to better overall outcomes.[1]

Preceptors must find the balance between "pushing their preceptees too hard and sheltering them."[1] Preceptees are more effective in practice when their preceptor has chosen to loosen the reins slightly, giving them the room and opportunity to make critical decisions independently.[1] It is then that the preceptor can present the bigger picture and explain the rationale behind different nursing actions.

Consequences of the Problem

There is very little education given to CRNAs to precept SRNA students effectively. CRNAs in the role as a preceptor--- are expected to translate their clinical knowledge on to their preceptee without formal preceptorship training. Studies report that CRNAs often feel that there is a lack of support from administration and added stress from the increased workload due to having a student.[12] Expectations for the SRNA clinical progression should be mutually discussed between the clinical coordinator and faculty to ensure congruency in learning objectives; this will bridge clinical gaps and improve the SRNA's clinical performance.

Jain, Rao, and Jinadani conducted a study on the effectiveness of the 6-step pneumonic SNAPPS technique in improving students' reasoning in a clinical setting.[13] The SNAPPS technique is based on (1) the summarization of the history and the findings, (2) narrowing the differentials, (3) analyzing the differentials, (4) probing the preceptors about any kind of uncertainties in the case, (5) planning the management of the study or case, and (6) selecting the case-related issues and progressing the process of self-study.[13] The SNAPPS model relates to the changes in the training of the preceptor and sharing the development of faculty with the development of the learner in the process of education. In this study, the researchers divided the students into two groups in which one of the groups was passed through the traditional form of teaching and case presentations, while the other group was intervened with the SNAPPS technique.[13] The researchers found that the students who were guided by the SNAPPS model

were able to summarize the patients' findings more concisely compared to the students who were passed through the traditional teaching method. They were also better at making diagnostic hypotheses and differential diagnosis.[13] This shows that in a clinical setting, the preceptors' role is essential in improving the students' learning outcomes and clinical experiences. In the case of nurse anesthesia students, one of the previous studies conducted by Elisha and Rutledge also showed the importance of preceptors in the students' learning and clinical experience.[12]

Elisha and Rutledge conducted a cross-sectional survey to assess student registered nurse anesthetists' experiences and their attitudes in relation to clinical instruction.[12] The researchers invited 2673 student registered nurse anesthetists, and 696 of them took part in the study. The researchers found that Certified Registered Nurse Anesthetist preceptors were most often considered role models with a positive impact on students' lives. On a further note, the students found the preceptors, reading, unique cases, and clinical lectures more helpful in the process of clinical learning compared to the surgeons, ground rounds, and anesthesiology residents.[12]

The findings of Elisha and Rutledge are further supported by the findings of the study conducted by Tuomikoski, Ruotsalainen, Mikkonen, Miettunen, Juvonen, Sivonen and Kaariainen.[14] They conducted their study on the education of mentors, who are also referred to as preceptors, and the effect of this education on their competence and the improvement of the students' clinical practice.[14] In the study, the researchers worked on improving the competence of Registered Nurses in mentoring the students of nursing.[14] They found that the nurse mentors' competence increased in almost all the areas of nursing competence after the educational intervention. More specifically, the researchers noted a significant increase in the knowledge regarding the nurses' mentoring practices in the workplace, in the support for the students' learning processes, and in the student-centered evaluation.[14] This finding shows that the nurses' education and training could help improve the students' learning experiences.

In another study, Tuomikoski et al. worked on the nurses' experiences regarding their competence in relation to mentoring nursing students at the time of clinical practice.[12] They conducted a systematic review of the qualitative studies and synthesized the research-based evidence in relation to the experiences of the nurse mentors in instructing the nursing students.[12] They found that evidence-based knowledge showed that nursing mentors usually require a dynamic set of competencies to mentor them in their nursing practices successfully.[12] These competencies could be associated with the interactive relationship with the students and the development of appropriate mentoring characteristics and co-operation with stakeholders. Moreover, nurse mentoring competencies have also been found to be associated with goal-oriented mentoring and support of the students in their development in the nursing profession.[12]

Quek and Shorey further noted that the preceptors and the students of the preceptors perceive that preceptors could play an important role in improving the students' clinical experiences.[1] They conducted an integrative review of the studies published in relation to the topic of the preceptors and their involvement in the nursing students' clinical education and experiences. They found that preceptors significantly impact the students, especially the newly graduated nursing students who are just entering the workforce. They not only teach the students but also provide psychosocial support to the students. However, the preceptors have to be properly educated and trained to fulfill their responsibilities effectively.[1]

Tuomikoski et al. noted that the nursing mentors' training also helped in increasing the constructive evaluation and providing constructive feedback based on effective communication and leadership techniques.[14] In this case, it would be imperative to consider that the feedback provided by the nursing mentors to the nursing students is one of the vital aspects of improvement in clinical education. For instance, Nottingham and Henning conducted a study on feedback in clinical education.[15] They conducted their study on the Approved Clinical Instructors (APIs) who work with athletic training students and provided feedback based on clinical education

experiences. The study consisted of individual, semi-structured interviews with the participants. The participants stated that feedback is helpful in clinical education and in improving students' performance in different ways. For instance, it is only through the instructors' feedback that the students would be able to know the correct and incorrect behavior, which could eventually help improve the students' confidence. The feedback could also help the students move towards the goals while working on the weaknesses that would become a barrier in achieving the goals.[15]

Along with the feedback, the preceptors also provide physical and verbal guidance to the students during all the processes in which the preceptors and the nursing students work together. Nevertheless, the constructive feedback and the appropriate supervision during working together in a similar setting could only be achieved with experience and training to deal with the patients and the students.[16]

There is no definitive quantitative cost analysis performed on preceptorship-preceptee relationships; the most consequential action would be increasing a program's attrition rate due to the lack of support. A student's success can be attributed to their preceptor's interest in supporting and guiding their development as they socialize into a new profession.[5] Effective communication by the preceptor promotes mutual trust and respect, contributing to an environment conducive to academic growth.[5] Many of the literature reviews found reported data collection limitations such as the subjects knowing each other, small sample size, self-reporting survey without validation of the reported experiences, or the lack of test-retest reliability.

Available Knowledge and Implications for Future Studies

Literature shows that preceptors have critical roles in nursing students' professional lives. Students have some knowledge regarding the cases through care plan preparation and didactic learning; however, they have little to no clinical experience Therefore, they are dependent on preceptors for clinical practice. In this regard, the preceptors' experience and knowledge become

vital in improving the students' clinical practice. Moreover, the training of preceptors could further optimize the clinical experience of the nurse anesthesia students. However, further studies are still required to understand the role of the relationship of preceptors with students, along with the training of the preceptors, in improving the clinical experience. In the future, studies could also be conducted on training preceptors in dealing with personal issues, such as stress, which could also affect their professional lives.

A Swedish study identified challenges that preceptors face while balancing educating and clinical responsibilities.[17] According to Carlson et al., preceptors acknowledged that the lack of time due to increased workload contributed to them not being able to dedicate the appropriate amount of time needed to educate their students.[17] When assignments are created without consideration given to reducing the workload, preceptors become stressed and more overwhelmed, which leads to ineffectiveness in their role.[17]

Collegial support to offset the increased demand from precepting not only benefits the preceptor but also improves the student's learning experience.[17] Carlson et al. mentioned that support of the physician, auxiliary staff, and other nursing personnel could be beneficial or limiting to the student's clinical experience.[17] Lack of cooperation and understanding between the preceptor and physician hinders students' ability to practice competently in their professional role.[17] Studies found that when preceptors felt confident in their students' skills, the students were given more independence.[17] On the contrary, when the preceptor perceived the student as unprepared or lacking clinical skill, opportunities for the student were limited.[16]

Proposal for the Problem

According to Phuma, in a good learning environment, both theory and practice merge and clinical staff and educators collaborate on intended clinical outcomes for the students.[4] Studies show that the learning environment contributes to students' success, health, happiness, and motivation.[18] The clinical environment is critical to learning and correlates to the academic

success of the student. Clinical growth is fundamental to the competency of the health care provider and patient safety.

Student perceptions and satisfaction are indicators of the quality of learning and are related to several outcomes.[18] Studies indicate that the clinical environment perpetuates students' perceptions and indirectly relates to academic success, student retention, and coping mechanisms.[18,19] Conner identified self-efficacy as a predicator to academic success. It is the ability to believe in one's own ability to carry out an objective.[19] Preceptors who provide timely feedback, observe skills frequently, effectively communicate, and are willing to teach contribute to a better learning environment.[18,19] Phuma noted that students perceive their clinical preceptors as vital to their achievements and learning outcome.[4]

Findings show that students prefer working with preceptors to enhance their clinical learning experiences.[18] Certified Registered Nurse Anesthetists (CRNAs) become preceptors based on their clinical experience and knowledge; however, nurses are not formally taught how to precept. Elisha and Rutledge noted that developing the CRNA into a preceptor through formal training is necessary to educate high-quality nurse anesthesia practitioners.[11] A recent study conducted in Malawi examined the effects of a 6-week preceptorship training program to train clinical staff in preceptorship and teaching.[3] The student perceptions' narrative account noted that their clinical environment improved and created a more positive environment.[3] Participants acknowledged that preceptors were more equipped to teach, were more friendly and receptive, sought new opportunities, provided support and guidance, and created a respectful environment conducive to learning.[3] This study concurs that preceptorship contributes to the development and improvement of psychomotor skills among students.[3]

METHODOLOGY

Literature Review Methods

The literature review has been conducted utilizing specific keywords such as "student nurses anesthetists," "preceptorship," "mentors," "students," "mentorship," "preceptorship

models" and the search of literature related to these keywords in some of the most commonly used databases or literature search sites. The literature search consisted of the search of journals, peer-reviewed articles, and empirical research-based articles. In this literature review, the articles that were not published in English language were excluded. Moreover, the articles that were more than 10 years old were also excluded. The electronic search of the articles was performed in the databases, such as PubMed Central, CINAHL, MEDLINE and in the literature search sites, such as Google Scholar that could help in optimizing the search-related process. The CINAHL database yielded 1183 results, MEDLINE database yielded 806 articles, and PUBMED yielded 541 results. A total of 2530 results from all three searches. Duplicates were removed.

Figure 1. PRISMA Diagram

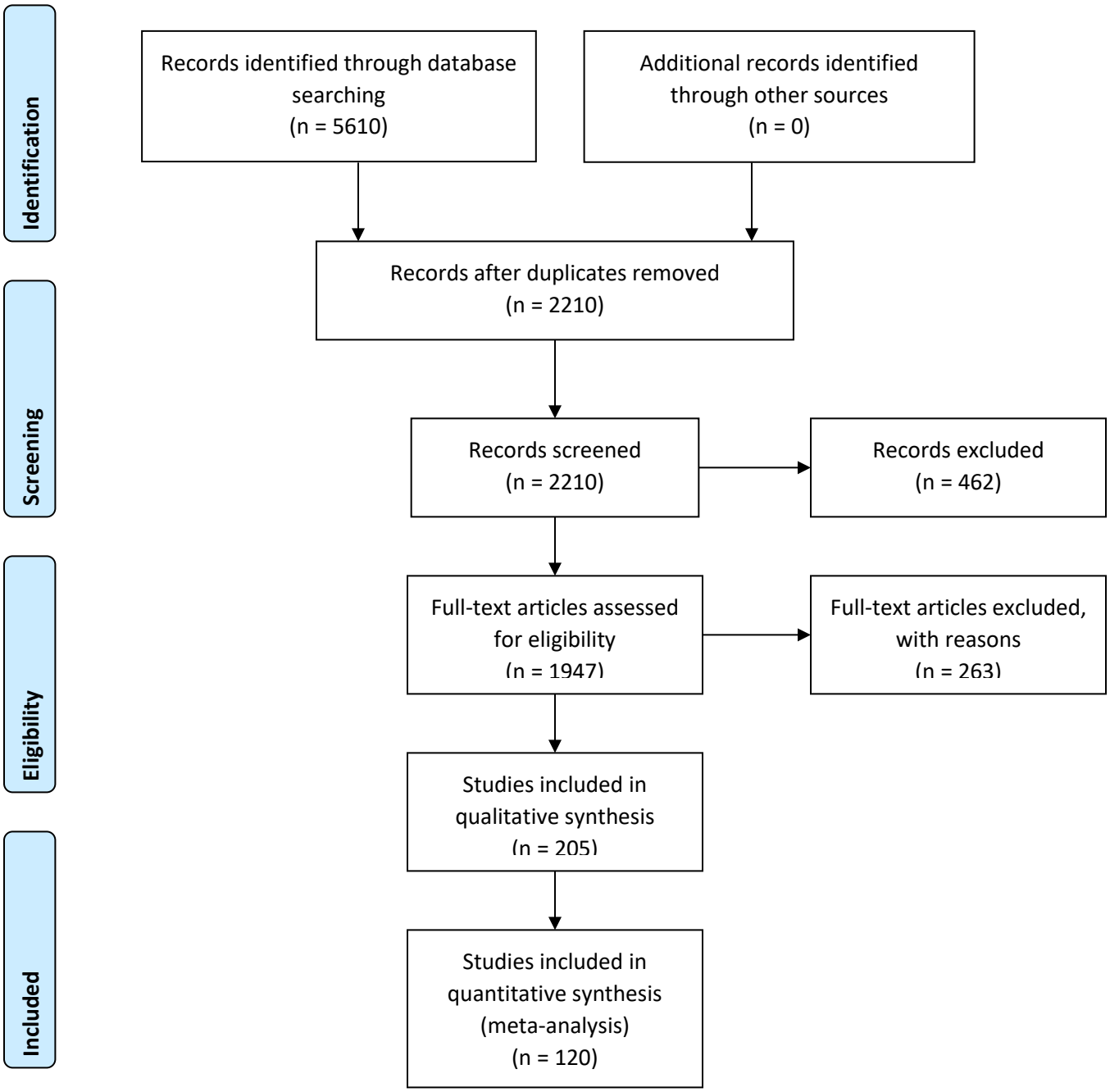

Table 1. Database Search

Concepts/ Topics	Preceptorship	Filters Applied
CINAHL	(MH "Preceptorship") OR (MH "Preceptorship program") and (MH "nurse") OR Nurse anesthesia	• Peer reviewed filter applied and **1183 results** found • Applied filters, 2010-2021, Full text
MEDLINE (Proquest)	(MH "Preceptorship") OR (MH "Preceptorship program") and (MH "nurse") OR Nurse anesthesia	• 812 results • Applied peer reviewed, English Filter, 2010-2021, type to get **806 results**
PUBMED	(MH "Preceptorship") OR (MH "Preceptorship program") and (MH "nurse") OR Nurse anesthesia	1947 results found Filters applied: English, Article publication type (MEDLINE and nursing journals), Adult >19years old, dates 2010-2021. 541 results were then found

Study Selection and Screening Method with Inclusion/Exclusion Criteria

The preliminary PICO question prompted the investigation of articles to support the question. The search was not limited to study designs or level of evidence. The retrieved articles were imported to Mendeley and checked for duplicates. Full-text screening was conducted on 8 articles and based on certain inclusion and exclusion criteria shown in Table 2.

The inclusion criteria included articles published between years 2010 to 2020, written in the English language, adults 18 years or older, and peer-reviewed articles that are found in nursing or medical journals. The inclusion criteria also included articles that discussed

preceptorship or preceptorship programs as they pertained to undergraduate or graduate nursing studies. The exclusion criteria included non- English articles, dates published prior to 2010, and children under 17 years of age.

Table 2. Inclusion and Exclusion Criteria

Inclusion	**Exclusion**
• Adults 18 years or older • English language • Peer reviewed articles • Nursing and medical journals • Full text articles • Empirical research articles • Graduate and undergraduate nursing • Articles published between 2010 to 2020	• Pediatric population • Non English articles • Publication date prior to 2010

Table 3. Literature Review Table

Citation and Theme of the Article	Design/ Method	Sample/ Setting	Major Variables Studied and Their Definitions	Measurement And Data Analysis	Findings/ Results	Conclusions	Appraisal: Worth to Practice/Level
Jain V, Rao S, Jinadani M. Effectiveness of SNAPPS for improving clinical reasoning in postgraduates: Randomized controlled trial. 2019	RCT	*N* total 22 (including residents and faculty). *N*=18 members post-graduate surgical residents and *N*=4 faculty and 4 preceptors from faculty familiar with teaching strategies.. Inpatient or ward setting of the Medicine department at Mahatma Gandhi Institute of medical sciences (MGIMS).	IV1-SNAPPS technique group. Routine admission that required extensive deliberation with expert faculty. DV1-Traditional case presentation group. Usual case presentation by residents during routine teaching in an inpatient setting	Measurement: Diagnostic thinking inventory (DTI) is a validated self-reporting system, 5-point Likert scale. Data were analyzed using Stata software (v 11) and medians with Mann Whitney U-test and proportions with the chi-square test. *P* <0.05 is significant	The SNAPPS group student took on average 1.6 min more to make their entire case presentations	SNAPP technique enhanced students' clinical reasoning.	Johns Hopkins Nursing Evidence Base-Practice Level 1
Knisely MR, Fulton JS, Friesth BM. Perceived Importance of	An internet survey	N total 356: Number of preceptors = 278, Number of students =	IV1: formal training will provide a more favorable experience	Measurement Use of the Delphi survey, 4-point Likert scale.	The study organized the effective teaching	The study concluded that preceptor behavior and	Johns Hopkins Nursing Evidence Base-

Teaching Characteristics in Clinical Nurse Specialist Preceptors. 2015		78. The attrition rate was 0.	DV1: characteristic and behaviors of preceptors can impact the clinical learning experience	Red cap software to collect survey responses. SPSS to analyze the data collected.	characteri stic in a descend-ing order.	skills can affect the students perception and clinical experience. However, there is very little empirical data to support that claim.	Practice Level 5 Strength
Quek GJH, Shorey S. Perceptions, Experiences, and Needs of Nursing Preceptors and Their Preceptees on Preceptorship: An Integrative Review. 2018	Integrat -ive review.	N (total) – 20 articles were reviewed (9 quantitative, 9 qualitative, and 2 mixed-method).	IV1: Employing/ recommending new strategies to overcome challenges of preceptorship. DV1: describe perception of preceptorship from newly graduate nurses and preceptors	Levine's test used to evaluate equality of variance. Due to the nature of this study, there were too many variables to perform a data analysis.	Of the reviewed articles, the collected consensus for each theme is as listed: Role of a preceptor, Preceptor preparatio n and support, Challenge s of being a preceptor, Preceptors hip significan ce for newly graduated nurses, Factors affecting the	The study concluded that the role of a preceptor pivotal to the growth and success of the student. Their role extends beyond a role model and also involves the psychosocial aspect of caring for the preceptee's well-being.	Johns Hopkins Nursing Evidence Base-Practice Level 5 Strength

					preceptor-preceptee relationship, Factors that negatively affect the relation-ship		
Nottingham S, Henning J. Feedback in clinical education, part II: Approved clinical instructor and student perceptions of and influences on feedback. 2014	Qualitative study	N (total) = 8 participants. Interviews were conducted via an audio recorder.	IV1: Implementation of timely corrective feedback that outlines ways to improve and discusses what was done correctly. DV1: Identify how perceptions and corrective feedback impacts the student's ability to learn and improve clinically.	Interviews were recorded with an audio recorder and transcribed verbatim. All transcriptions were completed within 72 hours of the actual data collection. Feedback statements were recorded and played back to stimulate conversation during and clarify any statements made by participants.	Findings: That corrective feedback helps the students to grow, confirm, and correct behaviors. ATS claimed that positive feedback gave them confidence, and it was good to know what it is that they have done well.	This qualitative study concluded that preceptors are vital to clinical education. Preceptor training should include guidelines for useful feedback as well as adapting to clinical training.	Johns Hopkins Nursing Evidence Base-Practice Level 5

Elisha S, Dana Rutledge EN. *Clinical Education Experiences: Perceptions of Student Registered Nurse Anesthetists*.2011.	The descriptive study that used a cross-sectional survey	N (total invited) = 2673 participants. N(total participated)= 696. Participants were randomly selected from the American Association of Nurse Anesthetists (AANA) database.	IV1: Formal training of CE change SRNAs clinical perceptions DV1: The perceptions of SRNAs mistreatment during clinical learning, beliefs about ideal CEs in the SRNA education, and SRNA perception of various personnel or activity that might be perceived as an ideal learning	Responses were collected through a survey called Zoomerang to SRNAs in the AANA database. Measurement:Data collected to measure mentor competence instrument (MCI). 4-point Likert scale, Cronbach's alpha was used to test the scales' internal consistency. Descriptive and statistical multivariate methods were used to analyze the data	Verbal abuse was reported more frequently than sexual harass-ment, physical abuse, or racial discrimen-ation. Sexual harass-ment, physical abuse and racial discrimination was experienced by less than 15% of partici-pants.	Instilling confidence during clinical learning requires an appropriate learning environment that enhances the SRNA ability to learn.	Johns Hopkins Nursing Evidence Base-Practice Level 5
Tuomikoski AM, Ruotsalainen H, Mikkonen K, et al. How	A quasi-experimental study	N = total 120 mentors.	IV1: Mentoring aimed to strengthen mentors'	Measurement data collected using a mentor competence	The mentor-ship compe-tence	The study evaluated the effectiveness of educating	Johns Hopkins Nursing Evidence Base-

mentoring education affects nurse mentors' competence in mentoring students during clinical practice – A quasi-experimental study.2020			competence in mentoring students and improve mentoring quality in the clinical setting. DV1: Increase mentoring education to improve their competence	instrument (MCI).	increased after education-al training	mentors and the outcome in clinical practice. The interven-tions significant-ly increased the Registered Nurses' competence in mentoring nursing students.	Practice Level 2
Windey M, Lawrence C, Guthrie K, Weeks D, Sullo E, Chapa DW. A Systematic Review on Interventions Supporting Preceptor Development. 2015	System-atic Review	N = total 22 articles		Literature review of articles	Challen-ges of experimen tal education al research in nursing profession -al develop-ment specialties	Limited research to support preceptor development	Johns Hopkins Nursing Evidence Base Practice Level 1
Kaakinen J, Arwood E. Systematic review of nursing simulation	System-atic Review	N = total 120 articles	IV1: Use of various teaching strategies to facilitate learning	Literature review of articles	None reported	Learning techniques should cater to the student learner	Johns Hopkins Nursing Evidence Base

literature for use of learning theory. 2009			DV1: learning theories was used and design to assess learning which occurs in simulation				Practice Level 1
Parchebafieh S, Gholizadeh L, Lakdizaji S, Ghiasvandiyan S, Davoodi A. Effectiveness of the clinical teaching associate model to improve clinical learning outcomes: A randomized controlled trial.2014	RCT	CTA (*n*=28), Traditional training group (*n*=32)	IV1: utilizing the clinical teaching associate to determine the effectiveness of clinical knowledge, skills, and student satisfaction DV1: tradional learning model	SPSS version 16 (Chicago, Il)	CTA was equally effective in improving clinical knowledge, skills and student satisfaction	CTA was equally effective as the traditional model and could improve the clinical setting	Johns Hopkins Nursing Evidence Base-Practice Level 1
Cook DA, Dupras DM, Beckman TJ, Thomas KG, Pankratz VS. Effect of rater training on reliability and accuracy of mini-CEX scores: A randomized, controlled trial. 2009	RCT	Total (*N*=52), *n*=31 randomized and *n*=21 additional attendees	IV1: Mini CEX to assess resident competence DV1: performance behavior training	MINIM (version 1.5, London Hospital Medical College, London)	Rater training did not affect accuracy and interrater reliability	Rater training did not improve interrater reliability or accuracy of mini-CEX scores	Johns Hopkins Nursing Evidence Base-Practice Level 1
Fagundes EDT, Ibiapina CC, Alvim CG, Fernandes	RCT	Total (*N*=60)	IV1: SNAPPS technique in case presentation	IBM SPSS Statistics version 25 was used for	SNAPPS more effective than OMP	OMP and SNAPPS equally promote	Johns Hopkins Nursing Evidence

RAF, Carvalho-Filho MA, Brand PLP. Case presentation methods: a randomized controlled trial of the one-minute preceptor versus SNAPPS in a controlled setting. 2020			DV1: OMP technique for case presentation	statistical analysis	in helping students take on a more active role during case presentation	medical students' expression of clinical reasoning	Base-Practice Level 1
Kim SC, Oliveri D, Riingen M, Taylor B, Rankin L. Randomized Controlled Trial of Graduate-to-Undergraduate Student Mentoring Program.2013	RCT	Total (*N*=34)	IV1: Nursing students assigned to experimental group received up to 20 hrs of mentoring by graduate nurses DV1- control group	The State-Trait Anxiety Inventory, the Baccalaureate Student Self-efficacy Questionnaire, and a demographic data form using a Likert scale, SPSS for data analysis	Mentored students had lowered anxiety levels, better academic performance, and higher satisfaction in comparison to the control group	Graduate to undergraduate student mentoring program reduced undergraduate anxiety and improved their academic performance	Johns Hopkins Nursing Evidence Base-Practice Level 1
Furney SL, Orsini AN, Orsetti KE, Stern DT, Gruppen LD, Irby DM. Teaching the one-minute preceptor: A randomized controlled trial. 2001	RCT	Total (*N*=57)	IV1: intervenyion group which used OMP DV1: traditional learning	STATA statistical software	Interventional group showed no significant improvement in most areas. 87% agreed that OMP was useful.	OMP improves resident teaching	Johns Hopkins Nursing Evidence Base-Practice Level 1
Tang FWK, Chan AWK. Learning	Explor-ative Qualita-	Total (*N*=28)	IV1: Nursing students who followed a	None reported	Clinical partnership model	An effective clinical teaching	Johns Hopkins Evidence

experience of nursing students in a clinical partnership model: An exploratory qualitative analysis.2019	tive study	clinical teaching model DV1: control group that did not follow any clinical teaching models	enables a supportive environment. The professors having knowledge in the clinical environment promoted a positive experience. Clinical educators bridge the gap between healthcare providers and students.	model is fundamental to developing the students' competence.	Base-Practice Level 5

Study Bias

Based on the studies reviewed, biases were identified within the research to minimize biases and maintain its validity. Various studies research relied on personal reflections and subjective details from the participants.[1,11,13-15] Quantifying what makes a preceptor effective is challenging to construct empirical data; thus, making the results of the studies difficult to test. Elisha and Rutledge's descriptive study measured the student registered nurse anesthetists (SRNA) perception of their clinical experience related to clinical instruction.[11] This study reported dissatisfying factors observed or experienced by the SRNA that contributed to a negative clinical experience.[11] The proposed bias to this study was that the reported findings were self-limiting and unable to be tested.[11] Tuomikoski et al.'s study relied on self-reported measures regarding their competence in mentorship.[14] There was not a control group identified. All participants were aware of their purpose of the research, and this may have skewed results.[14] Another finding discovered was that highly motivated preceptors would affect the results of the study.[14] Other biases discovered during this systematic review is that some studies were conducted in clinical settings that may not be applicable to healthcare environments.[21]

Individual Findings

The primary objective of nursing education is to produce competent professionals who can apply their knowledge and skills in different health care settings. As a result, various teaching models and guidelines have been designed to promote learning and satisfaction among nursing students. Some models and guidelines for advancing preceptor training and enhancing the

clinical learning environment include the Clinical Teaching Associate Model, rater training, and graduate-to-undergraduate mentoring. Other methods, such as SNAPPS (Summarize history and findings; Narrow the differential; Analyze the differential; Probe the preceptor about uncertainties; Plan management; and Select case-related for self-study), One-Minute Preceptor (OMP), and the traditional precepting method, among others, are also used to enhance preceptor training and the clinical learning environment. This literature review examined the various clinical guidelines used to advance preceptor training and enhance the clinical learning environment.

Quek et al.'s integrative review identified six themes that deemed important to preceptorship and understanding the needs of both preceptee and preceptor.[1] Six themes identified were:

- Role of the preceptor.[1]
- Preceptor preparation and support.[1]
- Preceptorship significance for newly graduated nurses.[1]
- Challenges of being a preceptor.[1]
- Needs of recently graduated nurses.[1]
- Factors affecting the preceptee and preceptor relationship.[1]

This study results concluded that a preceptor is indispensable to the foundation of new graduate nurses' careers and that a preceptor's role is imperative to clinical education. Quek et al. noted that a part of a preceptor's skill set and knowledge is to engage preceptees and give constructive criticism that will benefit the preceptee.[1] The preceptor's role has been shown to have a positive correlation to the retention of nurses.[1] Daily challenges faced by the preceptor include increased workload, lack of support, job dissatisfaction, and other stressors that hinder a positive learning environment.[1]

Knisely et al. conducted an exploratory study on the importance of preceptor characteristics in clinical nurse specialist preceptors. This study involved preceptors (*n*=278) and clinical nurse specialist students (*n*=78).[5] In this study, 96.7% of preceptors were female and 94.9% of students were female.[5] Participants age ranged from 24 to 68 years with a median age of 50.3 years.[5] Years in practice varied between preceptors, but the average years of precepting were less than three years or greater than 5 years.[5] Both groups rated effective teaching characteristics above greater than 3- on a 4-point Likert scale as important to clinical education.[5] Clinical preceptors and clinical students' highest mean score was *clinical competence/judgment* with mean scores of 3.88 and 3.79.5. The lowest mean score in the CNS preceptor group was *sensitivity*, whereas the lowest score was *ego strength/self-assurance* in the student group.[5] *Flexibility* was found to be more important to preceptors than students.[5] When asked which three characteristics were most important to both preceptors and students, communication, stimulates student involvement, positive role model, and competence and judgment were all synonymously agreed. When asked which characteristics were least important in the clinical environment, both groups chose *ego strength/self-assurance.*[5] This study provided empirical data to support the importance of the role of an effective preceptor.

Elisha and Rutledge identified dissatisfaction factors that negatively impacted the clinical environment based on the SRNA perception. A total of 696 SRNAs participated in this study with the following demographics: two-thirds female, predominately white, and younger than 38 years of age.[11] Most were newer nurses with less than 6 years of experience and worked in various critical care settings.[11] SRNAs were asked to rank the top 4 characteristics considered most important to their learning: calmness during stressful events, non-threatening communication, clear communication, and independent decision-making.[11] The least important characteristic was being humorous. The participants also reported that professional communication, need for role commitment from the preceptor, increased understanding that the clinical experience should focus on the development of the student, and the need to match the

complexities of the cases with the student's skillset were essential aspects to advancing clinically.[11]

Jain et al. conducted a study utilizing a learning-centered model to condense the reporting of facts while encouraging clinical reasoning.[13] This randomized control trial used the six-step pneumonic, SNAPPS, to facilitate the inpatient setting case study presentation.[13] The SNAPPS model caused a change in the preceptor training by pairing faulty development and learner development as a pair in education.[13] The students who participated in the SNAPPS group were more precise about their diagnostics, summarized their findings more precisely, and maintained thoroughness as in traditional case presentations.[13] The SNAPPS group students took an average of 1.6 min more to make their entire case presentation (7.19 vs 5.56, *p*-value <0.01).[13] The time taken to summarize findings were less in the SNAPPS group (3.15 vs 3.48, *p*-value =0.177).[13] The time taken for discussions were more in the SNAPPS group (4.04 vs. 2.07, *p*-value < 0.01).[13] Students in the SNAPPS group were more concise in their summaries than students in the control group (2.28 compared to 1.6, *p*-value = 0.6984).[13] According to the teachers, the students in the SNAPPS grouped fared better than the control group as they were more organized in formulating and defending differential diagnoses, more systematic in their examination, elaborated on patient management plans, and managed time efficiently (*p*-value< 0.01).[13]

According to Koy's study analyzed Cambodia's nursing educational system.[3] The nurses are fully responsible for precepting nursing students and must undergo a one-week training program to learn how to teach methodologies, supervise students, and monitor daily evaluations.[3] The study stressed the importance of defining characteristics of an effective clinical preceptor.[3] The five subcategories identified were: teaching ability, personality traits, interpersonal relationships, nursing competence, and evaluation.[3] Each category was then further defined as the following: the nursing profession is a practice-based profession that requires clinical competence.[3] Interpersonal relationships describe the state of mutual interest between two or more people.[3] Personality traits include the preceptor's attitude, emotional behaviors, and

character.[3] Teaching abilities create an environment conducive to learning and foster a positive learning environment.[3] Evaluation encompasses valued feedback without the students being belittled.[3] Evaluation gives the students' feedback is the time and amount of feedback given regarding clinical performances and written evaluations.[3] The interpersonal relationship domain ranked the highest of perceptions (M = 3.51; SD = 0.88) followed by evaluation (M = 3.39; SD = 0.93), personality trait (M = 2.80; SD = 0.87), and nursing competencies respectively.[3] The lowest-ranked characteristic that was deemed important by nursing students was teaching ability (M = 2.70; SD = 0.81).[3]

Case Presentation Methods

Several case presentation methods are used by preceptors to enhance learning among residents. Case presentation and discussions between residents and preceptors is an essential aspect of instruction and care of patients.[22] As a result, case presentation methods like One-Minute Preceptor and SNAPPS have been designed to enhance case presentation and result in effective learning and patient care. Research by Furney et al. shows that the one-minute preceptor model is brief and relatively easy to administer compared to other teaching models, such as lectures, role-play, and group discussions.[22] The study involved a randomized controlled trial with an intervention and control group that consisted of 28 and 29 third- and second-year medicine residents at a Veterans Administration Medical Center and tertiary care hospital. Research findings by Teherani et al. show that the one-minute preceptor model is preferred among nursing students over the traditional precepting model.[23] The research entailed administering questionnaires to 164 third- and fourth-year medical students in two different schools after watching videotaped encounters of the two models.

In addition, SNAPPS and One-Minute Preceptor (OMP) have also been widely used to promote clinical reasoning among nursing students. Fagundes et al. state that OMP and SNAPPS play a critical role in enhancing the expression of clinical reasoning among nursing students during case presentations.[24] The research involved a randomized controlled trial to compare the

content of case presentation between the two learning methods. The results showed no difference between OMP and SNAPPS in the expression of clinical reasoning. However, the research revealed that SNAPPS is more effective than OMP in enhancing the ability of students to present and justify diagnosis and management plans in complex and simple clinical cases. As a result, this implies that SNAPPS is more effective compared to OMP since it is more engaging. This is despite the brevity and ease of administering the OMP as highlighted by Furney et al.[22]

Despite the effectiveness of the teaching models and case delivery methods highlighted, research shows that other factors play significant roles in the learning process: factors such as rater variations and self-efficacy impact significantly the models of learning highlighted above.[25,26] For instance, Stajkovic et al. revealed that self-efficacy directly correlates with academic performance.[25] The research entailed an examination of the relationship between the Big Five personality traits and self-efficacy. The study further tested the three major conceptual models that influence academic performance among students. The findings of the research showed a positive relationship between academic performance and self-efficacy.[26] On the other hand, the study also revealed that emotional stability and conscientiousness are predictive of self-efficacy among college students. Cook et al. showed that rater training has insignificant impacts on nursing students' learning and satisfaction.[26]

This implies that differences among raters, which affect the reliability of residents' performance scores, exist despite rater training before programs, questioning the reliability of the conclusions on the effectiveness of the teaching models and case presentation methods above. As a result, more research is necessary to assess the extent of the impact of self-efficacy on the teaching models and case presentation methods discussed. Similarly, more studies need to be conducted to assess the impacts of rater differences on the reliability of scores and the effectiveness of the clinical guidelines.

Teaching Models

Contemporary guidelines of preceptor training have seen a shift from teacher-centered to student-centered approaches. According to Parchebafieh et al., the contemporary learning and teaching theories emphasize learners' factors, such as motivation for learning, age, and education background.[20] As a result, health care institutions and universities have acted to establish partnerships and collaborations to enhance preceptor learning and satisfaction in the workplace. For instance, the application of the Clinical Teaching Associate Model has been attributed to positive learning outcomes among nursing students. Parchebafieh et al. indicate that the Clinical Teaching Associate Model effectively enhances clinical skills and knowledge.[20] The authors also reveal that the Clinical Teaching Associate Model improves satisfaction among nursing students. Mentoring of nursing students has also been applied to promote learning and satisfaction. A study by Kim et al. asserts that graduate-to-undergraduate mentoring has positive outcomes on academic success and professional satisfaction among nursing students.[27] The research also showed that mentoring programs between graduate and undergraduate nursing reduce anxiety among learners.

Susan Santo examined various adult learning styles as it relates to online learning.[28] The Grascha-Reichman student learning style scale (GRSLSS) reviewed collegial relationships between students, instructors, and course content. This style of research compared six different styles of learning: the participant, the avoidant, the independent, the dependent, the collaborative, and competitive.[28] The participant is the student learner who is eager to learn, ask questions and take part in the course. The avoidant attempts to do very little work or often procrastinates. The independent learner seeks to work independently and rarely asks for assistance.[28] The dependent learner requires a lot of help and detailed instructions.[28] Collaborative learners enjoy working well with others.[28] The competitive learner competes with other students. [28]

In this study, Santo could not correlate a significant relationship between grades or attitudes among these six learning styles.[28] GRSLSS relies on self-reporting; therefore,

complicating how accurate some of the data was. Santo noted that there were differences in data gathered during interviews versus the student's score or behavior. In one example used, a student scored as preferring the participant style, but behavior exemplified as the avoidant learner.

The Schellens and Valcke learning styles examined the demands of the learning environment in comparison to actual learning styles of students.[28] Five bipolar dimensions were reviewed: Auditory versus visual, applied versus conceptual, spatial versus non-spatial, social versus individual, creative versus pragmatic. In this study developers preferred "visual, applied, spatial, social, and creative styles"; however, students with a spatial learning style scored higher in areas of computer literacy.[28] There was not any significant data to support a correlation between test scores and learning styles.

David Kolb's learning style inventory (LSI) is a widely used and cited instrumental tool.[28] In various studies, Kolb's learning styles have been used to compare student engagement, online course satisfaction, critical thinking as it relates to nursing, and perception or processing to name a few.[28] LSI is based on how a someone processes and perceives information. LSI focuses on the cycle of learning processes and styles. LSI analyzes four different learners: abstract learner, concrete learner, active learner, and reflective learner. The active learner is described as one who prefers to learn through symbolism. The concrete learner prefers to learn through immediate experiences which require using his or her five senses. The active learner learns by actively participating in "hands on activities and external manipulation of tools."[28] The reflective learner prefers to think and reason with ideas internally.[28]

Kolb's learning theory was based solely on observation of student behaviors while learning took place.[29] In simulation based on the Kolb's paradigm, a pretest was conducted to determine the student's learning preference and style. The students would then be assigned to an activity tailored to their learning styles. The effectiveness of the simulation would be determined based on the student's perception after completing the simulation that matched their learning

style.[29] Tailoring how a student learns creates a positive social learning environment and experience.[29]

Various studies mentioned that there lacked sufficient evidence to quantify success rates specific to learning styles and Internet-based methods of teaching.[28-30] Some studies indicated that learning styles could predict success while others stated the contrary. Although learning preferences exist, the conflicting results could be attributed to the learner's educational culture and individual attributes. Comprehension of learning styles is a vital component to preceptorship because each learning style requires the appropriate materials.[30] The alignment of such teach styles increases the likelihood of success among student learners.[30]

Setting and Participants

Study participants were obtained using the FIU alumni email list. The primary study participants include previous nurse anesthesiology alumni who are practicing nurse anesthesiologists. All participants were recruited voluntarily and are given the option to provide their feedback regarding the project's quality improvement module. The anticipated sample size will be 9 participants.

Description of Approach and Project Procedures

The primary methodology of this project is to present an educational module that highlights the benefits of formalized preceptorship training and provide recommendations that can increase the preceptor's success among students. The project was implemented in the first phase by conducting an online preassessment to test the participants' prior knowledge on methods on how formal preceptorship training can improve the clinical environment for SRNAs. The preassessment tool helped to identify any pre-existing knowledge on this topic and may influence further interventions on this subject matter.

The second phase of this methodology was a Zoom educational program. The primary means of disseminating this educational module is through an online PowerPoint presentation

with important information regarding the utilization of clinical guidelines for advancement in preceptor training and improvement of the clinical learning environment for student registered nurse anesthetists. As a practice-based profession, clinical education helps to bridge the gaps between didactic knowledge and practical training.[1] Interacting with clinical preceptors while observing and participating in real cases provides students the ability to evolve professionally, hone in on personal skills, and develop attitudes and values before entering their career of choice.[3] Studies on formal clinical preceptorship training reported positive results such as preceptors feeling more prepared in their role, student anxiety levels reduced, the clinical learning environment yielded more positive results where the preceptor had more confidence to promote independence among their preceptee.[3] The delivery of this presentation will offer creative solutions to CRNAs who work as a clinical preceptor methods to improve the clinical learning environment for SRNAs.

The third phase involves an online post-assessment to identify the participants knowledge gained from the presentation and how they have perceived the information propagated to them. The information retrieved from the pre and post assessment will provide a great amount of feedback regarding the educational intervention and will aide in implementing new strategies which can be utilized by clinical preceptors to enhance the clinical learning environment. At the conclusion of the educational tool, determinants will be made whether improvements can be made to the proposed educational intervention or whether the program will continue.

Protection for Human Subjects

For this study, the recruitment population included healthcare professionals who are Certified Registered Nurse Anesthetists. This target population is important to this project because CRNAs work closely with SRNAs and have the ability to determine if the education provided is beneficial in the clinical arena. Recruitment activities were solely done through email

and were completely voluntary. No compensation was offered or guaranteed for their participation. In the event should any of the participants choose to withdraw from the study, no penalties will be incurred. There were not any perceived risks involved in this study as it only required online participation and time spent.

Data Collection

In this study, the primary determinants used included pre-assessment and post-assessment surveys to assess the effects of the proposed interventions. Both test were conducted to assess the providers level of understanding regarding the correlation between formalized preceptorship training and the influences it has on the clinical learning environment. The survey consisted of 15 questions that focused on knowledge and practice using Qualtrics. The pretest survey was used to gauge the knowledge and interest in the educational program. The purpose of the posttest survey is to determine if the participants gained more knowledge that can be used in their clinical practice. The instrument reliability and validity will measure the intervention and the effectiveness for the providers. All data collected was strictly confidential, and no subject identifiers were used.

Data Management and Analysis Plan

The co-investigator of this project was the DNP student-who is also responsible for administering the survey. To analyze the statistical data gathered in both the pre- and posttest surveys, a SPSS application software was used. Each question was measured and recorded to specifically identify the knowledge base pre- and posttest. Each participant was assigned a personal identification number that corresponded to their responses and helped to maintain anonymity for the sake of confidentiality throughout this study. The impact of the interventions were measured based upon the results. Based on the statistical data, the study yielded results that assisted in identifying patterns that can be used to determine the effectiveness of the educational

intervention and how it affects the clinician's perceptions towards preceptorship. The co-investigator stored the gathered information on a password-protected laptop computer.

RESULTS

Pretest Demographics

Pretest demographics are shown in Table 4.

Table 4. Pretest Participant Demographics

Demographics	N (%)
Total participants	9 (100%)
Gender	
Male	2 (22.22%)
Female	7 (78.78%)
Ethnicity	
African American	2 (22.22 %)
Caucasian	3 (33.33 %)
Latino	2 (22.22 %)
Medical Profession	
DNP	3 (33%)
MSN	6 (66%)

Experience	
Less than 1 year	0
1 to 5 years	1
6 to 10 years	2
11 to 20 years	4
20+ years	2

The sample size of this study included a total of 9 participants. About 78.8% (n=7) of the participants were females and 22.2% (n=2) were males. The participants in this study stemmed from various ethnic backgrounds such as African Americans (22%), Caucasians (33%), and Latinos (22%). All of those who participated are CRNAs. About 33% of the participants have their Doctorates in Nursing Practice, and 66% have their Master of Science in Nursing. Individuals were questioned about their length of time practicing which were as followed: those 1 to 5 years (*n* = 1, 11%), 6 to 10 years (*n* = 2, 22%), 11 to 20 years (*n* = 4, 44%), and 20 or more years (*n* = 2, 22%).

Pretest Common Beliefs About Preceptorship

This section contains information regarding the participants' understanding of their role as a preceptor. The majority of the participants (67%) understood that a preceptor's role involves bridging the gap between didactic knowledge and practical training. Some (26%) were unaware that burnout, lack of support by administration, and insufficient time to precept leads to lack of motivation by the preceptor. The participants were not aware that these factors contributed to an SRNA having a negative perception on preceptorship. Only 47% of the participants understood that the primary goal of clinical education prepares students for entry into practice, have the possibility to recruit students into their organization and build upon their clinical skillsets. Thirty-three percent stated understood the importance of explaining concepts to their preceptee for better understanding. Forty-two percent stated that being a preceptor kept them current within their roles. 36% believed that empowerment and formal training could better enhance their preceptorship skills. Eighty-two percent indicated the need for recognition and incentive provisions for their role. Thirty-three percent believed that it was important to establish a rapport with their preceptee. Seventy-eight percent disagreed that their workload was too stressful to effectively teach.

Posttest Demographics

Table 5. Posttest Participant Demographics

Demographics	N (%)
Total participants	6 (100%)
Gender	
Male	2 (33%)
Female	4 (67%)
Ethnicity	
African American	1 (16 %)
Caucasian	3 (50 %)
Latino	2 (34 %)
Medical Profession	
DNP	3 (50%)
MSN	3 (50%)
Experience	
Less than 1 year	0 (0%)
1 to 5 years	0 (0%)
6 to 10 years	2 (34%)
11 to 20 years	3 (50%)
20+ years	1 (16%)

There were 6 participants who completed the posttest questionnaire. The majority of the participants were female, and 33% were male. The participants in this study stemmed from various ethnic backgrounds such as African Americans (16%), Caucasians (50%), and Latinos (34%). All of those who participated in this study are CRNAs. Fifty percent held Doctorates in

Nursing Practice, and 50% had their Master of Science in Nursing. Individuals were questioned about their length of time practicing which were as followed: 6 to 10 years (*n* = 2, 34%), 11 to 20 years (*n* = 3, 50%), and 20 or more years (*n* = 1, 16%). It is noted that there were fewer participants that completed the posttest questionnaire.

Posttest Beliefs About Preceptorship

This section contains information regarding the participants understanding of their role as a preceptor after completing an educational module on preceptorship. Eighty-six percent understood that a preceptor's role involves bridging the gap between didactic knowledge and practical training. Seventy percent of the participants were unaware that burnout, lack of support by administration, and insufficient time to precept leads to lack of motivation by the preceptor. The participants were not aware that these factors contributed to and SRNA having a negative perception on preceptorship. Only 56% of the participants understood that the primary goal of clinical education prepares students for entry into practice, have the possibility to recruit students into their organization and build upon their clinical skillsets. Seventy-two percent stated that being a preceptor kept them current within their roles. Forty percent believed that empowerment and formal training could better enhance their preceptorship skills. Eighty-one percent indicated the need for recognition and incentive provisions for their role. Fifty percent believed that it was important to establish a rapport with their preceptee. Fifty percent disagreed that their workload was too stressful to effectively teach.

Table 6. **Pre and Post Test Questions**

Pre- and Posttest Questions	Pretest	Posttest	Difference
Preceptors are often unmotivated due to	26%	70%	44%
The primary goal of clinical education is to	47%	87%	40%
What is the role of a preceptor	67%	86%	19%
As a preceptor, when my preceptee does not know something I take the time to explain concepts and rationales	33%	50%	17%
I feel it is important to establish a positive relationship with my preceptee.	33%	70%	37%
I value my contribution to the growth of the students' knowledge and skills	76%	82%	6 %
In addition to written feedback, I believe it is important to give immediate verbal feedback	33%	80%	47%
As a preceptor, I believe in giving both positive and negative feedback to my preceptee	16%	50%	34%
There are times that I feel that my workload is too stressful to really teach my preceptee intricate details	78%	50%	-28%
I believe that a formal preceptorship training program would help me improve as a preceptor	36%	40%	4 %

After taking the pretest, participants were asked to watch an educational PowerPoint presentation that explained more information on this study. After completing the educational presentation, the participants were asked to take a posttest questionnaire. The posttest questionnaire was designed to test their knowledge after completing the pretest. The respondents had a better understanding of their role as a preceptor (n=2, 44%). The role of a preceptor is to facilitate the gaps between didactic knowledge and clinical practice. Preceptors play an impactful part to clinical education as they serve as role models and are vital to the recruitment process post-graduation. There was a 47% increase in participants believing it is important to give immediate verbal feedback. Thirty-four percent more of the participants believed in both positive and negative feedback to their preceptee. In the posttest, 28% fewer of the participants felt that their workload is too stressful to provide intricate details to their preceptee. There was a 4% increase in preceptors believing that formal preceptorship training can improve their skills as a preceptor. Most participants felt that being a preceptor kept them current within their roles.

DISCUSSION

Summary

Overall, the data shows that there was an increase in knowledge by the participants after completing the PowerPoint presentation on the Advancement in Preceptor Training and Improvement of the Clinical Learning Environment for Student Registered Nurse Anesthetists. Each question was designed to assessed the participants' attitudes toward preceptorship so that it can create a more favorable learning environment for the student nurse anesthetists. Research supports that formal training is beneficial in numerous ways such as providing more confidence for the preceptor, encouraging clinical growth among the students, encouraging both positive and negative feedback as well as show the importance of the preceptor's role in the clinical setting. In this study, participants were educated on extrinsic factors such as burnout, lack of organizational support, and increased workload, which directly affects the educational process for the learner.

After completing the posttest, participants gained more knowledge on those extrinsic factors but also denied that within their practice, their workload does not affect their ability to teach. The study showed a positive reflection that the participants will be more likely to give immediate feedback whether it is positive or negative.

Limitations

Limitations identified during this study were data collection limitations such as the subjects knowing each other, small sample size, self-reporting survey without validation of the reported experiences, or the lack of test-retest reliability. The study was emailed to Florida International University nurse anesthesia alumni. The study sample only contained 9 participants. A larger sample size would have provided more clear results.

Future Implications for Practice and Career Development

The results concluded that the clinical experience for a nurse anesthesia student directly correlates with the student's clinical confidence, self-awareness, clinical growth and critical-thinking abilities, psychomotor proficiency, and professionalism. The preceptor's role is vital to the success of the student success. Several studies have indicated the most important characteristics of the SRNA and how those characteristics alter their clinical education perception. Knisely identified 22 preceptor characteristics that had an impact on the students' clinical experiences.[5] The top three characteristics identified were clinical competence/judgment, positive role model, and communication skills.[5] Findings of this study indicated that preceptors must demonstrate many characteristics and skills to support and educate their preceptees effectively.[5]

Nottingham highlighted the importance of feedback and corrective criticism in clinical education.[15] Corrective feedback provides the opportunity for the student to make necessary changes pertaining to their performance level.[15] Corrective feedback builds confidence when developing clinical competence.[15] Without feedback, the student may become uncertain in their

skill set or compromise patient safety.[15] The characteristics of feedback are important as it embodies "timing, frequency, tone, form, and specificity."[15] Nottingham noted that the study participants preferred immediate feedback to facilitate student learning and change behavior.[15] Students preferred specific feedback from their preceptors because it gave them more information on ways to improve.[15] The tone or delivery of the feedback given impacted the perception of the clinical experience. Students reported that they preferred positive, encouraging feedback and ignored negative feedback that they viewed as judgmental or negative.[15] Negative feedback can be beneficial as long as it does not embarrass the student in front of their peers or colleagues.[15]

An effective preceptor uses practical and theoretical knowledge to assess the student's competence and areas that need development.[16] Studies found that when preceptors allowed their preceptees to rationalized their thoughts aloud, it created space for the preceptor to give feedback or constructive criticism.[16] Other methods used included asking questions and facilitating dialogue that caused the preceptee to think critically.[16] Most importantly, when the preceptor allowed the preceptee to open, discuss their thoughts, and provide rationales, the preceptor could adjust and correct the preceptee's actions effectively.[16] An effective preceptor understands the importance of fostering positive relationships with their preceptee, being a professional role model, and providing the preceptee with interpersonal support.[3]

The development of a systematic training module or program can help foster a positive learning environment. It will equip preceptors with the tools to precept effectively and identify barriers to preceptorship. Researchers found that common barriers that hinder a good preceptor's success are lack of organizational support, lack of preceptor preparation, the lack of time to teach due to the workload, lack of motivation to precept, and personal stressors.[3,9] Preceptors should be allotted access to protected teaching time, adequate resources, and annual training updates to ensure that they promote quality experiences.[9]

Conclusion

Nurses play key roles in their patient's lives and they can provide health-related services in different ways; for example, they might provide anesthesia-related services. Usually, nurse anesthesia students gain knowledge during their studies, but practical knowledge is mostly gained during their professional lives, when they work with supervisors or preceptors in a clinical setting. They not only gain knowledge from their preceptors, but they could also be influenced by their work and experience. Therefore, the formal training of preceptors could result in improved outcomes in terms of clinical experience for nurse anesthesia students. Training preceptors could be associated with constructive feedback that would be given to the students that could eventually improve their confidence and help them remove their weaknesses and achieve the required health-related achievements.

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APPENDIX A: IRB EXEMPT FORM

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Office of Research Integrity
Research Compliance, MARC 414

MEMORANDUM

To: Dr. Yasmine Campbell

CC: Kellyann Robinson

From: Elizabeth Juhasz, Ph.D., IRB Coordinator EJ

Date: April 8, 2021

Protocol Title: **"An educational module on the utilization of clinical guidelines for advancement in preceptor training and improvement of the clinical learning environment for student registered nurse anesthetists"**

The Florida International University Office of Research Integrity has reviewed your research study for the use of human subjects and deemed it Exempt via the **Exempt Review** process.

IRB Protocol Exemption #: IRB-21-0142 **IRB Exemption Date:** 04/08/21
TOPAZ Reference #: 110227

As a requirement of IRB Exemption you are required to:

1) Submit an IRB Exempt Amendment Form for all proposed additions or changes in the procedures involving human subjects. All additions and changes must be reviewed and approved prior to implementation.
2) Promptly submit an IRB Exempt Event Report Form for every serious or unusual or unanticipated adverse event, problems with the rights or welfare of the human subjects, and/or deviations from the approved protocol.
3) Submit an IRB Exempt Project Completion Report Form when the study is finished or discontinued.

Special Conditions: N/A

For further information, you may visit the IRB website at http://research.fiu.edu/irb.
EJ

APPENDIX B: IRB APPROVAL

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Office of Research Integrity
Research Compliance, MARC 414

MEMORANDUM

To: Dr. Yasmine Campbell

CC: Kellyann Robinson

From: Maria Melendez-Vargas, MIBA, Coordinator

Date: June 28, 2021

Proposal Title: "An educational module on the utilization of clinical guidelines for advancement in preceptor training and improvement of the clinical learning environment for student registered nurse anesthetists"

Approval # IRB-21-0142-AM01

Reference # 110227

The Florida International University Office of Research Integrity has approved the following modification(s):

- Revised all sections in the amended protocol to reflect the population of nurse anesthesia graduates.
- Received and uploaded a letter of support from the Director of the Nurse Anesthesia Department and have created a new recruitment flyer to identify that the surveyed population has changed. The study location will be FIU however no data will be collected or analyzed on FIU property. All surveys and interactions will be virtual. A pre and post-test along with an educational module will be provided to all patrons.

Special Conditions: N/A.

For further information, you may visit the FIU IRB website at http://research.fiu.edu/irb.

MMV/em

APPENDIX C: IRB CONSENT FORM

ADULT ONLINE CONSENT TO PARTICIPATE IN A RESEARCH STUDY

"An Educational Module on the Utilization of Clinical Guidelines for Advancement in Preceptor Training and Improvement of the Clinical Learning Environment for Student Registered Nurse Anesthetists"

SUMMARY INFORMATION

Things you should know about this study:

- **Purpose:** The purpose of the study is to implement strategies to improve the clinical learning environment.
- **Procedures**: If you choose to participate, you will be asked to complete an emailed pretest/posttest and watch a virtual educational voiceover power point.
- **Duration:** This will take about 20 minutes of your time
- **Risks**: The risk or discomfort from this research is minimal
- **Benefits:** The main benefit to you from this research is: Improve clinical strategies for the advancement in preceptorship training and improvement of the clinical learning environment for the student registered nurse anesthetist.
- **Alternatives:** There are no known alternatives available to you other than not taking part in this study.
- **Participation:** Taking part in this research project is voluntary.

Please carefully read the entire document before agreeing to participate.

PURPOSE OF THE PROJECT

You are being asked to be in a quality improvement project. The goal of this project is to implement strategies to improve the clinical learning environment.

NUMBER OF STUDY PARTICIPANTS

If you decide to be in this study, you will be one of 20 people in this research study.

DURATION OF THE PROJECT

Your participation will require about 20 minutes of your time.

PROCEDURES

If you agree to be in the project, we will ask you to do the following things:

- Complete an online 10 question pre test survey via Qualtrics, an online survey product for which the URL link is provided
- Review the educational PowerPoint module lasting 10 minutes via Qualtrics, and onlye survey for which the URL link is provided
- Complete the online 10 question post test survey via Qualtrics, an online survey product for which the URL link is provided

RISKS AND/OR DISCOMFORTS

The risk or discomfort from this research is minimal

BENEFITS

The following benefits may be associated with your participation in this project: Improve clinical strategies for the advancement in preceptorship training and improvement of the clinical learning environment for the student registered nurse anesthetist.

ALTERNATIVES

There are no known alternatives available to you other than not taking part in this project. However, if you like to receive the educational material given to the participants in this project, it will be provided to you at no cost.

CONFIDENTIALITY

The records of this project will be kept private and will be protected to the fullest extent provided by law. If, in any sort of report, we might publish, we will not include any information that will make it possible to identify you as a participant. Records will be stored securely, and only the project team will have access to the records.

COMPENSATION & COSTS

There is no cost or payment to you for receiving the health education and/or participating in this project.

RIGHT TO DECLINE OR WITHDRAW

Your participation in this project is voluntary. You are free to participate in the project or withdraw your consent at any time during the project. Your withdrawal or lack of participation will not affect any benefits to which you are otherwise entitled. The investigator reserves the right to remove you without your consent at such time that they feel it is in the best interest.

RESEARCHER CONTACT INFORMATION

If you have any questions about the purpose, procedures, or any other issues relating to this research project, you may contact Kellyann Robinson at 321-262-3044, krobi085@fiu.edu or Dr. Yasmine Campbell at ycampbel@fiu.edu.

IRB CONTACT INFORMATION

If you would like to talk with someone about your rights of being a subject in this project or about ethical issues with this project, you may contact the FIU Office of Research Integrity by phone at 305-348-2494 or by email at ori@fiu.edu

PARTICIPANT AGREEMENT

I consent by participating in the survey. I have read the information in this consent form and agree to participate in this project.

APPENDIX D: PRE- AND POSTTEST QUESTIONNAIRE

Pretest and Posttest Questionnaire:

An Educational Module on the Utilization of Clinical Guidelines For Advancement In Preceptor Training and Improvement of the Clinical Learning Environment For Student Registered Nurse Anesthetists

INTRODUCTION

The primary aim of this QI project is to utilize clinical guidelines for advancement in preceptor training and improvement of the clinical learning environment for student registered nurse anesthetists (SRNA).

Please answer the question below to the best of your ability. The questions are either in multiple choice or true/false format and are meant to measure knowledge of clinical preceptorship and the perception it has on the SRNA clinical experience.

PERSONAL INFORMATION (please circle one)

1. **Gender:** Male Female
2. **Age:** 25-35 36-45 50 and older
3. **Ethnicity:**

   Hispanic Caucasian African American Asian

   Other_____
4. **Level of Education:** Associates Bachelors Masters Other _____
5. How many years have you been practicing as an anesthesia provider?

Over 10+ 5-10 years 2-5 years 1-2 year

QUESTIONNAIRE

On a scale of 1 (very little) to 5 (to the greatest extent) circle the appropriate number for each of the following questions:

1. **Preceptors are often unmotivated due to:**

   A. **Lack of support by your organization**

   B. **Burnout**

   C. **Insufficient time**

   D. **All of the above**

2. **The primary goal of clinical education is to:**

   A. **Recruit the students post graduation**

   B. **Help build on didactic knowledge**

   C. **Prepare students for entry into practice**

   D. **Both B and C**

3. **What is the role of a preceptor:**

   A. **Foster clinical confidence and bolster confidence**

   B. **Be a role model**

   C. **Provide both supervisory and protective support**

   D. **All of the above**

4. **As a preceptor, when my preceptee does not know something I take the time to explain concepts and rationales?**

   1 2 3 4 5

5. **I feel it is important to establish a positive relationship with my preceptee.**

   1 2 3 4 5

6. **I value my contribution to the growth of the students' knowledge and skills.**
    a. Strongly disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree

7. **In addition to written feedback, I believe it is important to give immediate verbal feedback**
    a. Strongly disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree

8. **As a preceptor, I believe in giving both positive and negative feedback to my preceptee**
    a. Strongly disagree
    b. Disagree
    c. Neutral
    d. Agree
    e. Strongly Agree

9. **There are times that I feel that my workload is too stressful to really teach my preceptee intricate details**
    a. Strongly disagree
    b. Disagree
    c. Neutral
    d. Agree

e. Strongly Agree

10. **I believe that a formal preceptorship training program would help me improve as a preceptor**

    a. Strongly disagree

    b. Disagree

    c. Neutral

    d. Agree

    e. Strongly Agree

APPENDIX E: AANA POSTER

The Use of Evidenced Based Clinical Guidelines for Advancement in Preceptor Training and Improvement of the Clinical Learning Environment for Student Registered Nurse Anesthetists

Kellyann Robinson BSN, RN , Yasmine Campbell DNP, CRNA, APRN, Tedrick Vernon DNP, CRNA, APRN
Florida International University Nicole Wertheim College of Nursing and Health Sciences

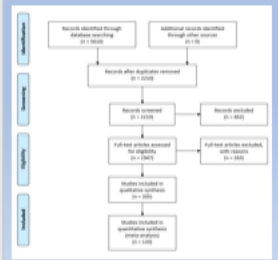
BACKGROUND

The preceptorship model has been widely accepted in many disciplines to enhance student learning, provide opportunities to demonstrate competence, critical thinking and build confidence. The role of a preceptor involves many challenges. Aiding to mature nurse anesthesia students' clinical acumen is a vital and a highly nuanced process, while caring for complicated patients, along with documentation requirements, and production pressure competes with teaching time.

CLINICAL SIGNIFICANCE

CRNAs play integral role in the education within their own profession. Creation of an educational a module on how to precept will increase the student success didactically and clinically.

METHODOLOGY



PICO

In graduate-level nurse anesthesia students, would the implementation of formal training of the preceptor and clinical guidelines compared to no formal training of the preceptor facilitate a positive learning environment clinically and student success didactically?

Image reference https://ascension-wi.libguides.com/AMG_Education/Onboarding/

Literature Review Table

Author	Design Sample	Major Findings
Jain V, Rao S, Jinadani M.	Randomized controlled trial.	SNAPP technique enhanced students' clinical reasoning.
Quek GJH, Shorey S.	Integrative review.	The study concluded that the role of a preceptor pivotal to the growth and success of the student. Their role extends beyond a role model and also involves the psychosocial aspect of caring for the preceptee's well-being.
Nottingham S, Henning J	Qualitative study.	Preceptors are vital to clinical education. Preceptor training should include guidelines for useful feedback as well as adapting to clinical training
Elisha S, Dana Rutledge EN	The descriptive study that used a cross-sectional survey	Instilling confidence during clinical learning requires an appropriate learning environment that enhances the SRNA ability to learn.

RESULTS

Studies concluded that preceptor behavior and skill level can affect student's perception, clinical experience, and learning environment. Research has shown that the use of a six-step learner-centered approach to clinical education (SNAPPS) gives the preceptor systematic guidance on assessing the mentee's knowledge and knowledgebase. One-Minute Preceptor (OMP) is also a five-step framework which the preceptor reinforce what the trainee correctly. Preceptor training should include guidelines for formative and summative feedback, as well as conflict resolution and adaptation to the preceptor role. Studies elude that instilling confidence in mentee's requires a clinical learning environment that enhances learning, along with an educated preceptor. The use of guidelines in the clinical environment creates awareness on student knowledge and the student can be assessed according to their knowledgebase and skill competence.

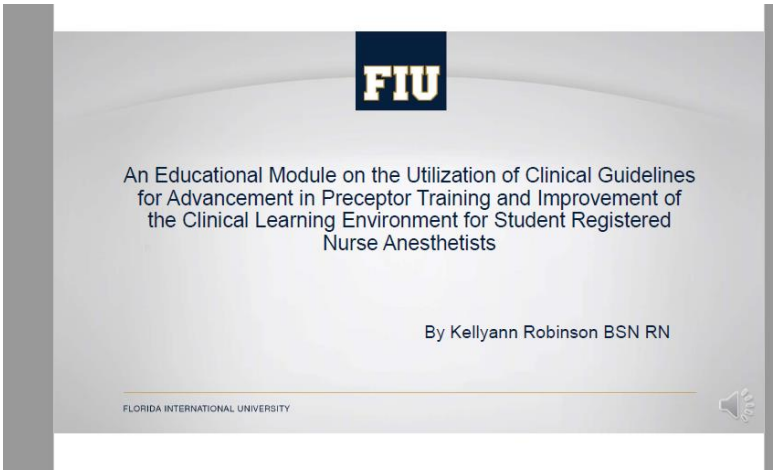
RECOMMENDATIONS FOR PRACTICE

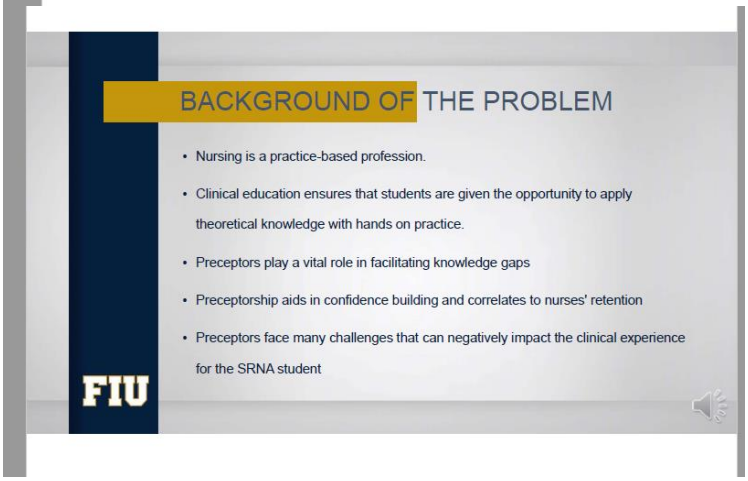
Creation of preceptor guidelines and mentor coaching on how to give formative feedback in the clinical environment. Instillation of frameworks such as SNAPPS or OMP to better assist SRNAs, integrate regular feedback and encourage self directed learning

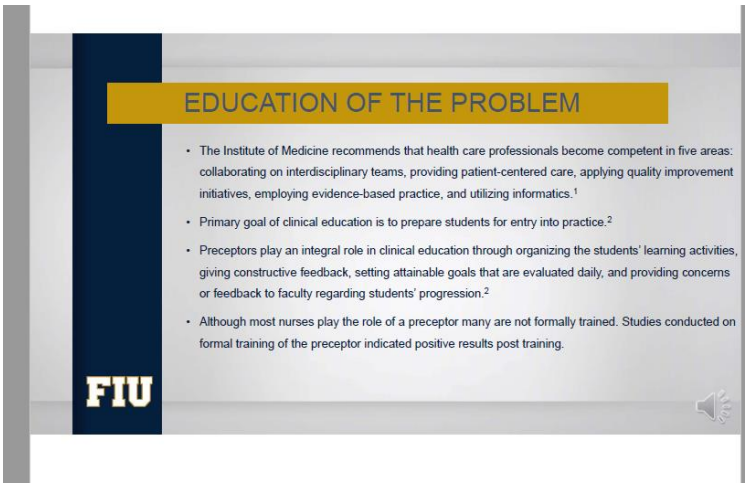
REFERENCES

Available upon request Contact krobi085@fiu.edu

APPENDIX F: EDUCATIONAL MODULE






EDUCATION OF THE PROBLEM
• The Institute of Medicine recommends that health care professionals become competent in five areas: collaborating on interdisciplinary teams, providing patient-centered care, applying quality improvement initiatives, employing evidence-based practice, and utilizing informatics.[1]
• Primary goal of clinical education is to prepare students for entry into practice.[2]
• Preceptors play an integral role in clinical education through organizing the students' learning activities, giving constructive feedback, setting attainable goals that are evaluated daily, and providing concerns or feedback to faculty regarding students' progression.[2]
• Although most nurses play the role of a preceptor many are not formally trained. Studies conducted on formal training of the preceptor indicated positive results post training.
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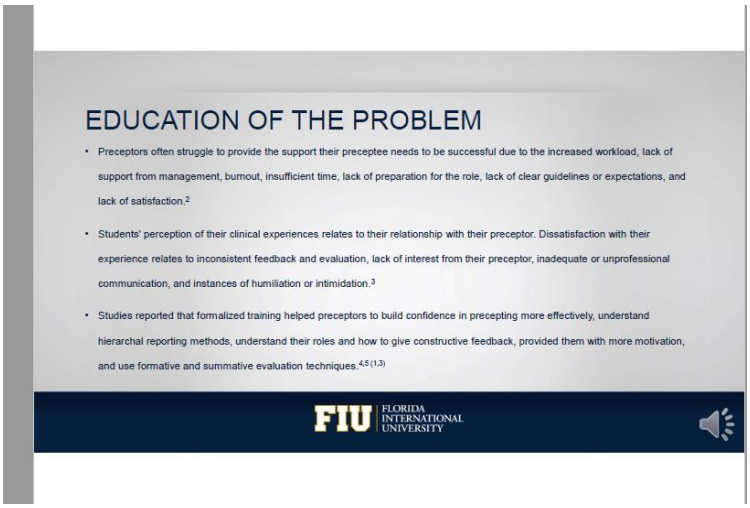
EDUCATION OF THE PROBLEM
• Preceptors often struggle to provide the support their preceptee needs to be successful due to the increased workload, lack of support from management, burnout, insufficient time, lack of preparation for the role, lack of clear guidelines or expectations, and lack of satisfaction.[2]
• Students' perception of their clinical experiences relates to their relationship with their preceptor. Dissatisfaction with their experience relates to inconsistent feedback and evaluation, lack of interest from their preceptor, inadequate or unprofessional communication, and instances of humiliation or intimidation.[3]
• Studies reported that formalized training helped preceptors to build confidence in precepting more effectively, understand hierarchal reporting methods, understand their roles and how to give constructive feedback, provided them with more motivation, and use formative and summative evaluation techniques.[4,5 (1,3)]
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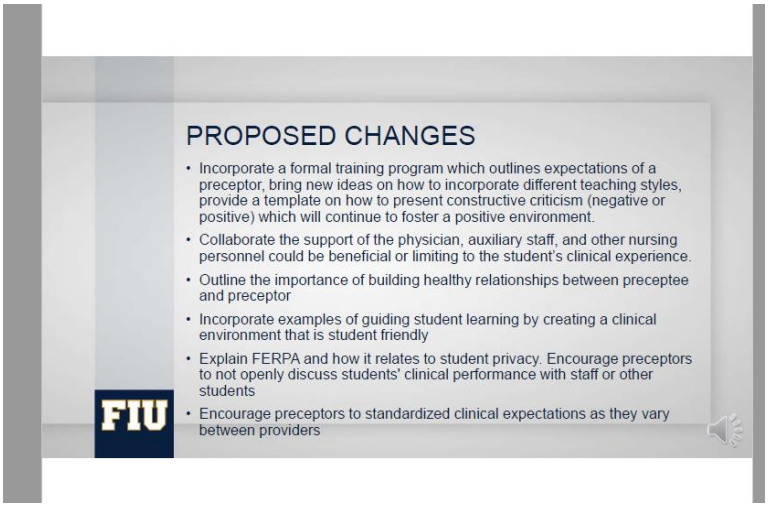
PROPOSED CHANGES
• Incorporate a formal training program which outlines expectations of a preceptor, bring new ideas on how to incorporate different teaching styles, provide a template on how to present constructive criticism (negative or positive) which will continue to foster a positive environment.
• Collaborate the support of the physician, auxiliary staff, and other nursing personnel could be beneficial or limiting to the student's clinical experience.
• Outline the importance of building healthy relationships between preceptee and preceptor
• Incorporate examples of guiding student learning by creating a clinical environment that is student friendly
• Explain FERPA and how it relates to student privacy. Encourage preceptors to not openly discuss students' clinical performance with staff or other students
• Encourage preceptors to standardized clinical expectations as they vary between providers
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INTERVENTIONS

- Clear expectations and goals of the preceptee should be discussed
- Preceptor should incorporate teaching strategies reflective of the student's learning style and apply critical thinking
- Develop a positive learning environment through fostering a relationship with the preceptee, give both positive and negative feedback, allow the student to ask questions freely
- Apply coaching strategies which empowers clinical preceptors to build upon students' psychomotor and cognitive skills
- Identify challenges that may potentially impede the preceptor's ability to effectively teach such as heavy workload, lack of support from management, burnout, lack of desire to precept, or insufficient time.

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What is the role of a preceptor

- Provides both supervisory and protective function
- An educator or guide who helps their preceptee build on their didactic knowledge and practical skills
- Foster clinical competence and bolsters their preceptees confidence
- Positive role model by keeping abreast of current practice and up to date research

Teaching styles

	Teacher's Role	Students' Role	Example Situation
Formal Authority	-Teacher gives all knowledge to students. Lecture -Content focused -Not concerned with relation with students or students relationship with each other	-Listen and ask for clarification however their primary role is listener or receiver of knowledge from teacher - Takes notes and follows along listening asking questions when unclear.	The teacher explains and talks about the present perfect tense. Might even have handouts or write examples on the board. The teacher explains the rules and exceptions. Teacher explains common errors. The teacher does almost all of the talking and explaining. All knowledge and learning comes from what the teacher presents and explains.
Demonstrator/ Model	-Teacher is the model and demonstrator -Teacher centered -Coach and guide students -Show by example the process and help master tasks	-Students observe the teacher as the model. -They practice what is shown by the teacher. -Students follow the example set by the teacher.	The teacher is introducing vocabulary and tells several stories within which is expressed the vocabulary and how to use it correctly. The students then follow by using that information to mimic what was stated in pairs or in groups. The students use the teacher's language to produce and practice what was said by the teacher.
Facilitator	-Teacher creates situation for students to practice what was taught -Student centered learning -Lessons focus on group activities	-Students responsible for seeking help from peers -Student learn according to their desire -Student centered activities for application knowledge	The teacher explains the focus of the exercise and then divides the class into groups. Students are required to figure out what they should say in order to order food from a restaurant. Each student will take a different role and act out the scene. First they must work together and collaborate on what they will say and how each will act in the scene. In this situation students are forced to
Delegator	-Learning takes place according student intuitive -Teacher acts as counselor or consultant - Student centered learning	- individual students or groups are responsible for the learning - students have learn through own projects	Students are given a project or activity that they must film. They have complete freedom to choose the length and focus of the project. The students will meet and work together based on their own motivation and desires. The teacher places responsibilities on the students for the completion of the project. Teacher is used as a consultant only.

1976, 1987, 1990, 1996 by Anthony F. Grasha

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Adult learning principles

- Three determinants to learning:
  - Needs of the learner- gaps in knowledge that exist between the desired level of performance and the actual level of performance
  - State of readiness to learn- the learner demonstrates interest in learning the information necessary to become more skillful
  - Preferred learning styles for processing information
- Effective communication
  - Positive reinforce
  - Immediate feedback
  - Constructive criticism
  - Stay away from disparaging or uncivil remarks and behaviors
  - Encourage growth and autonomy
  - Promote flexibility
  - Facilitate conversations that are engaging and thought provoking

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One minute learner tool

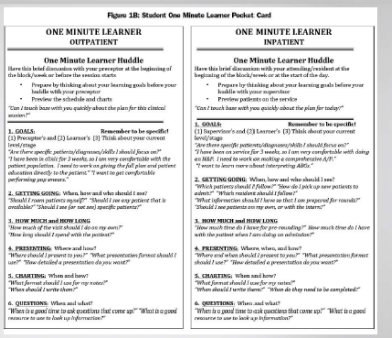

Figure 1B: Student One Minute Learner Pocket Card

ONE MINUTE LEARNER OUTPATIENT

One Minute Learner Huddle

Have this brief discussion with your preceptor at the beginning of the block/week or before the session starts.

- Prepare by thinking about your learning goals before your huddle with your preceptor
- Preview the schedule and charts

"Can I touch base with you quickly about the plan for this clinical session?"

1. GOALS: **Remember to be specific!**
(1) Preceptor's and (2) Learner's: (3) Think about your current level/stage
"Are there specific patients/diagnoses/skills I should focus on?"
"I have been in clinic for 2 weeks, so I am very comfortable with the patient population. I need to work on giving the full plan and patient education directly to the patient." "I want to get comfortable performing pap smears."

2. GETTING GOING: When, how and who should I see?
"Should I roam patients myself?" "Should I see any patient that is available?" "Should I see (or not see) specific patients?"

3. HOW MUCH and HOW LONG
"How much of the visit should I do on my own?"
"How long should I spend with the patient?"

4. PRESENTING: Where and how?
"Where should I present to you?" "What presentation format should I use?" "How detailed a presentation do you want?"

5. CHARTING: When and how?
"What format should I use for my notes?"
"When should I write them?"

6. QUESTIONS: When and what?
"When is a good time to ask questions that come up?" "What is a good resource to use to look up information?"

ONE MINUTE LEARNER INPATIENT

One Minute Learner Huddle

Have this brief discussion with your attending/resident at the beginning of the block/week or at the start of the day.

- Prepare by thinking about your learning goals before your huddle with your supervisor
- Preview patients on the service

"Can I touch base with you quickly about the plan for today?"

1. GOALS: **Remember to be specific!**
(1) Supervisor's and (2) Learner's: (3) Think about your current level/stage
"Are there specific patients/diagnoses/skills I should focus on?"
"I have been on service for 3 weeks, so I am very comfortable with doing an H&P. I need to work on making a comprehensive A/P."
"I want to learn more about interpreting ABGs."

2. GETTING GOING: When, how and who should I see?
"Which patients should I follow?" "How do I pick up new patients to admit?" "Which resident should I follow?"
"What information should I have so that I am prepared for rounds?"
"Should I see patients on my own, or with the interns?"

3. HOW MUCH and HOW LONG
"How much time do I have for pre-rounding?" How much time do I have with the patient when I am doing an admission?"

4. PRESENTING: Where, when, and how?
"Where and when should I present to you?" "What presentation format should I use?" "How detailed a presentation do you want?"

5. CHARTING: When and how?
"What format should I use for my notes?"
"When should I write them?" "When do they need to be completed?"

6. QUESTIONS: When and what?
"When is a good time to ask questions that come up?" "What is a good resource to use to look up information?"

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Student perceptions

- Correlates to nurses' retention
- Negatively or positive impact the learners clinical experience
- The Family Educational Rights and Privacy Act of 1974 (FERPA or the Buckley Amendment) is a United States federal law that governs the access to educational information and records by public entities such as potential employers, publicly funded educational institutions, and foreign governments

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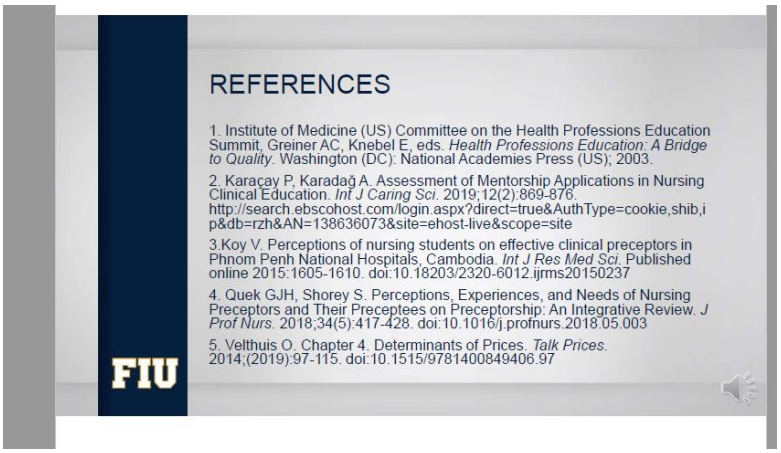
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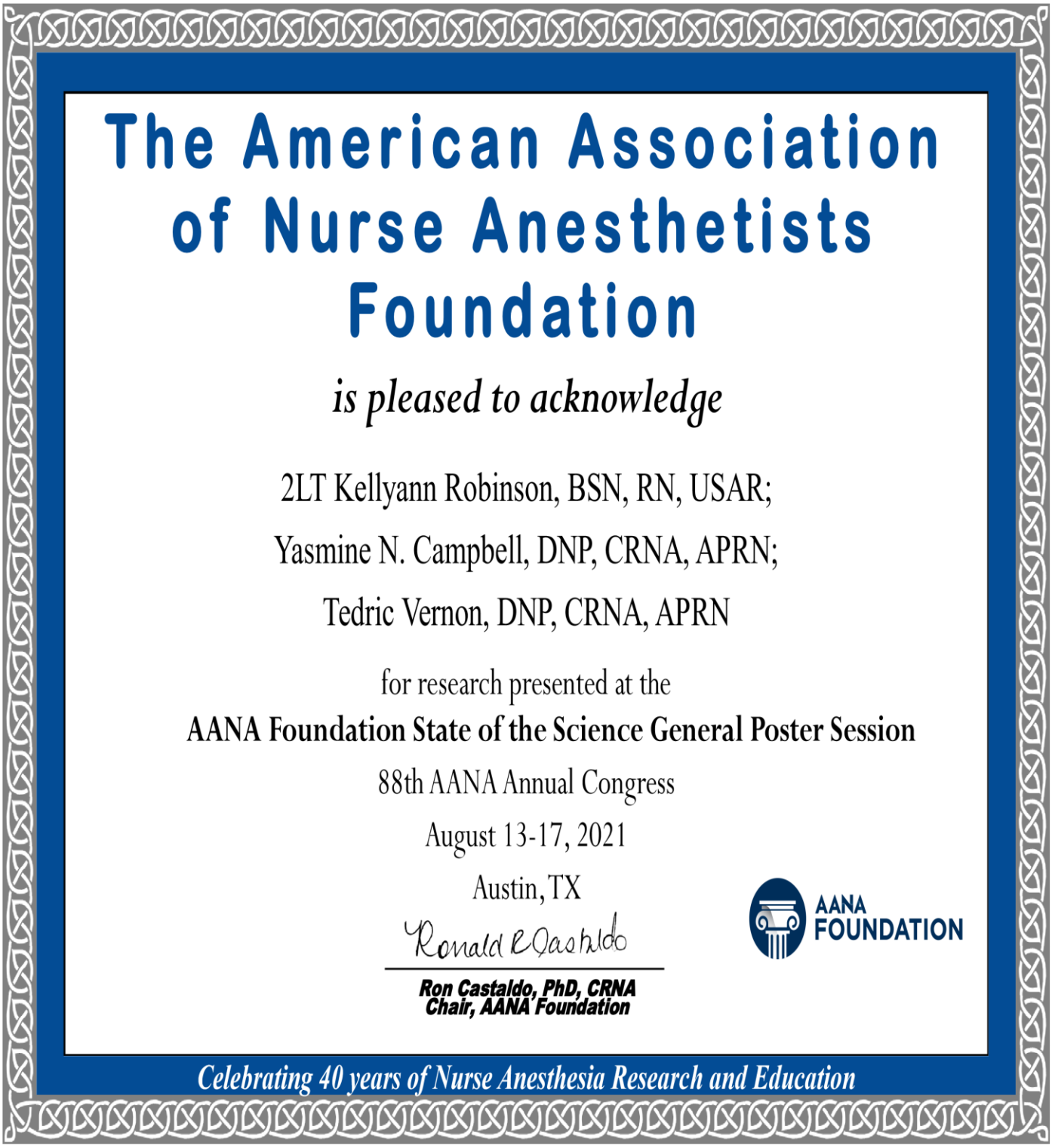
APPENDIX G: AANA POSTER CERTIFICATE



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