A Pilot Study on Student Nurse Anesthetists' Views on CRNA Role Transition

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Abstract

Purpose:

Understanding student nurse anesthetists' views on nurse anesthetist role transition.

Design and Methods:

Three focus groups were conducted with a total of 17 nurse anesthesia students. Nurse anesthesia programs in the Chicago area were contacted to elicit volunteers. Discussions were audiotaped and transcribed verbatim. Thematic analysis using constant comparison was completed within and across focus groups.

Findings:

Nurse anesthesia students defined successful role transition from RN to CRNA as the ability to function independently with minimal backup or assistance while ensuring patient safety through a successful anesthetic. The following themes were identified as factors affecting SRNAs' successful role transition: preceptor, mentoring, reflection, training variety, and CRNA role modeling.

Conclusions:

Perceptions on which factors affect the role transition from RN to CRNA vary depending on the level of training SRNAs have had in their anesthesia program. SRNAs nearing the end of their training have a firmer grasp on which factors affect their transition. This pilot study has allowed this researcher to examine the perceptions of SRNAs at different levels in their training and allowed for future changes in planning for a full study.

KEYWORDS: anesthesia training, nurse anesthesia, role transition

CRNA Role Transition

The transition from registered nurse (RN) to Certified Registered Nurse Anesthetist (CRNA) can be challenging and stressful. It is unclear which factors are associated with successful transition into the CRNA role because of the lack of research. Previous research has argued that content on role transition needs to be developed and addressed throughout a CRNA program in order to be successful. [1,2] Because role transition of the RN to CRNA has not been well studied, the initial plan will involve qualitative focus groups of RNs who are currently going through the role transition to CRNAs to identify factors influencing transition. Following the methodology of similar research, a study using focus groups was implemented to explore how student registered nurse anesthetists (SRNAs) think about their role transition and its influencing factors. [3]

METHODOLOGY

Focus group methodology is considered a naturalistic approach. [4,5] Focus groups are viewed as a type of group interview to gain perspectives on specific issues. A strength of using focus groups as a technique is its ability to produce concentrated amounts of data on a specific topic. [6] Interaction between group participants adds to this combined perspective and creates a unique perspective different from individual interviews. This approach was selected to stimulate exchanges among study participants to elicit a broad range of contextualized responses to identify influencing factors. [3,7] A strength of using focus groups is that group dynamics can help participants analyze and clarify their views, which further enhances authenticity and credibility of the data. [3,8]

Design

Traditionally, focus groups have consisted of 6 to 10 participants to allow input from all participants while gathering a breadth of opinions. [3,4,6] This group size allows participants to hear opinions from other participants and have time for reflection on their own experiences. [3] For this pilot study, 3 focus groups were selected. Questions were designed to stimulate conversation through a design that gathers participants' ideas, perceptions, and opinions.

Sampling

Qualitative research typically uses purposive sampling to select participants and is appropriate for focus groups. [3,9] Focus group participants were selected from the surrounding schools of nurse anesthesia, and a purposeful sampling method for gathering participants together based on their level of completion in their anesthesia training was planned. There are 3 schools of nurse anesthesia in the Chicago area, which were contacted for study participants.

Recruitment

After Institutional Review Board approval through the University of Wisconsin- Milwaukee the anesthesia programs were contacted for recruitment. Approval was obtained from program directors to contact their students for study recruitment purposes. Participants volunteered from two different schools, for a total of 17 nurse anesthesia students recruited. Twelve SRNAs were in their second year of didactic coursework, with minimal clinical exposure, and the remaining 7 had completed about 5 months of full-time residency training. Informed consent was obtained from all participants.

Collection

Data collection during focus group sessions were done via audio recordings. Focus group sessions lasted about 2 hours each. All identifiable information was removed during transcription, and only the researcher had access to the recordings. No participant received any compensation to participate in this research.

Analysis

Thematic analysis was used to analyze the data and went beyond reading through the transcript to reading across the transcript with comparison between groups' transcripts.[11,12] Throughout the process of coding, the investigator used the process of "constantly comparing" until categories emerged. Data from each focus group were examined individually, and field notes of the primary researcher were examined during the analysis. Data were also compared between focus groups, comparing themes and examining data for new themes.

FINDINGS

The following themes emerged (Table 1). The findings were consistent across groups. The factors which SRNAs perceived as having the greatest influence on their role transition were preceptors and mentors, especially when they were experienced CRNAs, to which the SRNAs could look up to as role models. Preceptors actively engaged and invested in the SRNAs' education appeared to be of greatest influence. While preceptors who were not CRNAs were also noted as positive influences, SRNAs felt that working with CRNAs with whom they could identify and look up to fostered a smoother transition to their new role.

TABLE 1: PERCEIVED FACTORS POSITIVELY INFLUENCING SRNAs' ROLE TRANSITION

Theme	Meaning
Preceptor	Preceptors who were invested in the SRNA's education and success. Having the same preceptor during a rotation allowed faster progression. • Supportive • Respectful • Fosters a progressive sense of autonomy and independence • Allows time for critical thinking and problem solving • Explains changes to anesthetics • Stresses the importance of basic skills • Allows comparison between anesthetic techniques and approaches
Mentoring • Faculty mentoring • Peer mentoring	Formal mentoring programs • Supported throughout all levels of the program Faculty mentoring • Implemented at the start of the program rather than at the start of immersion residency Peer mentoring • Individual student mentoring by an advanced SRNA • Groups allotted time for peer meetings to share ideas and experiences • Meeting with students from other programs and sharing experiences
Reflection • Self-reflection • Group reflection	Self-reflection • Performed while driving home Group reflection • Discussion with preceptor at the end of the day: "What did you learn today?" • Sharing of experiences with trainees from other programs
Training variety	Exposure to a variety of training experiences which allows to SRNA to develop flexibility and critical thinking skills. • Large academic centers: exposure to trainees in other professions (medicine, pharmacy, nursing) • Smaller urban hospital: limited and often older equipment • Small rural hospitals, especially hospitals with CRNA-only anesthesia groups • Office practice settings: limited backup and forced autonomy
Experiencing CRNAs	Working with CRNAs in various practice settings. Seeing CRNAs who practice independently, formulate their own anesthetics, and make autonomous clinical decisions.

Mentoring was perceived to be a positive influence on SRNAs during their training. Formal mentoring, faculty mentoring, peer mentoring, and group mentoring programs supported throughout the program were listed. These allotted meetings for mentoring programs were times in which students could share ideas and experiences and seek advice from senior SRNAs, faculty, and formal mentors. Also, participants felt peer mentoring with students from other programs helped foster successful transition through the sharing of experiences. Peer mentoring and group mentoring appear to be tools that assist SRNAs during their training.

Reflection was found to be another common theme but not one openly discussed until it was mentioned in the focus group, and students learned that others were also using reflection. Reflection has been used in other nurse specialties to promote role transition success, and SRNAs perceive it to be a positive influence during their transition.[12] The types of reflection perceived to be beneficial included self and group reflections.

Exposure to a variety of training experiences were perceived by SRNAs as an asset in developing the flexibility and critical thinking skills needed to provide safe anesthesia care. SRNAs perceived large academic centers as a place for exposure to trainees from other professions. Larger hospitals were perceived as places to learn flexibility. Urban and rural hospitals were perceived as places in which SRNAs learned greater autonomy from viewing CRNAs, who functioned with autonomy and independence. While SRNAs viewed larger hospitals as providing exposure to a greater variety of technologies, smaller hospitals were perceived as places where they learned to function with limited supplies, older equipment, and limited support. Office anesthesia practice settings were viewed by the SRNAs as settings of forced autonomy and limited backup and equipment.

RIGOR AND CREDIBILITY

Threats to rigor and credibility were addressed throughout the study using established guidelines and as follows.[9] Recruiting participants from multiple locations helped reduce bias based on location and increase credibility of findings through external validation. Continuous communication with the supervising professor throughout the study was performed to ensure systematic and transparent collection of data.[13] Follow-up verification of findings was performed with participants to ensure credibility of findings through phone conversations with randomly selected participants.[14,15]

LIMITATIONS

Focus group methodology is not a reliable technique for eliciting or determining an individual's point of view, but rather it is a group interview. Individuals who are supportive during a focus group may have individual perceptions that are different. Therefore, it is not possible or appropriate to assess each individual's perceptions during a focus group study. This pilot study examined 3 focus groups. For a full study, 3 additional focus groups of SRNAs near the end of the residency training are needed to ensure data saturation. Ideally, they will come from programs not previously sampled. Ideally, these SRNAs would be recruited from 3 different training programs through the same process as the pilot study and from training programs in different regions of the American Association of Nurse Anesthetists outside the Midwest.

CONCLUSION

This qualitative pilot study using focus groups examined the perceptions of SRNAs on their role transition from RN to CRNA by identifying factors that they feel are positively affecting their role transition. Factors identified included preceptor, mentoring, reflection, training variety, and CRNA role modeling. This pilot study was not large enough to ensure data saturation, and a full study may identify other factors that positively influence role transition.

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REVIEWER SUMMARY: The manuscript provides the results of a completed pilot study on the view of student nurse anesthesia student role transition to CRNA. The strengths of the manuscript are the topic of role transition and use of focus groups. There are several recommendations to strengthen the manuscript, including further elaboration on the makeup of subject participants in regards to their standing within current nurse anesthesia programs and elaboration on future plans about recruitment of additional subject participants in nurse anesthesia programs.