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TITLE:

DNAP 710: Evidence-Based Practice in Nurse Anesthesia IV

Jennifer Clevenger, Alexis Mendoza, Zachary Stewart

Factors Influencing Clinical Evaluation Return Rates for Resident Registered Nurse Anesthetists.

Introduction

Timely clinical evaluations are essential for Resident Registered Nurse Anesthetists' (RRNAs) development and patient safety. However, clinical preceptors often face barriers that impede completion of daily evaluations, impacting training quality. While prior research addresses assessment tool development and interrater reliability, limited evidence exists regarding factors influencing evaluation return rates.

Accurate and timely feedback is crucial in the clinical education of RRNAs.2 This feedback provides insight into critical clinical deficiencies that must be addressed before matriculation. Graduating RRNAs lacking clinical skills reflect poorly on the profession and present a potential safety issue in the case of severe skill deficiencies.

Literature Review

A thorough literature review was conducted to identify factors impacting clinical evaluation return rates for RRNAs. The literature search yielded no results specific to the problem sought to address, indicating a gap in current research.

An attempt was made to obtain a national return rate for clinical evaluations of RRNA's. The Council on Accreditation (COA) was contacted using their website's "contact us" form.3 A reply stated that the organization did not keep statistics related to daily clinical evaluations. Next, program administrators were contacted from two anesthesia programs affiliated with the researchers. Neither program retained daily clinical evaluation return rate statistics.

Methods

A 20-question survey was developed using Microsoft Forms. A focus group outline was developed, pictured in Figure 4. These questions and a project plan were submitted to Advarra, which deemed the project IRB-exempt.

An e-mail list of preceptors at four clinical sites who regularly precept nurse anesthesia residents was obtained from the researcher's institution. Multiple clinical sites were included, and 327 email addresses were received. An email with an informed consent statement was sent to all 327 email addresses with a link to the Microsoft Forms Survey. Respondents were directed to the Microsoft Forms web application to complete the survey. The results were reported in a secure Excel spreadsheet.

Two focus groups were conducted with CRNAs who volunteered from the survey. Participants were invited to a Microsoft Teams meeting and offered a twenty-five-dollar Target or Starbucks E-gift card. The first focus group was held on February 17, 2025, and consisted of seven CRNAs, and the second on February 25,

2025, consisting of five CRNAs. The focus group outline was used to guide the discussion. The meetings were recorded and transcribed to be analyzed for key phrases and recurring trends.

The survey results were exported into an Excel data sheet. Simple descriptive statistics were calculated on the numerical values obtained, including age, years of practice, and number of students per week. Descriptive statistics were also calculated using the multiple-choice text options built into Microsoft Forms' statistics reporting system. The open-ended questions were then analyzed for recurring themes and frequency of certain words or phrases.

Results

Of the 327 emails sent, 87 responses were received, with a response rate of 26%. 51% of the respondents were female and 44 were male. 86 respondents identified English as their primary language, with one respondent selecting "other," indicating a primary language other than English or Spanish. The average age of respondents was 42. Fifty-eight respondents stated they had Master's degrees, and 29 responded as having Doctoral degrees. The average years of experience of respondents was 11. Most respondents identified their practice specialty as "general or no specialty." Eighty-five respondents identified employment status as "full-time," with one each replying "part-time" and "PRN." Thirty-nine respondents stated their primary clinical setting was a "large academic facility," and 37 responded "Regional Hospital." The remaining 11 respondents selected "Critical Access Hospital," "Ambulatory Surgery Center," or "Other."

Most (62.1%) preceptors reported "disagree" or "strongly disagree" when asked if they encountered barriers that prevented them from completing daily clinical evaluations. Almost all (91%) preceptors reported that they were more likely to complete a daily clinical evaluation if the resident reminded them at the end of the day.

60.9% of respondents reported that there were specific changes that would improve their ability to complete daily clinical evaluations. 65% of participants responded that the evaluation platform they use required login credentials each time it was used. The remainder of the questions reflected that the respondents viewed the technology platforms as easy to use.

Years of experience did not correlate to any of the responses when the results were calculated in SPSS, indicating years of experience does not influence what barriers are encountered. This indicates that more experienced CRNAs do not struggle with technology platforms as barriers.

The survey allowed free text responses surrounding barriers to completing evaluations. One of the most reported barriers to evaluation completion is time constraints within the clinical setting. Many preceptors struggle to complete evaluations during or after shifts due to competing responsibilities such as patient care, emergency cases, and administrative tasks. Completing evaluations is often a secondary priority compared to these urgent duties. Additionally, evaluations are typically expected at the end of a shift, when preceptors also handle charting, handoffs, and other final tasks. This scheduling conflict greatly reduces the likelihood of evaluations being completed promptly. Preceptors with 11-20 years of experience frequently cited "no reminders" and "end-of-shift evaluations" as barriers, whereas those with 0-5 years of experience faced more significant challenges related to accessibility and time constraints. Only 16 of the 83 respondents indicated that they had some sort of formal training in precepting. Most respondents indicated they precepted 1-2 students per week.

Another significant factor affecting evaluation completion is forgetfulness due to the lack of reminders. Many preceptors reported that they often forget to complete evaluations unless prompted. The results of analytics data suggest that student reminders could be a valuable solution. Many preceptors stated they would be more likely to complete evaluations if RRNAs actively reminded them at the end of the shift. Additionally, preceptors noted that if students do not send evaluations on the same day, it becomes difficult to recall specific details about their performance, leading to vague or incomplete feedback. This challenge is particularly prominent among preceptors in the 40-49 age group, who are more likely to be affected by external distractions and cognitive overload, further reducing evaluation completion rates.

Technical difficulties also contribute to clinical evaluation non-compliance. Many preceptors experience difficulties accessing evaluation systems due to login challenges or cumbersome

interfaces. Some platforms require multiple credential entries per session, making the process inefficient. Others are not mobile-friendly or involve several steps, leading to frustration. Many preceptors preferred an app-based or mobile-optimized evaluation platform that simplifies the process. These findings underscore the need for a more user-friendly, accessible, and automated system to reduce the cognitive load on preceptors and facilitate timely evaluation completion.

In the "additional comments" section some respondents volunteered that precepting too many students can cause burnout. Two respondents also discussed the fact that the evaluations do not allow for positive feedback most of the time and are focused on negative qualities to improve on. Others expressed concerns about the student being able to read the evaluation, potentially affecting the feedback provided.

The focus group discussions mirrored the results of the surveys. Frequently reported barriers included time constraints, lack of reminders, and lack of integration into the daily workflow. Many the focus group participants stated that evaluations integrated into the daily workflow would be helpful, with one stating "If a RRNA asks me for an evaluation at the end of their day, when I am staying and doing the next case and turning the room over, it is unlikely that I am ever doing that evaluation unless I am reminded". After encouraging further discussion on this topic, it seemed that the CRNAs preferred this because the evaluations asked for specific categories, like "induction" to be rated, but these scores could vary with each case. The participants also cited the need for evaluations specific to the resident's level in training.

Discussion

Based on the identified barriers to clinical evaluation completion, several practical recommendations can be implemented to improve current practices. To address the significant issue of time constraints, nurse anesthesia education programs should consider integrating time for evaluations into the clinical day workflow, utilizing a streamlined evaluation form with pre-populated fields and voice-to-text capabilities. Strategies that automate email and text reminders should be set up to combat forgetfulness. The reminders should be done at the end of shifts, at a specific time each day. A single sign-on or QR code log-in would be a good start to enhance ease of use and create a more user-friendly platform. Furthermore, they should clarify how feedback is used in student assessments and share anonymized evaluation trends. Nurse anesthesia programs can use targeted interventions to improve the quality and quantity of clinical evaluations.

Conclusion

This study sheds light on the multifaceted challenges hindering the completion of clinical evaluations for resident registered nurse anesthetists. Three main barriers were identified including time constraints, lack of reminders, and platform accessibility issues. The findings illustrate the need for practical strategies to integrate evaluations into clinical day workflows, automate reminders, and improve platform accessibility. While this study provides valuable information and practical recommendations, it's essential to acknowledge its limitations, including the sample size and study population. Further research should explore these aspects and assess the long-term impact of implementing the strategies outlined in this paper. Finally, by tackling these barriers, improved quality and consistency of feedback can be provided to RRNAs, enhancing their clinical education and promoting professional development and patient safety.

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