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INTRODUCTION

The Dedicated Education Unit (DEU) initiative was developed to address the gap in perioperative nursing education among undergraduate nursing students. This project immersed 19 Rutgers nursing students with an interest in perioperative services into a structured clinical experience designed to enhance their foundational knowledge, competency, and preparedness for perioperative practice.

OBJECTIVES

- Assess the effectiveness of a perioperative DEU model in enhancing undergraduate nursing students' foundational knowledge, career satisfaction, and clinical preparedness.
- Analyze comparative survey outcomes between DEU participants and traditional OR Foundations students to determine educational impact.
- Explore the role of structured mentorship and intentional clinical immersion in shaping students' readiness for specialty perioperative nursing roles.
- Identify organizational strategies that support successful onboarding, retention, and pipeline development for perioperative workforce needs.
- Discuss the impact of partnership models between academic institutions and health systems.

PREPARATION/PLANNING

Prior to program implementation, a robust curriculum was developed to supplement students' clinical experiences, incorporating lecture-based instruction on basic asepsis and perioperative principles alongside kinetic skill validation. A perioperative rotational schedule and onboarding process were designed in collaboration with Rutgers University and RWJBarnabas Health senior leadership to ensure seamless integration into perioperative settings.

SURVEYS

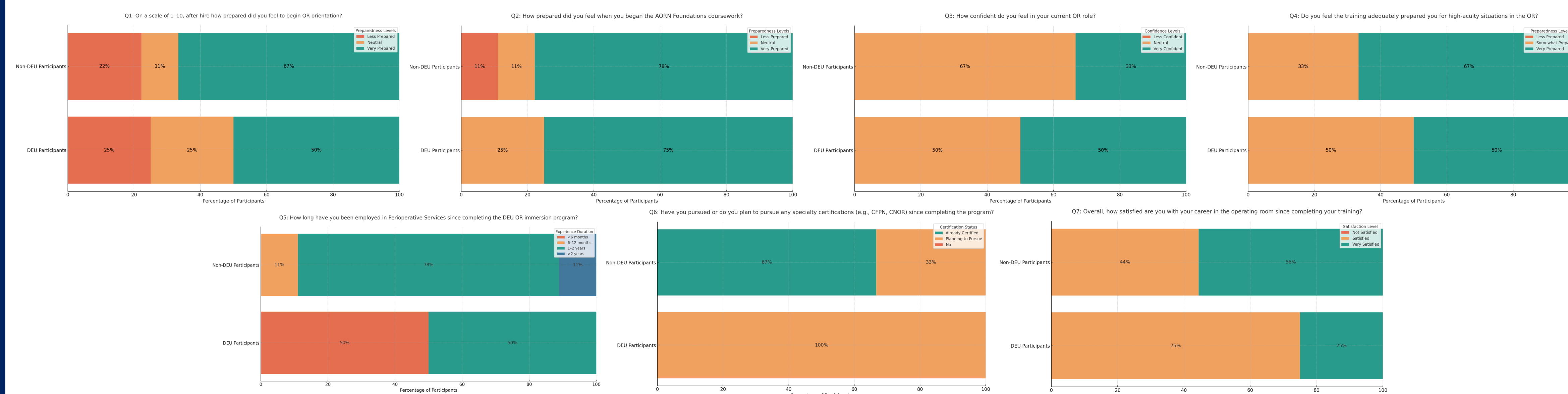
DEU student Survey: Designed for former DEU students who are now practicing OR nurses. It aims to gather feedback on their overall DEU experience, including the quality of learning, clinical preparation, and transition into practice. The survey also explores their thoughts on employment following the DEU program and how well it supported their readiness for a career in the operating room.

Student not in DEU program Survey: Designed for OR nurses who are currently completing or completed the AORN Foundations coursework and are now practicing in the operating room. It aims to gather insights about their transition into the OR, the effectiveness of clinical preparation, and overall professional experience. The survey explored thoughts on training, clinical readiness, and employment while and/or after participating in AORN Foundations.

IMPLEMENTATION

Students were guided through perioperative nursing competencies via structured clinical exposure, direct mentorship from experienced preceptors, and ongoing evaluations. Clinical instructors facilitated post-experience debriefing sessions with students and preceptors to reinforce learning and foster reflection. Additionally, a formal preceptor-student evaluation process was integrated to assess progress and feedback, culminating in an end-of-course debrief that included Rutgers University faculty, students, and RWJBarnabas Health senior leadership.

RESULTS



Q8: Barriers Encountered When Transitioning to Independent OR Nurse

- | Summary of DEU Student Responses | Summary of Non-DEU Student Responses |
|--|--|
| <ul style="list-style-type: none"> Smooth transition into perioperative practice Strong preceptor support in both circulating and scrubbing roles Felt well prepared for independent practice Exposure to a wide variety of cases and service lines Increased confidence and procedural proficiency | <ul style="list-style-type: none"> Gaps in training with specific equipment Difficulty anticipating surgeon needs and using preference cards Challenges identifying required supplies during cases Time management and prioritization difficulties Confidence barriers, including imposter syndrome |

Q9: Components Most Valuable in Helping You Stay in Your Current Role

- | Summary of DEU Student Responses | Summary of Non-DEU Student Responses |
|---|---|
| <ul style="list-style-type: none"> Preceptorship was frequently selected as a valuable component supporting role transition and retention Didactic education was identified as helpful in building foundational perioperative knowledge Simulation experiences were valued for reinforcing clinical skills and confidence Clinical exposure across perioperative settings supported ongoing engagement in the role Feedback and mentorship meetings contributed to professional growth and role satisfaction | <ul style="list-style-type: none"> Preceptorship was commonly selected as a valuable component supporting role retention Simulation experiences were identified as beneficial for skill reinforcement Clinical exposure was valued as a primary contributor to experiential learning Feedback and mentorship meetings supported professional development for some participants Participants selected multiple components as valuable based on individual experiences |

Q10: Did the DEU Impact Your Decision to Stay in Your Current Role?

- | Summary of DEU Student Responses | Summary of Non-DEU Student Responses |
|---|--|
| <ul style="list-style-type: none"> 100% of participants reported that the DEU influenced their decision to remain in their role as an OR nurse | <ul style="list-style-type: none"> Not measured in this group |

Q11: If offered the opportunity to participate in a DEU, would you have chosen to participate and felt better prepared for OR Orientation?

- | Summary of DEU Student Responses | Summary of Non-DEU Student Responses |
|--|---|
| <ul style="list-style-type: none"> Not measured in this group | <ul style="list-style-type: none"> 100% of respondents reported they would have chosen to participate in a Dedicated Education Unit (DEU). Respondents consistently described DEU participation as beneficial for increasing hands-on perioperative experience. Many indicated that early OR exposure would have improved preparedness for AORN Foundations and foundational perioperative skills. Respondents noted that DEU participation could support more realistic expectations of the OR environment. Several responses emphasized a strong desire for increased OR exposure during nursing school. |

Q12: Suggestions to Improve the DEU Program for Future Cohorts

- | Summary of DEU Student Responses | Summary of Non-DEU Student Responses |
|---|--|
| <ul style="list-style-type: none"> Incorporate Q&A panels with perioperative nurses to support discussion and role insight Increase hands-on OR exposures, with opportunities to actively assist rather than observe Promote preceptor continuity to support consistent learning and reinforcement of foundational skills Emphasize progressive participation in OR tasks as appropriate for learner level Some participants reported observation-only experiences, suggesting variability in engagement opportunities | <ul style="list-style-type: none"> Not measured in this group |

OUTCOMES/IMPLICATIONS

Overall, DEU participants demonstrated higher levels of preparedness, confidence, satisfaction, and retention compared to Non-DEU participants, highlighting the strong positive impact of immersive clinical exposure. Non-DEU respondents frequently noted that DEU participation would have improved their transition into perioperative practice and enhanced readiness for AORN coursework. Across both groups, hands-on experience, strong preceptorship, and structured clinical exposure were consistently identified as the most influential factors supporting confidence, competence, and long-term engagement in the OR.

This initiative strengthened perioperative knowledge, streamlined hiring pathways, and advanced academic-clinical collaboration. Two students were recruited into perioperative roles within RWJBarnabas Health and remain employed after two years, demonstrating strong retention outcomes. The DEU model improved onboarding experiences post-hire and shows clear potential for expanding perioperative education in undergraduate nursing programs, emphasizing the importance of early exposure to specialty practice.