

STANDARDIZING THE TRANSITION TO PRACTICE FOR ADVANCED  
PRACTICE PROVIDERS IN CRITICAL CARE

by

Samantha Rae Hopkins

---

Copyright © Samantha Rae Hopkins 2025

A DNP Project Submitted to the Faculty of the

COLLEGE OF NURSING

In Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF NURSING PRACTICE

In the Graduate College

THE UNIVERSITY OF ARIZONA

2025

THE UNIVERSITY OF ARIZONA  
GRADUATE COLLEGE

As members of the DNP Project Committee, we certify that we have read the DNP project prepared by Samantha Hopkins, titled Standardizing the Transition to Practice for Advanced Practice Providers in Critical Care, and recommend that it be accepted as fulfilling the DNP project requirement for the Degree of Doctor of Nursing Practice.

*Lindsay Bouchard*

Date: 11/19/2025

Lindsay A. Bouchard, DNP, PMHNP-BC

*Courtney Bartlett*

Date: 11/19/2025

Courtney Bartlett, DNP, AGACNP, RNFA, CCRP

*Nathaniel Thornton*

Date: 11/19/2025

Nathaniel Thornton, DNP, APRN, CNP

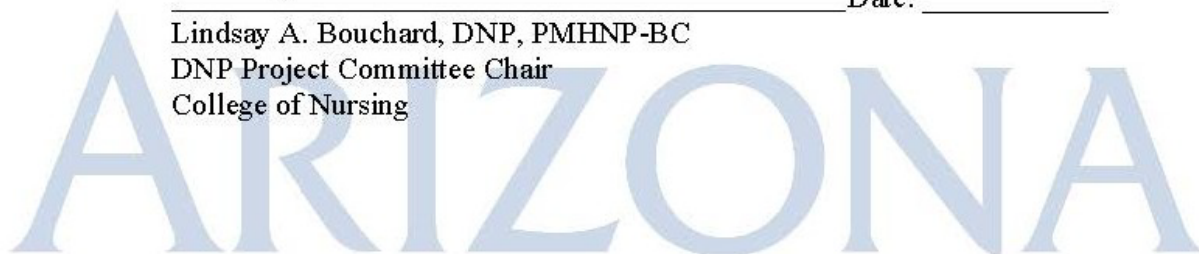
Final approval and acceptance of this DNP project are contingent upon the candidate's submission of the final copies of the DNP project to the Graduate College.

I hereby certify that I have read this DNP project prepared under my direction and recommend that it be accepted as fulfilling the DNP project requirement.

*Lindsay Bouchard*

Date: 11/19/2025

Lindsay A. Bouchard, DNP, PMHNP-BC  
DNP Project Committee Chair  
College of Nursing



## ACKNOWLEDGMENTS

I would like to thank my project committee chair, Dr. Lindsay Bouchard, whose guidance, support, and mentorship throughout my DNP project has been invaluable. The insight and feedback that Dr. Bouchard provided allowed me to gain insight into the DNP project core components while allowing me to grow as a student, researcher, and future DNP!

I would also like to thank Dr. Courtney Bartlett for being a committee member. Your experience as an Adult Gerontology Acute Care Nurse Practitioner and frustrations with onboarding procedures at different facilities furthered the need for my project. This helped fuel my desire to enhance the educational onboarding and orientation materials provided to new hires within the critical care realm.

Finally, I would like to thank Dr. Nathaniel Thornton, without whom I may not have even chose this project in the first place. As a supervisor, colleague, but most importantly friend, you saw my potential and pushed me to great lengths in order to see my true potential as a clinician, educator, and future DNP provider. For this, I will be forever grateful.

## LAND ACKNOWLEDGEMENT

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.

## DEDICATION

To my father, Robert, who has always believed in anything that I wanted to do or be regardless of how crazy, obscure or difficult the path was to get there. Through all that I have experienced in life, you have always been a pillar of unwavering support. Your love, your belief in me, your patience, and your understanding are things I am eternally grateful for. This support throughout my entire life has allowed me to learn, grow, and develop into who I am today.

And finally, to my wife, Emily, who has been my rock, my shoulder, and my biggest cheerleader throughout all of my nursing education. Your love, support, and devotion to me, my education, and our family is everything that people wish for in a spouse and a marriage. I am truly grateful to call you my wife and to have you by my side for all the greatest events life has in store for us.

## Table of Contents

<b>List of Figures</b> .....	8
<b>Abstract</b> .....	9
<b>Background</b> .....	11
<b>Local Problem</b> .....	12
<b>Conceptual Framework</b> .....	12
<b>Purpose</b> .....	15
<b>Methods</b> .....	16
<b>Site</b> .....	16
<b>Participants and Recruitment</b> .....	16
<b>Intervention</b> .....	16
<b>Evaluation Measures</b> .....	17
<b>Analysis</b> .....	17
<b>Ethical Considerations</b> .....	17
<b>IRB Review and Approval</b> .....	18
<b>Results</b> .....	18
<b>Common Themes Identified</b> .....	19
<i>Clinical Relevance and Comprehensive Materials</i> .....	19
<i>Increased Organization and Systems-Based Approach</i> .....	20
<i>More In-Depth Materials</i> .....	20
<b>Discussion</b> .....	21
<b>Alignment with DNP Essentials</b> .....	21
<b>Sustainability</b> .....	23
<b>Limitations</b> .....	23
<b>Conclusion</b> .....	24
<b>Implications for Future Practice</b> .....	24
<b>Appendix A Site Authorization Approval Letter</b> .....	26
<b>Appendix B Consent Document</b> .....	28
<b>Appendix C Participant Recruitment</b> .....	30

Table of Contents – *Continued*

<b>Appendix D</b>	<b>Pre-Implementation Survey</b> .....	32
<b>Appendix E</b>	<b>Post-Implementation Survey</b> .....	34
<b>Appendix F</b>	<b>Participant Materials</b> .....	36
<b>Appendix G</b>	<b>Evidence Table</b> .....	38
<b>References</b>	.....	43

**List of Figures**

**Figure 1** *KTA Framework Depiction*.....14

## Abstract

**Background:** There is a lack of transitional support for new hire advanced practice providers (APPs), especially within the critical care sector of healthcare which is leading to increased burnout, anxiety, feelings of inadequacy, and a lack of confidence as a new provider.

**Purpose:** The purpose of this Doctor of Nursing Practice (DNP) project was to develop and implement curriculum- and resource-based educational onboarding and orientation materials to provide transitional support for new hire APPs in the medical intensive care unit (MICU) within a large academic teaching hospital.

**Methods:** Utilizing an online platform named Brightspace, old onboarding and orientation materials were removed and updated content was either created or virtually sourced to create a structured and sustainable onboarding and orientation experience for future MICU new hires. Pre- and post-implementation surveys were utilized to evaluate whether the updates of Brightspace information were positive or negative for upcoming new hires.

**Results:** A total of 12 participants from the current MICU practice participated in the project. There was a noted 92% significant improvement in content provided in Brightspace with 75% reporting the new content being more applicable to the APP transition to practice specifically for transition into the MICU group.

**Conclusions:** Creation of a curriculum- and resource-based educational onboarding and orientation materials resulted in a reported improvement in content included and advancements in potential new hire readiness for practicing as a MICU APP following onboarding and orientation. Development of a structured onboarding and orientation process could lead to

decreases in new hire anxiety and could provide a standardized approach to the APP transition to practice for other MICUs across the nation.

## **Background**

In the United States (US) advanced practice providers (APPs), also known as nurse practitioners (NPs) and physician assistants (PAs), were established in 1965 and 1967 respectively. There are now approximately 800 combined NP and PA programs (500 NP & 300 PA), yet not one standardized curriculum-based orientation or transition to practice program exists for APPs in a workplace environment (AANP, 2025; AAPA, 2025). This has long been identified as a gap for the APP role, as many who enter the workforce express feelings of anxiety, inadequacy, and isolation in their first year of practice due to the lack of educational and transitional support (Klein et al., 2021). To help combat this, many have proposed that APPs should apply for residency or fellowship programs in their desired practice field following completion of their graduate level education; however, there is a limited amount of residency and fellowship programs around the country and the number of APPs accepted into these programs is low. In fact, there are only 36 critical care (excluding acute care and neonatology) residency or fellowship opportunities listed in the US with less than 160 potential positions for the approximate combined 50,000 APP graduates each year (Consortium for Advanced Practice Providers, 2025; Health Resources and Services Administration, 2024; Hooker & Cawley, 2021)

While residency and fellowship positions may help ease the transition to practice for many new APPs, a transitional gap still exists for those who do not apply or are not accepted into these opportunities. The lack of a standardized approach for transitioning new APPs to clinical practice can be detrimental to the foundation of being a provider. There are many different scopes of practice and national standards that note the proficiency levels that APPs should have for a specific clinical area; however, proficiency in these training topics does not directly

translate to clinical competency. This gap is extremely apparent in those providers who apply for and move into positions within the critical care realm. Until February 2025 there had been no standardized national standards or guidelines for APPs transitioning into critical care; however, the American College of Chest Physicians (CHEST) has recently developed and implemented the APP critical care certification, which is the first of its kind (CHEST, 2025). Despite this being a large step forward, this does not help close the transitional gap that occurs once a new APP begins in a new role. Due to this, implementation of a transition to practice model within critical care units would not only improve new APP anxiety but would also serve as a clinical resource and professional development tool (Grek et al., 2022; Luckianow et al., 2015).

### **Local Problem**

The transition from student to APP within the medical intensive care unit (MICU) at a large academic teaching hospital in Minnesota has opportunities for improvement. Previous education provided has been largely preceptor dependent and has lacked didactic education. Moreover, didactic education once provided is now outdated, consisted of a large amount of book chapters, and lacked facility specific protocols and procedures. Furthermore, throughout the past three years, there have been four new hires who have collectively indicated that the onboarding process, curriculum, and didactic education should be improved to allow for better assimilation into facility culture and evidence-based practice (EBP) standards utilized at throughout the institution.

### **Conceptual Framework**

Creation of a transition to practice curriculum- and resource-based educational orientation platform is a multifactorial process that is best conceptualized and conducted via the

knowledge to action (KTA) framework. The KTA framework was first developed in 2006 by Dr. Ian Graham and colleagues who sought to improve knowledge translation (KT) gaps throughout Canadian healthcare systems via the Canadian Institutes of Health Research (CIHR). Coined by CIHR in 2000, KT is defined as the ability to comprehend, condense, and apply newly published research to current evidence-based practice (EBP) to allow for strengthened healthcare (Sudsawad, 2007). During this time, the US and Netherlands care models were outdated, as it was estimated that 30-45% of patients were not receiving care according to current EBP (Graham et al., 2006). This was due to a lack of KT throughout healthcare systems with limited ability to generate tools and implement practice changes from newly published research (Graham & Tetroe, 2010).

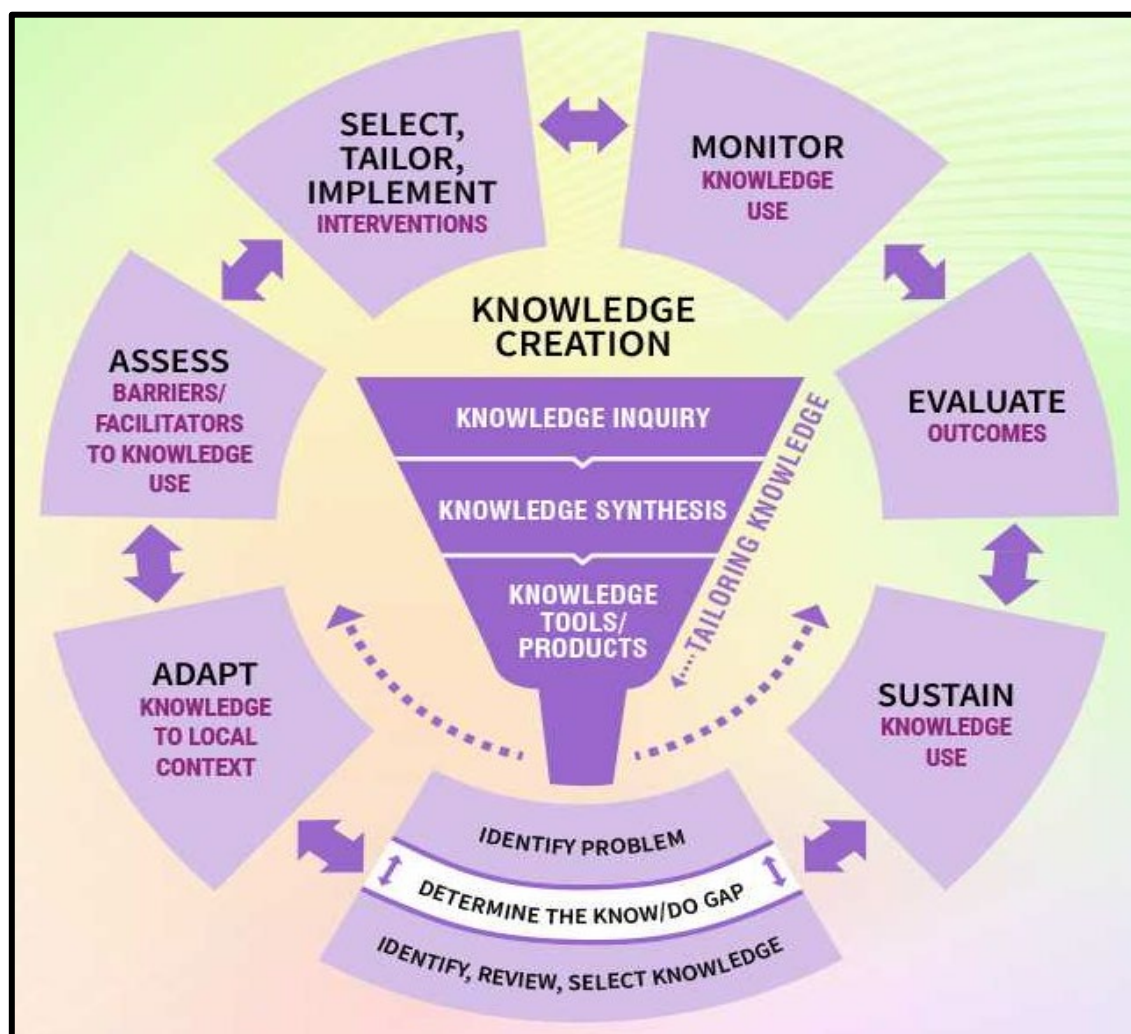
Given the lack of KT occurring in the health, health science, and social sciences disciplines (among others), Graham et al (2006) conducted a study reviewing 31 articles that utilized change theory or planned action theories. These theories were chosen due to the underlying objectives being to alter current practice. Commonalities amongst the articles were then parsed down and included in the final framework, creating the basis of the KTA framework: knowledge creation and knowledge application (Graham & Tetroe, 2010; RNAO, 2025a).

Knowledge creation and knowledge application (also referred to as the action cycle) are the key variables that set the foundation for the KTA framework. Knowledge creation is a composition of three different steps while knowledge application is comprised of seven differing phases. Monitoring and evaluating outcomes can be conducted via surveys, audits, observations, and interviews (RNAO, 2025b). Grounded in KT, the KTA framework is heavily utilized when new research evolves and requires implementation in academia, practice, and research sectors.

The KTA framework is relatively chaotic. That is, the inner and outer workings of the framework are intertwined and constantly providing feedback to one another in order to tailor the end-user knowledge (Graham & Tetroe, 2010). These relationships, between the inner and outer processes, are seen in Figure 1. Knowledge creation is central to the KTA framework; however, the framework would not be operational without the action cycle.

**Figure 1**

*KTA Framework Depiction*



(RNAO, 2025a)

Knowledge creation begins with knowledge inquiry which filters down to knowledge synthesis and is completed with knowledge tools. This should be seen as a funnel type effect – as KT is completed, the knowledge being created is more specific and tailored to the specialty area, ultimately creating quality resources for the end-user (Graham & Tetroe, 2010). For this project, knowledge creation begins by determining the topics that should be included in the curriculum- and resource-based educational onboarding material. Once these topics are determined, each topic then goes through the funnel of knowledge creation to ultimately develop the curriculum and resources available during onboarding. This is an ongoing process that continues to develop overtime in conjunction with the action cycle.

The action cycle, also referred to as knowledge application, consists of seven total phases. The action cycle initially begins with identification of a problem – in this case a lack of curriculum- and resource-based educational orientation material. This is followed by any of the other six phases within the cycle due to the chaotic nature of the KTA framework. At any point, the process could move between the inner and outer workings of the framework, or both at the same time. The remaining phases within the action cycle include adaptation of knowledge to end-users, barriers and supporters of knowledge, implementing intervention, monitoring knowledge, evaluating outcomes, and ongoing sustainment of the knowledge (Graham & Tetroe, 2010).

### **Purpose**

The purpose of this quality improvement (QI) Doctor of Nursing Practice (DNP) project was to develop and implement curriculum- and resource-based educational orientation materials

that aid in the transition of becoming a new APP in the medical intensive care unit (MICU) at a large academic teaching hospital.

## **Methods**

### **Site**

This was a single-site, single department project implemented within the MICU at Mayo Clinic, an academic medical center in Rochester, Minnesota.

### **Participants and Recruitment**

Participants were comprised of the current MICU APPs, as there were no new hires to the department during the project implementation timeframe. Recruitment of current MICU APPs was conducted via email and took place for a total of one month, from August 8, 2025 through September 8, 2025.

### **Intervention**

To improve the onboarding process and materials for new hire APPs into the MICU workforce, a refresh of the current platform (Brightspace) with updated information and more concise resources was created. Old information was removed from Brightspace, and new content was created and uploaded. For useability, each of the body systems that comprise the human body were added to Brightspace with subheadings of the core topics/disease processes that a MICU APP should be proficient in at the completion of orientation. This list of core topics/disease processes was determined in conjunction with current MICU APP orientation standards, as established by MICU APP supervisors, critical care APP supervisors, and MICU physicians. Updated information for each of the core topics/disease processes was created or

virtually sourced with updated internal policies/procedures or the latest clinical practice guidelines available.

### **Evaluation Measures**

Evaluation of the intervention was completed via a pre- and post-implementation survey. See Appendices D and E for the pre- and post-implementation surveys. The pre-implementation survey took no longer than 10 minutes to complete and consisted of questions pertaining to the orientation materials and resources available during their (current MICU APPs) orientation period, overall feelings toward their orientation process, and how orientation impacted their transition to practice. The post-implementation survey also took no longer than 10 minutes to complete and focused on whether the improved Brightspace materials and resources are thought to provide a smoother transition to practice, cover all “must know” content, and will allow for improved knowledge amongst new hires. Both surveys included a comments section to allow for free text answers to provide further context of the orientation processes.

### **Analysis**

This project evaluated both qualitative and quantitative data collected on the pre- and post-surveys. Descriptive statistics were used to analyze data and qualitative data collected in the free text items were reported as direct quotes, with any common concepts identified.

### **Ethical Considerations**

Ethical considerations throughout this DNP project consisted of proper use and redistribution of content not made by the primary investigator. All materials sourced from secondary websites, peers, and institutional algorithms were appropriately cited to avoid

plagiarism of established protocols, practice guidelines, and current EBP. Additionally, participation was completely voluntary and anonymous.

### **IRB Review and Approval**

This DNP project was subject to an IRB review at the Mayo Clinic, with final IRB determination and approval provided by the University of Arizona College of Nursing.

### **Results**

For this study, all MICU APPs were invited to participate (total number requested for participation = 17) and the total number of participants was 12. This accounted for 70% participation on behalf of the MICU team. Of those who participated, four (33.3%) were PAs and eight (66.6%) were NPs. Given the large group of MICU APPs, longevity was assessed to better understand onboarding and orientation needs and how they have changed throughout the years. Two APPs (17%) had been with the team for 1 – 2 years, one (8%) had been with the team for 2 – 3 years, two (17%) had been with the team for 3 – 5 years, one (8%) had been with the team for 5 – 7 years, three (25%) had been with the team for 7 – 10 years, and three (25%) had been with the team for greater than ten years. None of the participants had been with the MICU team in less than one year's time.

In assessing use of an orientation or onboarding platform such as Brightspace, seven (58%) participants had indicated they were directed to Brightspace for orientation. Of those directed to Brightspace, only three (25%) were given a weekly didactic schedule. Furthermore, when assessing the effectiveness of the previous Brightspace material, three (25%) APPs found the information useful, two (17%) did not, and seven (58%) were not even directed to Brightspace. The effectiveness of the prior Brightspace material was also assessed. It was found

that ten (83%) of APPs found that the information included was neutral with regard to being prepared as a new APP in the MICU.

In comparing prior onboarding or orientation schedules to the Brightspace intervention, 11 (92%) of APPs indicated significant improvement in material now included for onboarding or orientation of new hire APPs to the MICU. Additionally, it was found that nine (75%) APPs found the new content more relevant and applicable to the APP transition into the MICU as a new hire.

### **Common Themes Identified**

The qualitative pre-implementation survey data revealed two common themes: disorganization (17%) throughout the old content and a large lack of use (42%) during orientation or onboarding. Participants noted,

*“It (old Brightspace content) was not very well organized or put together during my orientation,”* and *“It was very cumbersome to read through the articles and other information while some of the information was outdated.”*

These issues were largely rectified, as evidenced by the post-implementation survey which identified three common themes amongst MICU APPs: clinically relevant and comprehensive materials, more organized and system-based approach, and more in-depth material included.

### ***Clinical Relevance and Comprehensive Materials***

Participants indicating clinical relevance and increased comprehensiveness of topics stated ideas such as:

*“Much more comprehensive material than before. Information in the new system appears to be tailored to the needs of a new hire who will need to know how to practice in the system”* and *“Clinically relevant resources for the MICU. Applicable to our practice.”*

This led to an understanding that previous material included during onboarding and orientation previously did not allow for proper inclusion of information relevant to being an APP within the MICU. Moreover, the enhancements made in the Brightspace onboarding and orientation modules allowed for significant positive feedback which enhances overall usability in the future.

### ***Increased Organization and Systems-Based Approach***

Participants also noted significant improvements in organization, namely, the systems-based approach which the previous version of Brightspace lacked. Disorganization was noted to be a factor that affected MICU APPs prior use of Brightspace, as two (17%) of respondents on the pre-implementation survey indicated it was quite disorganized.

*“The materials are better organized, easier to read, and more relevant to our work”* and *“Better organization, more relevant...and updated material.”*

In fact, four participants (33%) found the information to be more organized with a systems-based approach being keener for the needs of a new hire MICU APP.

### ***More In-Depth Materials***

One reported complaint from participants was the lack of updated and in-depth material provided in the old Brightspace onboarding and orientation material (17%). This was considered with the development of the updated Brightspace onboarding and orientation materials which proved to have a robust response amongst participants. Three participants (25%) indicated that materials included in the update were more in-depth and updated, stating: *“More detail and more*

*digestible content” and “Our new hires will have very high quality, evidence-based interactive learning materials that were not previously available.”* Creation of high quality, in-depth material was a core initiative of this project given the lack of useability old content had for transitions to critical care practice. Understanding the values of current APPs allows for better long-term materials within the Brightspace system.

## **Discussion**

### **Alignment with DNP Essentials**

Utilization of the American Association of Colleges of Nursing (AACN) DNP essentials is crucial to all doctoral level research as these essentials serve as the framework of doctorally prepared nurses (2006). Of the eight essentials included in the AACN DNP essentials, there are four that directly align with this project: 1. Essential III: Clinical scholarship and analytical methods for evidence-based practice; 2. Essential IV: Information systems/technology and patient care technology for the improvement and transformation of health care; 3. Essential VI: Interprofessional collaboration for improving patient and population health outcomes; and 4. Essential VIII: Advanced nursing practice.

Evidence-based practice is at the forefront of nursing practice and within medicine. As the AACN (2006) outlines, clinical scholarship also includes integration and application of knowledge. Determining a current gap in transitional education for new hire APPs within the MICU, applying current EBP standards based on current research, and integrating new educational materials helps achieve Essential III. Furthermore, Essential III encompasses the use of knowledge from a variety of different disciplines and resources to comprise a comprehensive

application of knowledge. Utilizing a systems-based approach with the materials and involving several physicians for content procurement helps further meet this DNP Essential.

While this project does not directly relate to patient care technology, it does directly reflect the way in which patient care is delivered. New critical care APPs transitioning into a new environment often lack the skills necessary to provide safety, effective, and efficient care to patients. This is especially true with a MICU that sees a diverse patient population. Completing an update of the Brightspace content to ensure new providers have the necessary education to provide patient care with competence is crucial for meeting the needs of Essential IV. Additionally, the use of Brightspace as the technology platform allows for ongoing transformation of the healthcare system for providers of all types.

As noted above, interprofessional collaboration is essential to ongoing delivery of healthcare, not just to QI and the advancement of nursing practice. Advanced practice providers who work in the MICU continually participate as part of the multidisciplinary team. An essential portion of the educational onboarding and orientation material is to ensure understanding of the interprofessional team structure as well as provide multidisciplinary education. Though many of the educational materials were original creations many were also sourced from colleagues within the multidisciplinary practice to ensure a variety of educational materials as well as the most updated EBP and protocols within the facility. This approach directly aligns with Essential VI.

Finally, the precipice of this QI project is the advancement of nursing practice. As a provider in the critical care sector, especially one as busy as a large teaching hospital MICU, ongoing advancement is a growing need. Ensuring an educational onboarding and orientation curriculum to enhance the transition to practice for APPs safeguards the ongoing application of

many different aspects of nursing – namely the skill set necessary to succeed in this type of atmosphere. This educational advancement is only one aspect of a larger gap – the lack of support for APPs within medicine, especially regarding transitions in practice. Ensuring ongoing advancement within the world of nursing and for all APPs in critical care is crucial for ongoing growth and support for years to come. This directly aligns with Essential VIII.

### **Sustainability**

Ongoing management of the Brightspace platform provides relatively good longstanding sustainability. Current practice allows for the principal investigator and the MICU education committee to provide ongoing updates to the platform to allow for updated content when any new hire APPs join the MICU team. Given the vast patient population that this MICU serves, it may be difficult to stay up to date with all current guidelines, meaning that more people may need to be added to the education committee to mitigate the workload.

### **Limitations**

There were few limitations of this project. First being that while there was 70% participation from current MICU APPs, six (50%) APPs had been with the practice for greater than seven years. This could have led to some inaccurate answers given that orientation for those individuals would have been so long ago. Additionally, there were some survey questions that were noted to be contradictory or potentially confusing for some individuals. For instance, on the pre-survey, one question asked whether participants were given a weekly agenda with didactic material to which eight (67%) responded no with one (8%) APP responding, “not directed to Brightspace.” However, the following question then asked participants if directed to Brightspace, was content updated, scholarly and useful to which two (17%) said no and seven (58%) said “not

directed to Brightspace.” This discrepancy in whether participants were actually directed to Brightspace downplays the evolution and usage of Brightspace overtime in the MICU and may potentially discredit some of the data in this project due to conflicting answers.

Future projects similar to this should ensure concise wording of questions to ensure a lack of ambiguity amongst participants and their answers. This will allow more clear understanding and analysis of the data. Additionally, future QI initiatives could expand upon other ICU settings, not just the MICU. This would allow for an expanded understanding of how a structured onboarding/orientation for new hire APPs into the critical care setting allowed for the transition to practice.

## **Conclusion**

### **Implications for Future Practice**

Current MICU APPs had a 92% increase in satisfaction with Brightspace onboarding and orientation materials following the implementation phase of this QI project. This update provided substantial updates to educational materials being provided for new hire MICU APPs with current MICU APPs indicating improvements included better organization, improved clinical relevance, and more in-depth material. This has a positive impact with the transition to critical care practice, especially since previous studies have indicated a lack of structured or standardized onboarding and orientation materials has led to increased anxiety and a lack of true transitional support for new hire critical care APPs (Grek et al., 2022; Luckianow et al., 2015).

This substantial increase in APP satisfaction has several positive implications for future practice. Foremost, this project is the first of its kind to date withinin this organization that looked at the educational materials being provided to new hire critical care providers. This

provides framework for other critical care divisions around the country to begin standardized development of onboarding and orientation curriculum that meets the needs of new hire critical care APPs – a concept currently lacking across the nation. While the specialization may be different for specific intensive care units (ICUs) across the nation, the standardization of core content and the EBP treatments currently outlined by national healthcare organizations does not change meaning that core content included in this Brightspace update could be useful to other ICUs around the country.

Standardization of the transition to practice is also likely to decrease anxiety of new hire critical care APPs as this was noted to be a constant factor amongst previous research. While anxiety was not a factor analyzed in this project, it is important to note that several participants did indicate that their previous onboarding or orientation materials through Brightspace did not adequately prepare them to be a full functioning APP within the MICU practice; however, updates to the curriculum and materials provided allowed current MICU APPs to draw conclusions that new hire MICU APPs would be better served with the update materials due to the increased applicability of the materials to the actual job at hand. This could lead to a decrease in transitional anxiety given the material provides better job preparation than before.

**Appendix A**

**Site Authorization Approval Letter**

Mayo Clinic  
1216 2<sup>nd</sup> Street SW  
Rochester, MN 55902

04/28/2025

Human Subjects Protection Program  
The University of Arizona  
845 N Park Ave., Suite 537A  
Tucson, AZ 85719

Please note that Mrs. Samantha R. Hopkins, University of Arizona Doctor of Nursing Practice student, has permission of the Medical Intensive Care Unit (MICU) at Mayo Clinic to conduct a quality improvement project at our facility for her project, "Standardizing the Transition to Practice for Advanced Practice Providers in Critical Care."

Mrs. Hopkins will conduct a pre-implementation survey, implement curriculum- and resource-based orientation materials and resources for new hire advanced practice providers (APP) in the MICU via a platform called Brightspace, and then conduct a post-implementation survey of APPs in the MICU at Mayo Clinic. She will recruit providers through email. The email will provide a description of the project, what they will be asked to do, and the time involved. Mrs. Hopkins' activities will be completed by *August 31, 2025*.

Mrs. Hopkins has agreed to provide my office a copy of the University of Arizona Determination before she recruits participants. She will also present aggregate results to the providers at their monthly staff meeting.

If there are any questions, please contact my office.

Signed,



Nathaniel Thornton, DNP, APRN, CNP  
Medical Intensive Care Unit APP Supervisor  
Email: [thornton.nathaniel@mayo.edu](mailto:thornton.nathaniel@mayo.edu)

**Appendix B**  
**Consent Document**

## **Standardizing the Transition to Practice for Advanced Practice Providers in Critical Care**

**Samantha R. Hopkins, MSN, APRN, CNP**

The purpose of this project is to improve the current orientation materials and resources that new hire APPs are completing during their onboarding process.

If you choose to take part in this project, you will be asked to complete a pre-implementation survey, complete the new Brightspace MICU orientation modules, and complete a post-implementation survey. It will take approximately 5 minutes to complete each survey and 45 – 60 minutes to complete the MICU orientation module. There are no foreseeable risks associated with participating in this project. You will receive no immediate benefit from your participation. Your responses are anonymous. Your name will not be collected or linked to your answers.

If you choose to participate in the project, participation is voluntary, refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw at any time from the project. In addition, you may skip any question that you choose not to answer. By participating, you do not give up any personal legal rights you may have as a participant in this project.

For questions, concerns, or complaints about the project, you may call Samantha Hopkins, MSN, APRN, CNP at 260-316-6546 or email at [srhopkins@arizona.edu](mailto:srhopkins@arizona.edu).

You agree to have your responses used for this project.

## **Appendix C**

### **Participant Recruitment**

Hello MICU Team Members,

I hope you are all having a wonderful Minnesota summer! As many of you are aware, I am in the process of completing my DNP with the University of Arizona and part of the requirements is the completion of a QI project. I am reaching out to invite you to participate in my DNP project titled “Standardizing the Transition to Practice for Advanced Practice Providers in Critical Care.”

The project aims to enhance the onboarding experience for new hire APPs in the MICU by implementing a standardized educational curriculum located in Brightspace. Your insight and feedback are essential in evaluating the effectiveness of this QI project.

Participation in this project involves:

- Completion of a brief pre-implementation survey (< 5 minutes)
- Completion of the updated MICU Brightspace platform (15 – 45 minutes)
- Completion of a brief post-implementation survey (< 5 minutes)

Participation in this QI project is completely voluntary. All responses are confidential. You can choose to stop participating at any time. The goal of this QI project is to improve the process for future new hires to the MICU team to strengthen our onboarding process and allow for a more supportive transition to practice.

If you are willing to participate or have any questions, please reply to this email or reach out to myself directly.

Thank you for considering this opportunity to contribute and strengthen our onboarding process!

All the best,

Samantha R. Hopkins, MSN, APRN, CNP  
Medical Intensive Care Unit/Respiratory Care Unit  
Critical Care Independent Multidisciplinary Program Education Specialist  
Instructor of Medicine, Mayo Clinic College of Medicine and Science  
Pager: 04288 | Email: [hopkins.samatha@mayo.edu](mailto:hopkins.samatha@mayo.edu)

---

Mayo Clinic  
200 First Street SW Rochester, MN 55905  
[mayoclinic.org](http://mayoclinic.org)

**Appendix D**  
**Pre-Implementation Survey**

1. Are you an NP or PA with the MICU group?
  - a. NP
  - b. PA
2. How long have you been part of the MICU APP group?
  - a. < 1 year
  - b. 1 – 2 years
  - c. 2 – 3 years
  - d. 3 – 5 years
  - e. 5 – 7 years
  - f. 7 – 10 years
  - g. > 10 years
3. During your onboarding/orientation period, were you directed to Brightspace to complete didactic learning?
  - a. Yes
  - b. No
  - c. Unsure/don't remember
4. During your onboarding/orientation period, were you given an agenda of weekly didactic material to be completed?
  - a. Yes
  - b. No
  - c. Was not directed to Brightspace
5. If directed to Brightspace, was the content at that time updated, scholarly, and useful?
  - a. Yes
  - b. No
  - c. Was not directed to Brightspace
6. I feel as though the content included in Brightspace during my onboarding/orientation period prepared me to be a new APP in the MICU:
  - a. Strongly agree
  - b. Agree
  - c. Neutral
  - d. Disagree
  - e. Strongly Disagree
7. Describe what part of Brightspace was helpful in your transition to practice with the MICU group during your onboarding/orientation.
  - a.
8. Describe what part of Brightspace was unhelpful or not useful in your transition to practice with the MICU group during your onboarding/orientation.
  - a.
9. Please include any additional comments:
  - a.

**Appendix E**  
**Post-Implementation Survey**

1. Are you an NP or PA with the MICU group?
  - a. NP
  - b. PA
2. How long have you been part of the MICU APP group?
  - a. < 1 year
  - b. 1 – 2 years
  - c. 2 – 3 years
  - d. 3 – 5 years
  - e. 5 – 7 years
  - f. 7 – 10 years
  - g. > 10 years
3. What percentage of the Brightspace onboarding/orientation materials did you adequately complete?
  - a. 0 – 25%
  - b. 25 – 50%
  - c. 50 – 75%
  - d. 75 – 100%
4. How would you rate the new Brightspace onboarding/orientation materials in comparison to your Brightspace onboarding/orientation materials at the time of hire?
  - a. Significantly improved
  - b. Somewhat improved
  - c. Neutral/unchanged
  - d. Somewhat worse
  - e. Significantly worse
  - f. NA – did not complete Brightspace during onboarding/orientation
5. I feel as though the updated content in Brightspace will prepare new hire APPs during their onboarding/orientation process.
  - a. Strongly agree
  - b. Agree
  - c. Neutral
  - d. Disagree
  - e. Strongly Disagree
6. Describe the improvements you see in the updated Brightspace onboarding/orientation materials.
  - a.
7. Describe what could be done to further enhance the updated Brightspace onboarding/orientation materials.
  - a.
8. Please include any additional comments:

**Appendix F**  
**Participant Materials**



**MICU & RCU**

111/113 Topics Completed



Critical Care APP • Unit 6 of 9

**MICU & RCU**

111/113

 MICU/RCU Pre-Quiz

- ▶ Orientation Curriculum ✓
- ▶ Week 1 and 2: Procedures ✓
- ▶ Week 3: RCU ✓
- ▶ Week 4: POCUS ✓
- ▶ Week 5: RRT Backup and Ancillary Support Topics ✓
- ▶ Week 6: Pharmacology ✓
- ▶ Week 7: Neurology ✓
- ▶ Week 8: Cardiology ✓
- ▶ Week 9: Pulmonology and Mechanical Ventilator Education ✓
- ▶ Week 10: Renal/GU and Acid-Base ✓
- ▶ Week 11 - Infectious Disease ✓
- ▶ Week 12: Palliative Care ✓
- ▶ Week 13: Gastroenterology ✓
- ▶ Week 14: Endocrine and Hematology/Oncology ✓

 MICU/RCU Post-Quiz

End of Unit

**Appendix G**  
**Evidence Table**

Citation Information	Title of Document	Type of Evidence	Main Outcomes of Findings	Relevance to Project
Klein et al. (2021)	Perceptions of Role Transition into Practice among Advanced Practice Providers and Physicians	Cross-sectional survey with focus groups	Many APPs feel as though their orientation is not adequate for transition into practice; however, their clinical applicability skills such as exams, physicals, management of patients is done with confidence.	Many APPs identified that participating in simulation, having a structured orientation, and having a preidentified preceptor helped them gain confidence during and after orientation.
Ricker et al. (2021)	Advanced Practice Provider Onboarding Support Model Comparison: Is there a Superior Choice?	Literature review	Those who completed a postgraduate training program felt more prepared to begin practice on their own and felt they had added value to their career.	There are varying models of onboarding for new NPPAs to the critical care world without clear data to support which model is best and how to ensure proper and adequate onboarding for new hires to high risk and critical care settings.
Speight et al. (2019)	Strategies to promote the professional transition of new graduate nurse practitioners: A systematic review	Systematic review	Over the course of a 12-month fellowship, NPs and their mentors rated their ongoing transition and felt competent at completion.	There are multiple ways in which new nurse practitioners can be integrated and onboarded to a new position, with mentorship and interprofessional socialization being at the forefront. These approaches led to decreased anxiety and increased confidence when no longer on orientation.
Kopf et al. (2018)	A Competency-Based Curriculum for Critical Care Nurse Practitioners' Transition to Practice	Systematic review	The creation of a validated curriculum-based competency for new NPs entering the critical care workforce is necessary and the 9-part curriculum that authors built was deemed to	It has long been identified that a better system for transition to practice for NPs has been needed but up to this point, there has not been a definitive approach to this gap. This study offers a 9-part curriculum-based approach that

Citation Information	Title of Document	Type of Evidence	Main Outcomes of Findings	Relevance to Project
			meet criteria necessary to new NPs.	new NPs should be competent in prior to being off orientation.
Luckianow et al. (2015)	Bridging the gap between training and advanced practice provider critical care competency	Practice guide	To date, four APPs have been successfully trained via this approach and $\frac{3}{4}$ of them continue to practice in an acute care setting.	The small yet notable success that this apprenticeship model outlines is a step toward better transition to practice models across the country for APPs in critical care. Additionally, this apprenticeship mode outlines a 12-week didactic program as well as benchmarks that should be met at 3- and 6-months following initial start dates. This provides a small, yet applicable, guideline for creation of my DNP project contents.
Bullock et al. (2022)	Development and Implementation a Novel Advanced Practice Provider Mentorship Model	Practice guide	Buy-in from key stakeholders is essential for any type of transition to practice model to flourish in a critical care environment. Additionally, there was more importance placed on having an experienced mentor within the department which allowed for improved understanding of departmental procedures and guidelines which furthered a good transition to practice.	Outlining the importance of a mentor in the transition to practice model is imperative as the gap from student to provider is not always educationally based. This highlighted the fact that creation of curriculum- and resource-based orientation materials may not be enough to bridge the gap between student and provider.
Hawes (2024)	The Impact that Postgraduate Fellowship Have on	Literature review	There is significant support for residency and fellowship opportunities across the country,	There is significant support for residencies and fellowships for those APPs looking to enter

Citation Information	Title of Document	Type of Evidence	Main Outcomes of Findings	Relevance to Project
	Advanced Practice Registered Nurses in Specialized Areas of Practice		especially in highly specialized areas such as the ICU. Many studies found that nurses moving from bedside to providers have low job satisfaction, anxiety, and high turnover rates if not transitioned to practice correctly.	highly specialized areas; however, due to limited availability of these programs, this highlights the need for a robust transition to practice protocol at all institutions.
Langley et al. (2018)	A Comprehensive Onboarding and Orientation Plan for Neurocritical Care Advanced Practice Providers	Practice guide	Since the inception of the comprehensive onboarding plan, the neuro ICU has had 83% retention.	This practice guide divided the transition to practice up amongst three phases which allowed for better understanding of what orientees should be doing and developing throughout their orientation. There was also strong emphasis placed on how hiring the proper candidates is imperative to the transition seen – the more fit a candidate is, the better the transition will be. This is not a concept that had previously been taken into account; however, it shines light on an important aspect of the transition to practice. Furthermore, there was explicit discussions about what orientees were doing within each of the three phases which further enhances the understanding needed when building a new platform.

Citation Information	Title of Document	Type of Evidence	Main Outcomes of Findings	Relevance to Project
Moran and Nairn (2018)	How does role transition affect the experience of trainee Advance Clinical Practitioners: Qualitative evidence synthesis	Qualitative evidence synthesis	Identification of six themes throughout the orientation process that directly related to the success or failure of a new hire.	Many articles have outlined how to ensure successful transition to practice, but very few have outlined the hinderances that arise, which lead to failure. This article outlined how to promote the transition to practice through the use of the six identified domains and how to tailor them to the experience levels of the new hires being brought to the team.
Grek et al. (2022)	Advanced Practice Nurse and Physician Assistant Orientation Program: A Critical Piece in the Onboarding Process	Practice guide	Substantial improvement of APP satisfaction scores for orientation following the new process.	This article highlights the system-wide failure of orientation across mayo clinic in multiple departments. This is directly related to the project as it pertains to Rochester, MN MICU department orientation process.

## References

- AACN. (2006). *The Essentials of Doctoral Education for Advanced Nursing Practice*. American Association of Colleges of Nursing. <https://www.aacnnursing.org/portals/42/publications/dnpessentials.pdf>
- AANP. (2025). *Planning your nurse practitioner (NP) education*. American Association of Nurse Practitioners. <https://www.aanp.org/student-resources-2/planning-your-np-education#:~:text=There%20are%20approximately%20500%20academic,the%20perfect%20program%20for%20you?>
- AAPA. (2025). *What is a PA?* AAPA. <https://www.aapa.org/about/what-is-a-pa/#:~:text=PA%20are%20educated%20at%20the,2%2C000%20hours%20of%20clinical%20rotations.>
- Bullock, L., Akintade, B., Appleby, T., & Idenbaum-Bates, K. (2022). Development and Implementation a Novel Advanced Practice Provider Mentorship Model. *The Journal for Nurse Practitioners*, 18(7), 699-703. <https://doi.org/https://doi.org/10.1016/j.nurpra.2022.04.026>
- CHEST. (2025). *CHEST Announces Critical Care Education and Certification Exam for Nurse Practitioners and Physician Assistants/Associates*. CHEST. <https://www.chestnet.org/newsroom/press-releases/2025/02/chest-announces-critical-care-education-and-certification>
- Consortium for Advanced Practice Providers. (2025). *Specialty NP and NP/PA Postgraduate Residency and Fellowship Training Programs Across the Country*. Consortium for Advanced Practice Providers. [https://www.appostgradtraining.com/wp-content/uploads/2024/11/CAPP\\_PostgradSpecProgShts\\_0824\\_R1.pdf](https://www.appostgradtraining.com/wp-content/uploads/2024/11/CAPP_PostgradSpecProgShts_0824_R1.pdf)
- Graham, I., & Tetroe, J. (2010). The Knowledge to Action framework. In J. B. Rycroft-Malone, T. (Ed.), *Modesl and Frameworks for Implementing Evidence-Based Practice: Linking Evidence to Action* (1 ed., pp. 207-228). Wiley-Blackwell.
- Graham, I. D., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., & Robinson, N. (2006). Lost in knowledge translation: time for a map? *The Journal of continuing education in the health professions*, 26(1), 13-24. <https://doi.org/10.1002/chp.47>
- Grek, A., Stanton, A., Monnig, B., Whitman, A., & Chaney, A. (2022). Advanced Practice Nurse and Physician Assistant Orientation Program: A Critical Piece in the Onboarding Process. *The Journal for Nurse Practitioners*, 18(6), 653-659. <https://doi.org/https://doi.org/10.1016/j.nurpra.2022.02.028>

- Hawes, C. (2024). The Impact that Postgraduate Fellowship Have on Advanced Practice Registered Nurses in Specialized Areas of Practice. *The Journal for Nurse Practitioners*, 20(7). <https://doi.org/https://doi.org/10.1016/j.nurpra.2024.105079>
- Health Resources and Services Administration. (2024). *Advanced Practice Nurse Model Components*. Bureau of Health Workforce. <https://bhw.hrsa.gov/data-research/projecting-health-workforce-supply-demand/technical-documentation/advanced-practice-nurse#:~:text=Nurse%20Practitioners:%20The%20American%20Association,that%20disproportionately%20treat%20younger%20populations.>
- Hooker, R. S., & Cawley, J. F. (2021). Physician assistants/associates at 6 decades. *The American Journal of Managed Care*, 27(11), 498-504. <https://doi.org/10.37765/ajmc.2021.88777>
- Klein, C. J., Pierce, L., Cooling, M., Che, W., & Lizer, S. (2021). Perceptions of Role Transition into Practice among Advanced Practice Providers and Physicians. *Western Journal of Nursing Research*, 43(2), 105-114. <https://doi.org/10.1177/0193945920935430>
- Kopf, R. S., Watts, P. I., Meyer, E. S., & Moss, J. A. (2018). A Competency-Based Curriculum for Critical Care Nurse Practitioners' Transition to Practice. *American Journal of Critical Care*, 27(5), 398-406. <https://doi.org/10.4037/ajcc2018101>
- Langley, T. M., Dority, J., Fraser, J. F., & Hatton, K. W. (2018). A Comprehensive Onboarding and Orientation Plan for Neurocritical Care Advanced Practice Providers. *Journal of Neuroscience Nursing*, 50(3), 157-160. <https://doi.org/10.1097/JNN.0000000000000359>
- Luckianow, G. M., Piper, G. L., & Kaplan, L. J. (2015). Bridging the gap between training and advanced practice provider critical care competency. *Journal of the American Academy of PAs*, 28(5), 1-5. <https://doi.org/10.1097/01.JAA.0000464711.42477.79>
- Moran, G. M., & Nairn, S. (2018). How does role transition affect the experience of trainee Advanced Clinical Practitioners: Qualitative evidence synthesis. *Journal of Advanced Nursing*, 74(2), 251-262. <https://doi.org/10.1111/jan.13446>
- Ricker, M., Cragin, G., & Vail, A. (2021). Advanced Practice Provider Onboarding Support Model Comparison: Is there a Superior Choice? *Internet Journal of Allied Health Sciences and Practice*, 19(11). <https://doi.org/10.46743/1540-580X/2021.2039>
- RNAO. (2025a). *Knowledge-to-Action Framework*. Registered Nurses Association of Ontario. [https://rnao.ca/bpg/leading-change-toolkit/knowledge-to-action-framework#:~:text=The%20Knowledge%20to%20Action%20,\(that%20moves%20knowledge%20into%20practice.](https://rnao.ca/bpg/leading-change-toolkit/knowledge-to-action-framework#:~:text=The%20Knowledge%20to%20Action%20,(that%20moves%20knowledge%20into%20practice.)

- RNAO. (2025b). *Monitor the use of knowledge*. Registered Nurses Association of Ontario.  
<https://rnao.ca/bpg/leading-change-toolkit/knowledge-to-action-framework/surveiller-lutilisation-des-connaissances>
- Speight, C., Firnhaber, G., Scott, E. S., & Wei, H. (2019). Strategies to promote the professional transition of new graduate nurse practitioners: A systematic review. *Nursing Forum*, 54(4), 557-564. <https://doi.org/10.1111/nuf.12370>
- Sudsawad, P. (2007). *Knowledge Translation: Introduction to Models, Strategies, and Measures*. Center on Knowledge Translation for Disability and Rehabilitation Research.  
[https://ktdrr.org/ktdrr/library/articles\\_pubs/ktmodels/ktintro.pdf](https://ktdrr.org/ktdrr/library/articles_pubs/ktmodels/ktintro.pdf)