Needs Assessment of the Nurse Practitioner Orientation to the Pediatric Emergency Department

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By

Jennifer Kosla, DNP candidate, APRN, MSN, CPNP-PC

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DNP Project Committee

Gerene Bauldoff PhD, RN, FCCP, MAACVPR, FAAN, Advisor

Rosie Zeno DNP, APRN, CPNP-PC

Joyce Karl DNP, APRN, CNP

Abstract

Recent political and economic changes, such as the Affordable Care Act and primary care shortages, have led to overuse of the emergency department for non-urgent issues in adults as well as children. Rapid utilization of nurse practitioners to deliver care to lower-acuity patients reduces wait times, increases patient satisfaction, and relives the burden for providers to focus care on the critically ill. However, there is limited evidence to define and inform the specific criteria necessary to support adequate orientation and onboarding for this specialty area. This project, in the form of a needs assessment, aimed to better understand the challenges of role transition for nurse practitioners practicing at a large metropolitan pediatric hospital in the Emergency Services department in the United States. The needs assessment was conducted through a one-time electronic survey. The instrument used for measurement was the 16-item, 3 components, 5-point Likert Scale Nurse Practitioner Role Transition Scale (NPRTS) as well as demographic data and open-ended questions to assess the description and perception of orientation to the role and department. The results of the project indicate ease of transition to the nurse practitioner role in the setting and strong feelings of education preparedness in primary care certified practitioners as opposed to other certifications. However, the project identified significant discrepancies in the perception and definition of formalized orientation and provided data to support the use of evidence-based strategies that can guide development of formalized orientation to support ease of role transition and improve job competency.

Key Words: pediatric nurse practitioner, advanced practice registered nurse, emergency department, orientation, role transition

Needs Assessment of Pediatric Emergency Department Orientation and Nurse Practitioner Role Transition

Section One

In recent years, economic and political drivers have resulted in rapid utilization of nurse practitioners (NP) to provide care for the increased numbers of patients seeking acute and chronic care in the emergency department (ED) setting. The increase in patient volumes in the ED often surpasses the available resources and threatens patient safety and health care quality. The evidence indicates that nurse practitioners have a positive effect on patient flow and satisfaction when part of the ED health care team. Although nurse practitioners are well received, cost effective, and fully capable of providing quality care (Wiley et al., 2015) there is little evidence to support the best practice for facilitating NP role transition and orientation to the pediatric ED setting. The lack of adequate professional support, orientation, and training can lead to role insufficiency and high turnover which can further perpetuate the clinical and systems problem.

In the United States, use of emergency services by patients for nonemergent care has increased dramatically due to a national shortage of primary care providers and more people gaining health care coverage with the passage of the Affordable Care Act (Duncan & Sheppard, 2015). Overcrowding in the emergency department is a national concern and occurs when demand for emergency services exceeds the ability of the department to provide quality care within a reasonable timeframe. Most emergency room visits in the United States are nonemergent and do not result in admission to the hospital (McGee & Kaplan, 2007). In the state of Ohio more than 50% of children receive healthcare coverage from Medicaid. Many primary care providers must limit the number of accepted patients on Medicaid due to low

reimbursement and the consequences this has on maintaining the expenses of a private practice (Dr. Bradley C. Wilson, personal communication, 2013). Therefore, many families rely on the urgent care and emergency department at the pediatric healthcare system for all their child's urgent and nonurgent healthcare needs. Emergency department overcrowding is a serious problem nationwide and imposes patient safety concerns. Per the Joint Commission on Accreditation of Healthcare Organizations, delay of treatment in emergency departments has attributed to increased patient mortality and is the most common cause of sentinel events in this setting (Bradley, 2005).

Most NPs in the ED work autonomously and are responsible for rotating shifts. The chaos of the ED environment, depth of knowledge, skills needed, and large volume of patients creates a rigorous working environment. Due to the demands of the role, historically administration refrained from hiring novice NPs, however due to NP turnover and increased patient demand, novice NPs are now being hired and utilized in the FastTrack setting. Many of the novice NPs considered for employment were former ED Registered Nurses (RNs). Many experienced RNs are unprepared for the situational transition from expert RN status to inexperienced, novice NP status. Without the proper supports and foundation with onboarding, the period of situational transition can lead to feelings of role insufficiency. Role insufficiency can manifest into symptoms of anxiety, frustration, unhappiness, and eventual staff turnover and increased costs for the department (Meleis, 2010). Training and retaining NPs in the emergency department setting improves patient access to care, reduces wait times, and improves patient satisfaction (McGee & Kaplan, 2007).

Most hospitals have specific criteria for new hires governed by the certifying bodies but are generally focused on hospital policies, procedures, and organizational culture. Individual

departments are responsible for designing and implementing the job specific orientation and customize this process based on the employee's background and the needs of the unit. The orientation model currently employed in the selected site revolves around a basic checklist to include orientation to the greater healthcare system, credentialing, gaining access to communication systems (Vocera, email, EMR), supply pyxis, scheduling, and location of resource manuals and reference books. The length of orientation is based on past nursing and/or provider experience, and personal preferences which as negotiated and supervised by the Nurse Practitioner Clinical Lead.

There is a great deal of literature available guiding the orientation and onboarding of pediatric registered nurses as well as pediatric medical residents and fellows, but the evidence is lacking for pediatric nurse practitioner providers. An emerging concept to bridge the gap and provide supportive transition to practice has been the development and implementation of nurse practitioner fellowship programs. Fellowship programs are focused on supporting novice nurse practitioners by providing formalized curriculum during a difficult transition period to competent clinician. Fellowships typically provide heavy clinical immersion, focused practical didactics, case conferences, and simulation training to better prepare the provider for specialized practice (Taylor, Broyholl, Burris, & Wilcox, 2017, p. 14). Most fellowships are offered for a limited duration such as 12 months, provide a stipend, and do not guarantee a place of employment post-fellowship. Although data suggests fellowship programs can reduce attrition and recruitment costs, organizational readiness and feasibility can be a barrier to implementation due to cost immediate constraints on cost, personnel, and patient demand. Literature on fellowship programs may help guide recommendations for formalized orientation and onboarding to strengthen nurse practitioner role transition and productivity.

The well-adjusted, supported NP can deliver high quality, evidence-based health care services to the variable ED patient population. Most hospital systems have a well-established general orientation for new employment but policy driven guidelines for the specialized, unit and role specific functions are less clear. In effort to better serve leadership in policy development the needs and challenges of the current workforce needs to be assessed.

Section Two

Summary of the Evidence from the Literature

The following PICOT question was considered during the literature search "In pediatric nurse practitioners how does formal nurse practitioner orientation compared to informal orientation affect role transition (confidence, competence, collegial support) in the first year of practice?"

The comprehensive literature search germane to the clinical question provides a framework to guide development of the needs assessment and suggests interventions needed throughout education, practice, and policy development to facilitate successful role transition for nurse practitioners in the workplace.

The first significant published evidence (Faraz, 2016) was an integrative review determined to analyze the current evidence related to novice nurse practitioner transition into primary care. This article references seminal work and conducts an exhaustive review of the literature. There were 3 main themes that emerged in role transition and reinforces the need for changes in NP education, practice, and policy development such as residency programs. This article strengthens the need for the DNP project by declaring that the first step in developing effective intervention is to understand the needs of the novice NP population.

The second significant published evidence (Poronsky, 2012) focuses on one aspect of supporting NP transition through the activity of mentoring. This article identifies the challenges and stress experienced by RNs transitioning to Family Nurse Practitioner practice and aims to identify existing knowledge on successful mentoring programs. Some evidence suggests a strong correlation to mentoring and improved self-efficacy in nurse practitioners and the article recommends improved utilization of mentorship program development across academic and workplace environments.

The third significant published evidence (Rutledge & Merritt, 2017) lacks the support of high quality evidence but provides an up-to-date assessment germane to the increase in utilization of pediatric nurse practitioner in the emergency department and further addresses the need for greater education and research.

Two descriptive studies were found to provide further evidence for the project. Barnes and colleagues (2015) examined the relationship between NP role transition, prior RN experience, and formal orientation using a cross-sectional design and a self-report survey. They found that formal orientation has predictive value on successful NP transition, however, the definition of a formal orientation is lacking. The study provides supportive evidence fort eh use of formalized NP orientation and it also helps address the emerging questions surrounding transition for NP providers graduating from accelerated programs who may have little or no prior RN experience. Hart and Bowen (2016) also used a self-report survey to assess recent NP graduate perceptions of preparedness and role transition. Common themes suggest that despite improvement in NP education, the majority do not feel prepared for practice at graduation, prior nursing experience was not associated with preparedness, and in contrast to earlier results,

mentorship did not improve feelings of preparedness. In conclusion, both descriptive studies revealed that prior RN experience had little impact on successful NP role transition.

Fitzpatrick & Gripshover (2016) reviewed literature on the concept of transition shock experienced by expert RNs transitioning to novice NP practice. This article lacks strength due to poor participation on a survey. The authors attempted to quantify results after implementing a causal lunch meeting aimed at providing emotional and professional support by gathering novice NPs at their medical center. Only 5 NPs responded to the survey which represented <2% of the NP population. However, this article did validate that novice NPs benefit from support, but further research is needed.

Critical Appraisal of the Evidence

The evidence search was conducted across multiple databases including: PubMed, WorldCat.org, the Cumulative Index of Nursing and Allied Health Literature (CINAHL), and the Cochrane Collection. Following initial searching, the Medical Librarian also provided assistance. The search terms used across databases included: nurse practitioner and orientation, APRN, Advanced Practice Nurse, Emergency Department, Urgent Care, orientation, and training. Evidence was limited to published works in the past 5 years. PubMed identified 51 articles, CINAHL identified over 1500 articles and Cochrane Collection identified 5 systematic reviews. In addition, the OSU Health Sciences Librarian was able to identify 11 articles. The search was broadened to explore literature on emerging concepts such as role transition and preparedness to the role. The current body of evidence describing the role of the Pediatric Nurse Practitioner in the emergency department is lacking. Most data sources identified in the literature review are descriptive or qualitative as there are no higher-level sources of evidence such as randomized controlled trials on this issue.

Based on the 1561 articles identified, screening was conducted and duplicates were removed. Screening was based on relevance to the PICOT question of the project and resulted in 11 PubMed articles, 13 CINAHL articles and one Cochrane Systematic Review. From the medical librarian search, 2 articles were found to be pertinent to the project. This resulted in a total of 27 articles and systematic reviews that passed screening.

Eligibility of external evidence was based on access to full-text articles. Of the 27 articles, a subset was found to be available in full-text versions. as some articles were not available in full-text, the focus of the article was found not to provide evidence related to the PICOT question or articles were found to be review articles that provided background versus foreground information. A small number of articles were only available via high-cost purchase, so these were not included. Ultimately, 6 articles were included in the critical appraisal of the external evidence.

Evidence-based practice is a problem solving clinical tool that guides the search for best internal and external evidence, evaluates expert opinion, and evaluates patient preferences to influence clinical decision making for quality patient outcomes. External evidence is generated through scientific research and can include systematic reviews, randomized controlled trials, qualitative studies, and cohort studies. Internal evidence is typically derived from quality improvement projects, practice initiatives, and clinician experience and opinion (Melnyk & Fineout-Overholt, 2015, p. 4). Patient preferences pertain to social and cultural values, religious preference, their experience with illness and health priorities. Patient preferences can be retrieved from interviews and patient satisfaction surveys. The best external evidence that supports the proposed needs assessment is the Level VII systematic integrative review, published by Faraz (2016). Emerging themes (NP education, practice, policy implications) were consistent

with the current literature and recommends assessing the needs of the novice NP population which can be accomplished through the needs assessment.

The second best external evidence relevant to the proposed project is provided in the Level VI, descriptive, cross-sectional self-report survey (Barnes, 2015) which determined that formal orientation does have statistically significant predictive value on successful NP transition. The theoretical construct of role transition and its influence on job satisfaction and retention is well supported in the external evidence. However, there remains a dearth of literature to support well defined, scientific recommendations for supporting role transition in clinical practice.

Clinician expertise and opinion throughout the external and internal evidence acknowledges the concept of transition shock experienced by expert RNs transitioning to novice NP practice in the Level VII article by Fitzpatrick & Gripshover, 2016. The authors attempted to provide collegial support through the development of mentorship and lunch meetings, but attendance was low due to staffing issues and lack of support from management. This represents a concern for organizational culture and readiness for system wide integration of evidence-based practice recommendations. Various pediatric organizations, including the selected practice setting for the proposed project, are exploring similar programs but further qualitative data is needed. Evaluation and synthesis tables are presented in Appendix A.

To date, there has been no formal evaluation or quality measures to evaluate the NP orientation or challenges to role transition in the pediatric ED setting. Furthermore, there is limited evidence in the literature on how to construct an NP orientation through the application of the nine core competencies of nurse practitioner practice delineated by The National Organization of Nurse Practitioner Faculties (NONPF). The purpose of this project is to conduct

a needs assessment of the current NP orientation and experience of role transition in the pediatric emergency department and utilize the data to inform policy and program development.

Presentation of Theoretical Framework

Meleis middle range transitions theory will serve as the theoretical framework for this project. Meleis defines transitions as a "period in which change takes place in an individual or environment" (Faraz, 2016). The transition from registered nurse to nurse practitioner is an exciting, but tumultuous transition. Meleis (2010) identifies situational transitions as those pertaining to changes in educational and professional roles. The first personal meaning is absorption of the role which requires role learning and new identity. The experience of straddling two identities (RN to NP) can lead to self-doubt and feeling like an imposter (Barnes, 2015). The second challenge is transitioning from a provider of care to the prescriber of care and managing the responsibility and autonomy associated with this change. Lastly, many new NPs describe having mixed emotions that range from excitement, stress, anxiety, feelings of inadequacy, ambivalence, isolation, and a longing to return to their prior role.

Presentation of EBP Model

The evidence-based model guiding this project is the Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) model. This model was initially developed for EBP use and translation for bedside nurses in clinical practice but provides an appropriate framework for the proposed project. The conceptual model begins with the development of the practice question, searches and appraises the best evidence including internal factors (culture, environment, staffing) and external factors (accreditation, quality measures, regulation), data from research (experimental, qualitative) and non-research (clinical expertise, patient preference) then translates the findings into a feasible plan of action (Melnyk & Fineout-Overholt, 2015, p. 303).

The outcomes of the plan are evaluated for next steps and disseminated to the appropriate stakeholders.

Utility and Feasibility

The organization selected for the proposed needs assessment project has adjusted their hiring practices to include novice NPs with longer orientation, in response to the growing demands in the ED setting, but have yet to study how these changes have impacted provider role transition. Furthermore, transformation of delivery and quality of nurse practitioner programs (traditional versus accelerated, online) have prompted concerns of novice NP preparedness and role transition into clinical practice. The recommendations for longer periods of training such as fellowship or residency could be addressed with formalization of NP orientation. The organization is continuously working towards improved staffing models and patient flow efficiency as part of its quality improvement and strategic plan. The implementation of a nurse practitioner mentorship program has been introduced to proactively support professional retention and retainment of the NP workforce, but the details of mentorship are not clearly defined. The organization is supportive and interested in the results of this project. The implementation of a needs assessment implies no cost to the department, requires a small portion of provider time, and can be completed from work or at home.

The internal evidence (organizational culture of EBP readiness, rigorous environment, and changes to orientation to support new graduates) supports the recommendations of the project. The external factors (accreditation, quality measures, regulation) envelop the strategic plan and motivators for improvement measures. This leads to the appropriateness and timeliness of the needs assessment as the plan of action.

The act of conducting the needs assessment will provide necessary data that can be used to shape initiatives and formalize the content and delivery of orientation for new nurse practitioners in the emergency department. Expanding and strengthening the pediatric workforce is a common challenge for pediatric emergency medicine and nurse practitioners can have positive effects on patient flow and patient satisfaction (Barata, Brown, Fitzmaurice, Griffin, & Snow, 2015, p. 276). Nurse practitioners are a cost effective, quality provider of care and economical solution to these issues. Healthcare resources are limited, and valuable and nurse practitioners can deliver high quality care at an affordable price. Hospital systems must focus time and attention to the needs of the NP workforce and implement evidence-based strategies to support the role.

The descriptive needs assessment proposed for this project will evaluate the effect of NP orientation and role transition in the pediatric emergency setting and inform the clinical question. The results will may not be transferable and do not aim to be. The data will be used to inform program development. The needs assessment will serve as a strategy to support the NP workforce and consequently, improve access and quality of care for children.

Section III: Methods

Clinical Practice Problem Statement

There is a lack of literature, formal evaluation, and quality measures guiding the construct of orientation for nurse practitioners in the pediatric emergency department.

Purpose of the Project

The recommended approach to address this issue was to conduct a needs assessment of the current NP orientation and experience of role transition in the pediatric emergency department. The first step in the development of evidence-based strategies was to address the

essentials of Nurse Practitioner orientation in the Pediatric ED is to assess the needs, deficits, and resources of the current orientation model. The identified needs will provide a foundation for program development, inform program policy, and establish a baseline for evidence-based strategies.

Description of Project Setting

This project was conducted at a large metropolitan pediatric hospital in the Emergency Services department. The emergency services department is a Level 1 pediatric trauma center and serves as an inner city and community hospital. The department has 62 beds divided into pods; trauma, critical care, injury/mental crisis, and mild acute illness/injury (Fast Track). Fast track is a process that treats low-acuity patients to improve turnaround time to discharge. The fast track patient population typically consists of patients who would otherwise be suitable for a primary care setting.

Eligible participants for the needs assessment included all Nurse Practitioners currently practicing in the Pediatric Emergency Medicine department. The NP workforce has grown significantly in the past few years in the ED department and there will be a mixture of seasoned and new graduate NPs included in the survey (approximately 17 NPs). The increase in staffing facilitated participation and provided more data. The ED has recently proposed transitioning workflow processes to engage the NP workforce in managing all patients in the ED in addition to fast track (critical care, & trauma).

Measurement Methods/Tools

The project design is a descriptive needs assessment of the nurse practitioner orientation and role transition. The instrument selected for measurement is the 16-item, 3 components, 5-point Likert Scale Nurse Practitioner Role Transition Scale (NPRTS). Content validity and

reliability of the NPRTS has been previously established in the literature across a variety of nurse practitioner workplace settings (Strange, 2015). The NPRST has proven to be statistically significant in assessing nurse practitioner progress in the clinical setting and provides the ability to define and measure the elements of NP role transition. This is a self-report instrument examining three key areas of role transition including developing comfort and building competence in the role, understanding of the role by others, and collegial support (Barnes, 2015). This tool also includes data on description of the participants history of receiving orientation (formal or informal) in the NP position. The data collection will be obtained electronically using Qualtrics. The NPRTS was the foundation of the survey, but additional open-ended questions were included to allow participants to further describe areas of strength, areas for improvement, and recommendations for the nurse practitioner orientation and role transition needs at the selected site. Demographic data was collected to determine years of prior RN experience, years of NP experience, and current certification. In response to the APRN Consensus Model, the Ohio Board of Nursing is examining APRN scope of practice, education, certification, and licensure in relation to appropriateness of practice setting and patient populations managed. For example, is it appropriate for a primary care versus acute care provider to practice in an ED setting? Although this issue is separate from the goals of this project, demographic data will be analyzed and compared to assess for any significance towards this concern.

The project and invitation to participate was introduced at the NP staff meeting prior to the launch. Due to the voluntary nature of participating in a survey, formal consent was not necessary. The invitation to participate was emailed to participants during a 4-week window and individual responses were anonymous. Anticipated barriers included participant willingness and availability to complete the survey. Due to the known time constraints during an ED shift, the

survey was limited in length and participants were able to access their email from home and on a mobile device such as a smart phone.

The methods and implementation of this project is not considered research and does not require protection of human subjects as described by the Institutional Review Board (IRB) within the selected organization. Therefore, it does not require IRB approval. It is considered quality improvement.

Data Collection

Data was collected electronically from survey results. The DNP student's academic advisor analyzed the data. Responses from the NPRST were built into a Qualtrics survey to evaluate descriptive data for frequencies and converted into percentages. Lower scoring components of the tool reinforced the need for quality improvement activities and program development to improve and support NP role transition. Descriptive, qualitative open-ended survey questions were coded for themes and will influence next steps. The analysis will help provide knowledge and identify gaps in the current NP orientation and role transition in the pediatric ED setting. The data will also be helpful in determining if prior RN experience and/or prior NP experience influences specific needs for the ED orientation program. It may also inform the inquiry regarding education and certification background (FNP, PNP, Acute, Primary Care) and its impact on role transition in the variable pediatric ED setting. The information gathered will guide clinical administration in more cost-effective recruitment practices and policies guiding orientation development to retain quality practitioners and mitigate the costs associated with attrition.

Section Four: Findings

Results

A total of 17 NPs were invited to participate in the survey. In response to the survey invitation, 14 responses were answered completely. All respondents were currently credentialed and working in the selected Pediatric Emergency Department at the time they completed the survey. Twenty-one percent of respondents had less than 4 years of prior RN experience, 35% had 5-9 years of prior RN experience, and 42% had more than 10 years of prior RN experience before transitioning to the NP role. The data from a recent survey (Hart & Bowen, 2016) of NPs who graduated between 2006-2011 to assess their perceptions on preparedness for clinical practice and transition to the role maintains that prior nursing experience has little impact on successful NP role transition. Furthermore, the literature cites that most nurse practitioner students have an average of 11 years of prior RN experience and this demographic is changing.

More than half of the current ED NP workforce has prior RN experience in the emergency department setting with 57% selecting Pediatric ED. Of the remaining participants, 21% have former Pediatric ICU experience, 14% reported pediatric medical surgical experience, and 7% (1 respondent) reported pediatric clinic experience. All practitioners have former pediatric experience as opposed to adult nursing care despite variances in certification obtained. 28% of participants have certification as a Family Nurse Practitioner which provides education and training to provide care to infants, children, adults, and geriatrics. Most respondents, over 70%, have certification as Pediatric Nurse Practitioners with 42.9% specialized in Primary Care and the latter, 28.6%, specialized in Acute Care. See table 1 for the demographic and clinical experience of the project participants.

Sixty-five percent of respondents described having a Traditional Master's degree education for entry level to practice, whereas 14% (2 respondents) attended an Accelerated program or Graduate Entry Master's degree and 7% (1 respondent) indicated having an online Master's degree. 1 participant did not provide a response to this question (see Table 1). Regarding the quantitative description of the provider's orientation to the pediatric emergency department 57.1% described their orientation as informal whereas 42.9% described it as being formal.

Table 1: Description of Project Participants

	Count	Percent
Years of RN experience prior to NP certification		
No prior RN experience	0	0%
1-4 years	3	21.4%
5-9 years	5	35.7%
10-14 years	3	21.4%
> 14 years	3	21.4%
Prior RN work environment		
Pediatric ambulatory care (clinic)	1	7.1%
Pediatric ambulatory care (ED/UC)	8	57.1%
Pediatric hospital care (ICU/Critical care)	3	21.4%
Pediatric hospital care (medical-surgical)	2	14.3%
Adult ambulatory care (clinc)	0	0%
Adult ambulatory care (ED/UC)	0	0%
Adult hospital care	0	0%
Current certification		
Family nurse practitioner (FNP)	4	28.6%
Pediatric nurse practitioner (primary care)	6	42.9%
Pediatric nurse practitioner (acute care)	4	28.6%
Pediatric nurse practitioner (Dual PC/AC)	0	0%
APRN education program type		
Traditional masters' (classroom)	9	64.3%
Traditional masters' (online)	1	7.1%
Accelerated/graduate entry	2	14.3%
Post-masters' certificate	1	7.1%
Missing information	1	7.1%
Orientation to NCH pediatric ED		
Informal	8	57.1%
Formal	6	42.9%
None	0	0%

Legend: ED=emergency department; ICU=intensive care unit; UC=urgent care; PC=primary care; AC=acute care

The results of Nurse Practitioner Role Transition Scale survey examined five components of role transition, with three components (Developing Comfort and Building Competence in the Role, Understanding the Role by Others, & Collegial Support) identified as best demonstrating the construct of self-concept of NP role transition and ease of transition to the role. These results are presented in Table 2. Component 1, Developing Comfort and Building Competence in the Role, showed more than 90% (strongly agree/agree) of respondents agreed that they feel comfortable managing their patient population, 85% (strongly agree/agree) that they feel competent managing their patient load, and 90% (strongly agree/agree) that they are comfortable in their NP role. Item 21, which describes ease of transition from nurse to nurse practitioner scored low with 50% of respondents disagreeing, 14.3% remaining neutral, and only 35.7% agreeing with the item. However, item 22 showed that more than 70% (strongly agree/agree) of participants felt they had the skills to deal with role transition and this demonstrates acknowledgement from the participants that, while it was not easy, they believe they posses the skills necessary to deal with role transition. Item 31 assessed how participants felt their nurse practitioner program prepared them for a smooth role transition. 57.1% (agree) of participants felt that their education program prepared them, 35.7% remained neutral, and 7.1% did not feel their education program prepared them for a smooth role transition. All participants who identified as being a Pediatric Nurse Practitioner certified in Primary Care agreed with item 31. The participants who selected neutral or disagree to item 31 were either Pediatric Nurse Practitioners certified in Acute Care or Family Nurse Practitioners. The type of education degree, (Traditional Masters, Accelerated Online/Graduate Entry, or Post Masters), did not influence the perception for this item.

Component 2 of the NPRTS evaluates Understanding of the Role by Others as perceived by the NP. As others understand and accept the new NP, the ease of transition is expected to increase. A strong understanding of the role fosters trust, collaboration, and minimizes distractions and time necessary to explain and justify the role to others. The multiple groups measured include the public, patients/families, management, physician colleagues, and nurse colleagues. The perception of the groups that most likely understand the role included management (78.5% strongly agree/agree), nurse colleagues (64.3% strongly agree/agree), and physician colleagues (57.2% strongly agree/agree). The perception of the groups that least likely understand the role included the public (7.1% agree) and patients/families (21.4% agree).

Component 3 of the NPRTS evaluates perception of Collegial Support based on perceived support, isolation, and behaviors as affecting role transition. Most participants, 85.7% (strongly disagree/disagree) with item 19 (I feel that I have very little support) and 71.4% (strongly disagree/disagree) with item 18 (I feel that I am isolated) which indicates that most participants feel well supported in their role. Lastly, 85.7% of participants perceived being treated as a professional by their colleagues in item 4.

Additional data from the NPRTS survey that were informative to the project included items that evaluate perception of availability of the supervisor and a mentor for guidance and feedback. These were measured in items 13 (my supervisor is very available/approachable) and 14 (my mentor is very available/approachable). 92.8% of participants (strongly agree/agree) agreed that their supervisor is available/approachable and 78.5% of participants (strongly agree/agree) agreed that their mentor is very available/approachable.

Table 2	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Component 1 (Developing Comfort and Building Competence in the Role)	**Developing comfort and building competence in the role**				
I am very comfortable managing my patients. (10)	0.0%	0.0%	7.1%	71.4%	21.4%
I feel very competent managing my patient case load. (12)	0.0%	0.0%	14.3%	64.3%	21.4%
I am comfortable in my role. (3)	0.0%	0.0%	7.1%	71.4%	21.4%
I feel it was easy to transition from nurse to nurse practitioner. (21)	0.0%	50.0%	14.3%	35.7%	0.0%
I feel I had the skills to deal with role transition. (22)	0.0%	7.1%	21.4%	64.3%	7.1%
I feel less confident than I did before becoming a nurse practitioner. (20)	14.3%	71.4%	14.3%	0.0%	0.0%
My nurse practitioner program prepared me for a smooth role transition. (31)	0.0%	7.1%	35.7%	57.1%	0.0%
I feel that I need extra time to complete my responsibilities. (28)	7.1%	64.3%	0.0%	28.6%	0.0%
Component 2 (Understanding of the Role by Others)					
My nurse practitioner role is very well understood by the public. (8)	0.0%	42.9%	50.0%	7.1%	0.0%
My nurse practitioner role is very well understood by my patients/families. (7)	0.0%	35.7%	42.9%	21.4%	0.0%
My nurse practitioner role is very well understood by management. (9)	0.0%	14.3%	7.1%	57.1%	21.4%
My nurse practitioner role is very well understood by my physician colleagues. (5)	0.0%	21.4%	21.4%	42.9%	14.3%
My nurse practitioner role is very well understood by my nurse colleagues. (6)	0.0%	14.3%	21.4%	35.7%	28.6%
Component 3 (Collegial Support)					
I feel that I have very little support. (19)	7.1%	78.6%	7.1%	7.1%	0.0%
I feel that I am isolated. (18)	7.1%	64.3%	14.3%	14.3%	0.0%
I am treated as a professional by my colleagues. (4)	0.0%	0.0%	14.3%	71.4%	14.3%

Additional data was collected using rank order and open-ended questions. Given the variety of patient conditions presenting in the emergency department, participants were asked to rank specialty areas in which additional education would enhance their perception of being prepared and competent in the ED role. The specialty areas were selected based upon commonly occurring conditions managed in the fast track setting that may require additional collaboration or consultation and are presented in Table 3. A weighted average was utilized to calculate and assign meaning to this data set. The highest-ranking specialty areas identified by participants were Radiology/Lab Interpretation (2.44), Sports Medicine (2.31), Cardiology (1.97), and Orthopedics (1.72). The lowest-ranking specialty areas identified by participants were Adolescent Medicine (1.64), Dermatology (1.5), Pulmonary (1.33), and Infectious Disease (1.08).

Table 3: Rank Order of Specialty Education Needs

SPECIAL	Rank 1 Count (%)	Rank 2 Count (%)	Rank 3 count (%)	Rank 4 count (%)	Rank 5 count (%)	Rank 6 count (%)	Rank 7 count (%)	Rank 8 count (%)	Wgt Mean
Ortho	4 28.6 %	0 0.0%	3 21.4 %	1 7.1%	0 0.0%	0 0.0%	1 7.1%	5 35.7 %	**1.72**
Sports Med	5 35.7 %	3 21.4%	2 14.3 %	1 7.1%	0 0.0%	1 7.1%	0 0.0%	2 14.3 %	**2.31**
Radiol/ Lab	3 21.4 %	4 28.6%	4 28.6 %	1 7.1%	1 7.1%	1 7.1%	0 0.0%	0 0.0%	**2.44**
Cardiol	1 7.1%	5 35.7%	2 14.3 %	2 14.3 %	0 0.0%	1 7.1%	0 0.0%	3 21.4 %	**1.97**
Derm	0 0.0%	0 0.0%	2 14.3 %	2 14.3 %	5 35.7 %	2 14.3 %	3 21.4 %	0 0.0%	**1.50**
Pulm	1 7.1%	0 0.0%	0 0.0%	2 14.3 %	3 21.4 %	4 28.6 %	2 14.3 %	2 14.3 %	**1.33**
Adol Med	0 0.0%	2 14.3%	0 0.0%	4 28.6 %	3 21.4 %	3 21.4 %	2 14.3 %	0 0.0%	**1.64**
Infect Dx	0 0.0%	0 0.0%	1 7.1%	1 7.1%	2 14.3 %	2 14.3 %	6 42.9 %	2 14.3 %	**1.08**

When participants were asked to quantitatively classify their orientation as formal versus informal, 57.1% selected informal and 42.9% selected formal. The data from the open-ended qualitative questions were correlated with those respondents (see Table 4). The written responses provided insight into the objectives, timeline, and content of individual orientation to the ED setting. However, the content and competencies guiding the construct of ED NP orientation was less clear. Although some qualitative responses indicate the orientation felt

organized and sufficient, the majority and themes suggest a lack of clearly defined objectives, time lines, and content (see Table 5).

Table 4-Informal versus Formal Orientation

Number of Participants	**Classification**	**Narrative Summary**
8 (57.1%)	Informal	"very little" "1 week long, then on my own" "11 shifts" "felt time was right, but wanted more education"
6 (42.9%)	Formal	"objectives and content well defined, 3 months" "supportive and adequate" "3 months, but specific objectives were not clearly defined"

Table 5-Narrative Survey Responses

Question: In your own words, how would you describe the objectives, timeline, and content of your orientation to the ED setting?	**Summarized Responses**	**Examples**
Objectives	1) No specific objectives described.	"Specific detailed objectives were not clearly defined but generalized broad scoped objectives were identified" "I was informed about the topics (resident lectures) but was usually working during that time or didn't feel I could just show up for that"

Timeline	1) 3 months 2) 1-2 months 3) 1 week	"Orientation was approximately 3 months" "Timeline felt right, working 1 on 1 for a month and then 2 months with resources" "My orientation was one month" "Very little, 1-week oversight, then on my own"
Content	1) Observing other NPs and Doctors.	"Working side by side with the Lead NP" "Orientation consisted of observing visits and seeing patients on my own" "I followed around the doctors until I was credentialed and then I was on my own, asking questions as I went" "Some of my orientation shifts were with physicians- who do things very differently from APRN's"

The last qualitative question allowed participants to describe what they like most about the role and what they like the least to provide insight into the lived experience and opportunities for improvement within the department. The common themes are presented in Table 6. Most participants described their enjoyment of being a provider of care, the patients, the opportunity to be in an environment that enables them to learn new things daily, and the collaborative team. However, participants also described the challenges of working with difficult families as the

most occurring theme, the challenges of high work demand, a lack of breaks, and uncertainty of knowing if they are doing a good job. Despite many examples of having a supportive team approach, participants describe feeling limited in their ability to balance patient/family demands and implementing self-care during a shift.

Table 6-Narrative Survey Responses

Question: What do you enjoy most about your role and what do you enjoy the least? List up to 3 items for each.	**Summarized Responses**	**Examples**
Enjoy Most	Being a Provider	"I love working independently seeing patients and being productive" "I enjoy being a provider and the responsibilities it brings" "I enjoy autonomy in my role and I never feel alone or anxious to seek input from other providers"
	The Patients	"I enjoy the variety of patients we see in the ED" "I love seeing the patients" "the kids"
	Learning new things, teaching hospital	"the multitude of learning opportunities" "learning something new every day"

	The Team	"enjoy working with other NPs and having someone to discuss patients" "collaborative approach"
Enjoy Least	Difficult Families	"dealing with irate families" "difficult families"
	Workload, High Demand	"feeling the need to fulfill expectations, dealing with complaints, and dissatisfaction" "needed to know a little about a lot of knowledge" "constant high demand" "nurses load up the hallway, it is sometimes overwhelming"
	Lack of Breaks	"it is very very busy, and I don't always feel like I can give enough time to each family (or eat, drink, use the restroom)" "you don't have a few minutes of downtime to regroup" "providers don't look out for each other: do not relieve each other for breaks"

	Feedback of Doing a Good Job	"difficult to feel like you are doing a good job" "figuring out the standards of care versus what is someone's personal preference"

Discussion

The DNP project was designed to understand the needs of nurse practitioners in the pediatric emergency department to inform orientation and factors affecting role transition. There is a lack of evidence and research, therefore a review of the literature supports the needs assessment as the initial approach. The results of Nurse Practitioner Role Transition Scale demonstrated exceptional ease of transition within the role in the selected project site. Results of the NPRTS survey were consistent with the components the tool is designed to measure. Like seminal work, participants identified the transition from RN to NP as difficult, but the majority perceived themselves as having the necessary skills and supports to adjust to the role. The Nurse Practitioner Role Scale did identify Pediatric Nurse Practitioners certified in Primary Care as feeling most prepared for the role in the ED over those who are Acute Care certified PNPs and/or Family Nurse Practitioners. This finding addresses the concern and question regarding appropriateness of primary care providers practicing in the emergency department and/or urgent care setting. When the patient population being managed by nurse practitioners in the emergency department is described as low acuity or fast track, primary care certification is appropriate. The survey also indicated that mentorship is being implemented and available for NPs in the Pediatric ED but did not address further details.

The DNP project identified areas of perceived knowledge deficit and interest for further education in clinical areas such Radiology & Lab Interpretation, Sports Medicine, Cardiology,

and Orthopedics. This data can be used for implementation of education offerings or modules. The qualitative data informed the project in terms of describing the current content of nurse practitioner orientation and opportunities for program improvement. Participants did not clearly define what constitutes a formal orientation. Description of orientation time lines varied between 1 week to 3 months and what one participant considered formal other participants with similar description considered it to be informal. The common objectives described included observation of other providers, ambiguity between ED policy, clinical guidelines, and personal preference in managing patient care. Many participants verbalized interest in having more opportunity to attend formalized education offerings to lay the foundation for competent practice and patient care. Historically, nurse practitioner orientation was limited in duration and quality but in recent years, the department has invested more efforts into the development of longer time lines and expectations. This may explain some discrepancies in participant description but does not resolve the concern.

In terms of day to day workflow and organizational culture, the project identified four areas of need which are working with difficult families, balancing the high demand and workload, detriment of self-care, and uncertainty of work performance. By nature, the emergency department will always have families who present with specific challenges such as impatience, incongruent expectations, external stressors, and poor attitudes and these families will be perceived as difficult for providers and staff. The challenges to balancing the work flow and high demand of the emergency department are well known to the setting but continue to be a significant dissatisfier for providers and may complicate role transition and longevity in the role. Lastly, many participants described uncertainty in their job performance due to the high demands and presumed lack of feedback.

Limitations

Limitations of this DNP project include the relatively small sample size of 14 participants in the selected site however the intended goal was to reach a 75% response rate and 82% was achieved. Although the results of this project are meant to be statistically significant or generalizable, it does provide clinical significance for the project setting.

A second limitation to this project may be the reliability of participants recall of role transition. The Nurse Practitioner Role Transition Scale is designed to assess role transition in the first year of practice. About half of the participants in the project have been practicing as nurse practitioners for longer than 1 year and may have had other nurse practitioner roles prior to working in the emergency department. Nevertheless, the department expanded the nurse practitioner program by 40% in the past 2 years with all those hires consisting of novice nurse practitioners.

The most engrossing limitation of this project was not only the lack of literature defining formalized orientation but the inability of participants to clearly describe or define formalized orientation. This project was unable to identify a clear understanding of the perceived elements of formalized orientation. From a systems and professional standards perspective, nurse practitioners should have well defined, competency driven constructs guiding their orientation to practice.

Section Five: Recommendations and Implications for Practice

Project Summary

This project began with a review of the literature related to evidence based strategies for developing nurse practitioner orientation and nurse practitioner role transition. The state science-based strategies are lacking in the evidence. Review of relevant professional core

competencies of nurse practitioner practice and evaluation of the orientation model within the selected site influenced the approach to conduct a needs assessment. The results of the needs assessment indicate that nurse practitioners in the emergency department setting are transitioning well to the role, despite inconsistencies with perception and content of orientation. An assumption may be that although further work is needed to improve and inform evidence-based strategies for formalized orientation, nurse practitioners currently in the role are highly adaptable to the demands of the department.

Implications for nursing and practice and to the DNP Essentials

The implications for nursing practice in this project include the need to construct competency based, well-defined criteria for onboarding and orientation of nurse practitioners to the emergency setting to enhance perceived role transition, competency, and collegial support in the role. Despite the perception that they had the skills to adjust to role transition, most of the participants described having a difficult transition from the RN to NP role. This is an implication that needs to be addressed to facilitate ease of transition for providers. Mentorship may be an effective mode to improve transition and is an established framework in the department. A formalized orientation that includes intentional time lines, measurable objectives, and clinical specific education (didactic, simulation, etc.) that supports practitioners in role transition and job competency needs to be facilitated in program development. Overall staffing and census patterns should be studied to identify opportunity for process improvement to mitigate the intensity of provider demand during a clinical shift. Additionally, evidence-based interventions should be considered and implemented to support a culture of wellness in the department which would allow for adequate rest periods and time for nourishment during a clinical shift. constant demand and cultivate a culture of wellness. Lastly, provider education

and supportive social services need to be implemented to educate and prepare providers for dealing with difficult families and resource allocation.

Regarding the Essentials of Doctoral Education for Advanced Nurse Practice, (American Associations of College of Nursing, 2006) this DNP project demonstrated at least four of the DNP Essentials. First, the literature review revealed scientific underpinnings of nursing practice (Essential I). Meleis Transitions Theory is a middle-range, situation-specific theory that provided the base to understand the needs of the population in the project. Second, the survey created for data collection required an understanding of the use of information technology to deliver the survey tool and analyze results effectively to ensure the project can improve the healthcare system (Essential IV). Third, the project required study and knowledge of the foundational practice competencies necessary for advanced nursing practice (Essential VIII). Additionally, the project recognized the rapid utilization of nurse practitioners in the emergency department prompts the need to study the appropriateness of certification, licensure, and credentialing in a complex, specialty area of care. Most importantly, there was opportunity throughout the project to speak and educate about the role of the Doctor of Nursing Practice.

Finally, throughout the project interprofessional collaboration was necessary to accomplish the objectives, results, and dissemination of the project (Essential VI). Effective communication was needed to initiate planning for the project within the department as well as consultation with leadership and administration. Collaboration with information technology support and a statistician were instrumental in the data design and survey tool. Communication and relationship building with the nurse practitioner team was needed to endorse the scholarly project.

Identify Methods for Dissemination

The DNP project planned methods for dissemination include sharing the results presentation with the emergency medicine administrators. The project will be presented for public presentation at The Ohio State University's College of Nursing. Lastly, an abstract has been submitted to the Association for Nursing Professional Development (ANPD) Convention Content Planning Committee for the 2019 Annual Convention educational track on onboarding/orientation.

References

American Association of Colleges of Nursing (2006). Retrieved from http://www.aacnnursing.org/Portals/42/Publications/DNPEssentials.pdf

Bahouth, M.N., Esposito-Herr, M.B. (2009). Orientation program for hospital-based nurse practitioners. *AACN advanced critical care, 20*(1), 82-90.

Barata, I., Brown, K. M., Fitzmaurice, L., Griffin, E. S., & Snow, S. K. (2015, January). Best practices for improving flow and care of pediatric patients in the emergency department. *Pediatrics, 135*(1), 273-283. http://dx.doi.org/10.1542/peds.2014-3425.

Barnes, H. (2015). Exploring the factors that influence nurse practitioner role transition. *The journal of nurse practitioners, 11*(2), 178-183.

Bradley, V.M. (2005). Placing emergency department crowding on the decision agenda. *Nursing economics, 23*(1), 14-24.

Duncan, C.G., Sheppard, K.G. (2015). The full practice authority initiative: lessons learned from Nevada. *The journal for nurse practitioners, 11*(6), 610-617.

Faraz, A. (2016). Novice nurse practitioner workforce transition into primary care: a literature review. *Western Journal of Nursing Research, 38*(11), 1531-1545.

Fitzpatrick, S., & Gripshover, J. (2016). Expert nurse to novice nurse practitioner: the journey and how to improve the process. *Journal for Nurse Practitioners, 12*(10).

Hart, A., & Bowen, A. (2016). New nurse practitioners' perceptions of preparedness for and transition into practice. *Journal for Nurse Practitioners, 12,* 545-552.

McGee, L.A. & Kaplan, L. (2007). Factors influencing the decision to use nurse practitioners in the emergency department. *Journal of emergency nursing, 33*(5), 441-446.

Meleis, A. I. (2010). In *Transitions Theory Middle-Range and Situation-Specific Theories in Nursing Research and Practice*. New York, NY: Springer Publishing Company, LLC.

Melnyk, B. M., & Fineout-Overholt, E. (2015). Models to guide implementation and sustainability of evidence-based practice. In *Evidence-Based Practice in Nursing & Healthcare: A Guide to Best Practice* (3rd ed., pp. 274-315). Philadelphia, PA: Wolters Kluwer Health.

Poronsky, C. B. (2012). A literature review of mentoring for RN-to-FNP transition. *Journal of Nursing Education*, *51*(11), 623-631. http://dx.doi.org/10.3928/01484834-20120914-03

Rutledge, T. R., & Merritt, L. S. (2017, May 13, 2017). Pediatric nurse practitioners in the emergency department: implications for education and research. *Journal of pediatric health care*, *31*(6), 729-733. http://dx.doi.org/10.1016/j.pedhc.2017.04.001

Strange, S. N. (2015). *The development and psychometric testing of the nurse practitioner role transition scale* (Doctoral dissertation). Retrieved from http://digitalcommons.uconn.edu/dissertations

Taylor, D. A., Broyholl, B. S., Burris, A. M., & Wilcox, M. A. (2017, January-March). A strategic approach for developing an advanced practice workforce from postgraduate transition-to-practice fellowship programs and beyond. *Nursing administration quarterly*, *41*(1), 11-19. http://dx.doi.org/10.1097/NAQ.0000000000000198

The National Organization of Nurse Practitioner Faculties. (2012). https://www.pncb.org/sites/default/files/2017-02/NONPF_AC_PC_Statement.pdf

Wiley, K., Crilly, J., Toloo, G., Fitzgerald, G., Burke, J., Williams, G., & Bell, A. (2015). Review article: emergency department models of care in the context of care quality and cost: A systematic review. *Emergency Medicine Australia*, *27*, 95-101.

Appendix A: Evaluation Table

Citation	Concept Frame	Design/ Method	Sample/ Setting	Major Variables Studied and Definitions	Outcome Measure	Data Analysis	Findings	Level of Evidence	Quality of Evidence: Critical Worth to Practice
Barnes (2015). *J for NP 11*(2), 178-183	Meleis Transi-tions Theory	Descrip. Study, cross-sectiona l self-report survey	352 NPs	Formal Orientation, Prior RN experience, Perception of Role Transition	16-item, 5-point Likert Scale Nurse Practitioner Role Transition Scale (NPRTS) instrument	Formal orient. added 9% to regress. model P<.001, Factor Analysis (developin g comfort, understand ing role by others, and collegial support) Cronbach Alpha .85, .78, and .73, total reliability for the tool was .87	Formal orientation does have predictive value on role transition	VI	High: This article utilizes the standardized tool that I plan to use for the DNP project. It determines that formal orientation is statistically relevant for successful role transition. The article is unable to define what "formal orientation" entails and the survey has recall bias

Citation	Concept Frame	Design/ Method	Sample/ Setting	Major Variables Studied and Definitions	Outcome Measure	Data Analysis	Findings	Level of Evidence	Quality of Evidence: Critical Worth to Practice
Faraz (2016). *WJNR, 38*(11), 1531-1545.	Meleis Theory of Transition, Situationl Transition, Benner's Novice to Expert, and reference to seminal work of Grounded Theory	Syst. Rev	9 articles re: NP role transit. After 1997	All NPs in the included articles had previous RN experience.	Successful role transition	Coded for themes	3 main themes emerged: role ambiguity, quality of interpersonal relationships, and facing intrinsic/extrinsic obstacles Prior RN experience did not have predictive value ↔ = no effect	VII	High: This article explored the current state of science and was congruent with previous studies. It declared need for needs assessment to determine needs of novice NP population and implications for educators, practice sites, and policy.
Fitzpat-rick, & Gripshover, (2016). *J for NP, 12*(10), 419-421.	Benner's Novice to Expert	Anon-ymous survey	5 NP/PAs hired in past year	Evaluation of program to provide emotional and professional support was valuable for transition but no variable described	No specific tool with established validity or reliability	None	Created and NP fellowship program and Leadership program that all novice NPs must attend with positive response but no data	VII	Low quality but supports necessity for more evidence and a needs assessment

Citation	Concept Frame	Design/ Method	Sample/ Setting	Major Variables Studied and Definitions	Outcome Measure	Data Analysis	Findings	Level of Evidence	Quality of Evidence: Critical Worth to Practice
Hart & Bowen. (2016). *J for NP, 12*(8), 545-552	N/A	Descrip-tive study, self-report survey	698 newly licensed NPs	Preparedness for practice	Web-based survey through key survey	Large sample, p<.01. Two meaningful factors: Satisfaction with support (Chronbach 0.91) Feelings of preparedness (Chronbach 0.80) Factors accounted for 30% variance	½ respondents admitted to practicing outside their competence level. However question was "ever", so could be a one-time occurrence. Many respondents demonstrated higher interest in residency. This suggests mentoring is important.	VI	Medium-Low Focuses on educational preparation vs. role transition. IDs need for support during transition. Supports program development

Citation	Concept Frame	Design/ Method	Sample/ Setting	Major Variables Studied and Definitions	Outcome Measure	Data Analysis	Findings	Level of Evidence	Quality of Evidence: Critical Worth to Practice
Poronsky (2012). *J for NP 51*(11), 623-631	Concept of Mentoring (lacking in research)	Lit. Rev.	54 studies (keywd) mentor, FNP student; grad nurse educat In past 25 years	N/A	Range of various mentoring models described in literature	N/A	Several studies concluded that mentoring has strong correlation to improved NP self-efficacy. Additional research is needed to develop/teach mentors re: how to effectively mentor in clinical setting. Academ institut. Need to foster mentoring culture	VII	Medium Provides insight into mentoring benefits and application. This will be sued for program develop., questionnaire develop for needs assessment

Citation	Concept Frame	Design/ Method	Sample/ Setting	Major Variables Studied and Definitions	Outcome Measure	Data Analysis	Findings	Level of Evidence	Quality of Evidence: Critical Worth to Practice
Rutledge & Merritt (2017). *J Ped Health Care, 31*(6), 729-733	NA	Lit. Rev.	PNP, ED, fast-track	NA	Gap in lit; lack of quality evid.	NA	ENPs important interdisciplinary team members; safe, competent; cost-effective care. Rec: All APRNs in setting seek specialty cert, define specific ED/UC competencies. Need for further ed/research	VII	Medium-High Explores current state of evidence/science to support utilization of Ped ED NPs. Recommends defining practice area-specific competencies and promotes specialty certification as available.

Legend: J for NP = Journal for Nurse Practitioners; WJNR=Western Journal of Nursing Research; J Ped Health Care=Journal of Pediatric Health Care

Appendix B: Synthesis Table

Study/ Author	**Year**	**# Participants**	**Sample characteristic pertinent to your question**	**Study Design**	**Intervention**	**Major Finding that address your question**
Barnes, H.	2015	352 NP participants at a national conference	Mean age was 47.3, 88.6% female, 81% Caucasian and 9% African American Years of NP experience ranged from 6 months to 23 years with a mean of 7.7years (recall is a bias)	Descriptive, cross-sectional study	16-item, 5-point Likert Scale Nurse Practitioner Role Transition Scale (NPRTS)	Having a formal orientation was a predictive variable of successful role transition. However formal orientation was not well defined. May ask for more description of NP orientation in needs assessment or ask what was good, what was, bad, what they needed more of.
Faraz, A.	2016	9 articles	All Novice NPs in the articles obtained.	Literature Review	3 categories emerged "experiencing role ambiguity" "quality of professional and interpersonal relationships" and "facing intrinsic and extrinsic factors"	Role ambiguity is in line with imposter syndrome that correlates to the seminal work and can lead to frustration and insecurity which supports the need for emotional support and collegial support, mentoring, during the transition. More research is needed but states that formal orientation and needs assessments are needed.

Study/ Author	Year	# Participants	Sample characteristic pertinent to your question	Study Design	Intervention	Major Finding that address your question
Fitzpatrick, S.	2016	5 recently hired NPs/PAs	Newly hired in the past year	"anonymous survey"	No details provided.	This article is of low strength but does provide clinical relevance by means of describing perceived barriers to participation in orientation/mentorship programs and in-services at the hospital. I may either address this in the needs assessment or consider how to approach this with program development.
Hart, A.M.	2016	698 licensed NPs who graduated between 2006-2011	Graduated between 2006-2011, licensed to practice in US, and have practiced as an NP in US. Primarily female, mean age of 42	Web-based survey	81 multiple-choice items, 27 demographic items, and 6 open-ended items.	Sample recently graduated from NP programs so it clarifies the relevance of the content presented in the plan of study and how it affected preparedness. The average age of most articles in higher than my anticipated population in the project but age was not associated as a predictive factor. Most respondents were interested in postgraduate NP residency and this has been consistent throughout as well as prior RN experience having no influence on positive transition. I would use this for program development.

Study/ Author	Year	# Participants	Sample characteristic pertinent to your question	Study Design	Intervention	Major Finding that address your question
Poronsky, C. B.	2012	12 articles	Majority Caucasian female participants Also, includes mentoring programs and the length of time of mentorship relationship, averaged 3 months-1 year	Literature Review	Studies involved mentoring in the clinical practice setting as well as academic setting.	Establishes mentoring as a strong predictor of improved self-efficacy in novice NPs. Encourages academic centers to create mentoring culture. More education and training is needed to teach mentoring. Research is limited on mentorship. This article addresses that mentoring is important and should be examined and better understood in the needs assessment and utilized for program development.
Rutledge, T.R., Merritt, L.S.	2017	5 articles	Describes use of Peds NPs for lower acuity patients, decreased length of stay, improved clinical productivity, but also exposes lack of evidence surrounding proper education, competency, and onboarding.	Literature Review	Need for further education and research	Further supports needs assessment and literature on the utilization of Peds NPs in the Emergency setting, recommends further research and education, suggests need for competency-based model and specialty certification as available.