ENHANCING THE ORIENTATION PROCESS FOR NURSE PRACTITIONERS ENTERING

PRIMARY CARE

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Dustin Joel Czapiewski

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Dustin Joel Czapiewski

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SUPERVISORY COMMITTEE:

Dr. Tina Lundeen

Chair

Dr. Adam Hohman

Dr. Leslie Koltes

Dr. Daniel Friesner

Approved:

5/1/2017	Dr. Carla Gross
Date	Department Chair

ABSTRACT

Novice nurse practitioners (NNPs) face many challenges when transitioning to practice, which include, but are not limited to, time management, interprofessional relationships, role ambiguity, transition shock, inconsistent onboarding, and lack of mentorship. The process of transitioning from an experienced registered nurse (RN) to a NNP creates role ambiguity, self-doubt, and feelings of inadequacy (Yeager, 2010). A structured orientation fosters a smoother transition, increases role satisfaction and confidence. When healthcare organizations are able to anticipate and minimize barriers, they increase the likelihood that NNPs experience a seamless and successful transition.

The orientation process provides a roadmap for NNPs to navigate role acquisition, develop interprofessional relationships, and enhance job satisfaction. A well-planned and structured orientation should meet the needs of NNPs with and without familiarity with the organization's operations. Feedback obtained from NPs about the inconsistencies and deficits in NP and PA provider orientation at the health care organization prompted evaluation, revision, and re-structure of the orientation process. The purpose of this project was to evaluate the orientation process at a healthcare institution. Using a plan-do-study-act (PDSA) model the orientation process was evaluated, barriers identified, and recommendations made to the organization. Two cohorts of NNPs were interviewed. Cohort 1 worked at the healthcare organization for 12-18 months, while Cohort 2 worked at the healthcare organization for 1-5 months. Both cohorts had the same general orientation; however, Cohort 2 had a more structured clinical orientation.

Through the interviews, major themes emerged, and then categorized into the following: general-provider orientation, clinical orientation, clinical competencies, and electronic medical record (EMR). NNPs requested a more structured orientation process, wanted a designated preceptor or mentor, needed guidance on skill validation, and preferred individualized EMR education. Limitations include a small sample size, an inconsistent interview process, and variable orientation processes in the cohorts. There is a need for further research to identify best practices to improve and nurture the transition of the NNP to an expert nurse practitioner (NP). Outcome studies are needed that focus on how NNPs successful transition effects quality of patient care.

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CHAPTER ONE. INTRODUCTION

The utilization of novice nurse practitioners (NNPs) in primary care is crucial to meet the United States' healthcare needs. In March 2010, the U.S. Congress passed the Patient Protection and Affordable Care Act (PPACA) expanding Medicaid and improving access to healthcare for nearly 40 million Americans and healthcare insurance for more than 30 million previously uninsured Americans (Aston, 2011; Owens, 2012; Pericak, 2011). The influx of people having access to healthcare, along with an aging and growing population, is creating an increased demand for primary-care providers (PCP). Nearly half of all patients seen in primary care present with chronic conditions, including hypertension, hyperlipidemia, diabetes mellitus, depression, obesity, arthritis, asthma, and chronic obstructive pulmonary disease (Hooker & Everett, 2011).

Problem Statement

Transitioning from a competent or experienced RN to a NNP is challenging. Sullivan-Bentz et al. (2010) reported that the first year of transition is difficult for NNPs due to the complex and demanding expectations of practice. During this period, the NNPs lay the groundwork to develop their practice, to expand upon their knowledge, and to advance their clinical expertise while struggling to survive in a demanding healthcare system (Hill & Sawatzky, 2011). NNPs experience difficulty with role identification as they transition from a nurse to a provider (Fitzpatrick & Gripshover, 2016). During role transition, NNPs blame themselves for uncertainty, slowness, scheduling problems, and system issues due to lack of experience. NNPs require more time for conducting exams, documenting patient visits, reviewing charts, interpreting laboratory values, learning the referral process, and requesting consults (Hill & Sawatzky, 2011).

According to Barnes (2015a), the NNP shifts from being an experienced and competent RN to an inexperienced, less confident NNP. The literature is sparse about how the amount and type of RN experience affects role transition. Barnes (2015a) concluded that a formal orientation was more important for successful transition than was RN experience or the level of graduate education. Many NNPs feel that they need to be fully competent and knowledgeable about all aspects of their role after graduation (Hill & Sawatzky, 2011). NNPs believe that they need to be experts in advanced diagnostic skills, critical-thinking abilities, pharmacological therapy, and disease treatment in order to be a value to the healthcare team (Hill & Sawatzky, 2011). In order to obtain their peers' respect, NNPs think that they need to practice independently when managing their patients (Hill & Sawatzky, 2011). Feelings of inadequacy and self-doubt lead NNPs to experience an *imposter syndrome* in the clinical setting. Imposter syndrome is a phenomenon used to describe the internal thoughts of self-doubt and feelings of intellectual fraudulence, leading to anxiety, a lack of self-confidence, depression, and frustration, resulting in the inability to meet their self-imposed standards during their transition to practice (Yeager, 2010).

According to Fitzpatrick & Gripshover (2016), NNPs experience a phenomenon they term transition shock. The term, transition shock, was defined by the authors as feelings of "disorientation, confusion, and doubt-ridden chaos" (p. 419) that occurs during the transition from the academic setting to the practice setting. Transition shock can trigger a host of negative feelings in the NNP and may lead to role frustration, mediocre performance, and in some instances, unsuccessful transition, and workplace failure. Ongoing support and guidance from administration and colleagues can ease transition shock, and can have a positive effect on the job satisfaction, care quality, and retention rates of NNPs (Fitzpatrick & Gripshover, 2016).

Kelly and Mathews (2001) found that many NNPs felt a loss of control about their time. In addition, Hill and Sawatzky (2011) found that many NNPs were working longer hours with fewer breaks, leading to exhaustion, isolation, and despair. The isolation and despair increases as the NNP experiences intense scrutiny during their transition to practice. As a result, anxiety, insecurity, and exhaustion cause many NNPs to experience role dissatisfaction, suboptimal performance, and a failure in the workplace (Fitzpatrick & Gripshover, 2016). Understanding and identifying the challenges facing NNPs during their transition to practice may eliminate the anguish and loss of time control experienced by many NNPs.

NNPs face many challenges when practicing in primary care. The intense scrutiny towards the NNP occurs due to clinical team members frequently testing the NNPs ability to provide care (Yeager, 2010). Support received from the clinical team and the healthcare organization's leadership is essential for the development of an NNP's role identification (Fitzpatrick & Gripshover, 2016). The scrutiny, coupled with returning to the uncomfortable novice phase, increases the likelihood that the NNP will experience self-doubt and feelings of inadequacy (Yeager, 2010). The lack of self-confidence results in second guessing correct interventions, leading to a constant state of fear about overlooking or missing something (Hill & Sawatzky, 2011).

New providers have reported dissatisfaction with interprofessional relationships and a lack of support (Yeager, 2010). NNPs do not receive the same level of support as physicians delivering similar care, which influences the relationships they have with physicians, administrators, and other staff members. Nurse practitioners (NPs) and physicians view their relationship as supervisory, rather than collaborative (Poghosyan et al., 2012). Physicians' unfamiliarity with the NP scope of practice limits NNP role development and scope of practice.

When limitations are place on NPs they are not able to practice to the full extent of their education and training (Institute of Medicine, 2015). Decades of research show NPs provide safe and effective care while playing an integral role in the healthcare team.

Transition shock, role ambiguity, and role dissatisfaction have contributed to job turnover rates for NNPs that are almost double the turnover rate of physicians' (Fitzpatrick & Gripshover, 2016). A 2011 physician retention survey by Cejka and the American Medical Group Association (AMA), reported a turnover rate for NNPs as 12.6% in the first year (Schwartz, 2013). Low retention rates are costly for the healthcare organization. The estimated cost of an NP position that is open for 3 months costs $89,000 (Schwartz, 2013). According to The Robert Wood Johnson Foundation, the cost to replace a healthcare provider ranged from 20% of annual salary, to hundreds of thousands of dollars (Blake, 2015). Healthcare organizations with low turnover rates save a mean of $3.6 million per year on overall costs compared to healthcare organizations with higher turnover rates (Dillon, Dolansky, Casey, & Kelley, 2016). Removing the barriers to professional autonomy will decrease turnover rates, increase job satisfaction, and improve role identification.

Several organizations, including the Commission on Collegiate Nursing Education (CCNE), the National Organization of Nurse Practitioner Faculty (NONPF), and the Institute of Medicine (IOM), have convened panels to evaluate the best way to bridge the gap between education and practice. Traditionally, the employer assumed the responsibility for oversight and supervision of the NNP's transition from student to provider. Employers typically use an orientation process as a method to introduce the NNP to practice. The amount of orientation time, as well as what is included in orientation, differs from organization to organization, and often differs from department to department within the same organization. A well-planned,

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structured orientation process should be designed to do more than orientate the NNP to the organization. A structured orientation should be designed to bridge the education to practice chasm by providing the tools and resources necessary for a successful transition. The IOM (2015) has recommended the development of NP fellowship or residency programs as a strategy to supplement or replace orientation, ease role transition, and promote the hiring and retention of skilled providers. Each year the number of NPs graduating and entering the workforce is rising (American Association of Nurse Practitioners [AANP], 2015). Over 20,000 NPs completed their education in 2015, of those 87% graduated from primary care programs (Pohl, Thomas, Barksdale, & Werner, 2016). Educators and healthcare leaders, with input from NNPs, should collectively design an evidence based comprehensive orientation program to effectively transition the large number of NNPs entering practice.

Purpose

The groundwork for evaluating the healthcare organizations structured orientation process focused on the NNPs' role, transition to practice, barriers to NNPs' transition to practice, and interventions to remove the barriers during their transition to practice. Understanding how the NNP fits into the organization takes time and experience which is difficult due to factors such as understanding the workplace functions, health professionals' role, where people fit within the organization, and how they get simple and complex tasks accomplished (Hill & Sawatzky, 2011). Hill and Sawatzky (2011) concluded that role ambiguity was a common barrier encountered by NNPs because their function and scope of practice differed slightly depending on the employment site and the available opportunities. The NNP seeks clarity and understanding of a role that is "neither nurse nor physician" causing frustration and confusion for NNPs as they learn how their role fits within the organization (Faraz, 2017a p. 28; Hill & Sawatzky, 2011).

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Additionally, healthcare organizations, physicians, nurses, allied health professionals, and the public may lack understanding about the NP role. The progression from role ambiguity to role acquisition can be fostered by clearly defining the NNPs professional responsibilities within the organization (Hill & Sawatzky, 2011).

Approximately 70-80% of NPs graduating choose to work in primary care (Naylor and Kurtzman, 2010). NNPs provide a sustainable supply of PCPs, thus increasing patients' access to care, especially in rural and underserved areas. Enrollment and graduation rates for NNPs have consistently increased over the past several years, enhancing the growing percentage of NNPs trained to provide primary care (Nurse Practitioners in Primary Care, 2016). NNPs are prepared through master or doctoral graduate program that integrate didactic and clinical courses to prepare graduates with the knowledge and competencies needed to become advanced practice nurse (Nurse Practitioners in Primary Care, 2016). The NNPs' scope of practice includes blending nursing with medical services to diagnose and to manage acute and chronic conditions through health promotion and disease prevention (Nurse Practitioners in Primary Care, 2016). NNPs have proven their cost effectiveness within the healthcare system by providing high-quality care and high patient satisfaction while reducing the cost of healthcare (Bauer, 2010; Nurse Practitioners in Primary Care, 2016; Poghosyan et al., 2014). By 2025, the NNP workforce is projected to grow by 130%, which means the addition of more than 250,000 NNPs (Poghosyan, Boyd, & Knutson, 2014; Poghosyan, Lucero, Rauch, & Berkowitz, 2012). The exponential growth projected for a highly qualified and valuable healthcare provider, requires the attention of the healthcare organizations. Healthcare organization need to develop, implement, and study orientations leading to NNPs' successful transition to practice.

An estimated 20,000 NPs graduated and entered the workforce in 2014-2015 (Pohl, Thomas, Barksdale, & Werner, 2016). Research about NP transition to practice has exploded in the last few years, as an effort to meet the demands of the large influx of NPs into the work force. What are the best methods to ease transition from academia to practice in the real world? The focus has gravitated to residency and fellowship programs as a method transition NNPs to practice. Developing, funding, and finding fellowship or residency programs for 20,000 NNPs per year is unrealistic. At most healthcare organizations, the orientation process serves as the identified method for NPs to transition to their new role. The goal of this project was to compare and evaluate the previous and current orientation process by interviewing NNPs who went through the previous orientation (Cohort 1) and the most recent orientation (Cohort 2) at one healthcare organization.

CHAPTER TWO. LITERATURE REVIEW OF EVIDENCE-BASED PRACTICE

The literature review focused on two main themes: role transition, and orientation of new nurse practitioners. The literature search on NNP orientation was focused on best practices, structure, and evaluation. Search topics included fostering role development, transition to practice, transition barriers, and interventions to eliminate the transition to practice barriers for newly graduated nurse practitioners. Data obtained from the Cumulative Index to Nursing and Allied Health Literature (CINAHL) Complete, Medical Literature Analysis and Retrieval System Online (MEDLINE), and Health Source databases from 2005-2017 established the foundation for evaluating the structured orientation process. The key terms used to complete the search were mentor, nurse practitioner, physician assistant, role transition, orientation, and primary care. Inclusion criteria included 1,012 articles written from 2005-2017 and available in full text in the English language. The titles and abstracts were reviewed for applicability to the project.

Very few articles discussed the orientation process for NNPs in primary care, with much of the research focusing on mentorship programs, residency programs, and orientation to specialty care. Given the lack of research, healthcare organizations are attempting to define best practices through "trial and error." As healthcare organizations discover effective ways to orientate most NNPs, they should be encouraged to publish and disseminate their results.

The research on issues related to transition to practice has exploded over the past several years. Faraz (2016b) performed an integrative review on the novice nurse practitioner transition in primary care. Faraz's review of the literature was categorized into three common themes: experiencing role ambiguity, quality of professional and interprofessional relationships, and facing intrinsic and extrinsic obstacles. NNPs, NP employers, and NP educators all have a role

in the development of strategies that reduce NP role ambiguity, improve intra-professional relationships, and reduce the barriers to successful transition.

The orientation process is the first step into a new role and/or organization after graduation. Orientation provides a roadmap for new employees to navigate and to develop throughout their career. A comprehensive orientation process should include a system-wide orientation along with a job-specific orientation. The system-wide orientation should include the organization and system's policies, informatics, computer-order entry, procedural training sessions, safety, equipment training, employee-identification badge process, office access, completing credentialing packets, and setting up voicemail (Yeager, 2010). Job-specific orientation needs to include education about how to access patient records, enter orders, access dictation lines, retrieve radiographic studies, build relationships, observe clinical flow, and acquire procedural skills (Yeager, 2010).

One of the IOM recommendations in their follow-up report to *The Future of Nursing, Leading Change and Advancing Health*, was to create and fund transition to practice residency programs (Institute of Medicine, 2015). There has been a significant increase in research on residency programs post-graduation as a means to improve the NNPs transition to practice. Residency programs were developed to facilitate a successful transition to practice by offering a six to twelve-month transition between didactics and clinical competency during the initial year of practice (Fitzgerald, 2015). Residency programs place the NNP in the clinical setting, while incorporating didactic learning in several different formats (Harris, 2014). Residency programs provide mentorship and specialty training for the NNP, and a way to recruit and retain new hires (Harris, 2014). NNPs who took part in residency programs reported an easier transition to practice, an enhancement of clinical skills, a greater understanding about the role of all health

professionals on the team, and a commitment to interprofessional teamwork (Zapatka, Conelius, Edwards, Meyer, & Brienza, 2014).

While residency programs have shown success, the programs have failed to escalate in popularity due to lack of funding. The cost of the NNP not practicing independently, coupled with increased cost of overhead, administrative resources, and educational resources limits healthcare organization fiscal ability to implement residency programs for NNPs (Harris, 2014). Unfortunately, federal funding is not available which forces healthcare organizations to fund the programs through internal resources (Harris, 2014). Many organizations pay resident NPs a reduced salary up to 75% of now practicing NPs (Harris, 2014).

Mentorship programs provide another choice for healthcare organizations to facilitate the NNPs' transition to practice. Mentoring is a relationship between a novice and an expert for the purpose of role socialization and role success (Hill & Sawatzky, 2011). Mentorship programs provide the opportunity for a mentor to challenge, advise, guide, and counsel NNPs during their transition into practice (Harrington, 2011; Fitzpatrick & Gripshover, 2016). Hill & Sawatzky (2011) found that mentoring reduced the internal and external stressors and anxiety NNPs experience during their first year of practice. The authors also suggested that mentorship programs offer an opportunity for NNPs to develop tacit knowledge to fill the gap between didactic information and real world experiences (Hill & Sawatzky, 2011). Tacit knowledge develops from personal experience, intuition, judgment, knowledge, expertise, and individual insight (Tourigny & Pulich, 2005).

Although the healthcare organization, the mentors, and the mentees reap benefits from a successful mentoring program, they also face several barriers that could affect the mentoring experience. Common barriers for organizations include cost, time factors, scheduling

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limitations, and space constraints (Harrington, 2011). Mentors' and mentees' barriers may include, competing demands on their time, differing personalities, attaining education on the mentoring process, lacking organizational support, and unfulfilling patient needs.

CHAPTER THREE. THEORETICAL FRAMEWORK

From Novice to Expert

Patrician Benner's *From Novice to Expert* middle-range nursing theory helps to understand the perceptions of NNPs during their transition from an expert nurse to a novice NP. Benner did not specifically evaluate the RN to NP transition; however, her new-to-expert framework can be easily extrapolated to similar professional transitions. In 1982, Benner transformed Dreyfus' model of skill acquisition to meet the demands for nursing in the acute-care setting (Benner, 1982). Dreyfus' model of skill acquisition focused on skill performance that is based on experience and education. The complexity of nursing care in the acute-care setting prevented nursing from being standardized, routinized, and delegated. Benner's career development theory suggests that the road to expert status requires experience, time, and a lifelong commitment to career development (Benner, 1982).

Benner's theory provides a basis for clinical knowledge development and career progression as the nurse goes through the five proficiency levels. The five levels of proficiency are novice, beginner, competent, proficient, and expert (Figure 1). Each level reflects a change from reliance on abstract principles to the use of past, concrete experiences as paradigms. Certain parts of a situation are relevant as the nurse's perception and understanding about a situation expand to see the complete whole (Benner, 1982).
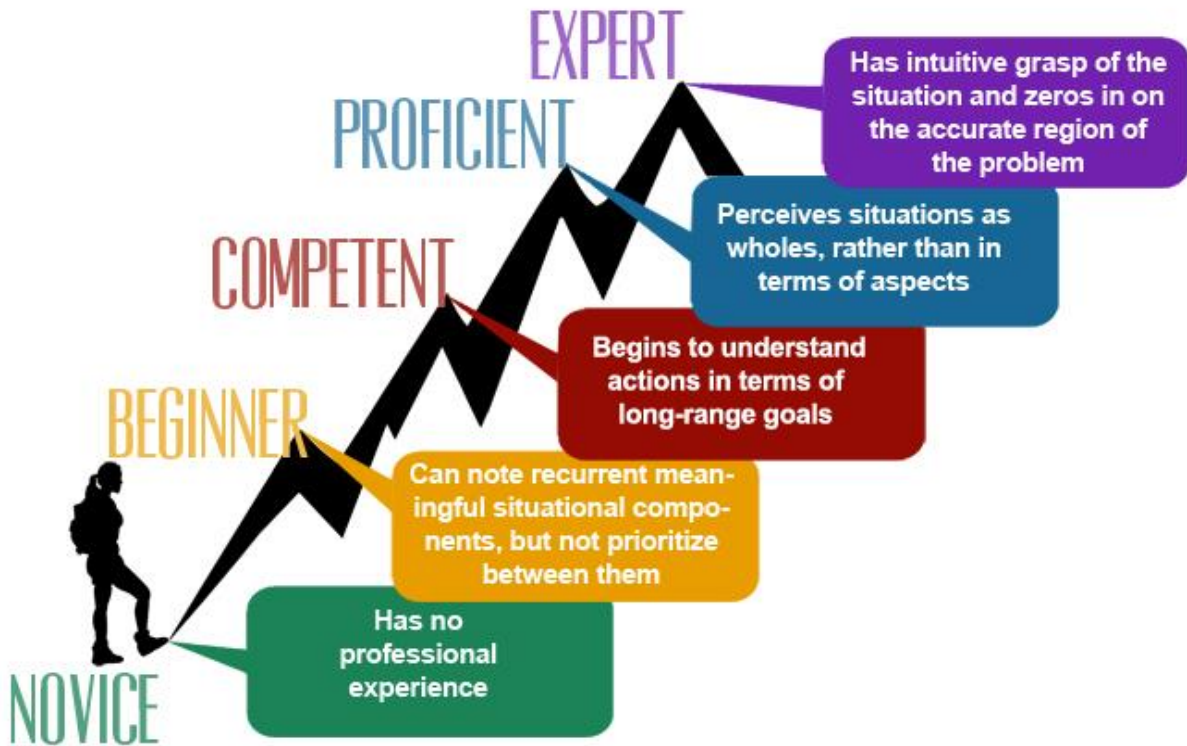
Figure 1. From Novice to Expert Theory (Vanderbilt Center for Teaching, n.d.). Reprinted with permission from Mr. Richard Cobles. Religion, Psychology and Culture Graduand Theology and Practice Fellow, and Rhett McDaniel, Educational Technologist, at Vanderbilt's Center for Teaching (Appendix A). The image above illustrates Benner's "Novice to Expert" nursing theory and the components within each stage.

A new NNP enters practice as a novice with no situational experiences, and uses objective attributes to form his/her clinical decisions (Benner, 1982). The lack of experience caused novices to follow rules that they learned in the past to guide their actions for new situations (Benner, 1982).

Once the novice has shown a marginally acceptable performance, he/she enters the beginner stage. The beginner has enough experience to find meaningful situational components but fails to embrace the situation. Since the situation is new, the beginner relies on remembered rules and general guidelines (Benner, 1982).

The beginner becomes competent once he/she develops the capability to envision long-term goals and to prioritize interventions for patient care. Competent providers experience a feeling of mastery with the ability to cope and manage clinical situations (Benner, 1982). Although competent nurses understand the situation, they lack the speed and flexibility of a proficient provider.

A proficient provider sees the situation as a whole rather than parts. Proficient providers anticipate typical events for a situation and modify their plans in response to the events based on their experiences (Benner, 1982). Compared to a competent provider, proficient providers recognize abnormal presentations and implement interventions that are more precise (Benner, 1982).

Expert providers have an intuitive grasp of the situation, and have the ability to focus on the problem without wasteful interventions (Benner, 1982). Expert providers use their experience instead of the rules or guidelines to connect their understanding of the situation to an intervention (Benner, 1982).

Benner's novice to expert theory offers an understanding about the role transition that RNs experience during his/her new role as a provider. Many NP programs do not incorporate a defined level of experience that is required for admission to the program, allowing for a wide range of RN experiences. Each RN enters the NP program with his/her clinical experience from a vast array of clinical settings, leading to a diversity of clinical competence within each program. No matter what level the new NP's clinical background is as a RN, all new NPs enter as a novice. This practice-improvement project (PIP) was designed to evaluate the effect of a structured orientation process on the NNP's transition to practice based on Benner's novice to expert nursing theory. In conjunction with Benner's Theory, the plan-do-study-act (PDSA)

model provides an appropriate theoretical framework and project model for continual evaluation

of the orientation process for the healthcare organization, which is discussed in Chapter 4.

CHAPTER FOUR. PROJECT DESIGN

Introduction

The initial intent of the PIP was to develop, implement, and evaluate, an orientation process for new NP and PA providers starting employment at a healthcare organization. Advance practice leaders at the target healthcare organization requested assistance in improving the orientation process for new providers. The leaders had received unsolicited feedback from NNP and PA employees about the inconsistencies and lack of structure of their orientation process. The orientation process differed from clinic to clinic, department to department, and provider to provider. The advanced practice leadership group's intent was the creation of a comprehensive, structured, and consistent orientation for NPs and PAs hired to work in primary care. The initial objective of this PIP was to assist in the development, implementation, and evaluation of an orientation program. The focus of the PIP changed when administrators at the healthcare organization implemented a separate structured orientation process. The focus of the PIP shifted to assisting the healthcare organization and the advanced practice leaders to compare and evaluate the previous and current orientation process by interviewing NNPs who went through the previous orientation (Cohort 1) and the most recent orientation (Cohort 2). The orientation process was evaluated using the PDSA model.

Plan-Do-Study-Act Model

The orientation process is a dynamic and fluid activity that considers the NNPs' needs. The PIP was structured using the PDSA model in conjunction with Benner's novice to expert nursing theory. Other names for the PDSA are rapid-cycle improvement, plan-do-check-act (PDCA), and the Shewhart cycle (Taylor et al., 2013). The PDSA utilizes the scientific method of hypothesis – experiment – evaluation (Taylor et al., 2013).

The PDSA model was useful in planning, implementing, and evaluating the change in orientation. A successful orientation process needs to be adaptable to the participants and organization's changing needs. To ensure success, the orientation process should have a foundation that utilizes a model, which can continually adapt and adjust. The PDSA model (Figure 2) is a cyclic model designed for the dynamic and fluent process needed for the development of a successful structured orientation process.

Figure 2. PDSA model (Tribal Evaluation Institute, n.d.). Reprinted with permission from the Tribal Evaluation Institute (Appendix B). The image above illustrates the PDSA cycle and its components.

Plan

As previously mentioned, the PIP changed when a new, structured orientation process was implemented within the organization. The structured orientation standardized the orientation process across all primary care clinics and departments. Non-structured orientations found throughout primary care included no clinical orientation, becoming a scribe for another provider, and an opportunity to shadow another provider, which is discussed in further detail in Chapter 5.

The planning stage involved development of the project steps, identification of stakeholders, approval of NDSU dissertation committee, approval from the healthcare organization's student project committee, Institutional Review Board (IRB)approval, and identification of the sample. Stakeholders included the organization's advanced-practice provider leadership, student project committee, a representative from the education department, and eligible sample of NNPs.

The goal of the PIP was to assess the perceived effectiveness of the structured orientation process for NNPs working in primary care at a healthcare organization located in the Midwest United States. The eligible sample included NNPs starting employment in family medicine or internal medicine from January 2015 to November 2016. NNPs who were transferring from one primary care setting to another, practicing in a specialty areas, outlying facilities, and rural clinics were excluded from the project. NNPs were separated into two cohorts and individual interviews were scheduled and conducted with each participant in the cohorts. Cohort 1 included participants who were not involved with a structured orientation process at the healthcare organization, and entered practice during January 2015 to June 2016. Cohort 2 included participants who took part in the structured orientation process at the same healthcare organization, and entered practice during July 2016 to November 2016.

Interviews were conducted with participants face-to-face, which was the preferred interaction, or by email at the request of the participants. After the interviews, data was analyzed for perceived barriers and benefits of the unstructured orientation of Cohort 1 and the structured orientation process experienced by Cohort 2. The literature review, collective data, and themes from the participant interviews, recommendations for improvement, and areas of best practice would be shared with the healthcare organization.

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The healthcare organization's structured orientation process (Appendix E) is a four-phase process that lasts a minimum of 4 weeks, with the goal of completing the orientation process within 8 weeks.

Phase 1: General Orientation. Phase 1 (Appendix D) is a three-day meeting is designed for all the organization's new providers. At the general orientation, the providers receive a detailed itinerary that identifies the presenters and topics that are covered throughout the general orientation. The presenters and topics focus on providing information about the organization and introducing the healthcare organization's leadership team. In addition, the NNP is shown the process of creating smart phrases, which are preformatted phrases and statements of data or text to facilitate documentation and patient education in the electronic medical record (EMR).

Phase 2: Department Orientation. Phase 2 starts on day four and concludes at the end on week two. Phase 2 focuses on a department-specific orientation. The clinical supervisor assigns the NNP to a designated provider who will be the preceptor throughout the departmental orientation. Phase 2 includes the following:

- Tour of the clinic.

- Introduction to the clinic director, clinical supervisor, and other team members.

- Introduction to the scheduling template.

- Review of workflow and department policies.

- Development of individual documentation templates and smart phrases in the EMR.

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Phase 3: Begin Concurrent Visits. Phase 3 starts on week three and concludes within 1 to 6 weeks, depending on the progression of the NNP. The structure of each week is as follows:

- *Week 1.*

    o Perform and document the entire patient visit with the preceptor's direct supervision.

- *Week 2.*

    o 60-minute patient visits scheduled.

    o Contact clinic's EMR trainer to schedule training session during week 3.

    o Discuss with preceptor to consider starting 45-minute appointments during week 3.

- *Week 3.*

    o May include hospital rounds/visits if they are part of the NNP's job duties.

    o Perform and document hospital rounds/visits under the preceptor's direct supervision.

    o Repeat week 2 if clinic does not participate in hospital rounds/visits.

- *Week 4 and 5.*

    o Discuss with preceptor to consider starting 30-minute appointment during weeks 5/6.

- *Week 6.*

    o Schedule most appointments for 30-minutes.

    o Discuss with preceptor about increasing patient schedule to 75% of an established provider's patient schedule for the following week.

Phase 4: Conclusion of Orientation. In Phase 4, the NNP is routinely seeing 75% of an established provider's patient schedule. Most NNPs are expected to complete Phase 4 by the end of week 8 in collaboration and agreement with the clinical team and NNP. After completing Phase 4, the NNP will gradually increase the number of patients seen per day based on his/her comfort level and efficiency, until their patient schedule reaches the threshold of an established provider. The NNP has scheduled appointments with a variety of team members throughout the orientation and after completion of orientation, which are as follows:

- Director or clinical supervisor during weeks 4 and 8.

- Coding specialist during weeks 8 and 12.

- Department chair or vice president during week 12.

- Department leadership quarterly for the first year of practice.

Do

IRB approval was obtained from NDSU and IRB exemption was received from the healthcare organization. After the organization implemented their new orientation for NNPs, the "do" stage was entered. The director of the education department identified potential participants based on the NNPs start date. Potential participants were contacted via e-mail, with the purpose of introducing the project and asking for participation in the project. Cohort 1 included six potential participants, and Cohort 2 included four potential participants. Cohort 1 included all six NNPs who were hired in internal medicine or family medicine between January 2015 and June 2016. Cohort 1 did not have a formal orientation and the quality and extent of orientation varied from participant to participant. Cohort 2 included three NNPs who were hired in internal medicine or family medicine between July 2016 and November 2016. This cohort took part in the structured orientation process, which was the focus of the PIP. Data collection

began by obtaining information from participants about their perceptions of the orientation

process that they completed during their transition to practice. Cohort 1's data collection started

immediately after attaining the IRB approval while Cohort 2's data collection began after the

participants were practicing independently for at least two weeks.

The study questionnaire, Novice Nurse Practitioner Interview Questionnaire (Appendix

F), facilitated the data that was collected from the participants involved with the PIP. The data

obtained included participants' demographics, general-provider orientation, clinical orientation,

questions about their practice pre- and post-orientation, preceptor experience, interprofessional

relationships, and educational preparation. The data collection occurred via face-to-face

interviews and an e-mail questionaire with telephone communication to decipher ambiguous

data. All Cohort 1 participants agreed to a face-to-face interview. While all Cohort 2

participants declined to participate in a face-to-face or telephone interviews, citing a lack of time,

but were willing to complete the interview questionnaire through email and be available for

clarification answers through telephone conversations.   The e-mail questionaire was sent to

Cohort 2 utilizing the questions asked during the face-to-face interviews. Each participant

received a $20 Visa gift card for his/her participation in the PIP.

Study

The "study" stage started when all data was collected and analyzed from Cohorts 1 and 2. During this data analysis, the project assessed the barriers facing NNPs who were practicing in primary care. The project assessed for any unintended adverse effects and created a foundation for further pilot projects. Data obtained from Cohorts 1 and 2 was categorized by common themes. The themes are as follows:

- General-Provider Orientation

- Clinical Orientation

- Clinical Competencies

- Electronic Medical Record

Act

After data collection, the "act" stage started when creating recommendations for the structured orientation process. The PIP evaluated the effectiveness of the structured orientation process to facilitate the NNPs' transition to practice. The PIP addressed any adverse effects and provided recommendations for further enhancing the NNPs' orientation process at the healthcare organization. The stakeholders involved with the PIP's development and implementation received the results and recommendations from implementing the PIP.

<center>**Project Resources**</center>

The resources needed to implement the PIP were NNPs, physicians, EMR trainers, human-resource personnel, and ancillary staff in the clinic setting. The PIP team members dedicated seven months of time for the completion and evaluation of data obtained from the two cohorts.

Protection of Human Subjects

NDSU granted Institutional Review Board (IRB) approval (Appendix C) on May 25, 2016. The healthcare organization provided exemption of the PIP from IRB approval on September 12, 2016 because the activity was not human research. The initial process for the protection of human subjects began with the submission of a PIP proposal to the IRB at NDSU. The NDSU IRB categorized the project as exempt category one: the research conducted and established, or commonly accepted educational setting involving normal educational practices. The PIP had minimal-to-no risk of harm to subjects, involved no procedures, and involved no direct patient contact making the project a clinical-improvement project and not a human-subject research project. All participants who volunteered for this practice-improvement project were greater than 18 years of age and received an email containing relevant information necessary to giving informed consent (Appendix G).

The data obtained was kept confidential and reported in a manner that participants could not be identified. The participants were informed that they could withdraw from the project at any time. Participant permission was obtained to audio record the interview. Audio recordings ensured the notes recorded during the interview correlated with what the participants said to ensure data accuracy. The participants were assured that confidentiality would be kept at the highest level with the recording device and notes being safeguarded at the author's home while not in use. Data obtained through telephone conversations was not recorded, and closed loop communication was used to ensure data accuracy. Data obtained from e-mails were sent and received from one private server. The e-mailed questionnaire results were printed without identifying data, secured in the same location as the recordings, and deleted at once from the server.

Program Objectives

The objectives for the PIP include:

1. Interview primary care NNPs to identify the barriers experienced during role transition and entry to practice. The interview questionnaire focused on the topics of orientation, mentoring, and support.

2. Evaluate NNPs perceptions of orientation using the plan-do-study-act model.

3. Analyze feedback from two cohorts of NNPs about the previous and current orientation program, and provide recommendations to the healthcare organization.

CHAPTER FIVE. RESULTS

Data was collected over a seven-month period, incorporating the time needed for the healthcare organization to create a committee to assess PIPs and scheduling the data-collection time with the participants. Data from Cohort 1 participants were obtained through face-to-face interviews. Data from Cohort 2 participants were obtained with the participant completing the Novice Nurse Practitioner Interview Questionnaire (Appendix F) online due to the inability to schedule interviews. The participants completing the Novice Nurse Practitioner Interview Questionnaire gave some ambiguous answer leading for the NNPs to clarified their answers through telephone communications.

Demographics

Cohort 1

The six participants in Cohort 1 had similar educational preparation and clinical experience as a NNP. Participants in Cohort 1 had between 8 and 16 months of clinical experience, with a mean of 12.6 months. Four participants practiced in family medicine while the remaining two participants practiced in internal medicine. Three participants were new to the organization however; none of the participants had previously worked in their clinic where they were practicing. Five of the six participants were female, ages ranged from 28 years to 51 years of age (mean of 35.5 years of age). All participants were employed full time, maintaining a full-time equivalent (FTE) of 0.8 or greater.

Cohort 2

The three participants in Cohort 2 had similar clinical experience as an NNP. The NNPs had 1 to 5 months of clinical experience at the time of interview. One participant practiced in family medicine and two participants practiced in internal medicine. Participants had been

employed as an RN at the organization prior to being hired as an NP. However, just one

participant had previously worked in the same clinical area within the organization. All

participants were female, worked full time status of 0.8 FTE or greater, with ages range from 27

to 39 years of age (mean of 32 years of age).

<div align="center">

General-Provider Orientation

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The general-provider orientation (Appendix D), Phase 1 of the structured orientation

process, was included in all participant's orientation. General orientation allows NNPs to begin

to understand their new role within the organization. The general-provider orientation is a three-

day meeting that is intended for all the organization's new providers. At the general orientation,

the providers receive a detailed itinerary with a list of the presenters and topics that are covered

throughout the general orientation. The presenters and topics focused on information about the

organization and introducing new providers to the healthcare organization's leadership team.

Cohort 1

Overall, all participants felt the general-provider orientation was beneficial, well rounded,

and comprehensive. Two of the six participants expressed feeling overwhelmed during the

orientation due to the amount of information presented in such a short period. The topics

participants found as most beneficial were the review of benefits and the clinical practice

overview. Other high points of orientation were computer training and networking with the

other new providers.

Cohort 2

Cohort 2 participants also felt the general-provider orientation was comprehensive. The

participants felt overwhelmed by the amount of information given over the three days of

orientation. The most beneficial part of the orientation included meeting the healthcare

organizations leadership team, networking with new providers, and the review of benefits.

Clinic Orientation

The clinical orientation process was different for each Cohort 1 participant. The

participant's practice location was intentionally removed to protect anonymity. Clinical

orientation varied widely from no clinical orientation, to "scribing" for or "shadowing" a

provider.

Cohort 1

Participants 1 and 2 could tour their clinic practice location during the general-provider

orientation. These participants had between 8 and 14 patients on their schedule on clinical Day

1. Scheduled patients ranged in age, chief complaint, and the type of visit. Participants

expressed that they felt "unprepared," "unsupported," "scared," "intimated," "overwhelmed,"

and "stressed" during the clinical orientation.

Participants 3 and 4 oriented as a "scribe" for other providers for the first eight days. As

a "scribe" the participant would follow another provider throughout the day and perform all

EMR tasks including charting, placing consults, and entering orders. On days nine and ten, the

participants would see the patients scheduled to the assigned preceptor. After seeing the patient

the participants were expected to discuss the patient history, exam, and plan of care with their

preceptor. The participants believed their clinic used the "scribe" role to ease the transition to

practice by observing another provider in practice and developing their EMR skills. Starting on

Day 11 each participant was scheduled to see eight patients per day. The scheduled patients

were considered "low-complexity" or scheduled for routine "physical examinations." The

scheduled patients varied in age, unless the NNP requested not to see a certain age group.

Participants 3 and 4 believed the number and type of patients scheduled per day was appropriate for their level of skill after orientation. Only one of the participants was involved in discussions regarding when the number of patients scheduled was increased.

The last two participants' clinical orientation included shadowing a NP, PA, or physician in the clinic for three weeks and then beginning to see patients independently on week four. Participants were scheduled four to six patients per day post-orientation. The patient population consisted of patients under 65 years of age. There were no limitations on the visit reason or the complexity of patient. One participant felt that some of the patients that were scheduled were inappropriate for a NNP skill level. "Age has nothing to do with complexity." "I could see someone for an acute problem or post hospitalization, but I was not able to be their PCP." Only one of the participants was involved in discussions about increasing the number of patients scheduled.

The relationships and support from the clinic's staff members varied for the participants in Cohort 1. All participants had difficulty in identifying whom to contact about clinical concerns, scheduling, equipment locations, and role development. Four of the six participants felt they were welcomed and supported by other staff members. Two of the six participants did not feel welcomed or supported, "The staff expected me to be a proficient provider" and "it wasn't very welcoming."

Cohort 1 participants were not involved in a mentorship program, and "feared" asking another provider clinical questions. Four of the six participants were assigned a preceptor. All participants, including those with a preceptor, felt like they were "burdening other providers" and "did not know who to ask" regarding clinical questions. A common perception found throughout Cohort 1 was "It is not their [other providers'] responsibility to answer my

questions." Participants did not continue the mentor/mentee relationship once they began practicing independently.

Cohort 2

All Cohort 2 participants completed the recently established standard orientation process. The participants practice sites were intentionally omitted to protect participant anonymity. Participants completed the four phases of orientation in 8 weeks. Once orientation was completed, the NNPs and their assigned preceptors collaboratively decided on how many patients, length of visit, and the type of visits that were scheduled. Two of the participants' initial schedule included physical exams and episodic visits, while the other participant was scheduled to see walk-in patients with acute problems. All participants felt that their scheduled patients were appropriate for their skill level. When Cohort 2 participants were practicing independently, they were scheduled to see six to eight patients per day. Two of the three participants had increased the number of patients scheduled in collaboration with the clinic's leadership team. One participant had just finished orientation and had not yet increased the number of patients scheduled per day.

All participants reported being introduced to and feeling welcomed by other staff members on day one and throughout orientation. Participants were made aware of the point of contact for clinical concerns, scheduling, and equipment early on in their orientation. Two participants immediately felt that they were part of the team while one participant did not feel like part of the clinic's team until one month into the orientation.

Participants felt that the mentorship component built into their orientation and the team-based care model lessened the burden of asking questions and seeking consult. Participants denied the fear of asking their preceptor or other providers questions about clinical situations.

"We use the team approach, so I am able to talk to anyone in my team if I have any questions."

Another participant said, "All the other providers have offered availability with my questions or

training needs." One participant recommended that preceptors should volunteer to precept and

should receive education about the preceptor role and responsibilities prior to serving as a

preceptor.

Clinical Competencies

Clinical competencies include the NNPs' knowledge and understanding of the primary

care quality measures (PCQM), the credentialing process, and determining scope of practice. In

2016, the Centers for Medicare and Medicaid Services established a core set of PCQMs, which

include:

- Control of high blood pressure.

- Persistent beta-blocker treatment after a heart attack.

- Aspirin or another antithrombotic use in the presence of ischemic vascular disease.

- Comprehensive diabetes care.

- Medication reconciliation.

- Cervical-cancer screening.

- Breast-cancer screening.

- Colorectal-cancer screening.

- Tobacco-use screening and cessation.

- Body-mass-index screening and follow-up.

- The use of imaging studies for low back pain.

- Depression remission at 12 months.

- Medication management for people with asthma.

- Avoidance of antibiotic treatment for adults with acute bronchitis.

Of these, participants were not aware that persistent beta-blocker treatment after a heart attack, medication reconciliation, cervical-cancer screening, tobacco-use screening and cessation, body-mass-index screening and follow-up, the use of imaging studies for low back pain, and the avoidance of antibiotic treatment for adults with acute bronchitis were PCQMs (Figure 3).

The healthcare organization has a standardized process for credentialing NNPs clinical competencies at the start of practice and every two years thereafter. The NNP completes a general-competency skills sheet to identify the previous skills and competencies. The healthcare organization Department of Family Medicine Policy on Focused Professional Practice Evaluation and Department of Internal Medicine (Clinic Based) Policy on Focused Professional Practice Evaluation, under the supervision of the Office of Professional Practice, outlines procedural skill validation and credentialing process for NNPs. All participants were considered Class 2: Recent graduate from a training program at another facility, where the requested privileges were part of the training program. A pertinent key term defined within the policies is concurrent proctoring. Concurrent proctoring is defined as "real time observation of a procedure" within each policy. A brief overview of the healthcare organization's policy on skills validation and credentialing for Class 2 NNPs is as follows:

- The provider must demonstrate the requested skill or procedure at least twice in the presence of a proctor assigned by the department chair.

- The proctor must complete a validation form for each skill demonstration and route the form to the practitioner and the department chair.

- Upon completion, the department chair will route the validation forms to the Office of Professional Practice.

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- The Office of Professional Practice sends the validation forms to the credentialing committee.

- The credentialing committee either accepts or declines credentialing based on policies set forth by the healthcare organization.

- The credentialing committee notifies the provider and department chair of the decision set forth by the committee.

In order for the NNP to be credentialed to perform a specific skill, the NNP must contact the department chair to begin the process of learning the skill, validating the skill, and discussing whether there is the need for special training prior to perform the skill independently.

Cohort 1

Cohort 1 participants' understanding and performance of clinical competencies varied. All participants understood PCQMs. Although, the only PCQM all participants could recall was comprehensive diabetes care. Four of the six participants surveyed their personal PCQMs rating monthly. Three of the six participants learned their PCQMs by receiving a laminated sheet that identified "theirs," and were asked to identify ways to improve their PCQMs. Two of the six participants reviewed their PCQMs daily, knew the PCQMs established threshold, and the organization's goal for each PCQM. One participant did not learn about PCQMs during orientation; however, PCQMs were introduced during their NP education. None of the participant could name all the PCQMs established by the Centers for Medicare and Medicaid Services.

Cohort 1 participants could not consistently describe how to have a skill validated or how to apply to be credentialed for a type of care or procedure. One participant believed the skills he or she was able to perform in the clinic was based on their "comfort level." Two participants

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were told by their preceptor which skills they were able and unable to perform once they had demonstrated the skill at least once to a provider credentialed for that skill. Three participants reported completing a "core privileges" document prior to entering practice, and once in practice, they needed to demonstrate the selected "skills" to a provider to complete the credentialing process for core privileges.

Cohort 2

The participants in Cohort 2 had a better understanding of their PCQMs and credentialing process than Cohort 1. Cohort 2 participants assessed their PCQMs "almost daily" by "going on the intranet at work," and could name the PCQM measures related to comprehensive diabetes care, peripheral vascular disease care, and comprehensive asthma care. Cohort 2 participants reported having discussions with their clinical supervisor about their PCQMs, the clinic's PCQM goals, and ways to improve individual PCQMs. Two of the three participants learned about the PCQMs during clinical orientation. All participants were unable to verbalize the PCQMs established by the Centers for Medicare and Medicaid Services (Figure 3).

Cohort 2 participants varied in their ability to verbalize how to obtain credentialing in the clinical setting. One of the three participants did not know what procedures he or she could perform or how to obtain credentialing to perform procedures. Two of the three participants remembered that they had received a booklet about skill validation and credentialing at the general provider orientation.
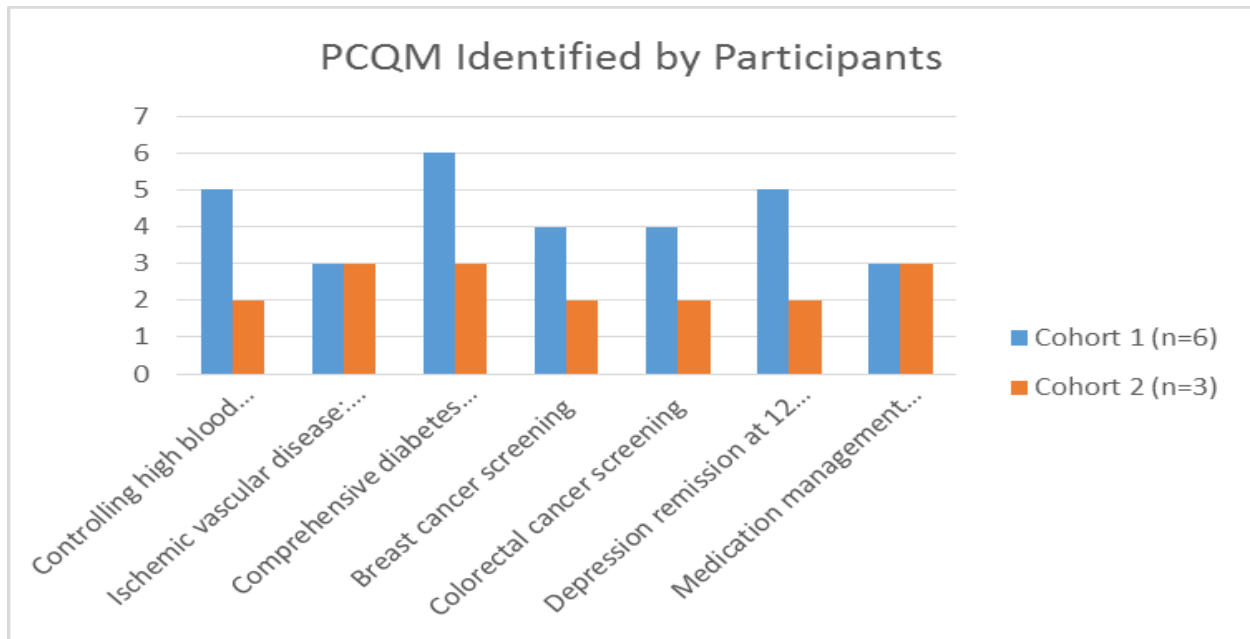
Figure 3. PCQMs identified by participants. The PCQMs that were not identified by either cohort group were excluded from the figure.

Electronic Medical Record

Cohort 1

All Cohort 1 participants felt that a more effective and efficient EMR training program was needed early in the clinical orientation. The healthcare organization encourages new providers to schedule a meeting with the clinic EMR trainer for one-on-one training during their first week of independent practice. Four of the six participants met with the EMR trainer during the first week of independent practice, and they felt that the one-on-one training was more beneficial than any other EMR training they received.

Cohort 2

All participants in Cohort 2 felt their EMR training provided a strong foundation for efficient navigation of the EMR. All participants felt they gained the most benefit from the one-on-one training with the EMR trainer. Two of the three participants could complete the one-on-

one training with the EMR trainer during the second week of orientation, as scheduled, while the

third participant completed the training during week three due to scheduling conflicts.

CHAPTER SIX. DISCUSSION AND CONCLUSION

Orientation is a crucial time in the NNPs transition into a new role and organization. The orientation process can be a roadmap for new employees to navigate the ins and outs of the organization. The orientation process should include a system-wide orientation along with a job-specific orientation. The system-wide orientation or on-boarding should include information related to "organization and system's policies, informatics, computer-order entry, safety, equipment training, employee-identification badge process, office access, completing credentialing packets, and setting up voicemail" (Yeager, 2010 p. 87). Clinical orientation should include education about how to "access patient records, enter orders, access dictation lines, access radiographic informatics, build relationships, observe clinical flow, and acquire procedural skills" (Yeager, 2010 p.87).

The NNPs' individual needs and progress ought to dictate the duration of their orientation to support the NNPs confidence, safety, quality care, and ultimately a successful transition to practice. Bahouth and Esposito-Herr (2009) suggested that an NNP's orientation should be at least 12 weeks in duration. However, even with a 12-week orientation, Bahouth and Esposito-Herr believed that the NNP do not have the ability to practice proficiently and independently for at least 1 year of practice.

Both cohorts felt they would get more benefit from a structured orientation process. The orientation of Cohort 1 participants was less structured and differed by location while Cohort 2 orientation was pre-planned, structured, and comprehensive. Common themes found after analyzing the interview data were categorized into General-Provider Orientation, Clinic Orientation, Clinical Competency, and Electronic Medical Record. Organizing the qualitative data into Cohort similarities and differences was helpful to the author when formulating

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recommendations to the target healthcare organization about the orientation process for NNP employees.

General-Provider Orientation

The purpose of the general-provider orientation, Phase 1 of the structured orientation process, is to welcome new providers to the organization and essentially is the *get to know us* component of orientation (Appendix D). The general-provider orientation is a three-day meeting that is a requirement for all new providers. There is a structured itinerary of speakers and topics felt to be important for assimilation in to the organization. During general orientation, the leadership team is introduced to the new providers. Yeager's (2010) recommended that the system orientation should occur at the beginning of orientation and should give an overview of the organization's policies, informatics, EMR use, safety measures, equipment use, employee-identification badge process, office access, and other organization specific information. The general-provider orientation met and exceeded the system orientation recommended by Yeager.

Most participants in both Cohorts had a positive opinion about general-provider orientation. Areas covered during the general-provider orientation were consistent with Yeager's (2010) recommendations of a system-wide education during the initial orientation stages that NNPs are introduced to the organization's policies, informatics, EMR, safety measures, equipment use, employee-identification badge process, and office access. Cohort 1 and 2 participants agreed that the general-provider orientation was comprehensive, yet overwhelming due to the amount of information received. Both cohorts considered the opportunity to network with other new providers as most beneficial.

Clinic Orientation

The NNP develops their practice, and expand their skills and knowledge during the first year of practice (Hill & Sawatzky, 2011). The biggest difference in clinical orientation between Cohort 1 and Cohort 2 was how soon each cohort began seeing patients independently. Cohort 1 did not have a specific orientation plan. Orientation to their new role was via performing as a scribe for another provider or shadowing a designated provider. Cohort 1 felt they would have received benefit from an individualized, structured orientation. Cohort 2 had a structured clinical orientation that included scheduled conversations about the participant's patient schedule and clinical performance. Cohort 2 felt as if they received a very comprehensive orientation and felt confident transitioning to independent practice. Yeager (2010) found a structured orientation fosters a smoother transition and increases role satisfaction and confidence.

In Cohort 1, two participants worked an additional four hours daily while four participants worked an added two hours daily once practicing independently to complete clinical documentation. Cohort 1's extended hours supports the study conducted by Kelly and Mathews (2001) finding that many NNPs experienced a loss of control with their time during their transition into practice, and Hill and Sawatzky's (2011) findings that NNPs needed more time to complete clinical tasks. Cohort 1 was unable to complete clinical tasks throughout the day due to patient scheduling. Hill and Sawatzky (2011) found that NNPs worked longer hours, and had fewer breaks during the day to meet the healthcare organization's expectation that the NNP perform at an experienced NP level. Cohort 2's participants felt that they had adequate time to complete clinical tasks throughout the day post-orientation leading to no extended clinical hours.

The questionnaire (Appendix F) used the term mentor whereas the term preceptor was used in the orientation materials. Often the terms mentor and preceptor are used

interchangeably. To eliminate confusion, the term mentor or mentorship will encompass the terms preceptor or preceptorship. Mentoring is a relationship between a novice and an expert to promote role socialization and self-efficacy, and ultimately a successful role transition (Hill & Sawatzky, 2011). Cohort 1 participants did not have an identified mentor like Cohort 2. Four of the six participants in Cohort 1 and all Cohort 2 participants developed a mentor relationship with another provider during their transition to practice. However, those mentoring relationships were not continued after orientation; the exact reason for not continuing the relationship is unknown. Harrington (2011) found that barriers such as the lack of time, schedule limitations, space constraints, and lack of organizational support contributed to the discontinuation of mentoring. Participants in Cohort 2 continued to have a relationship with their mentor beyond orientation.

Mentorship programs create a supportive environment to fill the transition between didactic and independent practice (Hill & Sawatzky, 2011). There were questions specific to collaboration and supportive environment within the interview questionnaire. Cohort 1 would have liked more input and collaboration with clinic leadership about the number and type of patients scheduled per day and regular feedback about clinical performance. The "fear" expressed by Cohort 1 is similar to the study conducted by Hill and Sawatzky (2011) that NNPs believe they need to practice independently to receive peer support. Yeager's (2010) study found that NNPs have feelings of inadequacy and self-doubt. Cohort 2 participants were comfortable asking other providers clinical questions. Cohort 2 reported all providers in their clinic were approachable and willing to help answer any clinical and non-clinical questions supporting the argument by Harrington (2011) and Fitzpatrick and Gripshover (2016) that the role of a mentor is to guide and counsel NNP during their transition to practice.

There was a consistent theme among participants about the value of interprofessional relationships during orientation and beyond. Most the participants felt they received a friendly and welcoming response from colleagues and staff. The participants did not face a hostile environment or critical interprofessional interactions as discussed in several studies (Fitzpatrick & Gripshover, 2016; Yeager, 2010). The differences between the PIP participants and those described in the literature may be multifactorial. The reason for the friendly and welcoming environment might be attributed to traits of residents in the region of the U.S. where the organization is located. The clinic is located, and the staff lives in the U.S. upper Midwest. Midwest residents ranked highest on a national poll in extraversion and agreeableness and tended to be sociable and affable (Rentfrow, Gosling, Jokela, & Potter, 2013). Using a multisampling approach over 12 years, Rentfrow et al looked at the personality and social characteristics of 612,140 people within three regions in the lower 48 states. Midwesterners were described as friendly, sociable, considerate, dutiful, and traditional people. Participants used some of the same terms to describe colleagues, mentors, and clinic personnel.

Bahouth and Esposito-Herr (2009) reported NNPs develop multiple support systems, and having a positive influence on transition to practice. Four of the six participants in Cohort 1 had little to no time to develop a support system within the clinic, while all participants in Cohort 2 had eight weeks to develop a support system within the clinic. Four of the six Cohort 1 participants were ambiguous about the roles and responsibilities of each member of the clinical team, and learned through "trial and error." All participants in Cohort 2 were aware of the roles and responsibilities of each member of the clinical team through the interactions that occurred during their orientation. Both cohorts identified a need to shadow "ancillary staff" within the clinic during their orientation. Hill and Sawatzky (2011) found that "understanding the clinic's

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flow and staff members' role was essential for the NNPs to understand to how they fit into the clinical team" (p. 162).

Clinical Competencies

The data-collection tool assessed the participants' understanding of primary care quality measures (PCQMs). The Centers for Medicare and Medicaid Services developed and implemented PCQMs to provide guiding principles that are meaningful to patients, consumers, and physicians, while reducing variability in measure selection, collection burden, and cost (Centers for Medicare and Medicaid Services, 2016). The interview questionaire focused on NNPs' awareness about PCQMs. Participants in Cohort 1 obtained their PCQM status during a monthly staff meeting or during a discussion with their clinic's RN health coach. The healthcare organization describes the role of the RN health coach as someone who designs, implements, and maintains health-education programs for communities in order to help prevent the spread of disease and to promote healthy lifestyles. RN health coaches work with health professionals, community officials, and others to develop health services. During the implementation phase of orientation, the healthcare organization added the PCQMs to the intranet home page, and NNPs could view their PCQMs every time they accessed the intranet. Cohort 2 had greater access to their PCQM data and participants were able to recall more measures, when asked.

To be eligible to request privileges for a particular practice area, providers must meet the minimum threshold criteria for privileges set by the employing organization. Threshold criteria consist of minimum standards for training, experience, licensure, certification, and evidence of mental and physical status appropriate to the demands of practice. If the minimum threshold criteria are met, core privileges are granted. The process of granting privileges may differ from organization to organization. Typically, a credentialing committee decides if privileges are

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granted, or if the NP needs to provide additional evidence of training and proficiency. Cohort 1 was not aware how to become credentialed for skills and procedures beyond their core privileges. Two of the three participants in Cohort 2 learned about skill validation and credentialing from their preceptor, and from a "booklet" given to them during general provider orientation. The reason for participants' unfamiliarity with the skill validation and credentialing process is unclear. Participants were given written information about the credentialing process during orientation. NNPs may not need to apply for privileges beyond the core privileges. However, the NNP must be familiar with the core privileges for their area of practice so that they know when added credentialing is needed and how to obtain the credentials. Including skill validation and credentialing on the orientation checklist may be one way to assure the topic is reviewed. According to the participants, they had difficulty finding information about skill validation and privileges on the organizations intranet. The organization may want to look at ways to make the information easier to access.

Electronic Medical Record

Barnes (2015a) suggested that prior experience with EMR might be more important for successful RN to NP transition than previous RN experience. Four of Cohort 1 participants and all three of Cohort 2 participants had worked for the healthcare organization in the past and were familiar with EMR. Cohort 1 thought that the EMR training in the general provider orientation was of no benefit and could be discontinued. Cohort 2 suggested that that the organization could improve the EMR training during general-provider orientation by separating new providers into two groups based on prior experience with the EMR.

Many providers create "quick texts" such as preference lists, favorites, templates for common conditions, and smart phrases to increase their efficiency in using the healthcare

organization's EMR. Time allocated to developing "quick texts" was different between the two cohorts. Both cohorts learned how to create "quick texts" within the EMR during the general-provider orientation. Four of six Cohort 1 participants did not develop "quick texts" before practicing independently due to not knowing the common conditions seen within the clinic. Ultimately, the participants' inability to develop "quick texts" decreased their efficiency using the EMR system, and increased their time to complete clinical documentation. All Cohort 2 participants had time to develop "quick texts" along with observing their mentor's frequently used "quick texts." Cohort 2's use of "quick texts" may account for not needing added time to complete clinical documentation.

Both cohorts thought that one-on-one training with the EMR trainer increased their EMR proficiency and comfort level. Cohort 1 completed one-on-one training by week six of practice, while Cohort 2 completed EMR training by the fourth week of orientation. Cohort 1 requested the one-on-one EMR training when they encountered a problem, while Cohort 2 had the EMR training built into the orientation schedule.

Limitations

The initial intent of the PIP was to develop, implement, and evaluate, an orientation process for new NP and PA providers starting employment at a healthcare organization. The advanced practice leadership group's intent was the creation of a comprehensive, structured, and consistent orientation for NPs and PAs hired to work in primary care. The initial objective of this PIP was to assist in the development, implementation, and evaluation of an orientation program. The focus of the PIP changed when administrators at the healthcare organization implemented a separate structured orientation process. The focus of the PIP shifted to assisting the healthcare organization and the advanced practice leaders to compare and evaluate the

previous and current orientation process by interviewing NNPs who went through previous

orientation (Cohort 1) and the most recent orientation (Cohort 2).

During the time between Cohort 1 and Cohort 2's transition to practice, the healthcare

organization also implemented a team-based model of care for its primary-care clinics. The

National Academy of Medicine defined a team-based model of care as

> The provision of health services to individuals, families, and/or their communities by at
>
> least two health providers who work collaboratively with patients and their caregivers, to
>
> the extent preferred by each patient, to accomplish shared goals within and across settings
>
> to achieve coordinated, high-quality care. (Schottenfeld et al., 2016, p. 2)

The team leader ensures that all team members contribute their clinical expertise by working to

their highest level of training, experience, and licensure (Schottenfeld et al., 2016). A team-base

care model improves patient and provider satisfaction, expands access to care, increases job

satisfaction, improves employee retention, improves time efficiency, and creates an environment

where all medical and non-medical professionals are encouraged to perform work that matches

their abilities (Schottenfeld et al., 2016). Implementing the team-based care may have enhanced

the mentorship received by the Cohort 2 participants by placing patient panels not on one

provider, but all providers on the clinical team.

There were several limitations associated with this practice improvement project. The

limitations are as follows:

- The small sample size limits the ability of the project to create generalized

  recommendations for future orientation processes.

- Participants in Cohort 1 entered practice as a NNP at the organization up to 18

  months prior to data collection, which potentiates the participant's self-reported

biases of selective memory, attribution, and exaggeration. Different results may have

been collected from Cohort 1 if the interviews were conducted in the same period

post-orientation as Cohort 2.

- Collecting data in three different interview forms (face-to-face, e-mail, and telephone)

  may have changed the data obtained from each cohort. Face-to-face interviews

  promote an impromptu response during a period, while the responses from e-mails

  allowed the participant to put thought into their answers. Data collected during

  telephone conversations could not be reviewed to ensure the participant's responses

  were dictated correctly.

- Data could have been collected from more sources, which includes, but not limited to

  clinical peers, clinical leadership, and the EMR. Incorporating multiple avenues of

  data collection during a change in orientation provides more data to assess the impact

  on the NNP, healthcare organization, and patient experience/outcome.

- The interview questionnaire (Appendix F) was derived from barriers found in the

  literature. The questionnaire has not been used in any other studies nor in any other

  organizations.

Recommendations

Throughout the data collection, participants in each cohort offered recommendations to

improve their orientation. Recommendations will be made to the healthcare organization based

on participants' feedback and from the literature. The hope is that the healthcare organization

can use the information to change or improve the orientation process in a way that benefits NNPs

and the healthcare organization. The director of the organization's education department,

advanced practice provider leadership team, and other members of the organization's leadership

team are recommended to implement the recommendations set forth by the cohorts. Identified areas of improvement include Phase 1, clinical orientation, credentialing, and the data collection tool.

The organization may want to review and trim some of the material presented in Phase 1, general-provider orientation, so that new providers are not so inundated with data and people. Perhaps some of the information could be taught using different pedagogic methods. For example, a video recorded message, an interactive electronic module, or even a game like a scavenger hunt.

NNPs should have an opportunity to shadow team members. Enabling a shadowing experience of other clinical team members during the orientation process would ensure that all new NPs learn the roles and responsibilities of all clinical team members throughout the clinic. In utilizing the structured orientation process, the most effective time to implement a shadowing experience with other clinical team members would be in the afternoon of day 14. Day 14 is the transition from department orientation to beginning concurrent visits. On day 14, the NNP maintains their normal schedule with his/her preceptor in the morning, and shadows the other clinical team members throughout the afternoon. Clinical team members identified by the participants are as follows:

- The clinic's scheduler informs the NNP of the scheduling process, the types of patients seen within the clinic, and the time allocated for each visit type.
- The lead RN promotes the NNP's understanding of the roles and responsibilities of nursing staff, the location of supplies, and the patient flow all while developing rapport with the nursing staff.
- The RN health coach to learn about their referral process, role, and services provided.

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Assigning or choosing a consistent preceptor or mentor helps to cultivate the mentoring relationship that will continue long after orientation finished. The preceptor should know the roles and responsibilities of a preceptor. The organization could consider having a designated preceptor for each clinic that is compensated for lost productivity, and is given the time to precept well.

Education pertaining to skill validation and credentialing is needed not only for NNPs, but also for all practicing providers. NNPs should be educated on the organization's policies pertaining to skill validation and credentialing during Phase 1 of orientation. The credentialing committee could periodically distribute paper and electronic information on the steps of credentialing and skill validation, so that all providers have easy access to the information.

The healthcare organization needs to establish a process for the continued evaluation of the orientation process. The data collection tool (Appendix F) can be used to continue to collect data on the orientation process. The department leadership can utilize this tool during the first face-to-face quarterly meeting with the new NP. A question to be included in the data collection tool is to assess scheduled hours verse actual hours worked.

Implication for Practice

Each year the number of NPs graduating and entering the workforce is growing exponentially (AANP, 2015), with up to 80% of the new NPs choosing to work in primary care (Naylor and Kurtzman, 2010). The NNPs provide a sustainable supply of PCPs, which increases patients' access to care, especially in rural and underserved areas. The large number of graduating NPs, and the desperate need for PCPs, creates a good problem for healthcare. NNPs are stepping-up to meet the primary care provider shortage. In the rush to fill PCP positions, we

must not forget about the time and guidance necessary for NNPs to the provider role. The extra effort will be time well spent.

Healthcare organizations that are willing to invest in a NNPs' orientation, transition to practice and role development will benefit from the investment through higher retention rates and other less tangible costs to replace a provider such as a decreases in patient satisfaction, quality metrics, and group moral (Heil, Culhane, & Munkner, 2015). Having a well-planned structured orientation not only familiarizes the NNP with a new environment, but also provides new learning experiences. A well-planned structured orientation should be personalized and designed to bridge the education to practice chasm by providing the tools and resources necessary for a successful transition.

Transitioning from an experienced RN to a practicing NNP can be intimidating and challenging. According to Hart and Bowen (2016), nearly half (49%) of NNPs felt they were practicing outside of their competency level during their first year of clinical practice. A well-planned structured orientation is crucial for the NNP's successful transition, increased confidence, and perceived competence. NNPs who transition poorly, experience lower job satisfaction and feelings of discontentment, contribute to higher turnover rates (Barnes, 2015a).

Due to the limited literature specific to orientation of NNPs entering primary care, healthcare organizations are attempting to define best practices through "trial and error." Educators and healthcare leaders, with input from NNPs, should collectively design an evidence based comprehensive orientation program to effectively transition the large number of NNPs entering practice. The literature that identifies orientation best practices for NNPs is sparse and inconclusive, as also seen in this project.

The small sample size, an inconsistent interview process, and inconsistent orientation experience between and within cohorts limited the applicability of the data to other organizations. At this particular healthcare organization, the small sample of NNPs preferred the structured orientation to 'no orientation', scribing, and or shadowing experiences. Participants discovered that having a scheduled time with a preceptor or mentor improved communication, improved time management, fostered mentoring that continued beyond orientation, and provided a better understanding of the roles and responsibilities of an NP. Additionally, scheduling one-one-one EMR training increased NNPs EMR efficiency and proficiency, allowing for more time away from the clinic.

Conclusion

Healthcare organization, in collaboration with educators, and NNPs must begin to research and develop best practices for NNP transition from expert to novice to expert again. The best approach to successful transition is yet to be discovered. A well-planned, structured orientation process provides a roadmap for NNPs to navigate new role acquisition, develop interprofessional relationships, enhance job satisfaction, and establish mentorship relationships. A well-planned and structured orientation bridges the gap between education and practice by fostering a smoother transition to practice. One healthcare organization recognized the need for a better orientation and implemented that orientation allowed evaluation through this PIP and will make changes of improvements that benefit the NNP, the organization, the clinical team, and ultimately the patient.

REFERENCES

American Association of Nurse Practitioners (2015). *NP facts*. Retrieved from

    https://www.aanp.org/images/documents/about-nps/npfacts.pdf.

Aston, G. (2011). Calling all docs: Primary care shortage looms large. *Hospitals & Health*

    Networks, *85*(4), 11.

Bahouth, M., & Esposito-Herr, M. (2009). Orientation program for hospital-based NNPs.

    American Association of Critical Care Advanced Critical Care Journal, *20*(1), 82-90.

Barnes, H. (2015a). Exploring the factors that influence nurse practitioner role transition. *Journal*

    for Nurse Practitioners, 11(2), 178-183.

Barnes, H. (2015b). Nurse practitioner role transition: A concept analysis. *Nursing Forum, 50*(3),

    137-146.

Bauer, J. C. (2010). NNPs as an underutilized resource for health reform: Evidence-based

    demonstrations of cost-effectiveness. *Journal of the American Academy of Nurse*

    Practitioners, *22*, 228-231.

Benner, P. (1982). From novice to expert. *The American Journal of Nursing*, *82*(3), 402-407.

Blake, N. (2015). The nurse leader's role in supporting healthy work environments. *American*

    Association of Critical Care Nurses Advanced Critical Care, 26(3), 201-203.

Centers for Medicare & Medicaid Services (2016*). Consensus core set: ACO and primary care*

    measures. Retrieved from https://www.cms.gov/Medicare/Quality-Initiatives-Patient-

    Assessment-Instruments/QualityMeasures/Core-Measures.html

Dillon, D. L., Dolansky, M. A., Casey, K., & Kelley, C. (2016). Factors related to successful

    transition for practice for acute care nurse practitioners. *American Association of Critical*

    Care Advanced Critical Care Journal, 27(2), 173-182.

Faraz, A. (2016a). Novice nurse practitioner workforce transition and turnover intention in

    primary care. *Journal of the American Association of Nurse Practitioners, 29*(1), 26-34.

Faraz, A. (2016b). Novice nurse practitioner workforce transition into primary care: A literature

    review. *Western Journal of Nursing Research, 38*(11), 1531-1545.

Fitzgerald, M.A. (Ed.) (2015). Residency and fellowship programs: NNP residency and

    fellowship programs: gaining momentum. *Fitzgerald Health Education Associates, 15*(1).

    Retrieved from http://fhea.epubxp.com/i/455302/0.

Fitzpatrick, S. & Gripshover, J. (2016). Expert nurse to novice nurse practitioner: The journey

    and how to improve the process. *Journal of Nurse Practitioners, 12*(10), 419-421.

Harrington, S. (2011). Mentoring new NNPs to accelerate their development as primary care

    providers: A literature review. *Journal of the American Academy of NNPs*, *23*, 168-174.

    doi:10.1111/j.1745-7599.2011.00601.x

Harris, C. (2014). Bridging the gap between acute care NNP education and practice: The need

    for postgraduate residency programs. *Journal for NNPs*, *10*(5), 331-336.

Hart, A. M., & Bowen, A. (2016). New nurse practitioners' perceptions of preparedness for and

    transition into practice. *Journal for Nurse Practitioners, 12*(8), 545-522.

Heil, J., Culhane, D. & Munkner, J. (2015). Perspectives on the acute care continuum: Shedding

    light on the cost of provider turnover. Retrieved from http://www.cepamerica.com/news-

    resources/perspectives-on-the-acute-care-continuum/july-2015/cost-of-physician-

    turnover-retention#sthash.N7vPqOCw.dpuf.

Hill, L. A., & Sawatzky, J. V. (2011). Transitioning into the NNP role through mentorship.

    Journal of Professional Nursing, *27*(3), 161-167. doi:10.1016/j.profnurs.2011.02.004

Hooker, R. S., & Everett, C. M. (2011). The contributions of physician assistants in primary care

    systems. *Health and Social Care in the Community*, *20*(1), 20-31. doi:10.1111/j.1365-

    2524.2011.01021.x

Institute of Medicine (US). Committee on the Robert Wood Johnson Foundation Initiative on the

    Future of Nursing. (2015). *The future of nursing: Leading change, advancing health*.

    Retrieved from

    http://www.nationalacademies.org/hmd/~/media/Files/Report%20Files/2010/The-Future-

    of-Nursing/Future%20of%20Nursing%202010%20Recommendations.pdf.

Kelly, N. R., & Mathews, M. (2001). The transition to first position as NNP. *Journal of Nursing*

    Education, *40*, 156-162.

Naylor, M. D. & Kurtzman, E. T. (2010). The role of nurse practitioners in reinventing primary

    care. *Health Affairs, 29*(5), 893-899.

Nurse practitioners in primary care. (2016). *American Academy of Nurse Practitioners*.

    Retrieved from

    https://www.aaNNP.org/aaNNPqa2/images/documents/publications/NNPsINNPrimaryCa

    re.pdf

Owens, G. M. (2012). Primary care shortages: It is all about the money after all. *American*

    Health & Drug Benefits, 5(1), 47.

Pericak, A. (2011). Increased autonomy for NNPs as a solution to the physician shortage.

    Journal of the New York State Nurses Association, *42*(1), 4-7.

Poghosyan, L., Boyd, D., & Knutson, A. (2014). NNP role, independent practice, and teamwork

    in primary care. *The Journal for NNPs*, *10*(7), 472-479.

Poghosyan, L., Lucero, R., Rauch, L., & Berkowitz, B. (2012). NNP workforce: A substantial supply of primary care providers. *Nursing Economics*, *30*(5), 268-274.

Pohl, J., Thomas, A., Barksdale, D., & Werner, K. (2016). Primary care workforce: The need to remove barriers from nurse practitioners and physicians. Retrieved from http://healthaffairs.org/blog/2016/10/26/primary-care-workforce-the-need-to-remove-barriers-for-nurse-practitioners-and-physicians.

Rentfrow, P. J., Gosling, S. D., Jokela, M., & Potter, J. (2013). Divided we stand: Three psychological regions of the United States and their political, economic, social, and health correlates. *Journal of Personality and Social Psychology, 105*(6), 996-1012.

Schottenfeld, L., Petersen, D., Peikes, D., Ricciardi, R., Burak, H., McNellis, R., & Genevro, J. (2016). *Creating patient-centered team-based primary care* (AHRQ Publication No. 16-0002-EF). Rockville, MD: Agency for Healthcare Research and Quality.

Schwartz, S.K. (2013). Reducing medical practice staff turnover. Retrieved from http://www.physicianspractice.com/staff/reducing-medical-practice-staff-turnover.

Sullivan-Bentz, M., Humbert, J., Cragg, B., Legault, F., Laflamme, C., Bailey, P. H., & Doucette, S. (2010). Supporting primary health care NNPs' transition to practice. *Canadian Family Physician*, *56*(11), 1176-1182.

Taylor, M. J., McNicholas, C., Nicolay, C., Darzi, A., Bell, D., & Reed, J. E. (2013). Systematic review of the application of the plan-do-study-act method to improve quality in healthcare. *British Medical Journal*, *23*(4), 1-9. doi:10.1136/bmjqs-2013-001862

Tourigny, L., & Pulich, M. (2005). A critical examination of formal and informal mentoring among nurses. *The Health Care Manager*, *24*(1), 68-76.

Tribal Evaluation Institute. (n.d.). Plan-Do-Study-Act. Retrieved from

http://www.tribaleval.org/cqi/plan-do-study-act-pdsa/

Vanderbilt Center for Teaching. (n.d.). Pedagogy for professional schools and students.

Retrieved from https://cft.vanderbilt.edu/guides-sub-pages/pedagogy-for-professional-

schools-and-students

Yeager, S. (2010). Detraumatizing NNP orientation. *Journal of Trauma Nursing*, *17*(2), 85-101.

Zapatka, S. A., Conelius, J., Edwards, J., Meyer, E., & Brienza, R. (2014). Pioneering a primary

care adult NNP interprofessional fellowship. *Journal of NNPs*, *10*(6), 378-386.

APPENDIX A. PERMISSION TO USE BENNER'S "NOVICE TO EXPERT" NURSING

THEORY IMAGE

From: Coble, Richard <richard.r.coble@vanderbilt.edu> and McDaniel, Rhett

<rhett.mcdaniel@vanderbilt.edu>

Sent: Monday, February, 13, 2017 7:53 AM

To: Czapiewski, Dustin <dustin.czapiewski@ndsu.edu>

Subject: Permission for use of images

Dear Dustin,

Thank you for this email. I am fine with your using the image, as long as you document it

properly.

However, I would ask that you also receive permission from Rhett McDaniel (cc'd here),

Educational Technologist at Vanderbilt's Center for Teaching. He was the one who developed

the image after I wrote the guide.

All the best with your research.

Richard

Richard Coble

Religion, Psychology and Culture Graduand

Theology and Practice Fellow

Dear Dustin,

Certainly. Everything on the CFT site is offered as Creative Commons. It would be nice

to site the source as Vanderbilt Center for Teaching.

Rhett McDaniel

Educational Technologist | Center for Teaching

Vanderbilt University

1114 19th Avenue South, 3rd. Floor

P: 615-322-3424

F: 615-343-8111

APPENDIX B. PERMISSION TO USE THE REPEATED PDSA CYCLE

From: Salvador, Melina <salvador@jbassoc.com>

Sent: Monday, February, 13, 2017 10:38 AM

To: Czapiewski, Dustin <dustin.czapiewski@ndsu.edu>

Subject: Permission for use of images

Hi Dustin,

We are thrilled that you have found our resources useful. Please feel free to use the image in

your presentation. We just ask that you cite the website if only to increase access.

Please let me know if you have any other questions.

Best,

Melina

Melina Salvador, MA

Research Associate

James Bell Associates, Inc.

3033 Wilson Blvd. Suite 650

Arlington VA 22201

Phone: 505.990.9052

APPENDIX C. NDSU IRB APPROVAL

NDSU NORTH DAKOTA
STATE UNIVERSITY

May 25, 2016

Dr. Tina Lundeen
Nursing

Re: IRB Certification of Exempt Human Subjects Research:
Protocol #PH16292, "Enhancing the Orientation Process for Nurse Practitioners Entering Primary Care"

Co-investigator(s) and research team: Dustin Czapiewski

Certification Date: 5/25/2016   Expiration Date: 5/24/2019
Study site(s): Sanford Health (upon approval)
Sponsor: n/a

The above referenced human subjects research project has been certified as exempt (category # 1, 2b) in accordance with federal regulations (Code of Federal Regulations, Title 45, Part 46, Protection of Human Subjects). This determination is based on the revised consent/information sheet (received 5/25/2016).

Please also note the following:
• If you wish to continue the research after the expiration, submit a request for recertification several weeks prior to the expiration.
• The study must be conducted as described in the approved protocol. Changes to this protocol must be approved prior to initiating, unless the changes are necessary to eliminate an immediate hazard to subjects.
• Notify the IRB promptly of any adverse events, complaints, or unanticipated problems involving risks to subjects or others related to this project.
• Report any significant new findings that may affect the risks and benefits to the participants and the IRB.

Research records may be subject to a random or directed audit at any time to verify compliance with IRB standard operating procedures.

Thank you for your cooperation with NDSU IRB procedures. Best wishes for a successful study.
Sincerely,

Kristy Shirley

Digitally signed by Kristy Shirley
DN: cn=Kristy Shirley, o=NDSU,
ou=Institutional Review Board,
email=kristy.shirley@ndsu.edu,
c=US
Date: 2016.05.25 14:12:21 -05'00'

Kristy Shirley, CIP, Research Compliance Administrator

For more information regarding IRB Office submissions and guidelines, please consult http://www.ndsu.edu/research/integrity_compliance/irb/. This Institution has an approved FederalWide Assurance with the Department of Health and Human Services: FWA00002439.

INSTITUTIONAL REVIEW BOARD
NDSU Dept 4000 | PO Box 6050 | Fargo ND 58108-6050 | 701.231.8995 | Fax 701.231.8098 | ndsu.edu/irb

Shipping address: Research 1, 1735 NDSU Research Park Drive, Fargo ND 58102

NDSU is an EO/AA university.

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APPENDIX D. GENERAL-PROVIDER ORIENTATION SAMPLE SCHEDULE

(INSERT NAME, EMPLOYEE #, SPECIALTY & LOCATION HERE)
(Insert dates here)
(If hotel reservation, enter info here – place address, confirmation #)

Day 1	
8:45 am	Meet organization representative in the main lobby
9:00 – 9:30 am	Professional Photo
9:30 – 10:00 am	Employment Paperwork
10:00 – 10:30 am	Compensation
10:30 – 11:15 am	Benefits
11:15 – 11:30 am	Radiology
11:30 – 11:45 am	Lab
11:45 – 12:45 pm	Welcome Lunch with Directors, Vice Presidents, and Department Chairs
1:00 – 2:00 pm	Intro to Computer Applications
2:00 – 4:00 pm	EMR Training
Day 2	
8:00 – 9:00 am	Coding
9:00 – 9:30 am	Meaningful Use
9:30 – 10:00 am	Medication Management/Pharmacy
10:00 – 11:00 am	Communication/Professionalism
11:00 – 11:30 am	Break
11:30 – 11:45 am	Utilization Management
11:45 – 12:00 pm	Infection Control
12:00 – 1:00 pm	Lunch with Disclosure/Risk Management
1:00 – 1:15 pm	Health Information Management
1:15 – 2:00 pm	Break
2:00 – 4:00 pm	EMR Training
Day 3	
8:00 – 9:00 am	Breakfast with Administration
9:00 – 9:15 am	Media & Marketing
9:15 – 10:00 am	Cultural Diversity
10:00 – 10:30 am	Corporate Compliance
10:30 – 10:45 am	Public Affairs
10:45 – 11:15 am	Quality
11:15 – 11:45 am	Welcome to the organization
11:45 – 12:30 pm	Lunch on your own
12:30 – 4:30 pm	EMR Training

APPENDIX E. STRUCTURED ORIENTATION PROCESS

Objective: The objective of the orientation plan is to orient and prepare the NNP to function in their assigned role at the completion of the plan.

- The plan includes didactic and clinical training provided by the staff and supervising physicians. Progress reviews are built into the plan for ongoing communication and evaluation.

- The orientation plan is concluded through mutual agreement of the individual and clinical team.

- The plan generally occurs in four phases over a period of four to eight weeks, which may vary based upon individual training and experience.

Primary Preceptor: (Director/Department Chair to assign)

Phase 1: General Orientation:

Park on the top floor of the parking deck located north of the main hospital.

Day 1-4: This is general-provider orientation. A detailed itinerary will be provided by the medical staff office.

Phase 2: Department Orientation: (Days 4 – End of week 2)

Day 4: 1 pm: Meet with (Director/Clinical Supervisor) Welcome & Introduction.

___Introduction to clinical team

___Review clinic workflow

___Scheduling template

___Tour

___Department norms (parking, time sheet, vacation requests, ill calls, call schedules etc.)

Day 5 –End of week 2: 0800-1700 Observe practice (Define specifically who they will shadow by day). NNP to set up documentation templates, smart phrases

Example:

Friday, March 25th

8:00am-12:00 pm: Shadow physician or NNP

12:00 pm – 1:00 pm: department welcome lunch

1:00 pm-4:00 pm: Shadow physician or NNP

4:00 pm– 5:00 pm: set up documentation templates, smart phrases

Phase 3: Begin Concurrent Visits: (Week 3-4)

Week 3: Begin concurrent clinic visits where the NNP performs and documents the entire visit under the direct supervision of the preceptor. Continue to build smart phrases.

Week 4: Schedule NNP 60 minute visits. Schedule CI Ops/HAT to work with NNP. CI Ops/HAT should be scheduled for 1 hour during week 5. Review at the end of week four with preceptor. Determine schedule for following week. Consider increasing schedule to 45 minute visits of normal template for the following week. If appropriate proceed to Phase 4.

Week 5: Begin concurrent hospital rounds/visits where the NNP performs and documents the entire visit under the supervision of the preceptor if applicable. Review at the end of week five. If appropriate proceed to Phase 4.

Week 6: Schedule NNP at least 45 minute visits. Review at the end of week six with preceptor. Determine schedule for following week. Consider increasing schedule to 30-minute visits of normal template for the following week. If appropriate, proceed to Phase 4.

Week 8: Schedule NNP at least 30 minute visits. Review at the end of week eight with preceptor. Determine schedule for following week. Consider increasing schedule 75% visits of normal template for the following week. If appropriate, proceed to Phase 4.

Phase 4: Conclusion of Orientation

Conclusion of orientation and complete the NNPs Patient Schedule. This would be determined at the conclusion of Phase 3, and would be done in collaboration with members of the team. It is anticipated this would occur at the end of 3 to 8 weeks depending on experience.

Other:

(Date/time) At one month after the NNP has been seeing patients, schedule a 1:1 meeting with the department coder and NNP to review documentation and LOS.

(Date/time) 30-day check in with Director/Clinical Supervisor. Schedule follow up resource meetings as needed.

(Date/time) 60-day check in with Director/Clinical Supervisor.

(Date/time) 90-day check in with Department Chair/VP.

(Date/time) At three month after the NNP has been seeing patients, schedule a 1:1 meeting with the department coder and preceptor to review documentation and LOS.

(Date/time) quarterly check in with Director/Department Chair/VP for first year in practice.

APPENDIX F. NOVICE NURSE PRACTITIONER INTERVIEW QUESTIONAIRE

Demographics:

Gender: Male   Female   Age:_____

Status: Full-Time (≥ 0.8 FTE)   Part-Time (<0.8 FTE)

Years as practitioner (in months):_____

Specialty: Family Medicine   Internal Medicine

Have you worked at Sanford Health in the past?   Yes   No

Are you new to this role in Sanford Health?   Yes   No

Have you worked in the clinic where you are practicing

before entering the role you are currently in?   Yes   No

General-Provider Orientation:

1. Was the general-provider orientation / Phase one comprehensive, and was pertinent material

    discussed? What was most/least beneficial part of this orientation?

2. How was the training / education in policies, benefits, EMR training, and procedural skills?

3. Is there anything you would have like added / removed during this part of the orientation?

Clinical Orientation:

1. Is there a current orientation process in the clinic, and if not, would one be of benefit?

2. Were you introduced to other staff members and informed of point of contacts with practice

    and clinical concerns? Were you supported and welcomed as a new team member upon

    entering practice?

3. How did you learn your roles and responsibilities?

4. Is there a mentoring program, if so did you participate in it?

5. Is there other provider available to ask questions, and why did you chose those providers?

6. Are you aware of the quality indicators in your practice? If so, what are they? How did you learn about your quality indicators? How frequently do you asses and evaluated on your quality indicators? How do you plan to improve your quality indicators in the future?

Practice Specifics:

1. What type of patients were you assigned after your orientation? Were you involved in this decision? How did you feel about seeing the type of patient's you were assigned?

2. How many patients were you *expected* to see per day after your orientation? Were you involved in this decision? How would you like to see your patient load increase to reach a full load?

3. How long were patients scheduled after your orientation? Were you involved in this decision? How did you feel about seeing patient's during the scheduled time?

4. Was utilizing the organizations electronic medical record user friendly to ensure you maintain a balance between time with the patient and time for documenting the visit? What would you consider was the most difficult part of utilizing the organization's electronic medical record?

Preceptor specifics:

1. Did you have an opportunity to work with or shadow other clinical members prior to seeing patients independently? With whom and how long? Would this be beneficial prior to entering practice?

Educational Preparation

1. Are you aware of what procedural skills you can perform in the clinic? What are they? What is the process of obtaining and maintaining credentials to perform the skills you may perform in the clinic?

NDSU **North Dakota State University**

Department of Nursing

Campus Address

NDSU Dept. 2670

PO Box 6050

Fargo, ND 58108-6050

701.231.8995

Title of Research Study: Enhancing the Orientation Process for Nurse Practitioners

Entering Primary Care

Greetings nurse practitioners:

My name is Dustin Czapiewski. I am a graduate student in the doctor of nursing practice program at North Dakota State University (NDSU), and I am conducting a research project to improve the novice nurse practitioner (NNP) orientation process in primary care at Sanford Health. With this research, we will learn more about the current orientation process for novice nurse practitioners entering the primary care setting. The goal is to evaluate previous orientation processes, and assist in the development an orientation process that can be individualized for NNPs in primary care clinical setting at Sanford Health.

Because you are nurse practitioner who entered the primary care setting at Sanford Health within the past two years, you are invited to participate in this research project. You will be one of approximately 10 people being interviewed for this study.

You may find it interesting and thought provoking to participate in the interview. If, however, you feel uncomfortable in any way during the interview session, you have the right to decline to answer any question(s), or to end the interview.

It should take about 30 minutes to complete the interview. You will be asked about demographics, NNP perceptions of general and department specific orientation, and perceptions of ease of transition to practice. The interview will be audio recorded, and transcribed by the researcher. All research records that may identify you will be kept private. When the interview is transcribed, you will be given a pseudonym, and other potentially identifying information will be left out of the transcripts. In any written documents (including publications) regarding the study, only the pseudonym will be used.

Audio files will be stored in a password-protected file on a computer that is only accessible to the principal investigator and co-investigators. Electronic copies of the interview transcripts will be saved and protected in the same fashion. After the data has been analyzed, the audio recordings will be deleted.

If you have any questions about the study, please contact me at 701-261-8756 or dustin.czapiewski@ndsu.edu, or contact my advisor at Dr. Tina Lundeen, 701-231-7747 or tina.lundeen@ndsu.edu.

You have rights as a research participant. If you have questions about your rights or complaints about this research, you may talk to the researcher or contact the NDSU Human Research Protection Program at 701.231.8995, toll-free at 1-855-800-6717, by email at ndsu.irb@ndsu.edu, or by mail at: NDSU HRPP Office, NDSU Dept. 4000, P.O. Box 6050, Fargo, ND 58108-6050.

Thank you for your taking part in this research. If you wish to receive a copy of the results,

please notify me at dustin.czapiewski@ndsu.edu.

APPENDIX H. EXECUTIVE SUMMARY

Background and Significance

Novice nurse practitioners (NNPs) face many challenges when transitioning to practice, which include, but are not limited to, time management, interprofessional relationships, role ambiguity, transition shock, inconsistent onboarding, and lack of mentorship. The process of transitioning from an experienced registered nurse (RN) to a NNP creates role ambiguity, self-doubt, and feelings of inadequacy (Yeager, 2010). A structured orientation is shown to be more beneficial than previous RN experience. A structured orientation fosters a smoother transition, increases role satisfaction, retention, and confidence. When healthcare organizations are able to anticipate and minimize barriers, they increase the likelihood that NNPs experience a seamless and successful transition.

Project Summary

A well-planned and structured orientation should meet the needs of NNPs with and without familiarity with the organization's operations. The purpose of this project was to evaluate the orientation process at a healthcare institution. Using a plan-do-study-act (PDSA) model the orientation process was evaluated, barriers identified, and recommendations made to the organization. Two cohorts of NNPs were interviewed. Cohort 1 worked at the healthcare organization for 12-18 months, while Cohort 2 worked at the healthcare organization for 1-5 months. Both cohorts had the same general orientation; however, Cohort 2 had a more structured clinical orientation.

<center>**Common Themes**</center>

General-Provider Orientation

The majority of the participants in both Cohorts had a positive opinion about general-provider orientation. Areas covered during the general-provider orientation were consistent with Yeager's (2010) recommendations of a system-wide education during the initial orientation stages that NNPs are introduced to the organization's policies, informatics, EMR, safety measures, equipment use, employee-identification badge process, and office access. Cohort 1 and 2 agreed the general-provider orientation was overwhelming and comprehensive; yet provided an opportunity to network with other new providers.

Clinic Orientation

The biggest difference in clinical orientation between Cohort 1 and Cohort 2 was how soon each cohort began seeing patients independently. Cohort 1 did not participate in a structured clinical orientation. Orientation to their new role was via performing as a scribe for another provider or shadowing a designated provider. Cohort 1 felt they would have benefitted from an individualized, structured orientation. Cohort 2 had a structured clinical orientation that included scheduled conversations about patient schedule and clinical performance. Cohort 2 felt as if they received a very comprehensive orientation and felt confident transitioning to independent practice.

In Cohort 1, two participants worked an additional four hours daily while four participants worked an additional two hours daily once practicing independently to complete clinical documentation. Cohort 1's extended hours supports Kelly and Mathews (2001) study finding that many NNPs experience a loss of control with their time during their transition into practice, and Hill and Sawatzky (2011) findings that NNPs need more time to complete clinical

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tasks and meet the healthcare organization's expectations. Cohort 1 was unable to complete clinical tasks throughout the day due to patient scheduling. Cohort 2's participants felt that they had adequate time to complete clinical tasks throughout the day post-orientation.

The data collection tool used the term mentor whereas the term preceptor was used in the orientation materials. Often the terms mentor and preceptor are used interchangeably. To eliminate confusion, the term mentor or mentorship will encompass the terms preceptor or preceptorship. Cohort 1 participants did not have an identified mentor like Cohort 2. Four of the six participant in Cohort 1 and all Cohort 2 participants developed a mentor relationship with another provider during their transition to practice. The relationships formed in Cohort 1 ceased at the completion of the orientation process, which may be due to the barriers identified by Harrington (2011) of time, schedule limitations, space constraints, or organizational support. The PIP was unable to capture the indication from the participants on why the relationships between their mentors ceased at the end of the orientation process. All participants in Cohort 2 continued their mentoring relationship beyond orientation.

Assessing the NNPs perception of collaborating with other providers is how the project's questionnaire obtained data addressing the presence or absence of a supportive environment. Cohort 1 wanted to collaborate with clinic leadership about the number and type of patients scheduled per day and to get feedback about their clinical performance. The "fear" expressed by Cohort 1 may support Hill and Sawatzky (2011) findings that NNPs think they need to practice independently in order to obtain their peers' respect or Yeager (2010) findings of NNPs feeling inadequate and experiencing self-doubt. Cohort 2 participants were comfortable asking other providers clinical questions. Cohort 2 reported all providers in their clinic were approachable and willing to help answer any clinical and non-clinical questions supporting Harrington (2011)

and Fitzpatrick and Gripshover (2016) roles of a mentor is to guide and counsel NNP during their transition to practice.

There was a consistent theme among participants about the value of interprofessional relationships during orientation and beyond. The majority of the participants felt they received a friendly and welcoming response from colleagues and staff. The participants did not face a hostile environment or critical interprofessional interactions as discussed in several studies (Fitzpatrick & Gripshover, 2016; Yeager, 2010). The difference between the PIP participants and those described in the literature may be multifactorial. The cause for the friendly and welcoming environment could be attributed to organizations location. The healthcare organization and clinic staff live in the U.S. upper Midwest. Midwest residents ranked highest on a national poll in extraversion and agreeableness and tend to be sociable and affable (Rentfrow, Gosling, & Potter, 2008). Perhaps the clinical team wanted to start the relationship on a positive note, leading the team to better deal with stressful situations in the future (Yeager, 2010).

Bahouth and Esposito-Herr (2009) reported NNPs develop multiple support systems, and having a positive influence on transition to practice. Four of the six participants in Cohort 1 had little to no time to develop a support system within the clinic, while all participants in Cohort 2 had eight weeks to develop a support system within the clinic. Four of the six Cohort 1 participants were ambiguous about the roles and responsibilities of each member of the clinical team, and learned through "trial and error." All participants in Cohort 2 were aware of the roles and responsibilities of each member of the clinical team through the interactions that occurred during their orientation. Both cohorts identified a need to shadow "ancillary staff" within the clinic during their orientation. Hill and Sawatzky (2011) found that "understanding the clinic's

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flow and staff members' role was essential for the NNPs to understand to how they fit into the clinical team" (p. 162).

Clinical Competencies

The data-collection tool assessed the participants' awareness about primary care quality measures (PCQMs). Participants in Cohort 1 obtained their PCQM status during a monthly staff meeting or during a discussion with their clinic's RN health coach. During the implementation phase of orientation, the healthcare organization added the PCQMs to the intranet home page, and NNPs could view their PCQMs every time they accessed the intranet. Cohort 2 had greater access to their PCQM data and participants were able to recall more measures, when asked.

To be eligible to request privileges for a particular practice area, providers must meet the minimum threshold criteria for privileges set by the employing organization. Threshold criteria consist of minimum standards for training, experience, licensure, certification, and evidence of mental and physical status appropriate to the demands of practice. If the minimum threshold criteria are met, core privileges are granted. The process of granting additional privileges may differ from organization to organization. Typically, a credentialing committee decides if privileges are granted, or if the NP needs to provide additional evidence of training and proficiency. Cohort 1 was not aware how to obtain additional skill validation and credentialing, and incorrectly reported the healthcare organization's skills credentialing process. In contrast, two of the three participants in Cohort 2 were aware how to obtain skill validation and credentialing, and correctly report the credentialing process. The Cohort 2 participants attained this information from their preceptor, and from a "booklet" given to them during clinical orientation.

Reasons for the lack of knowledge about skill validation and credentialing included a multitude of factors. The cause of the uncertainty about skill validation and credentialing for six of the nine participants may have occurred because the participants in neither cohort had the opportunity to perform skills during their orientation. The participants' clinic may utilize few to no procedural skills, causing the participants to be unaware of the validation and credentialing process. Information addressing skills credentialing is difficult to find and confusing in the organizations Department of Professional Practice intranet share-point.

Electronic Medical Record

Barnes (2015a) suggested that prior experience with EMR might be more important for successful RN to NP transition than previous RN experience. The majority of Cohort 1 familiar with EMR use received no benefit from EMR training during general-provider orientation. All participants in Cohort 2 expressed benefit from the EMR training during the general-provider orientation due to separating new providers into two groups based on prior experience with EMR use, which did not occur in Cohort 1

Time allocated to developing "quick texts" was different between the two cohorts. Both cohorts learned how to create "quick texts" within the EMR during the general-provider orientation. Four of six Cohort 1 participants did not develop "quick texts" before practicing independently due to not knowing the common conditions seen within the clinic. Ultimately, the participants' inability to develop "quick texts" decreased their efficiency using the EMR system, and increased their time to complete clinical documentation. All Cohort 2 participants had time to develop "quick texts" along with observing their mentor's frequently used "quick texts." Cohort 2's utilization of "quick texts" may account for not needing additional time to complete clinical documentation.

Both cohorts thought that one-on-one training with the EMR trainer increased their EMR proficiency and comfort level. Cohort 1 completed one-on-one training by week six of practice, while Cohort 2 completed EMR training by the fourth week of orientation. Cohort 1 requested the one-on-one EMR training when they encountered a problem, whereas Cohort 2 had the EMR training built into the orientation schedule.

Recommendations

Common themes identified through the participant's recommendations and the data collected formulate the recommendations presented to the healthcare organization. It is believed that implementing recommendations proposed by the participants, will improve the transition to practice within this healthcare organization. Phase 1 needs to be reviewed in the amount and type of information being presented to new NPs. Less pertinent information should be disseminated in the form of a PowerPoint or computer module, which the new NP can review during Phase 2. The Cohorts requested shadowing experiences with the clinic's scheduler, lead RN, and RN health coach. Implementation of a consistent preceptor who is informed of their roles and responsibilities. The implementation of education on skill validation and credentialing during Phase 1, and during the clinic's monthly provider meeting. The continued evaluation of the orientation process through the department leadership team utilizing the data collection tool during the first face-to-face quarterly meeting with the new NP.