UNIVERSITY OF CALIFORNIA

Los Angeles

Mentoring the New to Practice Nurse Practitioner

A dissertation submitted in partial satisfaction of the

requirements for the degree

Doctor of Nursing Practice

by

Marilyn Douglas

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ABSTRACT OF THE DISSERTATION

Mentoring the New to Practice Nurse Practitioner

by

Marilyn Douglas

Doctor of Nursing Practice

University of California, Los Angeles, 2024

Professor Nancy Blake, Co-Chair

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Background: There is a critical shortage of medical providers in the United States (U.S), and over the next ten years, the Association of American Medical Colleges estimates there will be a shortfall of more than 122,000 physicians nationally, which will impact healthcare access and equity. However, the supply of nurse practitioners (NPs) is projected to increase significantly during the same period. In addition, the state of California passed AB890 in 2023, which offers a path for NPs to practice within the full scope of their license. Supporting the transition of new NPs into new clinical roles while ensuring safe, effective care requires both adequate orientation

and mentoring. Effective mentorship has been shown to promote retention, job satisfaction and professional socialization during the role transition of the first year of practice.

Objective: The purpose of this project was to assess the impact of a structured peer mentoring program on perceived competence and self-confidence and role transition for NPs with less than a year in practice.

Methods: An interventional, quality improvement (QI) project was used. Eligible NPs volunteered to receive eight one-on-one weekly mentoring sessions over two months with an experienced advanced practice nurse. The Novice Nurse Practitioner Role Transition Tool (NNPRT), a questionnaire that assesses role transition for novice NPs, was administered to the participants before and after the mentoring intervention. Overall NNPRT scores, perceived competence and self-confidence sub scores, and mentorship scores were calculated and analyzed using paired t-tests to compare mean scores.

Results: Nine NPs volunteered for participation with an attrition of 1 NP, resulting in a completion rate of 89%. When pre-and post-intervention were compared using a paired t test, no statistical difference was observed (p=.35). The questions evaluating the mentorship subdomain were all positive on the post-intervention survey. The questions evaluating mentorship were all positive with respondents rating at least “agree” on the post-intervention survey, however, these results may not support that the eight sessions of mentoring contributed to an improvement in role transition.

Limitations: The small sample size and convenience sampling threaten external validity, decreasing generalizability of the results beyond the context of the project. The variability in the quality of the orientations and mentoring sessions is a confounding factor that may have influenced responses, resulting in higher pre-mentoring scores. The eight mentoring sessions

were completed over two months which may not have been enough time for the mentees to use the tools provided in the sessions. Lastly, the NNPRT tool does not specifically measure aspects of role transition that may be important, such as role identity or sense of belonging.

Conclusion: Despite many limitations that may have influenced the results of the project, much can be learned. The project did not demonstrate statistical significance but did highlight the potential challenges of NP structured mentoring programs. Structured mentoring formats with more sessions over longer time periods warrant further investigation and may enhance feasibility for busy clinicians. Additional research is needed to support the recommendation of structured mentoring to improve role transition for novice NPs during the first year of practice.

The dissertation of Marilyn Douglas is approved.

Nancy Blake, Co-Chair

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2024

This dissertation is dedicated FIRST to God. Then, to my incredible village of supporters. To my family back east in N.Y, your support over the years is the wind beneath my wings. I've learned excellence, fortitude, and resilience from great mentors. It is your mentorship that gave me this passion project. To my friends that pushed me through and out, thank you for not taking no as an answer. You reminded me of who I am and was born to be even when life literally threatened me. To my son, Sharod, your encouragement, and reminders of our strength as a family kept me going despite the odds. I persevered to show you what you are capable of. I pray I remained a good example. Finally, to the UCLA family, the professors, my committee, and chair, there are not enough thankful words to express all that you've taught me and how your expectations of me provided a much-needed challenge. And to Cohort # 5, we became instant family and pulled each other through. I know our friendships will continue for many years to come.

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CHAPTER ONE: INTRODUCTION

Nurse practitioners (NPs) play a critical role in the delivery of health care in the United States (U.S). In recent decades, states have relaxed legislation regarding NP practice autonomy and supported an expanded NP scope of practice to meet the health care needs of the population. The Association of American Medical Colleges estimates a projected shortage of more than 122,000 physicians nationally over the next ten years, with direct consequences to healthcare access and equity (Ahmed & Carmody, 2020). Compounding the shortage is the 2020 novel coronavirus (COVID-19) pandemic which resulted in severe impacts to overall staffing in healthcare (Zhang, 2020). In California, the physician shortage exceeds supply by twelve to seventeen percent, with an estimated 60 physicians per 100,000 patients. In more rural areas, this number can be as low as 39 physicians per 100,000 patients. At the same time, the number of primary care physicians is projected to decrease 25% by 2030 (Healthforce Center at UCSF et al., 2017). Conversely, the supply of advanced practice providers is projected to increase significantly within the same time, with nearly half of California's primary care clinicians being nurse practitioners (NPs) or physician assistants (PAs) (Healthforce Center at UCSF et al., 2017). As autonomous clinicians, NPs can fill the need for medical providers in both primary care and specialty areas and improve access to underserved and rural areas. To do so, successful onboarding of a new to practice NPs requires both clinical orientation and structured peer mentoring. For many, orientation is offered as part of the onboarding process, however, few institutions invest in mentoring programs during the transition of registered nurses (RN) to the NP role. This serves as the impetus for this Doctor of Nursing (DNP) quality improvement (QI) project.

Background and Significance

In 2023, the state of California passed AB890, which enables NPs to practice without physician supervision once the NP has fulfilled clinical criteria and years in practice (Bauer et al., 2022). This legislation represented a giant step toward the support of full practice authority (FPA) for NPs. With FPA, the role and scope of practice for the NP has the potential to expand and contribute significantly to filling the gaps of the changing workforce. Multiple physician organizations have expressed concerns surrounding educational standards, regulations, and the ability to provide care to vulnerable populations. However, research shows NPs provide equivalent or more effective management of chronic diseases (Mileski, 2020). There are other barriers that are not related to licensure that also inhibit FPA for NPs. These barriers include institutional policies, insurance reimbursement, and practice agreements. Barriers limit NP utilization, causing role confusion and practice that varies from autonomous provider to high level nursing coordinator (Kleinpell et al., 2023). The orientation of new graduate NPs alone may not fully prepare the NP for autonomous practice. Often, onboarding does not include the mentoring of new graduate NPs through the transition of practice and development of professional socialization. Characterized by immersion into a professional culture, professional socialization for NPs is the process by which the NP becomes acquainted with the role and identity of advanced practice (Sadeghi Avval Shahr et al., 2019). Professional socialization also involves learning the values and behaviors needed to assume the role within an organization (Salisu et al., 2019). Mentoring by an experienced NP provides both the social and professional support needed to enculturate into both the profession and the institution.

Statement of the Problem

The first twelve months in clinical practice are tumultuous for the novice NP (Thompson, 2019). After standard onboarding procedures, the focus is typically placed on clinical competency. Few institutions consider the importance of professional socialization as the NP transitions from RN to provider role (Thompson, 2019). Role identity, confidence, and sense of belonging are all critical elements of professional socialization during role transition but are not prioritized in orientation. This inadequate preparation can lead to attrition, poor performance and dissatisfaction with the role during the first year. The NP is most vulnerable to attrition due to poor transition after the completion of clinical orientation as the mandates of the role begin to increase (Hampton et al., 2021). The percentage of NPs with intent to leave their job within the first year of practice is as high as 25% (Barnes, 2015). Role transition and dissatisfaction are negative outcomes listed as reasons for leaving the profession within the first year of practice (Barnes, 2015). Although attrition is a serious issue with financial impact to the institution, it is poorly measured and possibly underestimated in most settings (Li et al., 2023). Rates of internal attrition, which refer to situations in which the NP returns to a RN within the same institution are difficult to assess. In these cases, NPs are considered nursing staff and there is no identifying category for monitoring the return of an NP to a staff nurse. Attrition appears as a transfer, not a demotion or role change. External attrition, defined as the resigning of a position or institution, is also poorly documented. There are currently no guidelines for measuring NP attrition within the healthcare workforce. Additionally, the financial cost of attrition absorbed by the institution is estimated at 40% of the cost of salary and calculated as high as $105,000. Direct costs associated with attrition include recruiter resources, advertisement, sign-on bonuses, on-boarding, and orientation (*Hartsell, 2019*). Another economic consequence of NP attrition is decreased

productivity in the clinic. Relative value units, which measure the clinical productivity of NPs and assess return on investment are lost in the vacancy. A conservative estimate of revenue loss due to vacancy is $1500 daily (Auffermann et al., 2020). In addition to attrition, poor role transition can also affect confidence. Confidence and perception of self-efficacy underpins the clinical decisions made by the NP. Decreased confidence leads to a sense of loss of control and doubt about the ability to manage the clinical workload and expectations. The lack of confidence contributes to burnout and job dissatisfaction (Fry & MacGregor, 2014). A structured mentoring process in the first year of practice may augment existing orientation programs and support successful role transition for the new to practice NP during the first year.

DNP Essentials: Clinical Scholarship, Interprofessional Partnership and Professionalism

The American Association of Colleges of Nursing (AACN) provides the framework for nursing education built upon core competency essentials that reflect expectations at the graduate and post-graduate level. Within the competencies are ten domains detailing nursing practice and expectation (AACN, 2023). The benefits of mentoring are reflected throughout all the essential competences of doctoral education and more specifically clinical scholarship, interprofessional partnership and professionalism. Scholarship for Nursing Discipline (IV) is the application of science to enhance clinical practice. This essential encourages curiosity and research and stresses the use of evidence-based practice and clinical expertise (AACN, 2023). Mentors challenge the evaluation of clinical problems using gold standards in research and evidence. Mentoring provides an opportunity to introduce the mentee to quality improvement projects, central councils, and research projects. Interprofessional Partnership (VI) encourages intentional collaboration within the healthcare team to optimize care. The mentor role models this behavior and provides examples to frame role identity for the mentee. Finally, Professionalism (IX) is

defined as the cultivation of professional identity throughout one's education and career (AACN, 2023). This domain addresses professional socialization, specifically role identity and confidence. The mentor has a critical role in the enculturation of the new NP to both the profession and the institution.

PICO Question

The PICO question used to guide this doctoral project is: For NPs with less than a year in practice, does adding structured mentoring sessions with an experienced advanced practice mentor as compared to having no structured mentoring within the first year of practice affect overall perceptions of role transition?

CHAPTER TWO: THEORETICAL FRAMEWORK

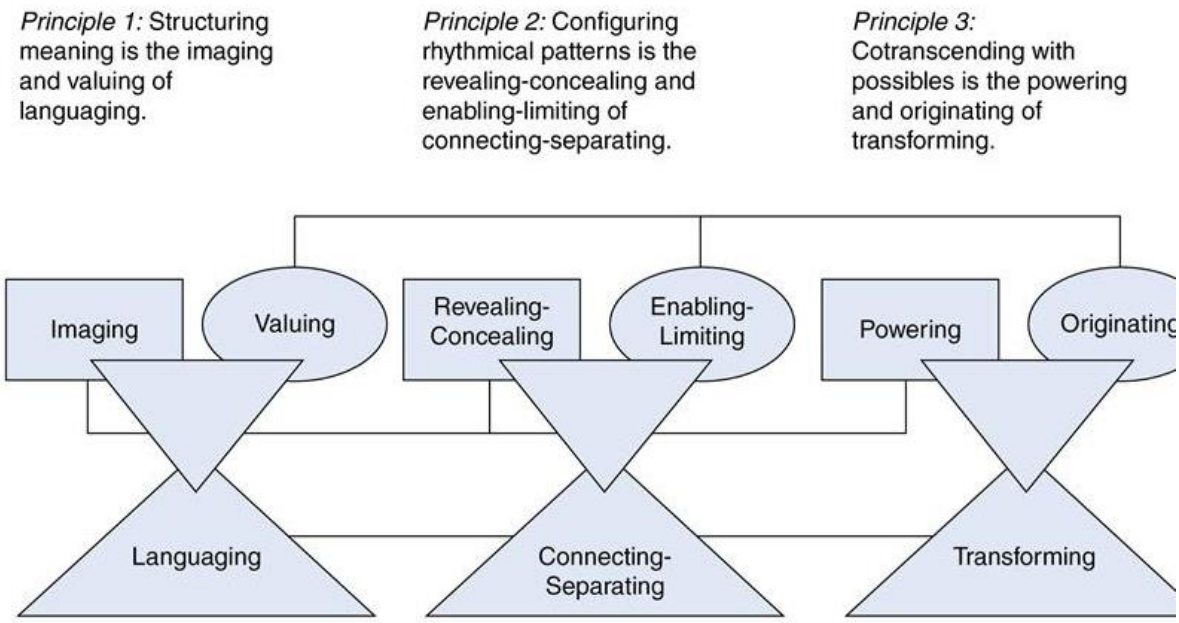
The theoretical framework chosen for the project is Parse's Human Becoming Theory. The theory was first published in 1981 as the Man-Living-Health theory and renamed in 1992 to the Human Becoming Theory (Parse, 2008). This human science nursing theory combines multiple factors including biological, psychological, and sociological to assess individual interactions with the environment (Parse, 2008) (see Figure 1). This grand, holistic theory focuses on quality of life (QOL) and places value on lived experience and transcendence. Man is seen as a unitary being in constant, mutual interaction with the environment. The individual is seen wholly, and focus is placed on the value of an experience, rather than fixing a problem. Parse describes mentoring as a moment-to-moment process that arrives from beliefs and values shared between the experienced and the novice (Parse, 2002). The person is seen as the sum of their experiences. The first assumption is structured meaning, which is the meaning assigned to to the lived experience by the individual. This principle emphasizes the importance of subjective meaning(s) as a reflection of an individual's own values and beliefs (Parse, 2002). Languaging, described as the meaning of experiences as described by that person, is developed through communication. When applied to this project, the mentor uses meaning to share with the novice and ponder the possibilities with dialogue. The mentor may use the moment to recall experiences while respecting the mentees' feelings (Parse, 2008). The second assumption, rhythmicity, states humans are integral and always changing with the environment. Rhythmicity uses three rhythms that focus on finding harmony through the rhythms of life. The *revealing/concealing* rhythm assumes there is more to a person than what is expressed. The *enabling-limiting* rhythm assumes that as an individual chooses one opportunity, others are limited because a person cannot be all possibilities at once. The *connecting-separating* rhythm states that in choosing meanings to experiences and patterns other patterns and meanings may be lost. Boundaries may be

developed, or existing boundaries loosened (Parse, 2002). When rhythmicity is considered in the context of this project, gentle nonintrusive discussions by the mentor allow the mentee to develop or remove limitations. The third assumption is transcendence which is the culmination of experiences such that the individual expands and ventures into new perspectives. The person considers the possibilities of a situation and moves toward wholeness (Parse, 2002). In this project, transcendence may develop as the mentor guides the mentee through discussions, sharing what is most important, and affirming successes (Parse, 2008). The mentor bears witness as the mentee moves forward with new insight and trust.

Parse's Human Becoming Theory was chosen for this project because it supports the unpredictable and ever-changing experience of transition. The transition from the nursing role to the NP presents a change in view, boundaries, and self-awareness (Ortiz, 2021). Parse's theory encourages the interchange between mentor and mentee to facilitate growth, expansion, and transcendence. The theory stresses the synthesis of values and provides a framework to guide inquiry and guidelines for care (Parse, 2008). The role of mentorship in this theory provides for structuring and developing personal values by asking questions that give way to self-awareness and illumination. As such, Parse's theory is an effective framework for mentorship and role transition.

Figure 1

Parse's Theory Tenants



Concepts in the *squares*: *Powering* emerges with the *revealing-concealing* of *imaging*.
Concepts in the *ovals*: *Originating* emerges with the *enabling-limiting* of *valuing*.
Concepts in the *triangles*: *Transforming* emerges with the *languaging* of *connecting-separating*.

CHAPTER THREE: REVIEW OF LITERATURE

A systematic review of literature was conducted to examine the role of mentoring for new to practice NPs, examine mentoring strategies, and establish a definition for professional socialization in the context of nursing. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were used for the search, using the National Library of Medicine and PubMed databases. An initial search, using the terms "nurse practitioner and mentoring," yielded thirteen articles. Further filtering using the last five years of full text articles and removing disease-specific programs decreased the yield to four. A second search, using the terms "professional socialization and nurse practitioner," yielded 31 articles within the past five years. When the terms, "job satisfaction" and "retention," were included, the yield was reduced to 13. Articles without specific interventions for professional practice were then excluded, bringing the final yield to four. Duplicate articles for both databases were removed. Mentoring for other disciplines such as medicine, nursing, and education were reviewed for context, but not included in the formal review. The literature review helped to create a working definition of mentorship, examine job satisfaction for new graduate NPs, and define professional socialization (see Appendix F).

Job Satisfaction

A nonexperimental, quantitative study used descriptive statistics to examine job satisfaction for nurses with six months to two years of experience. T-tests and chi-square tests calculated the relationship between demographic data and NP job satisfaction (Auffermann et al., 2020). Participants were recruited through a national organization by creating a new NP category through membership registration. This convenience sample of 210 participants used a survey and social media postings to obtain demographic and experiential data along with the Meissner job satisfaction survey. Participants were mostly female (94.8%) with a median age of 38.5 years.

Most participants held a Master of Science in Nursing (90.5%) and described their work setting as community or office based (81.9%). Results showed novice NPs were mostly satisfied with the role, but 34.5% reported intent to leave the position in the next six months to 2 years. In this study, 64 % of the participants revealed having no formal orientation or mentoring. Limitations to the study included lack of objective data for comparison and the limited platform used by employing only NPs that were on social media which may reflect selection bias (Auffermann et al., 2020). The study reinforced the importance of mentoring for job satisfaction within the first year of practice, supporting the focus of this investigation, but did not discuss any relationships between mentorship received and lower intent for leaving the position.

Mentoring Models

Aylor et al. (2016) studied strategies to prepare mentors and developed mentor toolkits utilizing various mentoring models for midlevel providers. This nonexperimental, quantitative study designed interactive tools and workshops for mentors, followed by a post-session survey. Workshop sessions provided definitions of mentorship, characteristics and benefits of successful mentoring, and strategies for success. Self-guided activities were provided to the mentors that included feedback models to optimize mentor-mentee relationships and tips for mentee success. Mentors were also provided with four mentoring models that can be used within one's institution: traditional dyadic mentoring, peer group mentoring, meet-the-professor mentoring, and speed mentoring. Participants included 101 graduate program directors, associate directors, and fellows over a three-year period. A membership committee was created to recruit and select participants. Criteria for selection were an educator role, senior faculty status, having past educational experience, or being a member of a leadership task force or executive committee membership. Mentors ranked their comfort level for mentoring in several areas and were then matched with

mentees based on self-identified areas of strength and expertise. Over a period of three years, a total of 77 respondents (97% of participants) described the tools as helpful or very helpful. During years 2015 and 2016, the toolkit served as a guide for mentoring sessions with 30 mentees each year. Participants rated the sessions as excellent across all categories. Limitations to the study included having only mentor responses and a lack of data on specific toolkit elements, didactic seminars, and mentee demographics (Aylor et al., 2016). The study provided insight into the mentor's experience and highlighted the importance of mentor readiness through education and supportive tools.

Role Transition

In another study, Barnes (2015) examined factors affecting role transition among novice NPs, and its relationship to job satisfaction using a practice transition scale. This cross-sectional survey used descriptive statistics from data collected from a convenience sample of 352 NPs attending a national conference. Inclusion criteria included holding a graduate degree, practicing at least six months within the first role as an NP after graduation and direct patient care practice. Role transition was the dependent variable. The study used the Nurse Practitioner Role Transition Scale, a 16-item tool that measured the self-perception of the participants NP role transition. The results of this study showed a positive relationship between formal orientation and NP role transition, while years of RN experience did not explain NP role transition.

NNPRT Tool

Building on this prior work with the Nurse Practitioner Role Transition Scale, Barnes et al. (2021) adapted the items and developed a new tool, the Novice Nurse Practitioner Role Transition Tool (NNPRT). In a cross-sectional, nonexperimental survey using a convenience sample of novice NPs (n=89), Barnes et al. performed initial psychometric testing and factor analysis, resulting in a final survey of 40 items with acceptable reliability and five factors: 1) organizational alignment (14 items); 2) mentorship (four items); 3) sense of purpose (12 items); 4) perceived competence and self-confidence (eight items); and 5) compensation (four items). The NNPRT measures the perception of the role transition experience among novice NPs. The novice NPs in the sample reported moderate role transitions with a mean score of 4.45 (SD: 0.64, range 2.38-5.60) based on a 6-point Likert scale. Mentorship was seen as a critical aspect of transition and may lead to increased self-efficacy and improved job satisfaction (Barnes et al., 2021). The NNPRT proved helpful in highlighting the importance of mentoring on successful role transition. The study was included in this review because of its focus on the development and validation of the NNPRT tool which will be used as the primary measure in this project.

Professional Socialization

Professional socialization is crucial for the successful transition of novice NPs and is poorly understood within mentoring. For this DNP project, a working definition for professional socialization is needed. We draw from a literature review, conducted by Dinmohammadi et al. (2013), which reviewed 466 articles and books over 14 years and defined the concept of professional socialization as a process of learning, development, and adaptation. As a learning process, professional socialization is characterized by learning the values and norms of the professional role. The review describes professional socialization as an interactive process

between two or more people, highlighting the role of the mentor in the novice's socialization. These findings support the DNP project's focus on the importance of successful role transition. \

Reviewing the work of other disciplines can be helpful in establishing a clear definition of professional socialization. Sadeghi Avval Shahr et al., (2019), used an eight-step process to conduct a review of 780 articles and 21 published documents with the purpose of creating a working definition of professional socialization for medical students. The findings showed professional socialization occurs prior to organizational socialization for individuals defining themselves as part of an organization or profession. Mentorship is supported as the study emphasizes the importance of professional socialization for internalizing professional culture and the significant impact on the mentee's professional values and behaviors. This study was limited by a lack of statistical data (Sadeghi Avval Shahr et al., 2019).

Mentoring

McQuilkin, et al. (2020) studied the benefits of mentoring on the transition from clinician to NP clinical faculty. This study is included for the project as it is specific to practice transition. The aim of this systematic review was to examine the elements of successful role transition for NPs as the role changes from clinician to faculty. The study found 14 articles describing role transition for faculty with 6 of these describing programs to facilitate transition in depth. Variables identified during the study that directly impact role transition include orientation, culture shock, mentoring, peer support, and clinical practice.

The literature extensively documented the novice faculty's desire for mentoring. Most studies showed mentoring is important to new faculty and role transition was more successful with mentoring. Peer support within a formal mentor-mentee relationship was identified in the systematic review as an important component of successful mentoring. Peer support was

described in the review as successful because it allowed for collaboration, collegial sharing of experiences and self-reflection (McQuilkin, et al., 2020). The study lacked statistical data, but the review reinforced the importance of structured mentoring for successful role transition. Mentoring positively affected mentee perception of role transition in most of the studies reviewed.

The Mentorship Respect Study, conducted by Gularte-Rinaldo et al. 2023, evaluated the effectiveness of a mentorship program for novice nurses. The mentor program was structured and offered individualized mentorship by experienced nurses. The study examined five domains that included self-confidence, problem solving, communication, risk of attrition, and transition to practice. The program was evaluated using a 25-question survey. The study evaluated participants within three experience categories that included enrolled in nursing school, graduated within 24 months, or graduated within 24-36 months. The survey questions addressed the perceived benefits of mentoring and the content of the discussion between mentor and mentee. The scores from the 96 mentee respondents showed mentorship positively influenced the decision to stay in nursing, self-confidence, and problem-solving. The study had limited data on transition into practice as many of the respondents had not yet graduated. The scores for each domain were highest amongst the group with a mentor for 1-2 years and least amongst the group with a mentor greater than 2 years (Gularte-Rinaldo et al., 2023). This study was chosen to support the DNP project because it addresses the positive influence of structured mentoring on transition into practice. The gaps identified in this study include retention data and attrition rates. There is limited data on the effects of mentoring for transition into practice. Further research on replicability of the mentor program and longitudinal data on strategies are recommended.

Synthesis of Literature Review

The impact of mentoring is positively described in literature. Mentoring is shown to directly impact job satisfaction and role transition. Methods for mentoring nurses and novice NPs, however, varied by study. Auffermann et al. (2020) and Aylor et al. (2016) agree that mentoring is to be the intentional guiding and coaching of an NP by a more experienced provider. In both studies, the benefits of mentoring were found in levels of job satisfaction with successful (or smooth) transition to practice from RN to NP being central to success. The value of mentoring for the mentees and mentors was demonstrated in both studies in addition to providing similar definitions of mentoring. While Aylor et al. (2016) focused on preparing mentors for effective relationships through tools and methods that can be used as a foundation for practice, Auffermann et al. (2020) provided strong evidence connecting mentorship and transition of practice to lower rates of attrition for novice NPs.

Barnes (2015) deepened the context of role transition, establishing the need to support novice NPs by examining elements of professional socialization, including role satisfaction, confidence, and sense of belonging. The study demonstrated a positive relationship between orientation, mentoring, and role transition. A strength of the study is the use of the NNPRT scale which provides quantitative data specific to NP role transition. The NNPRT scale was further examined by Barnes et al. in 2021. The 40-item scale examined several domains of professional socialization and demonstrated higher scores in organizational alignment, mentorship, sense of purpose, perceived competence for NPs with a mentor (Barnes 2021). The study reinforced the positive effects of mentoring during role transition, but did not outline methods of mentoring, a gap that was consistent throughout most of the articles used for the literature review.

Dinmohammadi et al (2013) provided working definitions for professional socialization and defined the process for learning, development, and adaptation, noting the benefit of the interactive process with two individuals. Sadeghi et al. (2019) further noted the support of mentorship for medical student transition. These findings also strengthen support for structured mentoring for novice NPs. The systematic review by McQuilkin, et al. (2020) studied specifically the transition of NP clinicians to NP faculty. Role transition was most successful with peer mentoring which was identified by the participants as crucial for success. The RESPECT study by Gularte-Rinaldo et al. (2023), evaluated a mentoring program for students and novice nurses. The study also demonstrated a positive relationship between mentoring and self-confidence.

The studies reviewed were consistent in the definitions of mentoring and the benefits for role transition. Survey tools demonstrated the value of mentoring and its impact on professional socialization, resulting in positive self-perceived transitions by the participants. The role transition for NPs in the first year of practice is not widely documented. There is a gap in the literature specific to the first year of clinical practice for NPs. The studies did not include attrition and retention statistical data. The specific mentorship strategies and formats are not discussed. Further studies are needed to determine generalizability, and the impact of mentoring for the institutions and patient outcomes.

CHAPTER FOUR: METHODS

This interventional, quality improvement (QI) project used a pre/post design to evaluate the benefits of an eight-week, structured mentoring program on aspects of role transition among NPs with less than a year in practice. Specifically, a survey, which included the Novice Nurse Practitioner Role Transition scale (NNPRT), was administered to NP mentees before and after participation in the program to evaluate the benefits of structured mentoring (Barnes, 2021). Outcome variables included the overall role transition score, as well as the subdomains of perceived competence and self-confidence and mentorship.

Ethical considerations

Institutional Review Board (IRB) approval was obtained before the implementation of the project (see Appendix A). The IRB considered the project to be a quality improvement project with no participant identifiers or use of personal health identifiers (PHI) and deemed the project as exempt. Participants were informed that participation was voluntary, and all responses were confidential. New NPs who opted not to participate in the project were offered monthly mentoring as an alternative to commence after the project concluded. Financial compensation was offered in accordance with the existing nurse mentorship program at base salary per hour for both the mentor and mentee.

Setting and Sample

The inclusion criteria for the cohort included NPs with less than a year in clinical practice and licensed in either primary or acute care. The NPs must have had completed the formal orientation that is standard institutional practice, prior to the start of the structured mentorship program. The work setting was both the inpatient and ambulatory clinics of a single large research medical center in Los Angeles with a specialty in oncology.

Mentee Selection

New to practice NPs were identified at the time of hire by NP managers and a review of the current staff. NPs with less than 12 months of clinical experience were added to the mentoring application Mentor Lead ©: https://mentorlead.com/ (see Appendix B) at the time of onboarding. Mentorlead© is an internal application used by City of Hope to assign mentors and mentees within nursing. The NP was instructed to create a profile on the application at the end of formal orientation by the NP manager. An email was sent requesting the NP to review the profile of available mentors and select a mentor. Self-selection allowed the mentee to choose the mentor they perceived as best fit according to academic goals, clinical focus, and shared social interests.

Mentor Selection

Mentors were selected from a pool of volunteers and were advanced practice nurses with at least 3 years of clinical experience. Informal leadership within the organization was required to qualify as a mentor and included membership on a committee, unit-based council participation, academic authorship, preceptor, and participation in leadership activities. Mentors were directed to post a profile on Mentorlead© that included clinical focus, years of practice, a summary of leadership experience and social endeavors. Mentors completed 2 seminars, prior to the implementation of the project. The seminars, developed by the project lead, were 45 minutes long and mandatory for all mentors. The mentors were given the option of in-person or virtual attendance. The first seminar examined the characteristics and role of the mentor and discussed the benefits of mentoring for novice NPs. A review of Parse's Theory of Becoming was included. The second seminar provided a definition of professional socialization, detailed the project expectations, and offered mentoring tools and tips for successful mentoring.

Instrument and Data Collection

The Novice Nurse Practitioner Role Transition (NNPRT) survey (see Appendix C) is a 40-item validated, tool that measures NPs' perception of role transition and takes approximately 10 minutes to complete. It was developed by Barnes (2021), based on the Nurse Practitioner Role Transition Scale. An exploratory factor analysis (EFA) of the expanded survey examined the internal factor structure and resulted in five factors, including organizational alignment, mentorship, sense of purpose, perceived competence and self-confidence, and compensation (Barnes, 2021). Permission was granted by the author to use the survey for this project (see Appendix D). Response options for the NNPRT tool use a 6-point Likert scale for respondents to report their agreement level with specific statements, ranging from 1 = very strongly disagree to 6 = very strongly agree.

An email was sent prior to each participant describing the project, their rights as participants (including the right to refuse). The survey was delivered as a hardcopy attached to an email, along with instructions for completion prior to the first mentoring session. Participants returned the completed survey using an interoffice scanner and data were inputted into a Microsoft Excel file. Per the IRB, the completion and return of the survey implied their consent to participate in the project. As part of the pre-intervention survey, self-reported demographic and clinical experience characteristics were also collected, including personal characteristics (age, gender) and professional characteristics (education, years of prior RN experience, practice setting, months of NP experience) (see Appendix E). After the mentoring program ended, the NNPRT was administered again by email to participants post-intervention again repeating instructions to return the survey using an interoffice scanner.

Intervention

The intervention of this project consisted of eight mentoring sessions, each lasting an hour with the mentor. Mentoring sessions were at least weekly, in-person and at an agreed upon time and location. The sessions were conducted during personal time for both the mentor and the mentee. Mentors received bi-weekly emails to check on the progress of the sessions. The mentoring session dates and times were recorded within the Mentorlead platform. Both the mentor and mentee participants were compensated for each hourly session at their base hourly rate through the institution.

Analysis

The analysis for this project involved several steps. Firstly, demographic, and clinical experience data were presented using absolute counts and percentages to describe the overall sample characteristics. Pre- and post-survey responses were used to calculate a total perceived role transition score per the NNPRT instructions by summing all items for each participant (according to the Likert score) and dividing the total by the number of items. Four questions were reverse coded and recorded accordingly. A perceived competence and self-confidence score was also calculated for each participant at both the pre- and post-assessment, using the calculation method described for the 7 items in that factor. Paired t-tests were then used to compare the pre-and post-intervention mean scores for both the overall NNPRT scores and the perceived competence and self-confidence score using a significance level of 5%. The subdomain of mentorship was assessed using the four questions identified in the factor analysis. A contingency table was constructed to test the association between responses to individual items pre-and post-intervention using Pearson Chi-square test at a significance level of 0.05 (see Appendix F). All analysis was done using IBM SPSS, version 29.

CHAPTER FIVE: RESULTS

A total of 13 NPs met inclusion criteria and were invited to participate in the project as mentees. Of these, four NPs declined participation. The NPs that declined worked in the ambulatory setting and reported three months of NP experience. Each of these novice NPs recently completed orientation and stated that they were feeling too overwhelmed to add additional activities, bringing the number of pre-intervention participants to nine. There was an attrition of one participant during the project due to difficulty aligning schedules with the mentor, bringing the post-intervention participation total to eight.

Demographic Characteristics and Clinical Experience of the Sample

The project analyzed the characteristics of the participants based on variables collected at the pre-intervention assessment, including, gender, months practicing as an NP, years practicing as a registered nurse prior to becoming an NP, clinical setting, and whether they completed formal orientation. There were slightly more NPs pre-intervention (n=9) than post-intervention (n=8). All respondents were female, and all received a standard orientation consisting of 10-12 weeks of training with an assigned preceptor and is mandatory for the institution. Most respondents (44%) reported practicing as NPs for 3-6 months or 9-12 months. The majority (56%) of respondents reported 10 or more years of experience as a registered nurse prior to becoming an NP. Most respondents were internal hires (67%). The mentee respondents were evenly distributed across ambulatory (56%) and inpatient (44%) clinical settings (see Table 1). There were nine mentor volunteers, all female, with clinical experience ranging from three to ten years. The mentor practice settings included ambulatory (80%) and inpatient (20%).

NNPRT Scores

NNPRT mean scores were 4.65 (SD: 0.64) with a range of 3.73 to 5.44. The post-mentoring group had a mean of 4.64 (SD: 0.16) with a of range of 4.5 to 4.91. (See Table 2) Mean scores for perceived competence and self-confidence were 4.51 (SD: 0.96), with a range of 3.8 to 5.57 for the pre-intervention group and 4.36 (SD: 0.38), with a range of 3.85 to 5 for the post-intervention group. Again, no significant difference was observed between the pre- and post-mentoring group scores (See Table 2). Mean perceived competence and self-confidence scores pre-and post-intervention by participant also showed no significant difference (See Table 2). Mean scores of perceived competence and self-confidence for each participant pre-and post-intervention were plotted (See Figure 2). To further explore the impact of the mentoring program, a contingency table of all 40 NNPRT items was constructed to compare using Pearson Chi-square test at a significance level of 0.05 (See Appendix F). No significant differences were found post-intervention.

Mentor Evaluation

The subdomain of mentorship was assessed post-intervention using the four questions identified in the factor analysis. Responses to mentorship items were all positive, with most respondents rating strongly agree for all questions on the post-intervention survey (See Figure 3).

Table 1

Baseline Characteristics of Mentee Participants

Indicators		**Frequency, N (%)**
Gender	Female	9 (100)
Number of months practicing as an NP	3-6	4 (44)
	6-9	1 (11)
	9-12 Months	4 (44)
Number of years practicing as a registered nurse prior to becoming an NP	4-7 years	3 (33)
	7-10 years	1 (11)
	10+ years	5 (56)
Clinical setting	Ambulatory	5 (56)
	Inpatient	4 (44)
Received formal orientation	Yes	9 (100)

Table 2

NNPRT Total Mean Scores and T-Test

	Pre-Intervention Group(n=9)		Post-Intervention Group (n=8)			
	Mean	SD	Mean	SD	t-statistics	P-value
Overall NNPRT	4.65	0.64	4.64	0.16	**0.36835 Df=7**	**0.35**
Perceived Competence and Confidence	4.51	0.96	4.36	0.38	**0.16441 Df=7**	**0.45**

Figure 2

Perceived Competence and Self-Confidence Mean Scores Pre-and Post Mentoring

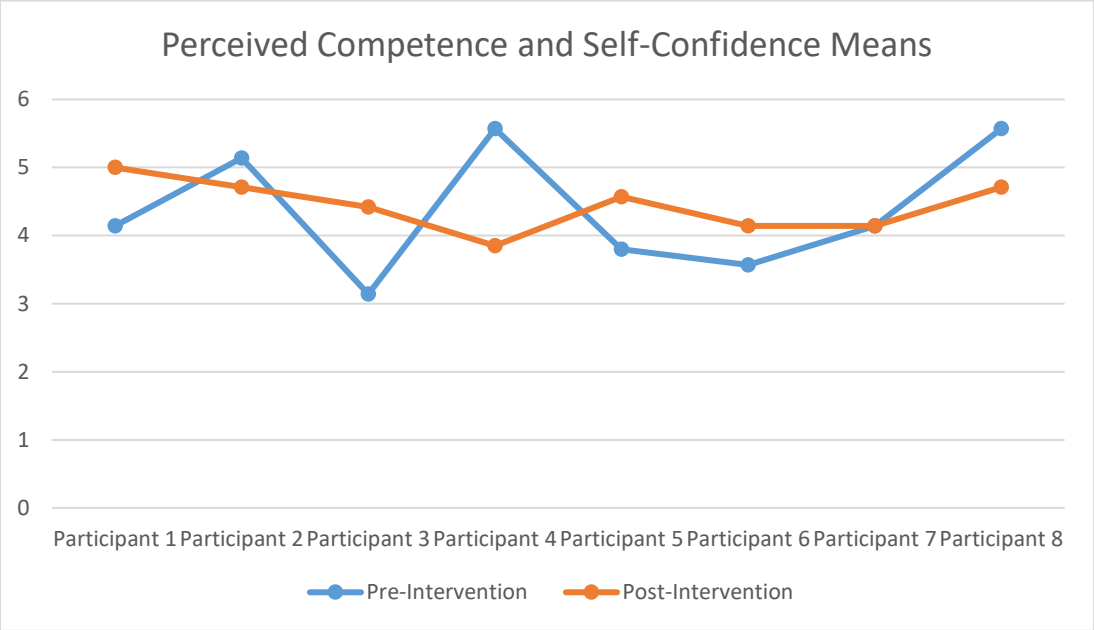
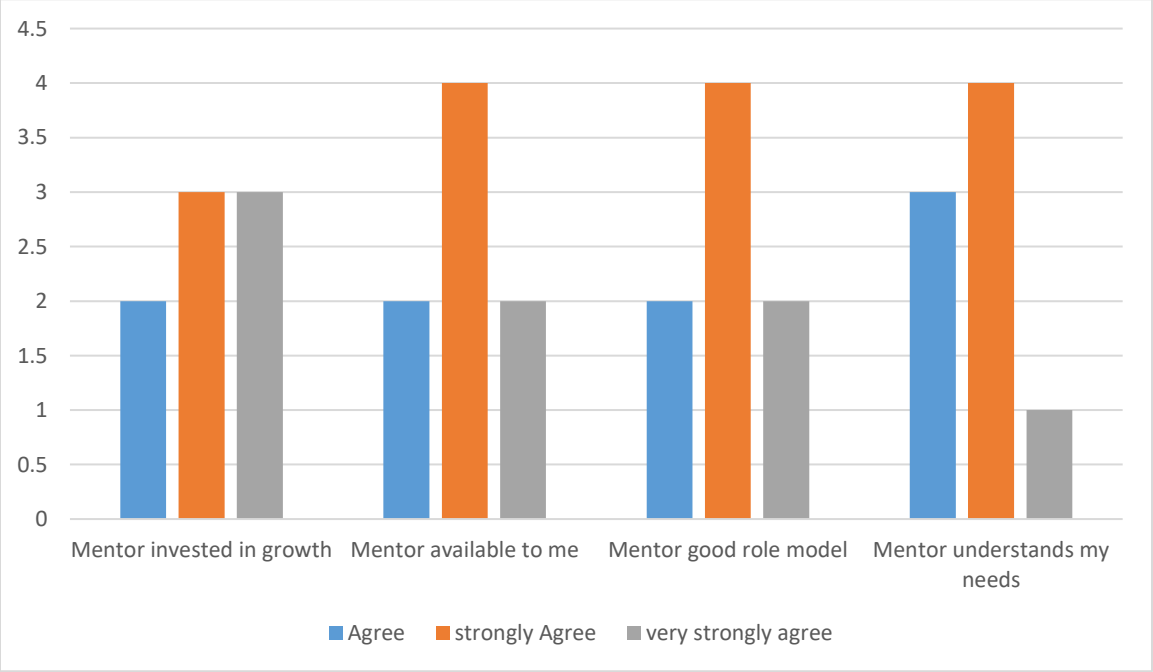


Figure 3

Post-Intervention Mentee Evaluation of Mentor



CHAPTER SIX: DISCUSSION

The goal for this scholarly project was to explore the benefits of a structured mentoring program on role transition, for new to practice NPs. The overall results of the NNPRT pre- and post-surveys were not statistically significant. Additionally, the results for factor 3 of the NNPRT tool, competence and perceived confidence were not statistically significant. This may be due to the small sample size, short duration of the project and condensed mentoring sessions. At the conclusion of the project, mentees reported having a positive experience during the eight sessions; however, it cannot be concluded these results directly impacted role transition. Role transition and perceived confidence is developed over time and is continuously modified as the NP faces different roles and challenges (Sadeghi Avval Shahr et al., 2019). The condensed sessions may have impacted the results of the survey, not allowing enough time for the mentees to adopt and use the tools given by the mentor. At the beginning of the project, four NPs declined participation due to work expectations and perceived time constraints. These concerns are consistent with the stressful transition shown in the literature (Auffermann, 2020). Although the project did not demonstrate statistical significance, the literature review supports mentoring for new to practice NPs. More studies are needed to affirm the PICO question and support a recommendation for structured mentoring for NPs with less than a year in practice.

Limitations

There are several methodological limitations noted in the project. The small sample size and convenience sampling threaten external validity. The setting is a single institution that required all NPs to complete an orientation which decreases generalizability. The sample included only female participants; therefore, the data may not accurately represent the population.

Variability in the quality of orientation and mentoring for each participant is a confounding variable and may have influenced pre-intervention responses. The short time interval for the eight

mentoring sessions may have been too condensed for participants to utilize the tools gained and to determine if improvements in scores post-mentoring were related to mentoring or increased comfort in the role over time. The NNPRT scale directly assessed confidence and mentoring, however, it cannot be assumed that the mentoring sessions impacted role transition in this project.

Implications for Practice

While the literature has identified that structured mentoring is an important aspect to role transition, the project did not demonstrate significant results supporting structured mentoring. This is probably due to the condensed mentoring sessions and the limited time frame. New to practice NPs need more time to acclimate to the practice and organization as they transition into the new role. Adding structured mentoring as part of the standard onboarding for NPs with less than a year in practice may support successful role transition by positively impacting role identity, confidence, and sense of belonging. It also strengthens collegial support and access to resources (Barnes, 2015). Successful acclimation to both the profession and the organization is a complex process that develops as the new NP internalizes the values, norms, and the unwritten rules of the role (Sadeghi Avval Shahr et al., 2019). Orientation provides some of the knowledge, but adding a standardized, structured mentorship may add the layer of support needed for a successful role transition. Institutions should invest in the development of a mentoring program that includes time away from the clinic for both the mentor and mentee with meeting intervals that are feasible for both. Additionally, to increase the interest of experienced advanced practice nurses as mentors, an investment in mentor education and mentoring tools is recommended (Aylor, 2016) in addition to protected time for mentoring sessions. Further research is needed to examine mentoring for NPs, role transition for new to practice NPs and its effect on job satisfaction and attrition. Additionally, other long-term studies examining the productivity and engagement in leadership activities such

as quality improvement and evidence-based practice for mentored NPs may help to underscore the benefits of mentoring for NPs during the first year in practice.

CONCLUSION

Although there are research studies that have shown statistical significance with mentoring and job satisfaction, that was not the case for this QI project. Despite limitations, including the small sample size and condensed mentoring sessions, the project showed the potential challenges of implementing structured mentoring. These include NP perceptions toward mentoring, coordination of time for both the mentor and mentee and compensation. A further examination of the structure of both the orientation and mentoring may make the program more feasible. Additional research is needed to support the recommendation of structured mentoring to improve role transition for novice NPs during the first year of practice.

APPENDICES

Appendix A: IRB Exemption

City of Hope

Clinical Research Protections
1500 East Duarte Road
Duarte, CA 91010-3000
Phone: (626) 218-2700
IRBeSubmit@coh.org

Institutional Review Board
Notification of Determination of Exemption

Date: January 30, 2024

To: Marilyn Douglas, Principal Investigator
City of Hope - Office Chief Nurse Executiv MC

From: Rubi Linares-Orozco, Director
Clinical Research Protections

COH Protocol #/Ref #: 23852 / 257725

Protocol Title: Mentoring the new to practice nurse practitioner.

Regulatory Sponsor: CITY OF HOPE (COH)
Action Date: 01/29/2024
Action: EXEMPT

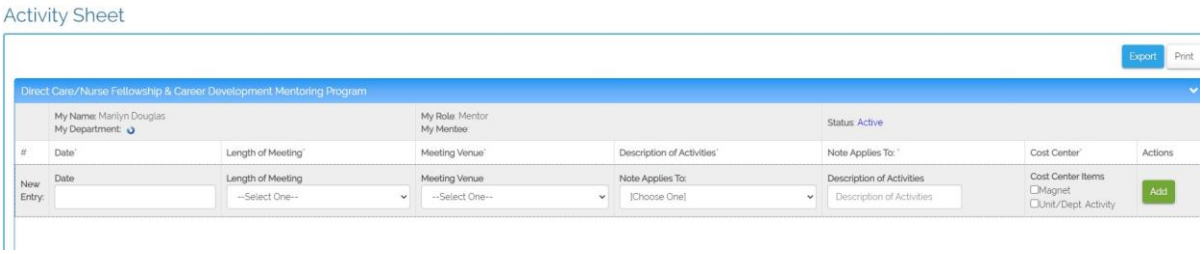
The information provided for the above submission was evaluated and determined to meet the criteria for exemption from IRB review under 45CFR46.104 (d). When the research is completed, please submit a "Study Closure" submission. The Principal Investigator assumes the responsibilities for the protection of human subjects as outlined in the COH HRPP SOP Policy.

Research, conducted in established or commonly accepted educational settings that specifically involves normal educational practices that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction. This includes most research on regular and special education instructional strategies, and research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods. (Exempt Category 1).

Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (ii) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation required by §46.111(a)(7).] (Exempt Category 2)

Please note that if any changes occur for this research, or any issues arise that may increase the risk of participants, or any complaints are received, notification to the IRB is required.

Appendix B: MentorLead© Platform



Appendix C: NNPRT Tool

Novice Nurse Practitioner Role Transition Scale©

Please use the following response scale for all NNRPT Scale items:
6 = very strongly agree
5 = strongly agree
4 = agree
3 = disagree
2 = strongly disagree
1 = very strongly disagree

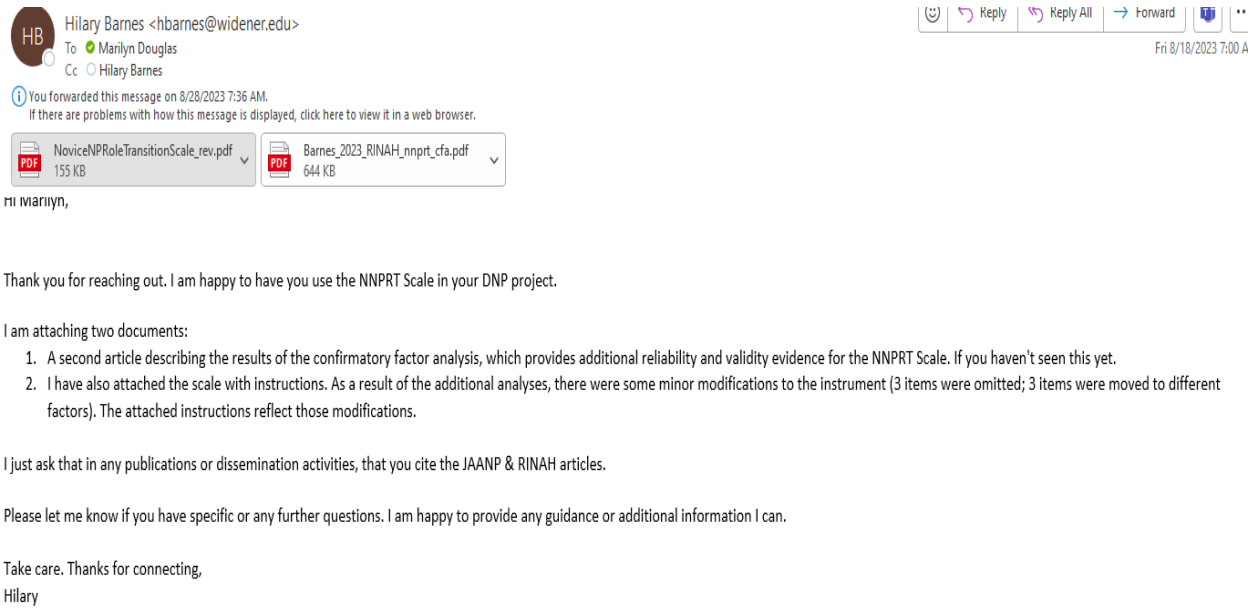
Please Note: Four items are reversed coded and will need to be recorded prior to scoring the instrument. They are indicated with an asterisk (*) below. Please code these items, as:

6 = very strongly agree → code to = 1
5 = strongly agree → code to = 2
4 = agree → code to = 3
3 = disagree → code to = 4
2 = strongly disagree → code to = 5
1 = very strongly disagree → code to = 6

Scoring: The total score is calculated by summing all items for each respondent and dividing by the number of items. The range of possible total scores is 1–6. It is possible to obtain sub-scale scores using the same calculation method used for scoring the entire NNPRT Scale.

	Items
Factor 1: Organizational Alignment	
	There is a lack of respect for NPs in my practice setting.*
	I feel supported by administration.
	I have a voice in the organization.
	Administration understands the NP role.
	I am treated as a professional by my colleagues.
	I am given independence to manage my patients.
	My physician colleagues understand the NP role.
	NP role expectations were clearly communicated to me when I started.
	I am able to schedule time off when needed.
Factor 2: Mentorship	
	My mentor is invested in my professional growth.
	A mentor is available to me.
	My mentor is a good role model.
	My mentor understands my needs as a new NP.

Appendix D: Permission from Author to Use **Tool**



Reply | Reply All | Forward

Fri 8/18/2023 7:00 A

Hilary Barnes <hbarnes@widener.edu>
To Marilyn Douglas
Cc Hilary Barnes

You forwarded this message on 8/28/2023 7:36 AM.
If there are problems with how this message is displayed, click here to view it in a web browser.

NoviceNPRoleTransitionScale_rev.pdf
155 KB

Barnes_2023_RINAH_nnprt_cfa.pdf
644 KB

Hi Marilyn,

Thank you for reaching out. I am happy to have you use the NNPRT Scale in your DNP project.

I am attaching two documents:

1. A second article describing the results of the confirmatory factor analysis, which provides additional reliability and validity evidence for the NNPRT Scale. If you haven't seen this yet.
2. I have also attached the scale with instructions. As a result of the additional analyses, there were some minor modifications to the instrument (3 items were omitted; 3 items were moved to different factors). The attached instructions reflect those modifications.

I just ask that in any publications or dissemination activities, that you cite the JAANP & RINAH articles.

Please let me know if you have specific or any further questions. I am happy to provide any guidance or additional information I can.

Take care. Thanks for connecting,
Hilary

Appendix E: Demographic Survey

Demographics

Gender: Male_____

Female_____

Number of months Practicing as an NP?

___ 0-3 months

___ 3-6 months

___ 6-9 months

___ 9-12 months

Number of years practicing as a clinical registered nurse PRIOR to becoming an NP?

___ 1-4 years

___ 4-7 years

___ 7-10 years

___ 10+ years

Clinical Setting?

___ Ambulatory

___ Inpatient

Did you receive a formal orientation?

__ Yes

__ No

Appendix F: Complete Pre-and Post Intervention Survey

		Pre-Post		p-value
		Post, N (%)	Pre, N(%)	
*There is a lack of respect for NPs in my practice setting	Very strongly disagree	1(12.5)	4(44.4)	0.237
	Strongly disagree	2(25)	1(11.1)	
	Disagree	3(37.5)	4(44.4)	
	Agree	2(25)	0(0)	
Total		8(100)	9(100)	
*I feel supported by administration	Disagree	2(25)	3(33.3)	0.707
	Agree	6(75)	6(66.7)	
Total		8(100)	9(100)	
*I have a voice in the organization	Disagree	1(12.5)	4(44.4)	0.342
	Agree	6(75)	4(44.4)	
	Strongly Agree	1(12.5)	1(11.1)	
Total		8(100)	9(100)	
Administration understands the NP role	Strongly disagree	1(12.5)	0(0)	0.595
	Disagree	1(12.5)	2(22.2)	
	Agree	3(37.5)	5(55.6)	
	Strongly Agree	2(25)	2(22.2)	
	Very Strongly agree	1(12.5)	0(0)	
Total		8(100)	9(100)	
I am treated as a professional by my colleagues	Disagree	1(12.5)	1(11.1)	0.847
	Agree	2(25)	2(22.2)	
	Strongly Agree	3(37.5)	2(22.2)	
	Very Strongly agree	2(25)	4(44.4)	
Total		8(100)	9(100)	
I am given independence to manage my patients	Disagree	1(12.5)	1(11.1)	0.356
	Agree	1(12.5)	3(33.3)	
	Strongly Agree	5(62.5)	2(22.2)	
	Very Strongly agree	1(12.5)	3(33.3)	
Total		8(100)	9(100)	
My physician colleagues were clearly communicated to me when I started	Disagree	0(0)	2(22.2)	0.19
	Agree	1(12.5)	3(33.3)	
	Strongly Agree	4(50)	1(11.1)	
	Very Strongly agree	3(37.5)	3(33.3)	
Total		8(100)	9(100)	
I am able to schedule time off when needed	Agree	2(25)	3(33.3)	0.439
	Strongly Agree	5(62.5)	3(33.3)	
	Very Strongly agree	1(12.5)	3(33.3)	
Total		8(100)	9(100)	

		Post N(%)	Pre N(%)	p-value
*My mentor is invested in my professional growth	Agree	2(25)	3(33.3)	0.784
	Strongly Agree	3(37.5)	2(22.2)	
	Very Strongly agree	3(37.5)	4(44.4)	
Total		8(100)	9(100)	
*A mentor is available to me	Agree	2(25)	1(11.1)	0.745
	Strongly Agree	4(50)	5(55.6)	
	Very Strongly agree	2(25)	3(33.3)	
Total		8(100)	9(100)	
*My mentor is a good role model	Agree	2(25)	1(11.1)	0.745
	Strongly Agree	4(50)	5(55.6)	
	Very Strongly agree	2(25)	3(33.3)	
Total		8(100)	9(100)	
*My mentor understands my needs as a new NP	Very strongly disagree	0(0)	1(11.1)	0.514
	Agree	3(37.5)	2(22.2)	
	Strongly Agree	4(50)	3(33.3)	
	Very Strongly agree	1(12.5)	3(33.3)	
Total		8(100)	9(100)	
I feel that I am appreciated by my patients	Agree	0(0)	1(11.1)	0.624
	Strongly Agree	4(50)	4(44.4)	
	Very Strongly agree	4(50)	4(44.4)	
Total		8(100)	9(100)	
I enjoy helping patients	Agree	0(0)	1(11.1)	0.539
	Strongly Agree	2(25)	3(33.3)	
	Very Strongly agree	6(75)	5(55.6)	
Total		8(100)	9(100)	
I enjoy working with my patient population	Agree	1(12.5)	1(11.1)	0.959
	Strongly Agree	3(37.5)	4(44.4)	
	Very Strongly agree	4(50)	4(44.4)	
Total		8(100)	9(100)	
I feel accepted by my patients	Agree	1(12.5)	2(22.2)	0.871
	Strongly Agree	3(37.5)	3(33.3)	
	Very Strongly agree	4(50)	4(44.4)	
Total		8(100)	9(100)	
I make a difference in the community I serve	Disagree	0(0)	1(11.1)	0.223
	Agree	2(25)	5(55.6)	
	Strongly Agree	4(50)	3(33.3)	
	Very Strongly agree	2(25)	0(0)	
Total		8(100)	9(100)	

I belong in the NP role	Agree	0(0)	4(44.4)	0.092
	Strongly Agree	7(87.5)	4(44.4)	
	Very Strongly agree	1(12.5)	1(11.1)	
Total		8(100)	9(100)	
I have good relationships with physicians	Agree	1(12.5)	3(33.3)	0.234
	Strongly Agree	5(62.5)	2(22.2)	
	Very Strongly agree	2(25)	4(44.4)	
Total		8(100)	9(100)	
*I have a sense of purpose	Disagree	0(0)	1(11.1)	0.549
	Agree	1(12.5)	1(11.1)	
	Strongly Agree	5(62.5)	3(33.3)	
	Very Strongly agree	2(25)	4(44.4)	
Total		8(100)	9(100)	
I am pleased with my NP education	Very strongly disagree	0(0)	1(11.1)	0.207
	Agree	3(37.5)	3(33.3)	
	Strongly Agree	4(50)	1(11.1)	
	Very Strongly agree	1(12.5)	4(44.4)	
Total		8(100)	9(100)	
I belong in my practice setting	Agree	1(12.5)	4(44.4)	0.078
	Strongly Agree	5(62.5)	1(11.1)	
	Very Strongly agree	2(25)	4(44.4)	
Total		8(100)	9(100)	
I feel comfortable managing my patient load	Disagree	0(0)	2(22.2)	0.466
	Agree	3(37.5)	2(22.2)	
	Strongly Agree	3(37.5)	2(22.2)	
	Very Strongly agree	2(25)	3(33.3)	
Total		8(100)	9(100)	
I am comfortable in my role	Disagree	2(25)	1(11.1)	0.35
	Agree	1(12.5)	4(44.4)	
	Strongly Agree	3(37.5)	1(11.1)	
	Very Strongly agree	2(25)	3(33.3)	
Total		8(100)	9(100)	
I feel overwhelmed in my role	Very strongly disagree	1(12.5)	3(33.3)	
	Strongly disagree	3(37.5)	0(0)	0.292
	Disagree	1(12.5)	3(33.3)	
	Agree	2(25)	2(22.2)	
	Strongly Agree	1(12.5)	1(11.1)	
Total		8(100)	9(100)	

I am able to meet the demands of my NP position	Agree	2(25)	5(55.6)	0.052
	Strongly Agree	4(50)	0(0)	
	Very Strongly agree	2(25)	4(44.4)	
Total		8(100)	9(100)	
I am able to meet my patient's clinical care needs	Disagree	0(0)	1(11.1)	0.131
	Agree	1(12.5)	4(44.4)	
	Strongly Agree	5(62.5)	1(11.1)	
	Very Strongly agree	2(25)	3(33.3)	
Total		8(100)	9(100)	
I need more time than I am scheduled to complete my responsibilities	Strongly disagree	1(12.5)	1(11.1)	0.081
	Disagree	3(37.5)	2(22.2)	
	Agree	1(12.5)	6(66.7)	
	Strongly Agree	3(37.5)	0(0)	
Total		8(100)	9(100)	
I understand what is expected of me in my role as an NP	Disagree	1(12.5)	1(11.1)	0.03
	Agree	3(37.5)	3(33.3)	
	Strongly Agree	4(50)	0(0)	
	Very Strongly agree	0(0)	5(55.6)	
Total		8(100)	9(100)	
I feel that my compensation is fair for the work that I do	Disagree	1(12.5)	1(11.1)	0.959
	Agree	3(37.5)	4(44.4)	
	Strongly Agree	4(50)	4(44.4)	
Total		8(100)	9(100)	
I feel underpaid for the work I do	Strongly disagree	1(12.5)	3(33.3)	0.583
	Disagree	5(62.5)	5(55.6)	
	Agree	1(12.5)	1(11.1)	
	Strongly Agree	1(12.5)	0(0)	
Total		8(100)	9(100)	
I am satisfied with my compensation	Disagree	3(37.5)	2(22.2)	0.374
	Agree	4(50)	7(77.8)	
	Strongly Agree	1(12.5)	0(0)	
Total		8(100)	9(100)	
I am pleased with the pay raise structure in my practice setting	Very strongly disagree	0(0)	1(11.1)	0.17
	Disagree	3(42.9)	2(22.2)	
	Agree	2(28.6)	6(66.7)	
	Strongly Agree	2(28.6)	0(0)	
Total		7(100)	9(100)	

TABLE OF EVIDENCE

CITATION	**PURPOSE**	**SAMPLE/SETTING**	**METHODS (Design, Interventions, Measures)**	**RESULTS**	**DISCUSSION, INTERPRETATION, LIMITATIONS**
Auffermann, K., O'Keefe, R., Smith, T., & Cohn, T. (2020). Exploring novice nurse practitioner job satisfaction. *Journal of the American Association of Nurse Practitioners*, *33*(10), 802–810. https://doi.org/10.1097/jxx.0000000000000454	To contribute to the understanding of the transition period of new nurse practitioners	210 participants identified through a new graduate registration page of a nationally recognized organization (AANP) Social media platform	Non-experimental Quantitative Convenience sampling using a survey method. Descriptive statistiscs used to examine means. T-test and Chi-Square Examined the relationship between the demographic data and job satisfaction.	Most participants were female (94.8%) Months of experience mean = 116 Formal orientation Yes (34.5%), No (65.5%) Significant difference in job satisfaction amongst respondents who had formal orientation.	Lack of orientation and mentorship contributed to a high percentage of intent to leave. Turnover intent =34.5% with 65.5% reporting no orientation or mentoring received. **Limitations** Mentoring not specifically address, but implied. Reasons for attrition are not well established. Convenience sampling

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Aylor, M., Cruz, M., Narayan, A., Yu, C., Lopreiato, J., Mann, K. J., Acholonu, R., Turner, T., Serwint, J. R., Sectish, T., Anderson, M. S., & Spector, N. D. (2016). Optimizing your mentoring relationship: A toolkit for mentors and mentees. *MedEdPORTAL*. https://doi.org/10.15766/mep_2374-8265.10459	To study tools to prepare mentors and optimize mentoring models for advanced practice providers	77 respondents recruited using a mentorship committee. Inclusion criteria included having at least five years of experience in an educator or leadership role regionally or nationally.	Seminar based self-guided activities provided over three years. Mentoring mosaic activities reviewed for implementation. Guidelines for four possible mentoring models provided to individualize the experience (Dyad, Peer mentoring, meet the professor, and speed mentoring). Respondents given a post-session survey to rate their experience.	97% (n-77) response rate over three years (2013-2015). Respondents scored seminars helpful or very helpful on post-session surveys. 2013 post session survey with 96% of respondents (n=25) scored very helpful. 2015 cohort (n=27) scored sessions helpful or very helpful.	Pre-intervention, participants described having low confidence in mentoring due to lack of educational support. The project provided several tools and models to individualize approach resulting in increased mentor comfort. **Limitations** Seminar method and content not well defined. Convenience sampling by mentorship committee threaten internal validity and reliability of results.

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Barnes, H. (2015). Exploring the factors that influence nurse practitioner role transition. *The Journal for Nurse Practitioners*, *11*(2), 178–183. https://doi.org/10.1016/j.nurpra.2014.11.004	To analyze the relationship between transition to practice and decreased job satisfaction.	352 Participants recruited through flyers and posters at a national NP conference	Regression analysis on the relationship between years of RN experience, formal orientation, and role transition. Convenience sampling and cross-sectional survey. Concept analysis, literature review and qualitative data review.	Age mean (47.1) Gender- Female (88.6%) Race- white (81.8%) Degree- MSN(86.6%), Doctorate (10.2%) Ambulatory (57.1%), Inpatient (15.2%), other (15.1%) Prior years of RN experience Mean (13.75), range (0-38) Correlation between prior years of RN experience, orientation and positive role transition established.	Authors established three dimensions impacting role transition: comfort/confidence, Role identity and collegial support. Strong association between role transition experience and job satisfaction. **Limitations** One-time measuring point that varied by participant. Years of experience is a confounding variable for the three dimensions impacting role transition.

CITATION	PURPOSE	SAMPLE/SETTING	METHODS (Design, Interventions, Measures)	RESULTS	DISCUSSION, INTERPRETATION, LIMITATIONS
Barnes, H., Faraz Covelli, A., & Rubright, J. D. (2021). Development of the novice nurse practitioner role transition scale: An exploratory factor analysis. *Journal of the American Association of Nurse Practitioners*, *34*(1), 79–88. https://doi.org/10.1097/jxx.0000000000000566	To develop and examine the structure of the Novice Nurse Practitioner Role Transition Tool (NNPRT scale)	Data collected from a sample of novice NPs (n=89) through a national organizational site.	Literature review and qualitative data. Survey analysis conducted using STATA-15.1 Survey validity by exploratory factor analysis. Cross-sectional survey of NPs. Convenience sample. Data collected from novice NPs working within the first NP role.	Female (93.2%), white (69.3%) Mean age (38) NPs in the sample reported moderate role transitions with a mean score of 4.45 (SD: 0.64: range 2.38-5.60) based on a 5-point Likert scale. Five factors emerged from the data: organizational alignment, mentorship, sense of purpose, perceived competence, and compensation. Reliability of NNPRT scale confirmed with KMO test of reliability score of 0.85	Data supported the validity of the NNPRT scale to assess role identity, confidence and mentorship for new NPs. **Limitations** Self-reported The pilot did not reach the recommended minimum sample per question. Response rate unclear

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Dinmohammadi, M., Peyrovi, H., & Mehrdad, N. (2013). Concept analysis of professional socialization in nursing. *Nursing Forum*, *48*(1), 26–34. https://doi.org/10.1111/nuf.12006	To define and clarify the profess of professional socialization and identify its attributes and consequences in nursing.	466 papers from 1995-2009. 47 articles and 4 books also selected for analysis.	Literature review with audit by 2 independent experts. Concept analysis Longitudinal study	Concepts of professional socialization are defined as a process with attributes of learning, interaction, development and adaptation. Professional socialization is a dynamic process with no set structure. Social learning occurs through observation and interaction. Role identity, values and goals are created through sharing and interacting.	Positive outcomes of professional socialization were discussed thoroughly, including the importance of peer support for retention, satisfaction and development. Concepts of professional socialization defined and its attributes in the context of nursing. **Limitations** Limited objective data and no statistics.

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Gularte-Rinaldo, J., Baumgardner, R., Tilton, T., & Brailoff, V. (2023). Mentorship respect study: A nurse mentorship program's impact on transition to practice and decision to remain in nursing for newly graduated nurses. *Nurse Leader*, *21*(2), 262–267. https://doi.org/10.1016/j.mnl.2022.07.003	To evaluate the effectiveness of a structured mentorship program for novice registered nurses	96 self-enrolled participants. 4 cohorts of respondents included: Mentee matched with mentor for < 6 months. Mentee matched with mentor for 6 months to 1 year. Mentee matched with mentor for 1-2 years Mentee with mentor for > 2 years	96 self-enrolled participants. 4 cohorts of respondents included: Mentee matched with mentor for < 6 months. Mentee matched with mentor for 6 months to 1 year Mentee matched with mentor for 1-2 years Mentee with mentor for > 2 years	New grad RN(n=57) Recently graduated and pursing BSN or MSN (n=36) Mentee matched with mentor for < 6 months (n=60) Mentee matched with mentor for 6 months to 1 year (n=12) Mentee matched with mentor for 1-2 years (n=20) Mentee with mentor for > 2 years(n=4) Mentoring influenced attrition (58.9%) Mentoring influenced self-confidence (64.2%)	Study showed a positive relationship between mentoring and self-confidence. **Limitations** No statistical data on attrition. Mentoring structure not clearly defined. Mentor criteria not described.

CITATION	PURPOSE	SAMPLE/SETTING	METHODS (Design, Interventions, Measures)	RESULTS	DISCUSSION, INTERPRETATION, LIMITATIONS
McQuilkin, M., Gatewood, E., Gramkowski, B., Hunter, J., Kuster, A., Melino, K., & Mihaly, L. (2020). Transitioning from clinician to nurse practitioner clinical faculty: A systematic review. *Journal of the American Association of Nurse Practitioners*, *32*(10), 652–659. https://doi.org/10.1097/jxx.0000000000000295	To identify strategies to increase retention in NP faculty by facilitation of role transition from clinician NP to clinical faculty.	Title search yield- 265 articles 103 articles met inclusion criteria.	Systemic review using the PRISMA framework. PICO: What institutional characteristics facilitate the transition from clinician to NP faculty and increase retention in the faculty role. Exclusion criteria included full articles, and duplicates.	Orientation and mentoring positively impacted role transition in most articles. Peer support is valuable for collaboration, collegial sharing and self-reflection. Novice faculty with available mentors reported a more successful role transition to faculty. Literature extensively documented the novice faculty's desire to be mentored.	Study showed a positive impact of mentoring on role transition for NP faculty and the value of peer support. **Limitations** There is no mention of recruitment efforts and support for under-represented faculty. Little mention of the impact of clinical practice on role transition and the challenges of maintaining clinical expertise during the transition. Lack of demographic data to better understand the population observed.

CITATION	PURPOSE	SAMPLE/SETTING	METHODS (Design, Interventions, Measures)	RESULTS	DISCUSSION, INTERPRETATION, LIMITATIONS
Sadeghi Avval Shahr, H., Yazdani, S., & Afshar, L. (2019). Professional socialization: An analytical definition. *Journal of Medical Ethics and History of Medicine*. https://doi.org/10.18502/jmehm.v12i17.2016	To examine the definition of professional socialization within education and medical students.	Total references= 780 Total abstracts screened=226 Total full papers obtained after screening= 56 Total final papers extracted for analysis= 21.	Qualitative peer review. 8-step approach to analyze articles and create a working definition of professional socialization within the professional community. Concept analysis used to develop definitions.	Findings showed professional socialization occurs prior to organizational socialization. Professional socialization is necessary for individuals to define themselves as a member of the profession.	Authors provided an in-depth review of professional socialization and its surrounding factors. **Limitation:** The study lacked clarity in the method, including the exclusion criteria. No statistical

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