



Evaluating a First-Year Veterans Affairs Nurse Practitioner Residency Program: Analysis for Change

By Kelsey Eidem¹, DNP, ARNP, FNP-C, Lakshi Aldredge², MSN, ANP-BC, DCNP, FAANP, Renee Hoeksel³, PhD, RN, ANEF, FAAN, & Connie Kim Yen Nguyen-Truong³, PhD, RN, ANEF, FAAN

^{1,3}College of Nursing, Washington State University in Vancouver, Washington, USA and ²Primary Care Nurse Practitioner Residency Program, Veterans Affairs Portland Healthcare System, Oregon, USA

¹ This publication builds on Dr. Kelsey Eidem's Doctor of Nursing Practice project (series of four courses) in DNP Family Nurse Practitioner Program.

² Lakshi Aldredge was the interdisciplinary preceptor/practice mentor and assisted in editing and drafted a part of the background.

³ Dr. Renee Hoeksel and Dr. Connie K. Y. Nguyen-Truong (Senior) were faculty mentors and assisted with editing and revisions.

Corresponding Author: Dr. Kelsey Eidem, Email kelsey.oliver@wsu.edu

Author Note: This article's contents are those of the authors and do not necessarily represent the views of the U.S. Department of Veterans Affairs or the United States Government. The authors have no conflict of interest.

Acknowledgment: We thank Sola Whitehead, Medical Librarian, U.S. Department of Veterans Affairs, for assistance with relevant literature.

Abstract

Background: The Veteran Affairs Portland Healthcare System (VAPORHCS) is experiencing a shortage of primary care physicians. To help meet this demand for primary care providers in outpatient clinics, VAPORHCS turned to nurse practitioners (NPs). A primary care nurse practitioner residency (PC-NPR) program was developed to support novice NP's transition to practice. **Purpose:** To describe the development of evaluation tools and an evaluation of the effectiveness and efficiency of the PC-NPR program's curriculum in supporting NP residents' progression through the program and transition to practice utilizing accreditation standards. **Methods:** The development of evaluation tools using a combined approach guided by Meleis' Transition Theory and the Centers for Disease Control and Prevention Program Evaluation Framework. Evaluation tools included a 12-item curriculum questionnaire developed from national accreditation pre-publication standards and a focus group interview. **Results:** There was a 54% (n=13) response rate. The questionnaire had some negative responses to three statements. The remaining responses were positive. The two main themes of the focus group were transition to practice support and curricular improvement. **Conclusion:** This evaluation contributed to a comprehensive program evaluation. Results are being used to make timely improvements to program objectives and curriculum in preparation for seeking Commission on Collegiate Nursing Education national accreditation.

Key Words: Veteran healthcare, nurse practitioner, residency programs, program evaluation, transition theory, accreditation

Background

United States Veterans have unique and complex healthcare needs that differ from the general population. Veterans, especially those that utilize Veterans Affairs (VA) services, are typically older and less healthy than the general population, with higher prevalence of chronic physical and mental health conditions, including rates of cancer, diabetes, mental health conditions and conditions related to combat (Farmer et al., 2016). Currently, there is a shortage of physicians entering primary care, creating a gap in access to care for Veterans. Inadequate access to care can contribute to increased hospitalization, poor management of chronic illnesses, and increased risk of patients not accessing mental health services altogether (Peterson et al., 2014). Access to care also has effects on the VA healthcare system including Veterans seeking care outside the VA system for healthcare, utilizing acute care such as local emergency services for their care, or not seeking healthcare at all. These factors contribute to increased costs to the VA system (Peterson et al., 2014), the American taxpayer, and the Veteran's overall health and well-being. Community care costs for the VA system nationwide were \$14.7 billion in 2018 and \$13.6 billion in 2019 (United States Government Accountability Office, 2020).

Over the past decade since the enactment of the Affordable Care Act, there has been increased focus on combatting the increased demand for healthcare providers and the shortage of physicians for this role (Institute of Medicine, 2011; Zhang et al., 2020). Many healthcare systems have turned to nurse practitioners (NPs) to address this issue. NPs have comparable patient care outcomes at a lower cost and often have higher patient satisfaction ratings and better health promotion and disease prevention outcomes (Bauer, 2010; Kraus & DuBois, 2015; Swan et al., 2015). The VA healthcare system has also turned to NPs to fill healthcare gaps and increase access to care. In 2016, the VA granted NPs full independent practice authority regardless of their state licensure to meet the care needs of Veterans (Sofer, 2017). Independent practice authority allows NPs to practice autonomously and provide health care services comparable to physicians. Even though NPs can provide the same care as physicians in primary care and have been shown to have the same, if not better, outcomes, there is an ongoing debate as to whether NPs are adequately prepared for practice upon graduation without a standard transition-to-practice residency like traditional medical residency programs of their physician colleagues (Nicely & Fairman, 2015; Speight et al., 2019). Historically, NPs had several years of experience as a nurse before entering an NP training program, over time patients have become more complex and an increased demand for providers has contributed to nurses entering NP programs without clinical experience contributing to this debate on NP preparedness for practice (Nicely & Fairman, 2015). This brief describes the background of NP role transition and NP residency programs, how they contributed to the development of the primary care nurse practitioner residency (PC-NPR) program at the VA Portland Healthcare System (VAPORHCS), and a Doctor of Nursing Practice project academic and practice partnership that developed and implemented an inclusive program evaluation to examine the effectiveness and efficiency of the curriculum.

Literature Review

NP Role Transition

The unique training of NPs is structured to build upon their prior nursing experience, but there is variability in the years and types of educational and clinical experience unique to each novice NP. According to Patricia Benner's novice to expert theory of nursing, a novice is defined as a student including a new graduate and advanced beginner is those with less than 1 year of experience (Eustace, 2020). Prior nursing experience has not been shown to have a significant impact on NP role transition, as there is a shift from expert status as a registered nurse (RN) to a role of an inexperienced novice NP role, often the novice NP has transitioned to a different practice setting, and orientation and work environment support are more influential factors on this transition (Barnes, 2015a; Barnes, 2015b; Barnes et al., 2022). Currently, academic programs for providers do not include specific education regarding Veterans' unique and complex care needs (Olenick et al., 2015). The NP role is an appropriate solution to fill primary care gaps created by physician shortages within the VA healthcare system. Still, NPs need to demonstrate competency to meet the primary care needs of Veterans.

There are concerns regarding whether novice NPs are adequately prepared for the transition to the complex clinical primary care practice environment of today. In 2010, the Institute of Medicine recommended in their report "The Future of Nursing: Leading Change, Advancing Health" that all NPs should complete a residency experience after completing an advanced degree program. However, an NP roundtable of various professional nursing groups issued a joint statement that postgraduate training is unnecessary for competency development or patient safety, and postgraduate training should remain optional (Nicely & Fairman, 2015; Speight et al., 2019). Their arguments included NPs are competent providers from the point of graduation, postgraduate education is expensive and a potential barrier to autonomous practice and consumer access to care especially in rural and underserved areas (Speight et al., 2019). Current literature offers evidence delineating ways to support NP transition to practice, including transition-to-practice programs and population-focused NP residency programs, however the COVID-19 pandemic has impacted the primary care arena and the needs of novice NPs and must be considered.

Experienced and novice NPs during the COVID-19 pandemic have faced challenges with disrupted clinical experiences, modified learning environments, less on-the-job training, and increased workloads (Crismon et al., 2021). These challenges increase the stress for nurses transitioning to new roles at any level (Crimson et al., 2021). With the increasing primary care demands and the COVID-19 pandemic's impact, NP residency programs can be a key component in preparing new graduates for practice, especially in Veteran populations with unique and complex care needs.

NP Residencies

With the diversity of nursing backgrounds, levels of experience, and varying practice authority for NPs based on their state licensure, the consideration for NP residency programs has grown over the past decade. Residency programs offer postgraduate training experiences to novice NPs, including hands-on experience with clinical supervision and mentorship to support their transition to independent practice. Since the first NP residency program was piloted in

Connecticut in 2007, the number of NP residency programs has seen a surge in popularity. As of 2018, there are 91 NP residencies in the United States (Harper et al., 2017; MacKay et al., 2018).

In 2011, the Veterans Health Administration (VHA) funded the development of five primary care NP residency programs with a focus on advancing clinical skills and leadership through interprofessional learning and collaborative care. The goal of the VA-specific residencies is to develop competent, confident, practice-ready NPs equipped to address the unique care needs of Veterans including management of complex chronic physical and mental health conditions as well as combat specific conditions such as limb loss, traumatic brain injury, burns, and post-traumatic stress disorder (Farmer et al., 2016; Rugen & Zapatka, 2016). These residencies were also developed to recruit and retain qualified providers for Veteran specific care (Rugen & Zapatka, 2016). Residency programs are optional, but they can provide novice NPs with additional training, especially in managing challenging patients with complex financial, social, or emotional issues and/or comorbidities (Rugen & Zapatka, 2016). Since 2011, the VA Office of Academic Affiliations (OAA) has implemented over 35 post-baccalaureate RN and NP residency programs within VHA (VHA VA Office of Academic Affiliations Nurse Residency Expansion Initiative, 2022). VHA currently includes mental health, primary care, and adult-geriatric nurse practitioner residency programs with desire to expand to additional residency programs in women's health and acute care.

VA Portland Healthcare System

VAPORHCS has also turned to NPs to help meet the demand for primary care providers in their outpatient clinics. In addition to more Veterans enrolling for care at VAPORHCS and a shortage of primary care physicians, VAPORHCS has also seen more NPs leaving employment. In fiscal year 2019, four NPs retired, only three of those vacancies were filled through scholarship programs and the VA general job listing website USAjobs.gov, and it is projected that another seven NPs will retire in the next five years based on data from the 2020 VAPORHCS APRN survey. This combination of primary care physician shortage and NP retirement has forced VAPORHCS to fill vacancies with novice NPs. To prepare novice NPs for managing the complex healthcare needs of Veterans, VAPORHCS developed and launched a novice PC-NPR program in September 2020. The year-long training program completed its inaugural year in September of 2021, graduating two primary care NP residents, but had yet to undergo formal evaluation. VHA OAA-funded training programs must undergo rigorous evaluation metrics to evaluate the successful completion of identified objectives and to use the data to improve program curriculum. A Doctor of Nursing Practice scholarly project academic and practice partnership was developed between a public University College of Nursing and VAPORHCS in 2020. The purpose of this scholarly project was to develop and implement an inclusive program evaluation to examine the effectiveness and efficiency of the curriculum, at this stage but not the program as a whole, using the Commission on Collegiate Nursing Education (CCNE)'s pre-publication accreditation standards (2020) Evaluation of residency programs is a key factor in assessing NP competence and satisfaction, providing insight into their effectiveness and value.

Methods

The project was determined exempt by the Washington State University College of Nursing ethical internal review committee and the VA Portland Health Care System Institutional Review Board.

Design

To evaluate the effectiveness and efficiency of the PC-NPR program's curriculum with quantitative and qualitative methods in supporting residents' progression through the program and transition- to-practice as well as the program's readiness for national accreditation evaluation tools had to be developed. With NP residency programs being rapidly developed in the past decade there is no standard competency framework in the United States for NP residency/fellowship programs (Kesten & Beebe, 2021). There are few national accrediting bodies for NP residency programs. The PC-NPR program will be seeking accreditation with the CCNE in the fall of 2023, as CCNE accredits their other residency programs. At the time of this evaluation, CCNE did not have an active accreditation process for NP residency programs. They were developing their accreditation process and had pre-publication standards available publicly for review, as of November 2021, the CCNE has published their finalized accreditation standards. Development of the evaluation tools for this program evaluation was guided by Meleis' Transition Theory (1986) as the theoretical framework and the Centers for Disease Control and Prevention (CDC) Program Evaluation Framework as the process framework.

Setting and Sample

The first cohort of the VAPORHCS PC-NPR program had two residents; therefore, the academic-practice partnership used a purposive and convenience sampling and had to incorporate more stakeholders who were involved in the program to protect the identity of participants. There were 24 stakeholders who were recruited based on their direct involvement with having developed and implemented the PC-NPR program and working in primary care at the VA and included primary care group practice managers, primary care directors, NP residents, NP residency program mentors, and university partner leadership. Of the 24 stakeholders who were invited, 13 (54% recruitment response rate) volunteered to participate. Participants were invited via VA email accounts to fill out the questionnaire and attend the virtual focus group interview via Microsoft Teams technology. Participants were invited to attend the focus group through a Microsoft Teams invite. Participants would contact the PC-NPR program director for interest and who confirmed having met participation inclusion criteria.

Theoretical Framework

Meleis' Transition Theory was used to guide this scholarly project curriculum evaluation. This theory was chosen because of its applicability to individual and organizational transitions. Viewing from the lens of transitions helps to get at progression from novice to competent providers for NPs managing the complex healthcare needs of Veterans. Transitions are a "passage from one phase, condition, or status to another, a concept embracing the elements of

process, time span, and perception” (Chick & Meleis, 1986, p. 239). During these transitions, both process and outcome indicators are used to determine how transitions unfold as well as conditions that affect these transitions (Meleis et al., 2000). Conditions are factors that are either facilitators or inhibitors of change. Process indicators are indicators of how one moved through the transition process, and outcome indicators are the results of the transition (Meleis et al., 2000). In applying these concepts to NP role transition, a successful transition to the NP role is highlighted by a sense of well-being, increased confidence and competence, good connections with others, mastery of skills, and autonomous practice, whereas unsuccessful transition results in resignation, turnover, and lack of cohesiveness among staff (Barnes, 2015b). In this scholarly project, the academic-practice partnership focused on the process for this stage of the curriculum evaluation.

Evaluation Framework

The CDC (2021) Program Evaluation Framework is widely used in public health and healthcare settings. It consists of six steps to guide each program evaluation process from planning to implementing to analyzing and, lastly, disseminating. Step one is engaging stakeholders; stakeholders are those directly involved with or affected by the program through having engaged as participants as described earlier (refer to the Setting and Sample section). Step two describes the program, which consists of identifying the needs, activities, resources, and context as described earlier (VAPORHCS). Step three focuses the evaluation design to assess the greatest concerns of the stakeholders while being mindful of time and resources. The last three steps focus on data collection, results, and dissemination. Step four is to gather credible evidence, including selecting meaningful indicators and sources. Step five is justifying conclusions through analysis of data with methods appropriate for the project, interpreting the findings, making recommendations, and identifying limitations. Step six ensures the use and sharing of lessons learned through the dissemination of findings to stakeholders, which is the last step.

Development of Curriculum Evaluation Tools

The evaluation tools were developed following the six steps of the CDC Program Evaluation Framework. Development of the evaluation tools began with focusing on the evaluation design. Currently, the evaluation tools in the literature are heavily competency focused. The PC-NPR program’s goal was to evaluate whether the curriculum supported residents through the program, their transition to practice, and their readiness for accreditation. The PC-NPR program director and an academic Doctor of Nursing Practice Family Nurse Practitioner (DNP-FNP) student scholar desired to develop a tool that would not only comprehensively evaluate the curriculum, but one that would be inclusive of all roles directly involved with the development and implementation of the PC-NPR program. An academic DNP-FNP student scholar, PC-NPR Program Director, and an academic nurse scientist determined that a response-type questionnaire would be the most efficient way to reach more participants and provide an anonymous space for participants to share their feedback. A focus group interview guide was developed to provide an open forum for participants and additional context.

Since the PC-NPR program was focused on national accreditation this was an essential rationale to incorporate the CCNE accreditation standards into the curriculum evaluation questionnaire. At the time of this evaluation tool's development, only the CCNE pre-publication standards were available. They were available publicly and to the PC-NPR program during development. In November of 2021, the CCNE published their accreditation standards titled *Standards for Accreditation of Nurse Practitioner Fellowship/Residency Programs (2020)*. This document includes four standards each with additional key elements. When developing the curriculum evaluation questionnaire, statements one and two were adapted from standards one and two utilizing the standards' summary. Statements three through 10 were adapted from the key elements of standard three, the curriculum standard. Each key element has multiple points, the statements were created by summarizing the main concepts of the CCNE standards. This is congruent with Meleis' Transition Theory as the curriculum can be either a facilitator or barrier to a successful transition. The statements were converted into a 4-point questionnaire Likert scale, the responses included Strongly Disagree, Disagree, Agree, and Strongly Agree (Box 1). Two open-ended questions were added at the end to give participants a space to provide additional comments or context to their answers anonymously. A Likert scale is a reliable tool, but this specific tool was only utilized for evaluating this specific program and the results were not generalizable. To increase the content validity of evaluation findings from the curriculum evaluation tool, a focus group interview with stakeholders was held.

Box 1

Curriculum Evaluation Questionnaire

4-Point Response Questionnaire includes Strongly Disagree, Disagree, Agree, and Strongly Agree

1. The curriculum reflects the mission, goals, and outcomes of the PC-NPR program^a
2. Teaching support services are sufficient to ensure quality of learning^a
3. Curriculum expands residents' abilities in person-centered care within the Veteran population^a
4. Curriculum expands residents' knowledge and skills in their graduate education to synthesize established and evolving scientific knowledge from diverse sources^a
5. Curriculum expands residents' ability to reflect on their own strengths and weaknesses and seek opportunities for continuous improvement^a
6. Curriculum promotes the development of therapeutic relationships with individuals across a broad range of cultural and socioeconomic backgrounds^a
7. Curriculum expands residents' ability to carry out professional responsibilities and an adherence to ethical principles^a
8. Curriculum supports development of organizational and systems leadership to improve healthcare outcomes^a
9. Curriculum expands residents' abilities to engage in an interprofessional team in a manner that is safe and person/ population-centered
10. Curriculum is structured to promote skills and knowledge required to sustain lifelong personal and professional growth^a

Open-Ended Questions:

11. Any recommendations for the PC-NPR program curriculum?
12. Any additional comments or feedback?

Note. Source: ^a Statements adapted and obtained with permission in September 2020 from the pre-published Commission of Collegiate Nursing Education Standards for Accreditation of Nurse Practitioner Residency/Fellowship Programs. Pre-Publication Copy.

The focus group interview guide was developed to add qualitative context to the evaluation and allow participants to share their thoughts, concerns, and recommendations. The literature does not currently have focus group interview questions specific to the curriculum for NP residents in a VA setting. Therefore, the focus group interview questions were developed by adapting the Western University Centre for Teaching & Learning's *Conducting Focus Groups for Curriculum Review and Improvement* (Hundley & Gonzalez, 2019) as a guide. The focus group questions were open-ended, semi-structured, and centered on stakeholder's first impressions, expectations, strengths of the curriculum, areas for improvement, and suggestions (Box 2).

Box 2

Focus Group Interview Open-Ended and Semi-Structured Questions

1. Think back to when you first became involved with the program. What were your first impressions?
2. What were your expectations of the program curriculum initially?
3. How does the curriculum support transition to practice in providing care to the Veteran population?
4. What current strengths in curriculum should the program build upon?
5. What would you remove, if anything, from the curriculum? What would you add if anything?
6. What emerging or new areas could the curriculum focus on that would strengthen its value to the VA?
7. What is the most important thing you would like to tell the program staff as they work to enhance the program?

Note. Source: Questions were adapted from Western University Centre for Teaching & Learning's *Conducting Focus Groups for Curriculum Review and Improvement* (2019).

Data Collection and Analysis

The questionnaire was available online for 30 days through a SurveyMonkey link, and responses were collected anonymously. The data was downloaded into an Excel document and verified by an academic DNP-FNP student scholar for completeness by reviewing whether each statement had a response for each participant. Data was analyzed using descriptive statistics specifically frequency and percentages. Data was also examined by the DNP-FNP student for any outliers, and there were none.

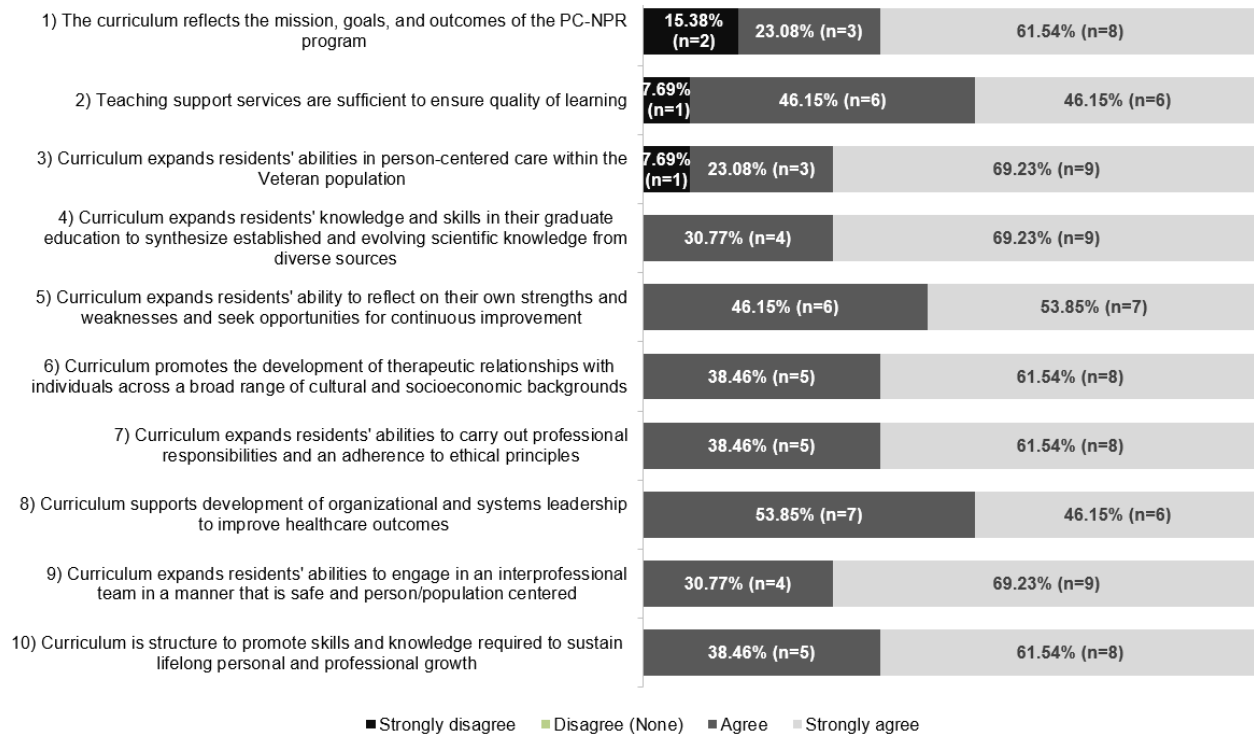
An academic DNP-FNP student scholar facilitated the focus group interview, and this occurred via a remote meeting utilizing Microsoft Teams on one date. Those invited to participate include primary care group practice managers, primary care directors, NP residents, NP residency program mentors, and university partner leadership who are directly involved with developing and implementing the PC-NPR program. Documented by the PC-NPR program director as field-notes based data transcript and verified with participants as verbal readback in real time. The data did not include participants' names. The focus group was recorded for the use of the PC-NPR program and was not shared with the DNP-FNP student scholar to protect the participants' identity. The DNP FNP student scholar reviewed the transcript for completeness. Next, the contents of the transcript were entered into an Excel file. Then the contents were manually grouped by responses to the focus group questions and coded by color to identify patterns in the data. Open-ended questionnaire questions were reviewed for completion and

applicability to the questions and included in the analysis of patterns for main themes of the focus group interview data for a comprehensive report.

Results

Twenty-four potential participants were invited to respond to the curriculum evaluation questionnaire and attend the focus group interview. The questionnaire had a 54% (n=13) response rate. The focus group interview attendance was also 54% (n=13). The questionnaire responses were anonymous, so it cannot be determined whether those who completed the questionnaire were the same participants of the focus group interview. The questionnaire provided insight into the curriculum's readiness for national accreditation (Figure 1).

Figure 1
Curriculum Questionnaire Results



Note. N = 13. The majority of responses were positive, with agree or strongly agree responses. The first three items have strongly disagreeing responses with unclear explanations. Possible incorrect selection by the participant.

The focus group interview highlighted the strengths of the program and areas for improvement. Two major themes were identified: opportunities for curricular improvement and transition to practice support. Both major themes had additional patterns (Table 1).

Table 1*Focus Group Interview and Open-Ended Questionnaire Themes*

Theme 1: Opportunities for curricular improvement	
Specialty care	<p>“Utilize specialty rotations to learn how to manage patients in primary care”</p> <p>Specialty care residency</p> <p>Inpatient care residency</p> <p>“Medication to manage opioid and substance abuse”</p> <p>“Sexual health/STD expansion. High risk, gender identity, and sexual orientation”</p> <p>“Specialty rotations fit with the uniqueness of the Veteran patient; the co-morbidities that affect primary care needs”</p>
Evidence-based practice project	<p>“Inclusion of the evidence-based project improves health care system”</p> <p>“Focus the project on the primary care clinic and benefitting the clinic/providers”</p> <p>“Disseminate the project information so that they can help support and serve as mentors”</p>
Telehealth	<p>“Opportunities to be immersed in telemedicine”</p> <p>Virtual care</p> <p>“Telehealth, standards, and best practices”</p>
Theme 2: Transition to practice support	
Business of VA care	<p>“Information on service connection”</p> <p>“How things are attributed to service connection”</p> <p>Financial management</p>
Schedule	<p>“Adding time at the end of the week to address alerts”</p> <p>“Immersion in specialty to do more research without primary care alerts”</p> <p>“Immersion would be a wasted opportunity because referral criteria is what needs to be known no entire specialty”</p> <p>“Change from 2 days in clinic to 3 days”</p> <p>Overlap of cohorts for mentorship</p> <p>“Current model of shared week helps stay connected to primary care”</p>
Mentor support	<p>“One supervisor overseeing 2 residents”</p> <p>“Supporting clinical supervisor so they have time to teach and be a primary care provider”</p>
NP support	<p>“Progressive independence and expansion of care knowledge”</p> <p>“Novice NPs [Nurse Practitioners] needs support as education is life-long”</p> <p>“Whole health look at Veteran care”</p>

Note. VA = Veterans Affairs, NP = Nurse Practitioner.

Focus group participant statements and open-ended questionnaire answers highlighting the major themes and additional patterns gathered from these activities.

Discussion

The purpose of this scholarly project was to develop and implement an inclusive program evaluation to examine the effectiveness and efficiency of the curriculum using the 2020 CCNE's pre-publication accreditation standards at this stage but not the program as a whole. The curriculum evaluation questionnaire provided insight to how the curriculum is supporting residents' role transition from the RN role to the NP role. On the curriculum evaluation questionnaire, none of the statements had disagree responses, most of the responses were either agree or strongly agree. The first three statements on the curriculum evaluation questionnaire had strongly disagreeing responses: 1) the curriculum reflects the mission, goals, and outcomes of the PC-NPR program, 2) teaching support services are sufficient to ensure quality of learning, and 3) the curriculum expands residents' abilities in person-centered care within the Veteran population. It was unclear why the first three statements had strongly disagreeing responses as there were no supporting comments in the open-ended section of the questionnaire data. One possible explanation is that participants meant to check strongly agree instead of strongly disagree. The focus group interview highlighted facilitators and barriers to role transition for residents, organizational transition, and areas for improvement. At the time of this curriculum evaluation available literature on NP residency program evaluations was minimal and a standard competency for comparison does not currently exist (Kesten & Beebe, 2021), limiting comparison to focus group responses. The academic-practice partnership was able to evaluate effectiveness and efficiency towards individual transitions from a process indicator lens but were unable to fully evaluate outcomes due to protection of NP residents' identities. Organizational transitions will continue to evolve as the program seeks national accreditation.

The CCNE accreditation standards cover not only the impact on the individual resident level but also how interprofessional relationships and organizational transitions are impacted by residents' transitions and vice versa. The remaining statements (4-10) on the curriculum evaluation questionnaire describes interprofessional relationships, organizational leadership, professionalism, ethics, and cultural competency and personal knowledge, and skill development had positive responses. This is essential given that NP residency programs and the demand for them is growing, and currently, there is no standardization process for developing residency programs. With the CCNE releasing its accreditation standards at the end of 2021, there is an opportunity for residency programs to work toward program standardization and for academic NP programs to adjust their curriculum to align with residency program outcomes to support the transition to practice further. NP residency program evaluations vary within the literature; currently, there is no established standard for gathering data to compare results. Competency metrics have focused on individuals' strengths and areas for improvement through self and mentor feedback tools centered primarily on knowledge and clinical skills (Ayvazian et al., 2021; Rugen et al., 2017). Programs have strived to expand competencies to include cultural awareness, interprofessional collaboration, and leadership, although their evaluation metrics mostly focus on the residents and their mentors' feedback (Hicks et al., 2017; Rugen et al., 2017). These appear to be proxy metrics for interpersonal and organizational levels but are more competency outcome-focused on the individual level. The focus group interview discussion provided recommendations for program and organizational improvement primarily focused on curricular improvement and transition to practice support. Recommendations for curricular

improvement included more specialty care exposure, evidence-based practice project connected to practice, and utilization of telehealth. The business of VA care, increasing clinical time in schedule, improved mentor and NP support were the theses of transition to practice support. The current literature focuses on process evaluation and inclusion of stakeholders in addition to the NP residents and their mentors (Alencar et al., 2018; Painter et al., 2019; Thabault et al., 2015). However, process evaluations have been primarily reported as informal communication with residents, their mentors, and varying other stakeholders such as managers (Thabault et al., 2015), physicians, and department leadership (Alencar et al., 2018) or “other key participants” (Painter et al., 2019, p.691) rather than reporting on formal metrics. While there are previous reports on the strengths of an NP residency curriculum program development, the focus is on outcomes, including retention of NPs at the end of a program, and not on process and retention during a program (Alencar et al., 2018; Painter et al., 2019). With the PC-NPR program stakeholders and the VAPORHCS program being new, a curriculum evaluation focused on a process metric is more appropriate. As the development of more NP residency programs continues to progress, and the CCNE starts to accredit NP residency programs, more program evaluations will need to be completed to fully understand the effectiveness and efficiency of the program curriculum in supporting residents through a primary care residency and their transition to practice.

This program evaluation will have a sustainable and direct impact on the PC-NPR program stakeholders and VAPORHCS. One of the requirements of the OAA is to seek accreditation within three years of launching a PC-NPR program. The PC-NPR program launched in September 2020, and VAPORHCS filed its initial accreditation application in August 2022. Utilizing the CCNE accreditation standards, including those for evaluative processes, the VAPORHCS PC-NPR program will continue to evaluate its outcomes, and refine program curriculum to meet novice NP expectations and national VHA PC-NPR residency training goals. The curriculum evaluation tool focused on standards in the CCNE pre-publication standards with primary focus on the curriculum’s overall contribution to preparing NP residents for practice in a VA setting. The evaluation tool did not include specific day to day tasks of an NP in practice such as prescribing, ordering, and evaluating therapeutic interventions (CCNE, 2020). Including this would be an improvement in evaluating the curriculum of the PC-NPR program.

Limitations of this program evaluation project include a small sample size. However, these results are helpful to the VAPORHCS PC-NPR program, and the underpinnings of what we learned from this process can be considered in other NP residency programs as they work on the rigor of their program evaluation. Another limitation is that the inaugural year of the PC-NPR program had two residents. With this program being newly launched, retention data would have been minimal, and the sample size is small to analyze competency scores impacting the ability to use VAPORHCS’ current evaluation tools as part of the data collection. However, protecting NP residents’ identities is a crucial ethical priority while being creative in evaluating. This program evaluation focused on the curriculum with a focus on future accreditation. When the curriculum evaluation questionnaire was created, the only available accreditation resource was the CCNE’s pre-publication standards for accreditation of nurse practitioner fellowship and residency programs. These evaluation tools could be further developed by applying Duchscher’s stages of transition theory to examine how the program is supporting the transition of novice NPs from

doing to being to knowing and Benner's novice to expert model to evaluate skill acquisition from student to practicing provider (Murray et al., 2019). After data collection, the official CCNE finalized standards were published. Lastly, this program evaluation was completed during the COVID-19 pandemic, which limited the ability for face-to-face interactions with stakeholders, and contributed to relying more on remote digital communication for most project communication.

Conclusions

The combination of physician shortages in the primary care arena and future NP retirement is creating gaps in primary care for VAPORHCS, resulting in the hiring of novice NPs to try and increase their primary care workforce. VAPORHCS PC-NPR program was launched in 2020 to fill care gaps by training new graduate NPs for independent practice in the VA primary care setting utilizing a formalized NP residency program curriculum. The inaugural year of the PC-NPR program was completed in September 2021 and required a timely formal evaluation. A program curricular evaluation was conducted using a combined approach, including a curriculum evaluation questionnaire and a focus group interview. This program evaluation was guided by Meleis' Transition Theory and the CDC Program Evaluation Framework to examine the process, outcomes, and impact of the PC-NPR program curriculum.

This curriculum evaluation contributed to a comprehensive program evaluation of the PC-NPR program. The results are being used to make timely improvements in the PC-NPR program objectives and curriculum in preparation for seeking CCNE national accreditation. As VAPORHCS continues to develop and expand the PC-NPR program, regular evaluation of the curriculum will be essential to meet VHA OAA national NP residency standards, national CCNE accreditation standards, and, more importantly, the needs of novice NPs looking for further clinical mentorship.

Promissory Note

None of the material in the paper is a product of plagiarism

References

- Alencar, M.C., Butler, E., MacIntyre, J., & Wempe, E.P. (2018). Nurse practitioner fellowship: Developing a program to address gaps in practice. *Clinical Journal of Oncology Nursing*, 22(2), 142-145. doi: 10.1188/18.CJON.142-145
- Ayvazian, J., Muirhead, L., Belizaire, S., King, S.S., Campbell, J., & Klink, K. (2021). Establishing competency-based measures for department of veterans affairs post-graduate nurse practitioner residencies. *Journal of Professional Nursing*, 37(5), 962-970. doi: 10.1016/j.profnurs.2021.08.001

- Barnes, H., Covelli, A.F., & Rubright, J.D. (2022). 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. doi: 10.1097/JXX.0000000000000566
- Barnes, H. (2015a). Exploring the factors that influence nurse practitioner role transition. *The Journal for Nurse Practitioners*, 11(2), 178-183. doi: 10.1016/2Fj.nurpra.2014.11.004
- Barnes, H. (2015b). Nurse practitioner role transition: A concept analysis. *Nursing Forum*, 50(3). doi: 137-146.10.1111/nuf.12078
- Bauer, J.C. (2010). Nurse practitioners as an underutilized resource for health reform: Evidence-based demonstrations of cost-effectiveness. *Journal of American Academy of Nurse Practitioners*, 22(4), 228-231. doi: 10.1111/j.1745-7599.2010.00498.x
- Centers for Disease Control and Prevention. (2021, November 16). *A framework for program evaluation*. <https://www.cdc.gov/eval/framework/index.htm>
- Centers for Disease Control and Prevention. (2018). *Program evaluation framework checklist for step 1*. <https://www.cdc.gov/eval/steps/step1/index.htm>
- Chick, N. & Meleis, A.I. (1986). Transitions: A nursing concern. In P.L. Chinn (Ed.), *Nursing Research Methodology* (pp. 237-257). Aspen Publication.
<https://repository.upenn.edu/cgi/viewcontent.cgi?article=1008&context=nrs>
- Commission on Collegiate Nursing Education. (2020). *Standards for accreditation of nurse practitioner fellowship/residency programs*.
<https://www.aacnnursing.org/Portals/42/CCNE/PDF/CCNE-NP-Fellowship-Residency-Standards-2020.pdf>
- Crismon, D., Mansfield, K.J., Hiatt, S.O., Christensen, S.S., & Cloyes, K.G. (2021). COVID-19 pandemic impact on experiences and perceptions of nurse graduates. *Journal of Professional Nursing*, 37(5), 857-865. doi: 10.1016/j.profnurs.2021.06.008.
- Eustace, R. (2020, August 21). *From novice to expert*. Nursology. <https://nursology.net/nurse-theories/from-novice-to-expert/#:~:text=Benner's%20Novice%20to%20Expert%20Theory,practice%20situation%20Fevent%20over%20time.>
- Farmer, C.M., Hosek, S.D., & Adamson, D.M. (2016). Balancing demand and supply for veterans' health care: A summary of three RANS assessments conducted under the veterans choice act. *Rand Health Q*, 6(1), 12.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5158276/#:~:text=VA%20Serves%20Veterans%20with%20More,typically%20older%20than%20other%20veterans.>

- Harper, D.C., McGuinness, T.M., & Johnson, J. (2017). Clinical residency training: Is it essential to the doctor of nursing practice for nurse practitioner preparation? *Nursing Outlook*, 65(1), 50-57. doi: 10.1016/j.outlook.2016.08.004
- Hicks, K.E., Rico, J., & Beauchesne, M. (2017). Core curriculum and competencies: A multisite analysis of postgraduate training programs for primary care nurse practitioners. *Journal of Professional Nursing*, 34(6), 454-462. doi: 10.1016/j.profnurs.2017.12.012
- Hundley, B. & Gonzalez, A. (2019). *Conducting focus groups for curriculum review and improvement*. Western University Centre for Teaching & Learning.
<https://teaching.uwo.ca/pdf/curriculum/Focus-Group-Guide-for-Curriculum-Review-Guide-1.pdf>
- Institute of Medicine. (2011). *The future of nursing: Leading change, advancing health*. National Academy of Sciences. <https://www.ncbi.nlm.nih.gov/books/NBK209871/>
- Kesten, K.S. & Beebe, S.L. (2021). Competency frameworks for nurse practitioner residency and fellowship programs: Comparison, analysis, and recommendations. *Journal of the American Association of Nurse Practitioners* 34(1), 160168. Doi: 10.1097/JXX.0000000000000591
- Kraus, E. & DuBois, J.M. (2017). Knowing your limits: A qualitative study of physician and nurse practitioner perspectives on NP independence in primary care. *Journal of General Internal Medicine*, 32(3), 284-290. doi: 10.1007/2Fs11606-016-3896-7
- MacKay, M., Glynne, D., McVey, C., & Rissmiller, P. (2018). Nurse practitioner residency programs and transition to practice. *Nursing Forum*, 2018(53), 156-160. doi: 10.1111/nuf.12237
- Meleis, A.I., Sawyer, L.M., Im, E., Hilfinger Messias, D.K., & Schumacher, K. (2000). Experiencing transitions: An emerging middle-range theory. *Advances in Nursing Science*, 23(1), 12-28. doi: 10.1097/00012272-200009000-00006
- Murray, M., Sundin, D., & Cope, V. (2019). Benner's model and Duchscher's theory: Providing the framework for understanding new graduate nurses' transition to practice. *Nurse Education in Practice*, 34, 199-203. doi:10.1016/j.nepr.2018.12.003
- Nicely, K.L.W. & Fairman, J. (2015). Postgraduate nurse practitioner residency programs: Supporting transition to practice. *Academic Medicine*, 90(6), 707-709. doi: 10.1097/ACM.0000000000000567
- Olenick, M., Flowers, M., & Diaz, V.J. (2015). US veterans and their unique issues: Enhancing health care professional awareness. *Advances in Medical Education and Practice*, 6, 635-639. doi: 10.2147/2FAMEP.S89479

- Painter, J., Sebach, A.M., & Maxwell, L. (2019). Nurse practitioner transition to practice: Development of a residency program. *The Journal for Nurse Practitioners*, 15(9), 688-691. doi: 10.1016/j.nurpra.2019.05.003
- Peterson, K., McCleery, E., & Helfand, M. (2014). *Memo: An evidence-based wait time threshold*. United States Department of Veterans Affairs. <https://www.hsrd.research.va.gov/publications/esp/WaitTimesMemo.pdf>
- Rugen, K.W., Dolansky, M.A., Dulay, M., King, S., & Harada, N. (2017). Evaluation of veteran affairs primary care nurse practitioner residency: Achievement of competencies. *Nursing Outlook*, 66(1), 25-34. doi: 10.1016/j.outlook.2017.06.004
- Rugen, K.W. & Zapatka, S.A. (2016). Veteran affairs interprofessional nurse practitioner residency in primary care: A competency-based program. *The Journal for Nurse Practitioners*, 12(6). <https://daneshyari.com/article/preview/2660062.pdf>
- Sofer, D. (2017). VA grants most APRNs full practice authority. *American Journal of Nursing*, 117(3), 14. doi: 10.1097/01.NAJ.0000513271.43979.37
- Speight, C., Firnhaber, G., Scott, E.S., & Wei, H. (2019). Strategies to promote the professional transition of new graduate nurse practitioners: A systematic review. *Nursing Forum*, 2019(54), 557-564. doi: 10.1111/nuf.12370
- Swan, M., Ferguson, S., Chang, A., Larson, E., & Smaldone, A. (2015). Quality of primary care by advanced practice nurses: A systematic review. *International Journal for Quality in Health Care*, 27(5), 396-404. doi: 10.1093/intqhc/mzv054
- Thabault, P., Mylott, L., & Patterson, A. (2015). Describing a residency program developed for newly graduated nurse practitioners employed in retail health settings. *Journal of Professional Nursing*, 31(3), 226-232. doi: 10.1016/j.profnurs.2014.09.004
- United States Government Accountability Office [GAO]. (2020, September 30). *VA health care: Additional steps could help improve community care budget estimates*. <https://www.gao.gov/products/gao-20-669>
- Veterans' Health Administration-Veterans Affairs Office of Academic Affiliations Nurse Residency Expansion Initiative. (2022). Veterans Affairs office of academic affiliations nurse residency expansion initiative request for proposals. Department of Veterans Affairs, Washington, DC.
- Zhang, X., Lin, D., Pforisch, H., & Lin, V.W. (2020). Physician workforce in the United States of America: Forecasting nationwide shortages. *Human Resources for Health*, 18(8). doi: 10.1186/s12960-020-0448-3