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A Transition-to-Practice Residency That Supports the Nurse Practitioner in a Critical Access Hospital

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Walden University
2015

Abstract

A Transition-to-Practice Residency

That Supports the Nurse Practitioner in a

Critical Access Hospital

by

Nancy J. Stock

MS, University of Minnesota, 1996

BSN, Moorhead State University, 1986

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

March 2015

Abstract

Access to health care in rural communities is challenged by workforce shortages. Nurse

practitioners (NPs) have been filling the gap created by physician migration into specialty

areas. Flex hospital legislation allows critical access hospitals (CAHs) to staff the

emergency department with NPs or physician assistants without on-site physicians. NP

education often lacks emergency and trauma curriculum, resulting in gaps in education

and practice expectations and leading to significant role transition stress and turnover.

The purpose of this project was to construct an evidence-based transition-to-practice

residency program to support NPs providing emergency department care in the CAH.

Theoretical frameworks used to guide the project include rural health theory, novice to

expert, and from limbo to legitimacy frameworks. Global outcomes include increased

quality of care, patient safety, NP job satisfaction, and decreased turnover. The quality

improvement initiative engaged an interprofessional team of institutional and community

stakeholders ($n = 10$) to develop primary products including the residency program,

curriculum modules, and the secondary products necessary to implement and evaluate the

project. Implementation will consist of a pilot followed by expansion throughout the rural

health network. Evaluation will involve the CAH dashboard to monitor patient outcomes,

Misener NP job satisfaction scale, and employee turnover rates. The project expands

understanding of the on-boarding needs of rural NPs. The results of this project will serve

as a guide to publish outcome data and collaborate with higher education to develop

programs to award academic credit for paid clinical experiences leading to academic

degrees.

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Dedication

This project is dedicated in honor of all the nurse practitioners whose clinical practice includes working in a critical access hospital setting. Your willingness to provide healthcare in a rural community with limited resources is a reflection of your commitment to improve healthcare access to a vulnerable population.

Table of Contents

iii

List of Figures

Section 1**:** Overview of the Evidence-Based Project

Introduction

Access to routine medical care is vital to improve the health of all Americans. Access to health services allows patients to prevent disease and disability, detect and treat illnesses, increase quality of life, reduce likelihood of premature death, and increase life expectancy (U.S. Department of Health and Human Services, 2014). Healthcare workforce shortages create difficulties for people living in underserved areas to access health services, limiting their ability to stay healthy (Grober et al., 2009). Unfortunately, the primary care workforce shortage is more severe in economically-disadvantaged areas that already disproportionately bear the highest overall rates of disease and premature death in the country (China, Park, & Galloway-Gilliam, 2012). There are pockets of health professional shortage areas (HPSA) within the United States, including the state of Minnesota (National Health Service Corps, n.d.; Governor's Workforce Development Council, 2011). Rural areas with high poverty rates are especially vulnerable.

The rural United States is comprised of nearly 63 million people making up 19% of the population living on 80% of the land (U.S. Census Bureau, 2012). Although people living in rural areas experience many of the same issues as their urban counterparts, they are often considered a more vulnerable population due to their economic disadvantage, poorer health, and limited health care access (Choi, 2012). Unfortunately, only 10% of physicians practice in the rural United States (National Rural Health Association, n.d.). The physician shortage has not improved over the past 50 years and is not expected to improve (Marsh, Diers, & Jenkens, 2012). In 2014, graduates from U.S. medical schools

matched only 45% of family practice and 48% of internal medicine residency positions compared to 90% specialty slots reflecting ongoing preference toward specialization (National Resident Matching Program, 2014). With few physicians entering primary care and even fewer choosing rural practice locations, the shortage is getting worse. Access to quality health services has been identified as the top Healthy People 2020 priority for the rural United States (Brolin & Bellamy, 2012).

The role of the nurse practitioner (NP) was created in the 1960s in response to the shortage of physicians to increase access to primary care in shortage areas. NPs are educated in health promotion, disease prevention, and management of acute and chronic disease with a focus on primary care. They have the ability to care for 85% of a family's primary health care needs (AANP, 2014). NPs have become mainstream healthcare providers to a variety of populations (family, neonatal, pediatric, adult-gerontologic, women's health, and mental health) in a variety of practice settings (primary care and acute care) in rural and urban locations (American Nurses Association, 2009; American Academy Nurse Practitioners, 2014).

Educating the NP to meet the needs of a rural practice has been challenging. The majority of NPs working in rural communities are employed in primary care clinic settings. Some have expanded their practice into acute care settings including hospital and emergency departments in response to the ongoing physician shortage. Although most NP programs excel in their ability to provide the necessary education for the beginning-level practitioner to enter population-specific roles, it has become increasingly more difficult to prepare NPs to care for patients in multiple practice settings.

Universities also have difficulty recruiting qualified nursing faculty who must then keep pace with the rapid changes in healthcare and arrange clinical experiences that do not always reflect the knowledge and judgment taught in the classroom (Wallace, 2012). Rural healthcare often requires providing care to vulnerable patients who have complex physical and mental health problems. NPs working in a rural setting are expected to function with a high degree of autonomy, make complicated decisions, and function as "expert generalists" capable of handling a wide range of emergency situations (Hurme, 2007; MacLeod et al., 2004). Unfortunately, most NPs hired into a rural practice setting are inadequately prepared for the expectations of their new role, and organizations often fail to provide the necessary support for the new NP to assume responsibilities effectively (Bahouth & Esposito-Herr, 2009).

Ineffective transition-to-practice causes stress, role dissatisfaction, and wastes healthcare resources (Bahouth & Esposito-Herr, 2009; Cusson & Strange, 2008; Wallace, 2012; Yaeger, 2010). Rural practice settings often require the new practitioner to assume many responsibilities in a short period of time due to workforce shortages. Fledgling NPs often struggle with the challenge of providing safe and competent care while filling gaps in knowledge. According to a study of 445 new NPs, transition-to-practice was so traumatizing that 6% left their NP position within the first year and 38% were not practicing in the role (Bahouth & Esposito-Herr, 2009). In contrast, physicians entering practice after a residency training program experience less transition-to-practice stress (Flinter, 2012). Therefore, NPs may also benefit from a formal transition-to-practice program.

Educators and professionals have proposed a variety of programs to ease NPs into their new role. Unfortunately, successful integration of NPs into practice settings becomes increasingly challenging with limited models to provide guidance (Yaeger, 2010). Orientation programs are helpful but tend to be generalized, focus on administrative tasks, and often lack formal structure. Very few rural employers offer an orientation specific to the NP role as compared to those provided by large, education-based organizations (Bahouth & Esposito-Herr, 2009). Many rural NP orientations are similar to on-the-job training programs where the new NP fills out credentialing paperwork, works with another provider for a short period of time, and gradually assumes responsibilities over a few months. In some cases, mentorship programs have helped support the transition-to-practice process (Chen & Mee-Fang, 2014). However, mentorship offers limited benefit in the rural setting where NPs are often required to work in isolated satellite locations. A longer transition-to-practice program such as a residency may be the answer to the problem.

Employers have developed residency programs to assist the healthcare professional transition into practice. Most healthcare workers do not enter the workforce well-prepared to assume autonomous practice. Transition-to-practice programs are required for many health specialties. For example, registered nurses (RNs) have preceptorships, physical therapists (PTs) have internships, and physicians have residencies. Although most NPs have many years of nursing experience prior to entering an advanced practice program, the scope of practice changes creates a stressful transition into the new role. The experienced RN becomes a novice NP. Residency programs, as

demonstrated by researchers, ease the trauma experienced during the first year the NP

transitions into the new role (Cusson & Strange, 2008; Flinter, 2012).

Problem Statement

The problem addressed in the project is the lack of resources needed to support

NPs so that they can deliver quality care, ensure patient safety, and experience job

satisfaction, thereby minimizing turnover of NPs. Access to care is a significant

population-based health issue that affects the NP's ability to provide health promotion

and disease-prevention services. Severe primary care provider shortages exist in rural

areas, and trends are not changing enough to compensate for increased demand of health

services (U.S. Department of Health and Human Services, 2014). Rural communities

with critical access hospitals (CAHs) experience great difficulty recruiting physicians.

Many CAHs have been supplementing their medical staff with NPs to provide patient

care in the rural emergency department (ED). Working in the ED requires a new set of

skills that are not included in the entry-level Family Nurse Practitioner (FNP) curriculum.

New graduates and experienced NPs who are transitioning into such roles are often

expected to work in the clinic during the day and then provide on-call coverage in the

emergency department at night. These NPs experience significant role stress when

transitioning to this type of position. Burnout is common, resulting in cyclic turnover of

primary care providers. In the local study site for this project, cyclic turnover of 23 full-

time providers in 16 years has resulted in disruption of continuity of care with ED

responsibilities cited as the most challenging aspect of the job. Turnover disrupts

continuity of care, leaving patients with limited access to a primary care provider. The

Institute of Medicine (IOM, 2010) recommended nurses complete a residency program after they have completed a prelicensure or advanced practice degree or when they transition into new clinical practice area. The IOM recommendation highlights the residency program as a potential solution to NP role transition stress. A taxonomy commonly used to formulate evidence-based questions is PICO that identifies the patient population (P), intervention (I), comparison (C), and outcome (O). The PICO problem statement for this project is as follows:

P: CAHs staff NPs for ED on-call services.

I: Residency program.

C: Standard orientation.

O: Increased quality of care, increased patient safety, increased job satisfaction, and decreased turnover.

Purpose Statement

The purpose of the project was to develop a transition-to-practice residency program to support the NP working in the ED of a CAH of a rural healthcare network located in the U.S. Midwest. In this project, I focused on developing a residency structure and curriculum to meet the needs of the CAH, taking into consideration the detrimental effect turnover has on patient outcomes. The National Database of Nursing Quality Indictors (NDNQI) recognized job satisfaction and nurse retention as highly correlated to quality of care and patient safety (DeMilt, Fitzpatrick, & McNulty, 2010; Joyce & Choi, 2013). CAHs are staffing their EDs with NPs with limited on-site physician backup. There exists a gap between the needs of the CAH and the NP's skill level. The residency

must allow organizations to create a desirable work environment with adequate support allowing new practitioners to assume role responsibilities efficiently, maximize job satisfaction, and promote retention. Turnover increases risk to patient safety, causes disruption in staffing, and creates financial hardship to the organization (Marsh et al., 2012). Preventive measures may not alter turnover all together, but they may extend staff tenure, promote job satisfaction, increase quality of care, and improve patient safety.

Goals and Objectives

This quality improvement (QI) project focused on the development of a transition-to-practice residency program for the NP in the ED of a CAH. The QI initiative followed the IOM's call for the development of formal residency programs for nurses (IOM, 2010). Currently, the project site organization uses an informal, unstructured orientation for new NPs consisting of credentialing, taking required emergency management courses (Advanced Trauma Life Support or Comprehensive Advanced Life Support), and working with another provider (J. Stromme, personal communication, August 8, 2014). The project leader developed the residency to create a structured program with specific learning objectives and focused clinical opportunities to allow NPs to learn new skills and increase competency as they adjust to the new role and expectations. Global outcomes include increased quality of care, increased patient safety, increased NP satisfaction, and decreased NP turnover.

Metrics provide the basis for evaluation. Nursing-sensitive indicators have been identified by researchers to reflect the structure, process, and outcomes of safe and quality care (Montalvo, 2007). Health care organizations are required to collect data

related to specific metrics and many monitor progress on a dashboard as part of their quality management plan. The outcomes related to quality care and patient safety are monitored using the project site organization's existing quality improvement program for acute care and emergency services. Although the current dashboard does not reflect ED care, each CAH must report data such as door-to-diagnostic evaluation by a qualified medical professional, time to pain management for long bone fracture, admission to discharge time, and decision time to discharge for inpatient admission (Casey, Moscovice, Klingner, & Prasad, 2012). Metrics reflecting NP care should be included in the dashboard.

Job satisfaction is also important to retain qualified staff. The outcome for job satisfaction is directly related to turnover. NPs who are satisfied with their jobs are more likely to remain in their positions. Factors known to enhance job satisfaction include achievement, recognition, work itself, responsibility, and advancement while factors of dissatisfaction include working conditions, interpersonal relationships, salary, security, administration, and supervision (DeMilt et al., 2010). A valid instrument was selected by the team to operationalize job satisfaction as a concept. The Misener Nurse Practitioner Job Satisfaction Scale was targeted to be administered at specified intervals. Goals related to turnover can be measured using human resource records that document length of NP employment before and after implementation of the residency program. The project team had significant input regarding the evaluation plan. Refer to Section 3.

Theoretical Foundation

The theoretical framework for the project provided contextual understanding and guided the process. Rural health theory, as described by Long and Weinert (1989), provided contextual understanding of the population. Benner's (1984) novice to expert framework provided understanding of the professional learning process. Brown and Olshansky's (1997) from limbo to legitimacy expanded on Benner's mid-range theory and provided a framework to understand NP role transition. Application of all three theories provided a rich contextual foundation to support the need for the transition-to-practice NP residency program. A detailed explanation of each theory is provided in Section 2.

Significance of the Project

The IOM's (2010) report, *The Future of Nursing: Leading Change, Advancing Health*, recommended implementation of residency programs for new graduates and those transitioning into new clinical practice areas. Rural communities frequently have difficulty recruiting and retaining qualified NPs to work in their CAHs. The NP residency program is aligned with IOM's focus on rural and critical access areas. Implementation of a residency program has great potential to increase quality of care, increase patient safety, increase NP satisfaction, and reduce or slow the turnover rate.

Implications for Social Change

The *Essentials of Doctoral Education for Advanced Nursing Practice* identified many benefits of the practice focused DNP program (AACN, 2006). Essential II is focused on systems leadership for quality improvement. The DNP graduate must be

prepared to improve patient and healthcare outcomes through initiatives that improve healthcare delivery. Development of the transition-to-practice residency program provides the structure to start a residency program, including a model curriculum along with plans for implementation at a pilot site followed by expansion to additional sites within the rural network. Plans for evaluation have also been included in the project and may provide data for future research and publication. Successful implementation has great potential to impact workforce stabilization, and the residency may become a model for other rural organizations.

Definitions of Terms

The following definitions were used to guide the project.

Advanced practice registered nurses (APRNs): An APRN is an RN who has completed an advanced graduate-level education program and has passed a national certification examination in order to practice in one of four APRN roles (clinical nurse specialist, nurse midwife, nurse practitioner, and registered nurse anesthetist). They have acquired advanced clinical knowledge and skills to diagnose and treat health problems, prescribe medications, perform procedures, order and interpret laboratory tests, counsel patients about health promotion and prevention, coordinate care, refer patients to physicians and other health care providers, and advocate for patients in the complex health care environment (AANP, 2014).

Critical access hospital (CAH): A hospital designation created by the Rural Hospital Flexibility Program of the Balanced Budget Act of 1997, which allocated funds to assist rural areas in meeting the health care need of the population. The CAH is a 25-

bed capacity hospital located in a rural setting which provides inpatient, skilled, and emergency services (Hurme, 2007).

Healthcare reform: The term healthcare reform encompasses all the changes related to healthcare that have been implemented, are currently being implemented or will be implemented in the future as the results of legislation including but not limited to the Patient Protection and Affordable Care Act of 2010 and the Healthcare and Reconciliation Act of 2010.

Nurse practitioner (NP): An NP is an RN with advanced education and clinical training who can provide a wide range of healthcare services, including assessment, order and interpret diagnostic tests, make diagnoses and initiate and manage treatment plans. NPs work autonomously and in conjunction with other professionals, including physicians, to provide coordinated, comprehensive, quality health care (AANP, 2014).

Primary care: Primary care is the provision of entry level health care by a clinician who is accountable for a majority of personal health care needs over a sustainable period of time ideally in the clinic setting (HRSA, n.d.).

Registered nurse (RN): An RN is a nurse who has graduated from a nursing program at a college or university, and has passed a national licensing exam to obtain a nursing license. An RN's scope of practice is determined by the state of licensure. In Minnesota, an RN is licensed by the board to practice professional nursing (Minnesota Board of Nursing, 2014).

Residency program: A structured program that has clinical and educational components, clinical rotations, and competency-based outcomes (Flinter, 2012).

Rural: All nonmetro counties are considered rural if they are not located in the same county as an urban area which is defined as a population 50,000 or more (HRSA, n.d.). For purposes of this paper, rural will be defined as a town with a population of 2,500 or less consistent with the typical population of a community with a CAH.

Assumptions and Limitations

Assumptions

Assumptions are statements taken for granted or considered true, even though they have not been scientifically tested (Grove, Burns, & Gray, 2013). The current project included a few assumptions.

1. The transition-to-practice NP residency should be a positive process for participating NPs and the sponsoring organization.

2. The transition-to-practice NP residency curriculum should be practical, increasing confidence and competence of the NP participant working in the CAH setting.

3. The transition-to-practice NP residency should be cost effective, allowing the sponsoring organization to expand to other sites.

Limitations

Limitations are theoretical and methodological restrictions or weaknesses in a study that may decrease the generalizability of the findings (Grove, Burns, & Gray, 2013). The current project includes several limitations:

1. The curriculum developed in this QI project may not be generalizable to another setting.

2. The implementation plan in this QI project may not be generalizable to another setting.

3. The evaluation plan in this QI project may not be generalizable to another setting.

4. I, the project developer, am employed at the CAH targeted for pilot implementation. Therefore, NP leadership may influence participation in the pilot program.

5. The lack of clear definition of the residency program (clinical practice, clinical competencies, clinical education, or management expectations) may limit implementation and evaluation plans.

Summary

This chapter presented a brief overview of the problem that rural health organizations experience recruiting and retaining NPs to work in CAHs. Development of a pilot transition-to-practice residency program that supports the NP working in the ED of a rural CAH hospital was based on research and grounded in theory. Successful implementation will contribute to the nursing knowledge base and increase likelihood of expanding to other CAH sites. Creation of a high quality curriculum along with practical implementation and evaluation plans will facilitate adoption, expansion and sustainability of the residency program.

In Section 2, I will present a review of the literature and the theoretical framework to support the NP residency model. Initial consideration will address the rural landscape followed by the development of the NP role and healthcare reform, and the concluding

discussions will cover application of theoretical frameworks from the context of rural health, novice to expert professional development, and limbo to legitimacy role transition.

Section 2: Review of the Scholarly Literature

Introduction

The purpose of this QI project was the development of a residency program with a model curriculum for a transition-to-practice NP residency that supports the NP in a CAH along with plans for implementation and evaluation. I explored the scholarly literature to justify the need to develop a program to stabilize the rural healthcare workforce with the impact focused on recruitment and retention. In this section, I examine the scholarly literature focused on the rural health landscape, NP role, healthcare reform, NP role transition, and theoretical frameworks.

Literature Search Strategy

I searched for literature electronically in the following databases: CINAHL, Medline, ProQuest, PubMed, and Cochrane Library. I discarded articles older than 10 years unless they were classic or landmark research publications. Terms used for the search were: *nurse practitioner, emergency department, residency, orientation, job satisfaction, rural health, rural health theory, access to care, turnover, burnout,* and *mentoring*. In order to produce more targeted results, I used Boolean operators *and* and *or* between the search terms.

Rural Health Landscape

Rural Population

The rural landscape is affected by population demographics and health behaviors. Rural residents tend to be older and poorer than those living in urban areas (Brolin & Bellamy, 2012). Although the rural population grew by a modest amount between 2000

and 2010, it continued to decline as a percentage of the total population from 21% to 19.3% (U.S. Census Bureau, 2012). According to the 2010 Census, more than 17% of rural residents were 65 or older, compared with 13.7 % of the total U.S. population (U.S. Census Bureau, 2012). Per capita income was also much lower in rural than urban areas ($35,324 for rural persons vs. $45,188 for urban persons) reflecting higher poverty rates (18.4% rural, 15.5% urban, 15.9% U.S. average; United States Department of Agriculture, 2014). Rural areas have also become more racially and ethnically diverse with minorities contributing to 83% of rural population growth (Housing Assistance Council, 2012; Ziller, Lenardson, & Coburn, 2012). Rural areas are comprised of 78% white people, 9.3% Hispanic people, 8.2% Black people, 1.9% Native American people, and 1% Asian people compared to a national average of 64% white, 16.3% Hispanic, 12.2% Black, 4.7% Asian, and 0.7% Native American (HAC, 2012). Demographic diversity impacts local health care systems and may require adaptation to meet ongoing needs.

Rural residents typically experience worse health than their urban counterparts. A higher proportion of rural residents (19.5%) reported their overall health to be fair or poor compared to urban residents (15.6%; Choi, 2012). Chronic conditions such as obesity, diabetes, hypertension, heart disease, stroke, mental illness, and substance abuse are more common in rural areas (Choi, 2012; NRHA, n.d.; Zillner et al., 2012). Rural residents are twice as likely to use tobacco compared to urban residents (Shan, Jump, & Lancet, 2012). They also experience a higher rate of death and serious injury rate from motor vehicle

accidents (60% rural vs. 48% urban; NRHA, n.d.). The gap between rural and urban cancer death rates also continues to widen (AHRQ, 2012).

Rural residents also are less likely to have health insurance. Lack of health insurance is associated with poorer health outcomes, delayed care, and negative experiences with the health system (IOM, 2009). Rural residents are more likely to be uninsured than urban residents (17.8% vs. 15.3%) with higher dependency on public programs (Choi, 2012; Grantmakers in Health, 2009; Ziller et al., 2012). Rural residents are also less likely to be covered by Medicaid benefits than their urban counterparts (NRHA, n.d.). They are also less likely to have employer-sponsored healthcare coverage due in part to employment characteristics such as part-time, seasonal, or self-employed (Choi, 2012; Ziller et al., 2012). As a result, rural residents spend more on health care out-of-pocket and a higher proportion of their income for health insurance coverage. Unfortunately, the uninsured also tend to obtain care at the most expensive source, the ED, likely related to decreased access to other sources of primary care, such as office-based healthcare providers (Ziller et al., 2012). The Agency for Healthcare Research and Quality (2008) conducted a study of ED visits in the United States and found: (a) 90% higher rate of usage among those living in low-income areas compared with those living in higher income areas (544 vs. 287 per 1,000); (b) 24% higher ED use among those aged 65 and older compared with those aged 18 to 44 (550 visits vs. 444 visits per 1,000); and (c) 39% higher ED usage for those living in rural areas compared with urban (515 visits vs. 372 visits per 1,000).

Access to Care

Access to quality healthcare services has become a top-ranking priority among rural health stakeholders (U.S. Department of Health and Human Services, n.d.). Some of the most difficult obstacles to overcome in rural health are related to lack of healthcare providers and lack of health insurance coverage. A higher portion of elderly live in rural areas at the same time many healthcare professionals are retiring (Fordyce, Skillman, & Doescher, 2013). Rural residents have greater need and limited access to health care services often leading to delayed care and underuse of preventive health services (Choi, 2012). Although people living in rural areas experience many of the same issues as their urban counterparts, they are often considered a more vulnerable population due to their economic disadvantage, poorer health, and limited health care access (Choi, 2012).

The distribution of physicians is also problematic. Unfortunately, only 10% of physicians practice in the rural United States, and new physicians are migrating toward specialization despite the growing need in primary care (Alliance for Health Reform, 2012; National Rural Health Association, n.d.; National Resident Matching Program, 2014). In 2014, only 38.9% of U.S. graduates chose primary care residencies compared to 38% in 2013, and only 51% of primary care residencies were filled by U.S. graduate medical students (NRMP, 2014; Pohl, Barksdale, & Werner, 2013). Foreign-trained physicians were matched to the remaining slots. Unfortunately, physicians are not choosing primary care specialties where the need is greater. As of June 19, 2014, there were approximately 6,100 medical health professional shortage areas (HPSAs) within the United States with 56,632 approved sites with 57% of those openings located in rural

and frontier areas (HRSA, 2013). Sadly, few physicians will migrate to rural shortage areas where the need is greatest. Upon review of all available data, researchers conclude that U.S. trained physicians will have a significantly less visible role meeting the nation's primary care needs especially in rural areas (Pohl, Barksdale, & Werner, 2013).

Mental health providers are also in short supply. Sixty percent of rural residents live in mental health shortage areas (Choi, 2012). The shortage of mental health professionals places an additional burden on primary care providers working in rural areas who must provide mental health services. Rural providers often care for patients with multiple physical and mental health problems creating very challenging practice expectations. With fewer physicians practicing in rural areas, NPs are filling the gaps and providing care to increasingly complex patients.

Rural Staff, Recruitment, and Retention

Hospitals in rural communities experience challenges in hiring qualified staff to provide health care services. Lower operating margins inhibit rural sites from offering competitive wages and benefits compared to hospitals in urban settings (Nelson & Gingerich, 2014). Researchers have shown most physicians practice where they train and complete residency programs, and only 3% choose to practice in rural areas (U.S. Department of Health and Human Services, n.d.). Since most residency programs are located in urban areas, most physicians stay in similar practice locations. However, physicians are more likely to practice in a rural area if they: (a) come from a rural background, (b) specialize in family medicine, (c) participate in the National Health Service Corps (NHSC), and (d) have medical training that exposes them to rural medicine

(AAFP, as cited in Brolin & Bellamy, 2012). The ongoing physician shortage has created gaps that have been filled by NPs and physician assistants (PAs). Approximately 50% of NPs work in primary care compared to 33% of PAs, yet the desire to work in a rural setting parallels that of physicians (Pohl et al., 2013). Therefore, providing educational experiences and rotations in rural sites is very important for recruitment and retention.

The NHSC is a valuable recruitment and retention incentive. The program provides financial assistance to students and loan repayment for qualified providers willing to work in a health professional shortage area (HPSA). The program repays educational loans ($50,000 tax-free money for a 2 year commitment, renewable up to $140,000) and provides scholarships (tuition and living stipends) to students who are willing to practice in areas of the country with greatest need after graduation (NHSC, n.d). A 2012 retention survey found that 82% of NHSC clinicians who completed their service commitment continue to practice in underserved communities up to one year after completion of their service, and 55% remain after 10 years (NHSC, n.d.). The NHSC (n.d.) had 8,900 clinicians in contracts in 2013 providing health care to over 9.3 million people. Unfortunately, there are not enough willing or qualified applicants to fill the all the open positions. The shortage of qualified physicians shifts increased responsibility onto NPs.

Rural Nursing

Rural healthcare requires a specific set of skills for successful nursing. Providing care in the rural setting requires nurses (including NPs) to function as "expert generalists" with the ability to assume multiple roles (Bushy, 2006; Hurme, 2007). The rural nurse

must provide care for all disciplines, acuity levels, and age groups simultaneously (Busby & Bushy, 2001; Molanari, Jaiswal, & Hollinger-Forrest, 2011). Rural nurses are considered the "best and the brightest" because they must have excellent critical care skills, strong teaching abilities, and knowledge of respiratory therapy, pharmacy, and nutritional services (Bigbee, 1993, p. 139). They function beyond protocol guides, function autonomously, take more responsibility for decision-making, and possesses excellent physical assessment and technical skills often functioning in situations without a physician (Hurme, 2007). Unfortunately, nurses working in rural settings do not receive the same professional respect given to nurses employed in large suburban hospitals where nurses believe rural nurses are less intelligent, rural hospitals outdated, and rural physicians "backwoods" with limited clinical expertise (Hurme, 2007). New nurses working in rural areas also experience high rates of anxiety resulting in burnout within the first 18 months of practice (Duschscher, as cited in Molanari et al., 2011). Despite the challenges, many nurses find rural practice rewarding, and some reach out for opportunities to pursue advanced practice roles.

Background of the Nurse Practitioner Role

The NP role began in the United States in the 1960s, and interest in the advanced practice role has expanded around the world. In 1965, Loretta Ford and Dr. Henry Silverman, a nurse–physician team, created the first program for NPs at the University of Colorado (United States) in response to increased specialization in medicine leading large numbers of physicians out of primary care (AANP, 2014). The migration from primary care to specialty practice led to a large void in healthcare in rural medically underserved

areas. Provider shortages in rural areas provided the ideal circumstances allowing the NP role to develop. The NP role was very successful, and programs were created in an environment of informal training, lack of credentialing, increasing medical technology sophistication, and opposition by physicians and nurses alike (O'Brien, 2003). However, patients were very satisfied with the high quality care they received, and the numbers of NPs began to grow. Mounting evidence documented the NP's ability to provide high quality, safe healthcare with satisfaction equivalent to physicians. By 1973, there were 63 formal NP programs with a curriculum focused on health promotion, disease prevention, and acute and chronic disease management to meet the needs of the underserved population in the country (AANP, 2014). Policy makers also took note of the popularity and effectiveness of the NP role, passing healthcare laws promoting their use in shortage areas.

Healthcare Reform Transforms the NP Role

Rural Health Clinics

The Rural Health Clinic Act of 1977 provided the legislation to establish rural health clinics (RHCs) in response to health disparities noted in rural areas (Rural Assistance Center, 2014). The legislation provided the first opportunity for NPs to be reimbursed from government programs, such as Medicare and Medicaid. The RHC model also provided the financial incentive of cost-based reimbursement for all-inclusive services and mandated use of NPs, certified nurse midwives (CNMs), or PAs with physician oversight (Crim, Wiley, & Clark, 2007). The law provided reimbursement for nonphysician providers in rural areas only. Research continued to support the positive

outcomes of the NP role. Sox (1979) reviewed 21 studies comparing the care provided by NPs and physicians care and concluded the care to be indistinguishable. The overwhelmingly positive studies fueled demand for NPs, and more rural clinics converting to the RHC model of care. The NP role was so successful in the RHC that interest developed in role expansion within other settings.

Critical Access Hospital

The Balanced Budget Act (BBA) of 1997 provided the legislation allowing states to participate in the flex hospital program and creating the legal basis for the CAH program (RAC, 2013). Designation as a CAH played an important role stabilizing rural hospitals that had been closing at a higher rate than urban hospitals (10.4% vs. 5.2%) by providing cost-based reimbursement (Marsh et al., 2012). CAHs were allowed to staff their ED with NPs and PAs without requiring on-site physician presence (Marsh et al., 2012; RAC, 2013). Researchers have continued to find support for positive outcomes of NP services. Mundinger (1994) published a landmark study in the *New England Journal of Medicine* providing evidence that NPs provide cost-effective and quality primary health care. An additional provision of the BBA expanded Medicare and Medicaid reimbursement to all APRNs regardless of geographical location (AANP, 2014). Reimbursement has led to increased employment opportunities and more published data supporting outcomes.

Federal legislation has promoted the use of NPs in shortage areas. NPs in safety net locations such as RHCs and Federal Qualified Health Centers (FQHCs) were becoming mainstream healthcare providers. A systematic review of 34 studies concluded

that the availability of NPs in primary care has resulted in high level patient satisfaction and high quality care (Horrocks, Anderson, & Salisbury, 2002). Research results have provided the momentum for further NP role expansion as a means to improve healthcare access and reduce skyrocketing health care costs. Outcome data fueled renewed interest in contributions NPs could have in health care reform if scope of practice laws were addressed.

Affordable Care Act

The Affordable Care Act (ACA) of 2010 introduced a new era of health care reform. The legislation addressed access to care by providing expanded health insurance coverage for an additional 32 million Americans (Brolin & Bellamy, 2012). There are many rural implications of the new law. According to the National Advisory on Rural Health and Human Services (2014), of the 41.3 million newly insured Americans, 7.8 million live in rural areas. The expansion creates a disproportionate burden on rural healthcare organizations by adding even more users to an already understaffed rural setting and creating additional access-to-care difficulties (Marsh et al., 2012). The ACA anticipated the challenges facing rural shortage areas and responded with increased funding for the NHSC program to expand scholarship and loan repayment programs. The NHSC provides tax-free loan repayment to providers in exchange for a contract to work in a qualified shortage area (NHSC, n.d.). Unfortunately, the physician shortage is expected to worsen with declining interest in primary care, aging practitioners, and increased demand (National Council of State Legislatures, 2011). As a result, recruiting, training, and retaining NPs for rural practice will be critical to fill gaps in the workforce.

NPs provide a significant portion of primary care in rural areas. Research continued to support the quality, safety, and acceptance of healthcare services provided by APRNs (Laurant et al., 2014). Unfortunately, many NPs cannot legally practice what they have been educated to do because of restrictive scope of practice laws. The IOM's (2010) report *The Future of Nursing* calls on nurses to work at the highest level of their education, encouraging states to expand APRN scope of practice laws.

Scope of Practice

Although NP education is based on national standards, state scope of practice laws determine the NP's ability to provide patient care. Health care reform has triggered increased pressure to expand APRN scope of practice. Degree of independence varies because each state has jurisdiction to determine rules regarding the issue of collaboration or supervision by physician within that state. Many physician groups vehemently object (AAFP, 2011). The Federal Trade Commission (2014) urged state legislators to avoid imposing restrictions on APRN scope of practice unless those restrictions are necessary to address well-founded patient safety concerns. Many states have passed laws to expand scope of practice and/or reduce practice barriers. Nineteen states (plus the District of Columbia) allow independent practice, 19 allow reduced practice, and 12 allow restrictive practice. Many states have introduced bills to expand APRN scope of practice (AANP, 2014). Ironically, an interesting phenomenon has emerged: tethering expanded scope of practice with a time specified collaborative practice.

The 2014 legislative session ushered in scope of practice gains associated with a tethered collaborative practice requirement. Connecticut authorized independent practice

but required at least 2,000 hours of collaborative practice during the first 3 years before granting independent practice (CAPRNS, 2014). Minnesota expanded APRNs scope of practice, allowing independent practice with the stipulation that new NPs practice collaboratively with another NP or physician for 2,080 hours before authorizing independent practice (AANP, 2014; Minnesota Nurse Practice Act, 2014). New York also relaxed restrictions, allowing NPs with over 3,600 hours of experience to transition to a collaborative relationship and retiring written collaborative agreements (Modern Healthcare, 2014). However, Nebraska APRNs did not fare as well. Despite a unanimous legislative vote to allow APRN independent practice after completing a 2,000 hour collaborative agreement, the governor vetoed the bill, citing patient safety concerns and the need for a longer collaborative transition period of approximately 4,000 hours of clinical experience (AANP, 2014). The trend toward tethering a time-specified collaborative practice suggests safety concerns that new NPs would benefit from additional support and guidance during the first few years of practice.

Restrictive scope of practice is problematic for a variety of reasons. States with more restrictive scope-of-practice laws are associated with challenging practice environments. For example, a collaborative agreement requires the NP to establish a working relationship with a physician to prescribe medications, order tests, and order durable medical equipment. Locating a physician who is willing to collaborate is often difficult, particularly in rural areas. Fees paid to the physician, often thousands of dollars a year, have no legal basis, and there are of no measureable benefits to the patient. Scope of practice laws appear to have a substantial indirect impact on what services the NPs can

provide because requirements for physician supervision affect practice opportunities for

NPs and influence payer policies (Yee, Boukus, Cross, & Samuel, 2013). Interpretation

of collaboration by regulatory bodies is also subject to inconsistency, creating barriers

that prohibit the ability to order durable medical equipment, physical therapy or other

restorative services, home health care, and hospice services. Lastly, there are no data to

support the need for a restrictive scope of practice based on safety, quality, or patient

satisfaction (Fairman, Rowe, Hassmiller, & Shalala, 2011). The Federal Trade

Commission (2014) encouraged states to expand scope of practice laws citing physician

supervision requirements are unjustified and restricts competition.

Federal policy makers are also under mounting pressure to relax regulations

allowing APRNs to work at the top of their scope. Regulatory requirements mandating

physician supervision are imbedded in many federal laws and interpretive guidelines. For

example, the Centers for Medicare and Medicare (CMS) requires physicians to cosign NP

documentation of care provided in the hospital setting to show evidence of physician

supervision, allows only a physician to order diabetic shoes, and requires a physician to

be physically in-house while cardiac and pulmonary rehabilitation sessions occur (Lui,

2013). The restrictions limit the services a NP can provide in a rural hospital, considering

the NP is able to successfully manage the same potential cardiac arrest in the ED.

NP Role Transition and Residency Programs

The breadth and depth of a rural practice setting requires the NP to have extensive

knowledge and clinical experience to provide high quality, safe patient care. It is

unrealistic to expect an educational institution to prepare the NP to assume autonomous

management of complex patient care in the rural setting upon graduation. Many NPs are being hired to assume positions previously filled by physicians. Although most NPs have extensive nursing experience before pursuing their APRN education, the NP education is less robust than that of a physician. NP education consists of 2–3 years at the graduate/doctoral level compared to a physician's 4-year medical education plus a 3-year residency. However, they are often paid 50% of a physician's salary and expected to assume 85–100% of a physician's responsibilities. NP education prepares students to become entry-level NPs. Licensure by the state and certification by an accredited agency do not measure clinical competence nor do they ensure that high quality, safe patient care is being provided. Therefore, organizations that hire NPs must assume responsible to provide transition-to-practice programs supporting a process whereby the NP can gain the necessary skills to meet the needs of the patient population. Most organizations provide a basic orientation and opportunity for informal preceptorship and mentorship experiences. However, a longer term support program is often needed. To address this gap in education and provide a more supportive transition-to-practice experience, residency programs are being offered at leading healthcare organizations such as Mayo Clinic, Johns Hopkins, and Emory (Boyar, 2012). The IOM (2010) has recommended residency programs for nurses (including NPs) to support the transition to the new practice environment. The IOM (2010) recommends implementation of nurse residency programs as follows:

State boards of nursing, accrediting bodies, the federal government, and health care organizations should take actions to support nurses' completion of a

transition–to-practice program (nurse residency) after they have completed a

prelicensure or advanced practice degree program or when they are transitioning

into new clinical practice areas. The following actions should be taken to

implement and support nurse residency programs:

- State bodies of nursing, in collaboration with accrediting bodies such as the Joint Commission and the Community Health Accreditation Program, should support nurses' completion of a residency program after they have completed a prelicensure or advanced practice degree or when they are transitioning into new clinical practice areas.

- The Secretary of health and Human Services should redirect all graduate medical education funding from diploma nursing programs to support the implementation of nurse residency programs in rural and critical access areas.

- Health care organizations, the Health Resources and Services Administration and Centers for Medicare and Medicaid Services, and philanthropic organizations should fund the development and implementation of nurse residency programs across all practice settings.

- Health care organizations that offer nurse residency programs and foundations should evaluate the effectiveness of the residency programs in improving the retention of nurses, expanding competencies and improving patient outcomes.

Organizations that have sponsored NP residencies have demonstrated improvement in patient outcomes, improved NP job satisfaction and retention, reduced turnover, cost reduction, and a positive impact on healthcare trends (Cussion & Strong, 2008; Dyess & Sherman, 2009; Flinter, 2012; Sullivan-Benz et al., 2010). CAHs may similarly benefit by providing structured NP residency programs.

Theoretical Frameworks

Rural Nursing Theory

Rural nursing theory evolved from the need to differentiate the perceptions and needs of rural residents from care provided to urban dwellers. Long and Weinert (1989) identified three concepts unique to rural dwellers. The first relates to the concept of work beliefs and health belief with the premise that "rural dwellers define health primarily as the ability to work, be productive and do usual tasks" (Long & Weinert, 1989, p. 120). The second concept is that "rural dwellers are self-reliant and resist accepting help or services from those seen as 'outsiders' or from agencies seen as national or regional 'welfare' programs" (Long & Weinert, 1989, p. 120). They prefer to seek health care from "insiders" with whom they are familiar. The third concept relates to the health care provider in rural areas and the lack of anonymity they experience as compared to their urban or suburban peers. This lack of anonymity also applies to the recipients of health care in rural areas as they have a limited ability to have a private area in their lives. Additional considerations raised by Long and Weinert (1989) include the need for understanding healthcare-seeking behavior due to isolation and distance from health care facilities (p. 119).

Lee and Winters (2004) built on rural nursing theory, concurring with the themes of insider, lack of anonymity, and familiarity. They identified four additional major themes and added these themes to the theory:

1. *Definition of health* emerged related to quality of life and being physically, mentally, and emotionally able to function.

2. *Distance and access to resources* emerged as areas of concern. Although family practice access was typically available locally, the trade-off of living in a rural area included having to drive to obtain care from a specialist was an expectation. Availability of pharmacy services and/or hours of operation limited access for working people increases reliance on mail order or neighbors to deliver medications. Emergency care perceptions varied from absolute confidence in the volunteer emergency medical technician (EMT) staff to less enthusiasm in quality of care compared to urban areas. People had vague ideas about what kinds of emergency services were available in the rural ED and expressed even less confidence in the services available.

3. *The system-action-time-line (SALT) process* involves recognition of symptoms, the decision to act on that assessment, and the time taken to do so. SALT-illness response was based on what worked in the past, access to health care, and the ability to miss work. SALT-injury response was based on the ability to take the necessary self-care actions. The further away from immediate health care access, the less likely they would access care. Many drive themselves to the nearest emergency site because waiting for an ambulance could double travel time.

4. *Choice* was identified in two spheres: residence and health care provider. Those who grew up in the community expressed a sense of familiarity while those who moved in expressed appreciation for rural lifestyle. Healthcare provider choice often related to a personal assessment of the severity of the problem. Local resources were usually the first choice often dependent on weather, road conditions, or assessment of local resources or severity of the condition.

Benner's Novice to Expert Model

Benner's (1984) *novice to expert theory* provides a framework that guides nurses through a process of professional development. The theory draws heavily on Dreyfus's model of skill acquisition. According to both theories, there are five levels of professional development that allow progress along a continuum from beginner to expert including: novice, advanced beginner, competent, proficient, and expert (Benner, 1984). The basic premise is that experience is the prerequisite for becoming an expert. Central concepts of Benner's model are those of competence, skill acquisition, experience, clinical knowledge, and practical knowledge. The stages occur over time along a continuum allowing the nurse to accumulate experience. Despite having expertise in one area, when faced with a new role or new context, the nurse would once again be performing at a novice level or higher based on the similarities or differences in the new role.

The five levels of nursing proficiency are:

1. *Novice* are beginners who have no experience of the situations in which they perform. As a beginner, the novice nurse lacks the experience necessary to feel competent and confident. The rule-governed behavior is extremely limited and inflexible

suggesting novices have no life experience or work experience to draw on requiring continual verbal and physical cues to practice safely.

2. *Advanced Beginners* demonstrate marginal acceptable performance because knowledge level is building yet they have not coped with enough real situations to gain experience. Prior experiences provide a foundation to apply in actual situations. Principles are based on experience yet require occasional supportive cues.

3. *Competent* is the stage to describe the nurse who has been on the same job or similar situation for two or three years. The nurse is able to demonstrate efficiency, is coordinated and confident his or her actions. The competent nurse lacks the speed and flexibility of the proficient nurse but has a feeling of mastery and ability to come with and manage many of the contingencies of clinical practice. The competent nurse does not have the experience to recognize an overall picture in terms of which aspects are most important.

4. *Proficient* is characterized by the ability to perceive the whole rather than in terms of chopped up parts or aspects because they perceive meaning in terms of long term goals. The proficient nurse learns from experience what typical events to expect in a given situation, and how to plan response to those events. They can recognize when the expected normal picture does not materialize. This holistic understanding allows the nurse to improve decision-making by understanding the importance of existing attributes and aspects in the present situation.

5. *Expert* status allow the nurse to intuitively grasp each situation and zero in on the source of the problem without wasteful consideration of a long range of unfruitful,

alternative solution. The expert performer no longer relies on rules or guidelines to understand and take the appropriate action. Highly skilled analytic ability is used for the situations the nurse has no previous experience (Benner, 1984).

In addition, Benner describes seven domains that can be applied to nursing practice and education. They are:

- Helping role,

- Teaching or coaching,

- Diagnostic client monitoring,

- Effective management of rapidly changing situations,

- Administering and monitoring therapeutic interventions and regiments,

- Monitoring and ensuring quality health care practices, and

- Organizational and work-role competencies (Benner, 1984).

Residency programs should be created taking into consideration the stages of role acquisition. Experienced NPs are also in a prime position to consider Benner's model as they assist fledgling NPs transition into their new roles. As NPs gain expertise and confidence, they are increasingly capable of molding the next generation of NPs by becoming mentors, preceptors, and educators. Other nurse educators and researchers were inspired to develop theories based on Benner's seminal work specific to NP role transition.

From Limbo to Legitimacy

The from limbo to legitimacy (FLL) model built on Benner's theory providing a framework to explain NP role transition (Brown & Olshansky, 1997). The theory was

developed by Marie Annette Brown, PhD, Professor of Nursing at the University of

Washington in Seattle, Washington and Ellen Olshansky, PhD, Associate Professor of

Nursing at Duquesne University in Pittsburg, Pennsylvania. In 1997, Brown and

Olshansky developed the FLL model to describe the NP's first year transition period.

Their research involved following 35 new NPs after graduation to explore the transition

to practice experience. Four major themes emerged: laying the foundation, launching,

meeting the challenge, and broadening the perspective. The emerging themes and

subcategories are noted below:

1. *Laying the foundation* occurs between graduation and starting the initial NP

position. The initial state provides the groundwork for future development and includes

the following subcategories: recuperating from school, negotiating the bureaucracy,

looking for a job, and worrying.

2. *Launching* occurs when the first NP job has begun and continues for several

months. This part of the role transition is the most painful and includes the following

subcategories: feeling like an imposter, confronting anxiety, getting through the day, and

battling time.

3. *Meeting the challenge* occurs after the new NP has acquired some skills, and

feels more comfortable in the new role. A hallmark of this phase was the development of

a clear picture of themselves as a NP. Subcategories of this phase include: increasing

competence, gaining confidence, and acknowledging system problems.

4. *Broadening the perspective* occurs when the NP develops and affirms

capabilities within the larger system. The NP easily acknowledges strengths, and begins

to add new challenges to their roles. Subcategories in this phase include: developing

system savvy, affirming oneself, and upping the ante (Brown & Olshansky, 1997).

Theoretical models can provide frameworks to develop NP residency programs.

The FLL model identifies many of the challenges encountered during the first year of

practice. Refer to Figure 1.

PROCESS	CATEGORIES	SUB-CATEGORIES
Limbo to Legitimacy →	Laying the Foundation	Recuperation from school Negotiating the bureaucracy Looking for a job Worry
	Launching	Feeling like an imposter Confronting anxiety Getting through the day Battling time
	Meeting the Challenge	Increasing competence Gaining confidence Acknowledging system Problems
	Broadening the Perspective	Developing system saavy Affirming oneself Upping the ante

Figure 1. From limbo to legitimacy model. Adapted from "From limbo to legitimacy: A theoretical model of the transition to the primary care nurse practitioner role," by M. Brown and E. Olschansky, E., 1997. *Nursing Research*, 46(1), Copyright 1997 by Wolters Kluwer Health. Adapted with permission.

Background and Context

The CAH targeted for implementation of the pilot described in the QI project is

located in a rural community in northwestern Minnesota. The county ranks last in the

state for health factors and health outcomes (University of Wisconsin Public Health

Institute, 2014). The CAH serves a significant Native American population that receives a considerable portion of their primary healthcare through Indian Health Services. The hospital was the first in the state of Minnesota to convert to the CAH model in 1998, taking advantage of the provision to staff its ED with NPs and PAs without on-site physician backup. The community has experienced great difficulty recruiting and retaining physicians, NPs, and PAs to staff their facility where providers assume responsibility for patient care in clinic, emergency room, hospital, and nursing homes settings. The facility is owned by the county and city but managed by an integrated rural health system with a Level 2 trauma center located 70 miles away. The regional health system has a vested interest in the success of the organization as a significant portion of referrals originate from the CAH.

My background is well suited to lead this project. I have lived in the community for over 30 years, and work at the CAH providing ED coverage for over 16 years. I am employed by the regional health system with over 25 years' experience in a variety of positions including staff RN in the Pediatric Intensive Care Unit (PICU) and NP. I have also witnessed job dissatisfaction leading to turnover while working at the rural CAH.

Summary

This literature review focused on the rural health landscape, the changing role of the NP in response to healthcare reform, and transition to practice issues. I discussed three theoretical frameworks (rural health, novice to expert, and FLL) to provide contextual understanding of the population and professional role development. However, the role expectations of the NP in a CAH setting have not been specifically addressed.

Research supports the unique differences between urban and rural residents as well as the difficulties NPs have transitioning to practice. Yet, a significant gap still remains in the literature related to a residency program that supports the NP role in the rural setting including the CAH.

A variety of solutions have been identified in a retrospective review of the literature. Orientation and mentoring programs have been proposed and may be helpful. However, the skill and competency level of NPs cannot be addressed when solo practice is required in a rural setting. Many states recognize the importance of additional support in the early transition-to-practice years by requiring a collaborative or supervised practice before granting independent practice. I, the project facilitator, have worked in the CAH identified for pilot implementation for the past 16 years and have witnessed the challenges new staff experienced transitioning to role expectations. Healthcare leaders are taking responsibility for NP onboarding needs by exploring the residency concept as a potential intervention to stabilization its rural health workforce. NP residency programs are supported by the literature and offer great potential to stabilize workforce shortages in rural areas.

I am well positioned to the take the lead in current project. I live in the community and work at the CAH. I am employed by the regional health system and have a strong rural health background. Education at the doctoral level has provided an opportunity to develop the project with the cooperation from the administrator for the local CAH and senior management from the regional health system.

In Section 3, I will describe the approach taken to develop the QI project. I will present the process, interdisciplinary team, review of evidence, development of curriculum, and delivery modalities along with plans for implementation and evaluation.

Section 3: Approach

Introduction

CAHs often lack the resources needed to support NPs to deliver quality care, ensure patient safety, experience job satisfaction, and minimize turnover. The purpose of this QI project was to develop a transition-to-practice residency program to support the NP in the CAH accompanied by curriculum modules along with plans for implementation and evaluation. I assumed a leadership role in the project and directed the activities involved in the process.

In this section, I outline the process followed to create the NP residency program, develop the curriculum modules, and plan for implementation and evaluation. I collected no data. No participants were involved as the project only involved creating the NP residency and curriculum modules with plans for implementation and evaluation. Actual implementation and evaluation are expected to take place after completion of the project. The steps are noted below. Refer to the Gantt chart time table (see Figure 2):

1. Assemble an interdisciplinary project team of stakeholders.

2. Guide the project team in reviewing relevant evidence and literature.

3. Obtain Internal Review Board (IRB) approval.

4. Develop the NP residency program and curriculum modules.

5. Obtain program and content validation.

7. Develop an implementation plan.

6. Develop an evaluation plan.
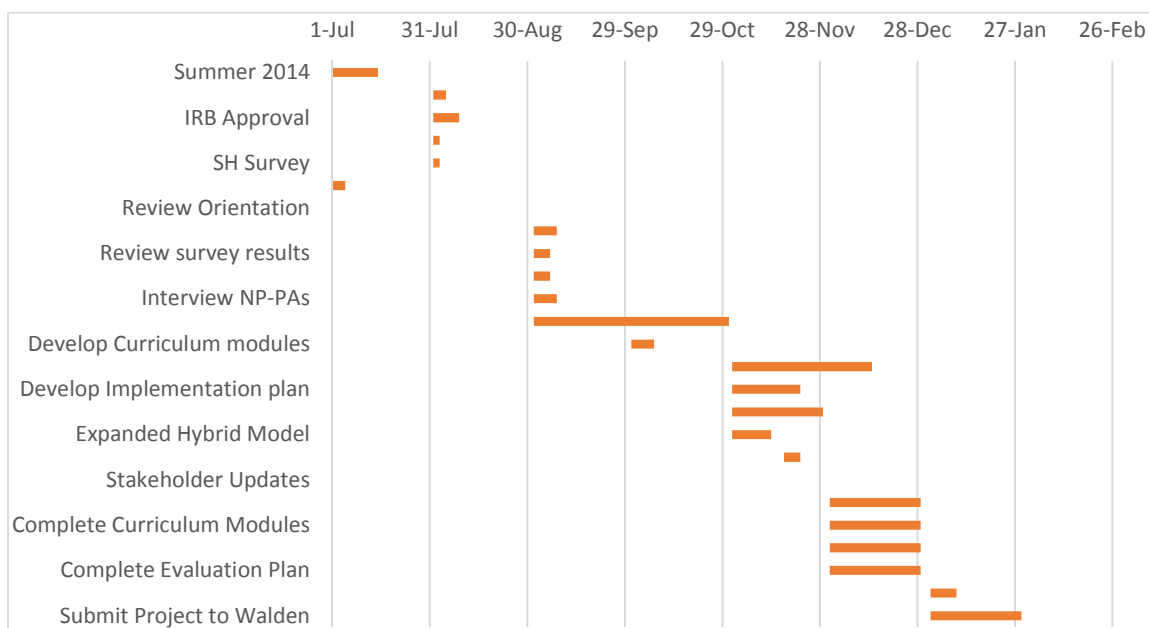
Figure 2. Gantt chart with project time line.

Interdisciplinary Project Team

I invited individuals to join the team based on their knowledge, expertise, ability, and interest in advancing the project within the organization. Understanding the system structure helped me as the DNP project leader better understand the organization, navigate the system to get things done, and apply strategies to "get below the waterline" (Kelly, 2013, pp. 34–38). Healthcare reform transitioned the organization from a physician-dominated organization to a physician-participating organization where physicians exert less influence in the decision-making process than in the past. Therefore, knowledge of who has the most influence in the decision process was essential, with careful attention to those customers and stakeholder interests to garner their support.

The effective team was thoughtfully and purposefully designed with careful attention to membership. Rogers's theory of diffusion of innovation provided insight

about how different team members adopt new ideas and helped to understand responses

and guided effective responses (White & Dudley-Brown, 2012, p. 30). For example,

some team members were labeled "early adopters" as they were more open to change

while others considered "laggards" as they appeared more resistant to change. The DNP

team leader purposefully included a variety of team members to ensure preservation of

creative tension (Kelly, 2013, p. 154). Team members for this QI project were:

1. I, as the DNP student, team leader, and writer of this project functioned as the
facilitator.

2. Administrator/CEO of the CAH where pilot implementation will take place at a
future time.

3. Network chief operating officer (COO) of the managing organization
representing a 9-state, 37 rural hospital network was responsible for promotion,
organizational policy change, budget, and implementation throughout the rural network.

4. Network chief nursing officer (CNO) of the managing organization
representing a 9-state, 37 rural hospital network worked with the COO on promotion,
policy change, budget, and implementation of the residency throughout the network.

5. Executive vice president of learning and development of the managing
organization who assisted with the education component.

6. Network chief medical officer (CMO) of in-patient services of the regional
network was responsible to promote the project among physician colleagues.

7. Network chief medical officer (CMO) of out-patient services of the regional
network was also responsible to promote the project among physician colleagues.

8. NPs and PAs who work in CAHs provided input and guidance on curriculum.

9. Local clinic manager provided input regarding the orientation process and organizational policy.

10. A Minnesota Department of Health contact served as the liaison between the sponsoring organization and state interests.

Review Evidence

Aligning the QI project with the organization's mission was important. The interdisciplinary team was updated regarding the latest research and trends specific to the QI project. A concise summary of the literature and theoretical framework was provided to all team members. Team members were not allowed to bring supplemental raw data to meetings as that would have required supplemental IRB approval. Only summary evidence was allowed for discussion during meetings. The interdisciplinary team was assembled from a multitude of stakeholders including representation from the Level 2 trauma center located in the Midwest encompassing a 9-state rural network consisting of Minnesota, North Dakota, South Dakota, Iowa, Nebraska, and Montana. The organization is recognized as the largest rural health network in the United States. The pilot setting was identified as an 18-bed Critical Access Hospital located within the boundaries of the White Earth Indian Reservation and managed by the larger health system.

An adapted version of the logic model served as the framework for the project design. A plan to inform policy and decision-makers who invested resources into the programs was developed allowing a mechanism to report outcomes including whether interventions work, why they work, and under what context (CDC, 2011). The

conceptual framework has been used to guide managers, policy-makers, and evaluators in the program planning process allowing the team leader to differentiate between inputs, outputs, outcomes, and impact (Kettner, Moroney & Martin, 2013). The logic model framework was adapted by the World Health Organization to address the problem to increase health workers in underserved areas. The conceptual framework had two aims: (1) to guide the thinking in evaluating an intervention to increase access to health workers in underserved areas from project inception/design phase through to its results, by suggesting key questions about the relevance, efficacy, efficiency, effectiveness and sustainability of the interventions; and (2) to guide the monitoring of interventions, through a focus on a routine collection of a set of indicators, applicable to the specific context (Huicho et al., 2010). See Figure 3.

Context:
Social determinants, political situation, stakeholders power and interests,
economic issues (fiscal space, fiscal decentralization), individual level factors (marital status, gender)

Design	Implemen-tation	Outputs	Outcomes	Impact
Situation analysis Labour market Organization and management capacity Regulatory systems Resources needs Criteria for choosing interventions Feasibility analysis	**Interventions** Education Regulatory Financial incentives Management and social support	**Attractiveness** Intentions to come, stay, leave **Engagement** **Deployment** Effective contracting and posting **Retention** Duration in service Job satisfaction	**Workforce performance** Availability Competence Productivity Responsiveness **Accessibility** Coverage of interventions **Productivity** Service utilization **Responsiveness** Patient satisfaction	**Improved performance health service delivery** *contributing to* **Improved health status**
- Total graduates - Total health workers - Budget for human resources for health strategy/plans	- Policies on education and recruitment - Career pathways - Regulatory frameworks - Type/costs of incentives	- Intention to stay/leave - Number of health workers recruited - Funded positions - Stability index - "Survival" rates	- Staff ratios - Waiting lists - Absence rates - Coverage rates patient satisfaction	- Millennium Development Goal indicators - Health status - MMR / IMR

(Dimensions / Indicators (examples) on left axis)

Figure 3. Logic model. From "Increasing access to health workers in underserved areas: A conceptual framework for measuring results," by L. Huicho, M. Dieleman, J. Campbell, L. Codija, D. Balabanova, G. Dussault, & C, Dolea, 2010, *Bulletin World Health Organization*, *88*, p. 358. Reprinted with permission.

Ethical Considerations

I submitted the necessary paperwork to obtain approval from Walden University and the sponsoring health system's Internal Review Boards (IRBs) prior to developing the project deliverables. Walden University IRB served as the "IRB of Record" for the project. Permission to use FLL model, WHO adapted logic model, and Misener NP Job Satisfaction Scale were requested and approved. The project included development of the NP residency program, curriculum modules, and plans for implementation and

evaluation. Data was not collected. No participants were involved thereby eliminating the need for informed consent. Data analysis was not included in any aspect of the project. All implementation and evaluation was targeted to occur at a future date after completion of the project.

Products of the DNP Project

Residency Program and Curriculum Modules.

The capstone project was focused on developing a model transition-to-practice residency program to support the NP in the CAH. Primary products of the project included the NP residency program and curriculum modules.

The residency program was developed utilizing structure and program elements from the *Practice Transition Accreditation Program* (ANCC, 2014b). An online search of established NP residency programs was conducted regardless of specialty to establish commonalities in program structure. Residency programs specific to NPs were identified at FQHCs and organizations such as Emory, Mayo, Johns Hopkins, and Carolina Health (Boyar, 2012). Residencies were located that focused on primary care, cardiology, gastrointestinal, urology, psychiatry, palliative care, emergency, critical and trauma care. A refined search then focused on rural or critical access hospital residencies. Unfortunately, no residency programs meeting this criteria were identified. PA emergency medicine residencies sponsored by Level 1 trauma centers were the closest match.

Established residency programs provided guidance for the creation of the new program. Many postgraduate residency programs were available for health professions

including physicians, pharmacists, and nurses. A wealth of information describing the process to start a residency program was located (Cappel, Hoak & Karo, 2013; Nelson, 2013). Although neither resource focused exclusively on NP residency programs, most elements can be universally applied. Addition resources included ANCCs accreditation program, emergency NP competencies, and skills identified by the organization (ANCC, 2014b; ENA, 2008).

The NP residency program was then developed for the rural health network. Consideration was given to the organization's mission, structural elements of established programs, accreditation requirements, and ENP competencies. I attended the 2nd Annual NP Postgraduate Education Summit allowing me the opportunity to represent the organization, network with national NP residency leaders, and gain insight on the NP postgraduate education movement. Resources were identified within the sponsoring organization including an RN residency program, mobile simulation lab, preceptor training program, and supportive senior management team.

Curriculum modules were also developed using established national standards and competencies. Sixty entry-level competencies identified in *Competencies for Nurse Practitioners in Emergency Care* (ENA, 2008) provided the basis for the curriculum. Similarities competencies were required for emergency medicine PA certification (SEMPA, 2014). Competencies were also required by ANCC's accreditation program related to critical thinking, clinical reasoning, evidence-based practice, interprofessional collaboration, and stress management (ANCC, 2014b). Additional competencies reflected the unique needs of the CAH such as telehealth and regulatory requirements of the CAH.

The competencies were then organized into eighteen curriculum modules. Refer to Section 4.

     Content validation. The residency program structure was reviewed by national experts to ensure validity. Initially, no NP residency programs could be located that focused exclusively on rural health or CAHs. Therefore, contacts were made with directors of two NP residency or fellowship programs to review the project. Dr. Margaret Flinter, originator of the first NP residency program agreed to validate the residency structure and program. Marci Snow- Farquhar, Mayo Clinic cardiology nurse practitioner fellowship director, agreed to consult on the project. Unfortunately, I realized the limitations of a specialty focus. Therefore, an alternative expert was located. Dr. Kathy Morris, program director for the University of Nebraska new post-master's certificate Advanced Rural Emergency Acute Care program agreed to review to project (University of Nebraska Medical Center, 2014).

Implementation Plan

     I consulted with the interdisciplinary team to develop an implementation plan. The plan for implementation was a secondary product of the DNP project and will be implemented by the stakeholder team after completion of the project. Objectives provided a starting point to operationalize the residency program and develop the curriculum before implementation. Baseline data was collected to determine inputs, outputs, outcomes, and impact according to the logic model (Huichio et al., 2010).

     Inputs were explored. The organization recognized a changing labor market whereby physician recruitment into rural practice will become increasingly more

challenging with increased reliance on NPs. A competitive labor market may place a

premium on NPs capable to working in the ED. Favorable APRN scope of practice laws

in the Midwest recognize independent practice in Minnesota, North Dakota, and Iowa

with reduced practice in South Dakota and Nebraska (AANP, 2014). Support from senior

management within the CAH and rural health network prompted development of a new

onboarding emergency care boot camp program with tentative plan to implement the 12-

month NP residency program.

Organizational resources were identified. As a DNP student, I volunteered time to

develop the project. The sponsoring rural health system contributed access to the

simulation lab, preceptor training program, and learning center to convert curriculum

onto a digital platform. A foundation expressed interest in funding the program.

Implementation processes were also considered. According to Kettner and

colleagues (2013), processes are activities that use inputs to achieve objectives with raw

materials. The transition-to-practice NP residency program is the intervention that will be

implemented. The deliverables of this project include the residency program, curriculum

modules, and plans for implementation and evaluation.

Outputs were another aspect of the logic model. Organizations must remain

competitive to attract and retain qualified staff. Recruitment involves consideration of

attractiveness of the CAH setting and the NP position. Intention to come, stay, and leave

are often dependent on the organization. Recruitment incentives include factors such as

attractive schedules, competitive compensation package, collegial support, and

organizational support. Working in the emergency department is stressful. Therefore,

efforts to promote job satisfaction and minimizing role stress may be need to be examined. Interventions that promote engagement in the form of management support, professional practice opportunities, collaboration with other professionals, and adequate staffing have been linked to increased job satisfaction (Sawatzky & Enns, 2012).

Outcomes and impact comprise the final components of the logic model. Program managers recognize the importance of outcomes and impact in the early stages of project design (CDC, 2011). Project stakeholders want to be assured that goals are identified and outcomes and objectives are achieved. For example, the NP residency program focused on improving patient care, increasing patient safety, increasing the NPs job satisfaction, and reducing turnover. Objectives were created using SMART criteria: specific, measurable, attainable, relevant, and time bound (Kettner et al., 2013) Instruments were selected to monitor outcomes. A robust discussion of evaluation has been included in the evaluation plan.

The implementation plan was also considered by the stakeholder team. Initially a 2-year rollout plan was considered. However, the team decided a 3-year plan was more realistic given the desire to front-load curriculum development costs. The 3-year plan allowed the team time to hire staff, refine the curriculum, and customize the curriculum onto a digital platform allowing participants access a portion of curriculum in an asynchronous online format. Contingent on foundation funding, the first year would focused on operationalizing the residency by hiring staff, implementing the emergency care boot camp I and II projects, and further develop the curriculum allowing for online access, and coordinating guest speakers, preceptors, and specialty clinical experiences.

The second year focused on pilot implementation select CAHs, gathering outcome data to share with board members. The third year would expand the residency program throughout the rural health network.

A budget was included in the implementation plan. Weekly discussions were held with a small stakeholder group to develop the budget. Potential funding sources were explored. Representatives from the Margaret Cargill Foundation expressed interest in sponsoring the project through grant support. The team expressed interest in exploring grand funding or foundation sponsorship after completion of the project. Unlike physician residency programs, nurse residency programs are not funded by the Graduate Medical Education (GME) program. A portion of GME funding is directed to nursing education. The IOM has recommended GME nursing education funding be redirected to rural and critical access areas (Flinter, 2010; IOM, 2010; Trepanier, Early, Ulrich, Cherry, 2012). Other potential sources that can be considered include billable NP patient care services, alternative foundation or grant support, and organizational support within the operating budget.

Expenses were also identified. Some resources within the organization cost less than if purchased from an outside vendor. Internal resources include telehealth, simulation lab, preceptor training, and technology to record lectures and convert curriculum for online delivery. Salaries account for a significant portion of the budget. One option is to offer participants a reduced salary to offset residency program costs. Most residency programs offer participants a stipend less than the entry-level NP salary. However, stakeholders did not want to reduce NP salary to maximize recruitment and

retention. Accreditation requirements also drive a considerable portion of expense program as the program director must hold at least a master's degree in nursing. An accredited residency program available for both NPs and PAs would require two program directors and two accreditation fees further increasing expense. The team decided to accept both NPs and PAs into the program plan to pursue NP program accreditation only. Time release, stipend, and training for preceptors were expenses also considered. Operational costs associated with program development, provision of inclusive residency program training experiences, simulation lab, supplies, conference/education expenses. Factors were considered to ensure sustainability of the project after start-up funds disappear.

Return on investment (ROI) was included in budget discussions. The process for determining ROI was based on cost of staff, cost of replacement, and ability to generate revenue (Schifalacqua, Mamula, & Mason, 2011). Research supports the value of the new graduate nurse residency program from a cost-benefit analysis based on turnover and contract labor use (Trepanier, Early, Ulrich & Cherry, 2012). Similar application can be made to NP residency programs for rural communities experiencing high turnover. Many rural hospitals have great difficulty recruiting full-time staff physicians and resort to locum companies to staff their EDs. Approximately one-third of rural hospitals use contracted physician coverage to staff their ED (Upper Midwest Rural Health Research Center, 2007 as cited in Marsh et al., 2012). Staffing the ED with a NP would save a hospital approximately $400,000/year whereas the cost of contracted physicians averaged $800,000/year (Marsh et al., 2012). Furthermore, retrospective data suggests a physician

is required less than 5% of the time in the rural ED (Marsh et al., 2012). Although NPs and PAs are reimbursed at 85% of the physician rate, the cost savings more than compensates for lost revenue. Budget is discussed in more detail in Section 4.

Evaluation Plan

Development of the evaluation plan was also considered during the planning phase taking into consideration the project design (Kettner, Moroney & Martin, 2013). Secondary products include an evaluation plan that will be implemented by the stakeholder team after completion of the project. A basic tentative plan for evaluation was presented to the interdisciplinary team in the early stages of project development.

A variety of instruments were used during the formative evaluation process. The residency program will be developed and evaluated according to ANCC's *Primary Accreditation Organizational Self-Assessment Tool* (ANCC, 2014b). A skills check-off log completed by the NP resident allows opportunity to document level of competency ranging from observation, participation to independent/fully competent. Other tools address specific program outcomes including dashboard metrics, NP job satisfaction, and turnover rates.

Metrics from the CAH QI dashboard are recognized as a readily available data source to evaluate short term outcomes. Healthcare organizations monitor outcomes of patient care to evaluate performance in compliance with regulatory and certification requirements. The hospital value-based purchasing (VBP) program focuses on 25 quality measures related to clinical process of the patient care experience and care processes (Kapu & Kleinpell, 2013). CAHs also report data on quality measures related to

emergency department care. For example, CAHs must report emergency department metrics such as door to diagnostic evaluation by a qualified medical professional, time to pain management for long bone fracture, admission to discharged time, decision time to discharge for inpatient admission as well as care for pneumonia, acute MI, and stroke (Casey, Moscovice, Klingner, Prasad, 2012). Researchers have successfully measured NP specific metrics in areas such as pain reduction, time to analgesia, wait time, and length of stay in the emergency department (Jennings, Gardner & O'Reilly, 2014).

Metrics related to NP financial impact were also considered. NPs are becoming increasingly more visible in the hospital and emergency setting, yet the impact of their care is not always visible. Kapu and Kleinpell (2013) recommend NP metrics that focus on financial goals, clinical outcomes, systems improvement, and customer and employee satisfaction or measurable goals based on expertise within an established set of competencies. The balanced scorecard is also a valuable data source used to measure financial contribution to the organization (Kelly, 2013, p. 176). Marsh and colleagues (2012) present a strong argument for the positive financial impact of the NP versus MD staffed ED in low volume CAHs. Unfortunately, measuring specific NP outcomes have not become standard practice.

Job satisfaction will also be measured. Research suggests NPs who are satisfied with their jobs are significantly less likely to leave their current positions (DeMilt, Fitzpatrick & McNulty, 2010; Hill, 2011; Kacel, Miller & Norris, 2005). As the project leader, I provided the team with options to evaluate job satisfaction including the Misener Nurse Practitioner Job Satisfaction Scale (MNPJSS), an established tool developed by

Dr. Terry Misener to measure primary care NP job satisfaction (Misener & Cox, 2001).

The team concluded the tool was applicable to NPs participating in the residency

program. The 44-item scale used a 6-point Likert-type scale to measure six factors: (a)

intra-practice partnership/collegiality; (b) challenge/autonomy; (c) professional, social,

and community interaction; (d) professional growth; (e) time; and (f) benefits. Internal

consistency reliability has been estimated for the subscales and reported at .94, .89, .84,

.86, .83 and .79 (Misener & Cox, 2001). Administration of the MNPJSS would be

completed at 1, 3, and 5 year intervals after completion of the residency program. Results

will be shared with stakeholders.

Long term evaluation focused on facility employment data. Tentative plans were

made to monitor employment data based on length of service. Human resources will be

consulted to obtain baseline data and document start dates and departure rates of NP

employment to allow comparison between pre and post residency program participation.

Length of service will be measured in months. Data analysis will include comparing NP

length of service among CAHs participating in the residency program with those that do

not participate at 3, 5, and 10 year intervals. Data will be reviewed, analyzed, and results

shared with stakeholders. Refer to Section 4.

Scholarly Paper

A scholarly product was written and will be shared with a broader scholarly

community. A 4,000-5,000 word manuscript was written for a NP target audience

intended for a conference proceeding. The paper summarized major elements including:

(a) problem, (b) purpose, (c) goals/outcomes, (d) significant for future practice, research,

and social change, (e) literature and evidence informing the project, (f) frameworks, models or theories used to inform the project, (g) major approaches/steps used to complete the project, (h) information about any interdisciplinary project teams involved with the project, and (i) description of major products, including implementation and evaluation plans. Refer to Section 5.

Summary

This section addressed how the QI project was developed, how the program will be implemented and evaluated, and how data will be collected using established measurement tools that allow for objective evaluation of various aspects of the program. The logic model served as a framework for program design, implementation, and evaluation. I developed the NP residency program giving consideration to established program structure and accreditation requirements. After obtaining formal IRB approval, the residency program and curriculum modules were created along with plans for implementation and evaluation that will continue beyond project completion. Primary products included the NP residency program and curriculum modules that are discussed in greater detail in Section 4 and referenced in the appendices. An additional primary product consisted of a scholarly product that has been included in Section 5. Secondary products including implementation and evaluation plans are also discussed in Section 4 and included in the appendices.

Section 4: Findings, Discussion, and Implications

Introduction

The problem addressed in this project involved the lack of resources needed to support the NP to deliver safe, high quality care, experience job satisfaction and minimize turnover. The purpose focused on the development of a transition-to-practice residency program to support the NP working in the ED of a Critical Access Hospital. The program followed the IOM's (2010) recommendation to establish nurse residency programs. This section discusses the products of the DNP project, implications, strengths and limitations, and analysis of self.

Discussion of Project Product

Residency Program

The residency program was developed and included standard elements from established programs. The introduction provided an overview of the program with a brief description of the sponsoring healthcare organization, accreditation/designations, program eligibility, program goals, application timeline, and program leadership. Program structure included reference to didactic education and clinical experiences. Faculty and preceptors were addressed along with program content. Core curriculum topics were identified. Professional development was recognized with reference to Emergency NP certification eligibility. Quality outcomes were addressed along with accreditation guidelines. Refer to Appendix A.

Curriculum Modules

The curriculum modules were developed based on national competencies. The program introduction included a short description of the overall educational program including a recommended emergency medicine text, program outcomes, and recognition that learning objectives were aligned to national competencies from the Emergency Nurses Association's *Competencies for Nurse Practitioners in Emergency Care* (ENA, 2008) and the ANCC's *Practice Transition Accreditation Program* (ANCC, 2014b). Eighteen modules were developed organizing content by body system tethering learning objectives to a source competency. Didactic teaching approach and clinical focus were identified. Refer to Appendix B.

Implementation Plan

The implementation plan was a secondary product of the project. The stakeholder team recognized NP burnout and turnover was a concern within the network. Senior management identified NPs working in the CAH emergency department as a priority. The pilot CAH was identified at the beginning of the project with plans to expand to other CAH hospitals within the network.

Much groundwork is still necessary to operationalize the program. Although the curriculum modules had been developed, learning modules must be expanded, lecture outlines developed, guest speakers arranged, and curriculum transferred to a digital platform. The stakeholder team determined a 3-year implementation plan was realistic if grant funding can be secured. A program director would be hired to launch the project, start the accreditation self-evaluation process, and further develop curriculum for online

delivery. Although ANCC is the only organization to specifically accredit NP residency programs, other options will be explored. The program director will be responsible to network with national leaders and alert stakeholder of trends or opportunities allowing the program to introduce innovative approaches and secure funding sources to sustain the program. Faculty will be recruited, hired, and trained. Arrangements will be made for advanced cardiac life support (ACLS), pediatric advanced life support (PALS), advanced trauma life support (ATLS) or comprehensive advanced life support (CALS), neonatal resuscitation program (NRP) and basic life support in obstetrics (BLSO) classes leading to certification. Arrangements for ultrasound, sexual assault nurse examiner (SANE) and simulation training must be coordinated and scheduled. Focused clinical experiences for specialty rotations and level II emergency and trauma centers must be arranged. Administrators at network CAHs must be made aware of the residency program so they can offer training to new and current NPs. The learning center will be instrumental to secure continuing education credit for the program and collaborate with institutions of higher learning to discuss future educational opportunities. Ongoing administrative assistance will be necessary related to budget, policy changes, and reporting documents to organizations, donors, and accrediting bodies.

The pilot implementation site was identified at the CAH where I am employed. The pilot will not be implemented until online curriculum has been developed to maximize participation, collect data, and frontload start-up costs. Fortunately, a significant portion of the project was developed without cost to the organization. Program documents will be bound into hard copy format allowing the future program director with

a starting point to further develop the curriculum onto digital format for online delivery. Curriculum will be modified and/or updated during pilot implementation. Experienced NPs or a physician will provide on-site mentorship and preceptor support for the resident. Focused learning opportunities will be provided based on progression through the curriculum modules. Additional focused specialty will be arranged with specialty rotations and simulation lab opportunities. Experiences from the pilot will allow the program director and stakeholders the opportunity to modify the program based on lessons learned.

Expanded implementation will present a logistical and financial challenge. The organization spans a footprint that includes a 9-state, 37-rural hospital network. Reaching many of the CAHs efficiently over a large geographical area will require the curriculum be delivered in a creative manner to preserve intended goals of the program. Participants benefit from peer interaction yet a portion of the education may appropriately be delivered via distance education sequentially on a weekly schedule yet on demand allowing for different work schedules. Stakeholders agreed to offer the program to 4-5 sites during the third year due to limitations in funding for on-site simulation training every 4 months. The implementation plan is referenced in Appendix C.

Evaluation Plan

An evaluation plan was another secondary product of the project. The project provides many opportunities to monitor progress, evaluate outcomes, and measure impact. The residency program will be developed using ANCC's *Primary Accreditation Organizational Self-Assessment Tool*. A skills check-off form allows each resident to

document skill competency based on observation, supervised/emerging competence, or independent/fully competent. The check-off tool could also be used to document baseline competency level of currently employed NPs providing ER coverage in CAHs located within the network. Preceptor evaluations will be developed in collaboration with the learning center's preceptor training program. Patient care outcomes and safety will be monitored on the QI dashboard. Consideration will be given to developing NP specific metrics focused on financial impact related to NP/physician staffing ratios and CAH financial performance on the CAH balanced scorecard. The Misener NP Job Satisfaction Scale will be used to monitor job satisfaction. Records will be kept by the program director to assist in monitoring program completion, numbers of NPs obtaining ENP certification, and length of employment at 1-3-5 year intervals. Refer to the evaluation plan in Appendix D.

Implications

Translation of evidence is supported by the *Essentials of Doctoral Education for Advanced Practice (*ANCC, 2006). Problems identified in the workplace may be viewed as barriers leading to practice apathy while the DNP translation specialist recognizes the same practice challenges as opportunities for improvement. Essential II focuses on systems leadership for quality improvement. The DNP curriculum prepared me to recognize problems and translate evidence into constructive solutions. The capstone project is the end product of the DNP program allowing me the opportunity to document evidence of learning.

The project highlighted in this paper provided me with the unique opportunity to translate evidence into clinical practice. Rural communities have difficulty recruiting and retaining qualified staff requiring NPs to be expert generalists. Recognition of role stress and NP turnover in the Critical Access Hospital setting allowed me to link a problem with a solution. The transition-to-practice NP residency concept is supported by the literature, role development theory, and recognized by the healthcare organization as a worthwhile intervention. National competencies and accreditation programs were available to provide structure to the program and guidelines to develop a model curriculum. After synthesizing evidence and reviewing educational pathways, a transition-to-practice NP residency program was developed in collaboration with institutional and community stakeholders. Implementation plans included a three-phase approach consisting of future program and curriculum development, pilot implementation followed by expanded delivery to 4-5 sites in the rural health network. Additional plans for evaluation allow opportunity to document outcomes to the organization and larger rural health community.

Policy

Policy supports transition-to-practice programs. The Institute of Medicine's (2010) report *The Future of Nursing: Leading Change, Advancing Health* recognizes the destabilizing effect high turnover rates have on the workforce and recommends transition-to-practice programs for nurses including those completing an advanced degree program. Although numerous nursing organizations support the nurse residency concept for graduate RNs, the NP Roundtable does not endorse postgraduate education for

APRNs citing competence upon graduation and lack of outcome evidence (NP

Roundtable, 2014). Many NPs, organizations and regulatory bodies do not agree with the

Roundtable position statement that new NP graduates are competent upon graduation.

Despite the urgent need to increase access to healthcare, recent scope of practice

advancements have been tethered with a time defined collaborative practice before

authorizing independent practice. The 12-month long NP residency provides the ideal

solution for organizations to introduce new NPs to a system of interprofessional support

and collaboration with their health system. However, the NP residency represents a new

project for the organization, and board approval will be needed to garner budgetary

support.

Practice

Practice implications are also worthwhile noting. Healthcare is becoming

increasingly more complex and specialized. Universities are having difficulty educating

NPs and providing high quality clinical experiences that translate evidence-based

knowledge into clinical practice. Organizations recognize the limitations of higher

education to education NPs for rural practice and are beginning to assume responsibility

for providing transition-to-practice programs that meet the needs of NPs hired to share

CAH emergency on-call responsibilities. Universities have difficulty educating the NP to

a level of competency allowing them to function autonomously in the CAH where they

must assume multiple practice roles. As the physician shortage worsens, NPs will become

increasingly more cost effective, accessible, and valuable employees. Innovative

healthcare organizations recognize gaps between education and practice expectations and

are moved to introduce programs to reduce transition-to-practice stress, improve job

satisfaction, and most important of all, improve patient care and safety.

Research

Research also supports the residency concept. Although NP residencies and

fellowships are in their infancy, emerging evidence suggests the value of transition-to-

practice programs (Flinter, 2012). Implementing NP residency programs provides

experienced NPs with the opportunity to groom the next generation of healthcare

providers and share their experiences with the larger NP and rural health audience.

Partnering with a PhD educated nurse colleague to develop research projects designed to

document outcomes will be crucial. Outcome data is desperately needed to document

evidence supporting the value of the NP residency concept to organizational stakeholders

and policy makers such as the NP Roundtable. Without outcome evidence, professional

nursing organizations may not endorse the APRN residency or fellowship concept.

Social Change

Rural practice locations provide the ideal setting to promote social change. The

Healthy People 2020 initiative recognizes the disparities that exist between urban and

rural populations (U.S. Department of Health and Human Services, 2014). Nurse

practitioners in rural settings often practice at the top of their scope in autonomous

practices. NPs that adapt and thrive are in a unique position to promote social change.

NPs working in the CAH emergency department often fill positions previously filled by

physicians. The shortage of physicians and limited financial resources of CAHs creates a

dilemma and opportunity at the same time. Minnesota APRN scope of practice legislation

recognizes independent practice for experienced NPs yet requires new NPs to complete a 2080 hour collaborative practice. The 12-month residency program allows the organization to assume a leadership role in addressing the gap in education as well as provide a mechanism to fulfill the regulatory requirement. The residency program and curriculum has the potential to become a regional model.

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Strengths and Limitations of the Project

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There are many strengths of the project. A strong review of the literature highlights the unique nature of the rural health landscape supporting the trend that NPs may be called upon to take on additional responsibilities in a rural practice setting. Physicians are in short supply and are expected to continue migrating toward specialty practices in urban settings. The project is further strengthened through the integration of established theoretical frameworks that provide context and urgency to the problem. The residency program and curriculum are based on established national competencies and national accreditation standards. The implementation plan includes a robust plan for program planning and curriculum development followed by pilot implementation prior to expansion throughout the rural network. Lastly, there are many opportunities to evaluate the program using valid and reliable instruments.

There are also limitations of the project. The residency program and curriculum will be implemented and evaluated after the project has been completed. Findings of this project are focused on the needs of the NP working in the CAH and cannot be generalized to the NP working in an urban or rural ED setting where patient volumes and acuity are different.

Recommendations for future projects extend beyond the completion of this project. The residency program and model curriculum were developed within the boundaries of the project and include plans for implementation and evaluation. Future plans include launching the residency, additional curriculum development, pilot and expanded implementation within the rural health network. As data becomes available, opportunities for evaluation will also become increasingly available. Future projects include consulting with other organizations or institutions of higher learning to develop programs, curriculum, or collaborate on projects focused on the needs of rural APRNs.

Analysis of Self

Pursuing doctoral level education resulted in personal and professional growth. After 18 years of practice as a FNP in a rural setting, I witnessed cyclic staff turnover of providers. Working with patients affected by complex social problems led to personal apathy and burnout. Colleagues moved on to other positions yet I remained anchored to my community working in a position that afforded me with a challenging, autonomous practice within the CAH emergency setting. The DNP courses provided me with the opportunity to view problems through a lens of opportunity rather than a lens of apathy. My writing skills improved, my understanding of systems concepts improved, and new skills emerged. I have become an expert in rural health and NP residency and/or fellowship concept providing me with a new set of skills that may lead to future employment opportunities. The DNP credential may allow me to become a residency director, consultant, nursing professor, and/or an increasingly competent practitioner.

This project has allowed me to learn, create, and plan for a new chapter in my nursing career.

Summary

The purpose of this project was to develop a transition-to-practice residency to support the NP working in the ED of a Critical Access Hospital. A review of the literature provided evidence, and theoretical models provided a framework to understand the problem. A variety of solutions were considered, and the residency program identified as the most appropriate intervention. The residency program and model curriculum were developed to address the lack of resources that prevented NPs from delivering quality care, ensure patient safety, improve job satisfaction, and reduce turnover. Plans for implementation and evaluation were developed and if funding secured, the project will continue into the future. As data becomes available, project experiences and results will be shared with the larger nursing community. Section 5 introduces the scholarly project that will be presented at a conference.

Section 5: Scholarly Product

Abstract

Introduction: Primary care shortages in rural areas create access to care challenges. Nurse practitioners have been filling the gap created by physician migration into specialty practice. Some critical access hospitals are staffing their emergency department with nurse practitioners without an on-site physician. Gaps in education with limited emergency and trauma curriculum and/or clinical experiences lead to significant role transition stress and turnover.

Purpose or Goals: The purpose of this project was to address the lack the resources to support nurse practitioners providing emergency department care in the critical access hospital. The goal of the project was to develop a transition-to-practice program to enhance nurse practitioner skill and competency allowing them to deliver safe and high quality patient care, increase job satisfaction, and reduce turnover.

Approach: The quality improvement initiative engaged an interdisciplinary team of stakeholders to develop a residency to support the nurse practitioner working in the emergency department of a critical access hospital. The residency program and curriculum modules were developed. The logic model was used to design the program. Plans for implementation and evaluation were included in the project.

Results: Outcomes will be monitored using the quality management dashboard, Misener Nurse Practitioner Job Satisfaction Scale, and human resources data on job openings and turnover.

Implications for Practice: Organizations must assume responsibility for adequate transition-to-practice programs to fill the gap between education and practice expectations. Collaboration with institutions of higher learning may be helpful to develop a mechanism to earn credit for paid clinical experiences for degree awarding programs.

Bridging the Gap Between Education and Practice:

Nurse Practitioners in Critical Access Hospitals

The need for nurse practitioners (NPs) in rural communities has never been greater. The physician migration into specialty practice has created a huge shortage of primary care providers in medically underserved areas. Too few medical school graduates choose primary care specialties, fewer practice in rural communities, and even fewer practice in a rural community when emergency department coverage is required (American Academy of Family Physicians, 2014). Although NPs have been filling the gap in primary care for almost 50 years, emergency care specialization is relatively new. The NP role has expanded into acute care settings due to changes in medical residency requirements, healthcare reform, and laws changing staffing requirements at Critical Access Hospitals (CAHs; Rosenthal & Guerrasio, 2010). Many NPs are working in CAH emergency departments without a physician on-site. This conference proceeding addresses rural healthcare challenges, the NP role and scope of practice, postgraduate education needs, review of literature including theoretical frameworks, emergency NP certification, introduces an emergency NP residency program designed for a rural healthcare network, and concludes with implications for practice, education, and research.

Rural Healthcare Challenges

The rural health landscape is affected by alarming trends. Urban migration continues to leave a shrinking and aging rural population. In 2010, 63 million people

lived on 80% of the land representing 19 % of the American population compared to 21%

ten years earlier (U.S. Census Bureau, 2012). Rural communities are comprised of more

elderly residents over the age of 65 years (17% rural average vs. 13.7% national average;

U.S. Census Bureau, 2012). Although people living in rural areas experience many of the

same issues as their urban counterparts, they are often considered a more vulnerable

population due to their economic disadvantage, poorer health, and limited access to

healthcare (Choi, 2012). Poverty rates are higher in rural American (18.4% rural vs.

15.5% urban; USDA, 2014). Rural folks rate their health to be fair or poor compared to

urban residents (19.5% rural, 15.6% urban) and experience more chronic conditions such

as obesity, diabetes, hypertension, heart disease, cancer, mental illness and substance

abuse (Choi, 2012). Higher death and serious injury rates from motor vehicle accidents

(60% rural, 48% urban) are also documented (National Rural Health Alliance, 2012).

Nearly 85% of U.S. residents can reach a level one or two trauma center within an hour

compared to only 24% of rural residents increasing the risk for death by 25% (National

Council of State Legislatures, 2013). Unfortunately, the shortage of primary care

providers is even more severe in economically-disadvantaged minority communities

where there is a disproportionate rate of disease and premature death.

Access to healthcare is affected by the distribution of healthcare professionals.

Primary care providers deliver the majority of health care in the clinic setting. Family

physicians working in rural communities comprise 10% of the physician workforce

compared to 15% nationally yet they perform 42% of visits (23% national) resulting in a

disproportionate workload on rural practitioners (American Academy of Family

Physicians, 2014). Unfortunately, significant numbers of healthcare providers are approaching retirement at the same time fewer physicians are entering primary care (Fordyce, Skillman, & Doescher, 2013). In 2014, only 38.9% of U.S medical school graduates entered primary care residencies with only 48.5% of internal medicine and 45% of family practice residency slots filled by U.S. medical school graduates (National Resident Matching Program, 2014). Unfortunately, primary care is where the greatest need exists. There are approximately 6,100 health professional shortage areas (HPSA) located in the U.S. with 57% located in rural and frontier areas (National Health Service Corps, 2014).

Rural communities experience recruitment difficulties as fewer physicians are available for primary care positions. Access to health care becomes problematic when fewer primary care providers available to provide care. The situation is expected to worsen with full implementation of the Affordable Care Act (ACA) when an estimated 32 million Americans are expected to become eligible for health insurance including 7.8 million in rural areas (National Advisory on Rural Health and Human Services, 2014). The changing rural health landscape creates a disproportionate burden on rural healthcare providers and organizations. Stakeholders have identified access to health care as the priority rural health issue in America (U.S. Department of Health and Human Services, 2014). Fortunately, NPs have been filling a portion of the gap.

Nurse Practitioner Role and Scope of Practice

Rural sites have provided the ideal setting for the NP role to flourish. The NP role was developed in response to workforce shortages in rural communities. The first NP

program was created by Dr. Loretta Ford and Dr. Henry Silverman, a nurse-physician team at the University of Colorado (United States) in response to the shortage of primary care providers in medically underserved areas (AANP, 2014). Healthcare provided by NPs was so well received that training programs proliferated. In 1973 there were 63 formal programs growing to over 350 academic institutions by 2015 that prepare NPs to practice in primary care, acute care, and mental health settings focused on a variety of age groups (AANP, 2014). Nurse practitioners continue to fill gaps in medically underserved areas as physicians migrate toward specialty practices in urban locations.

Federal lawmakers have long recognized the positive impact NPs have on improving access to health care. In response to the primary care shortage, the Rural Health Clinic Act of 1977 was passed requiring NPs or Physician Assistants (PAs) to be employed in Rural Health Clinics, and for the first time in history, provided reimbursement for their services (Marsh, Diers & Jenkins, 2012). The law provided incentive for organizations to hire NPs to work in rural areas. Today, NPs are more likely to work in rural communities compared to other healthcare providers, especially in states with favorable scope of practice laws. Approximately 50% of NPs work in primary care compared to 33% PAs (Pohl, Barksdale &, Werner, 2013). The percentages of NPs working in rural areas are: Vermont (56%), South Dakota (50%), Wyoming (43%), Montana (40%) and Maine (39%) (AANP, 2014). The NP model of care was so successful in the rural clinic setting that interest crossed over into the rural hospital setting.

The Balanced Budget Act of 1997 approved the Medicare Rural Hospital

Flexibility Program allowing states to convert rural hospitals into CAHs allowing NPs

and PAs to provide care without a physician on-site (Marsh et al., 2012; AHA, n.d.). As

of November 1, 2014, there were 1,325 CAHs in the U.S. with the majority concentrated

in the Midwest: Kansas (84), Iowa (82), Minnesota (79), Nebraska (64), Wisconsin (58),

and Illinois (51) (Flex Monitoring Team, 2014). Although most rural hospitals continue

to staff their ED with physicians, some CAHs use NPs without an on-site physician.

Researchers have documented growing evidence suggesting NPs improve clinical quality

and financial viability in CAHs (Marsh et al., 2012).

Nurse practitioners have a proven track record for delivering high quality care.

With nearly 50 years of experience, research consistently reports positive outcomes for

NP care. Newhouse and colleagues (2011) published a systematic review of 26 studies

documenting high level evidence that NPs provide safe, effective, quality care with

outcomes equivalent to that provided by physicians. Although some physician groups

argue that their longer and in-depth training is superior, studies consistently report no

measurable differences in the quality or safety in care delivered by NPs compared to

physicians (AANP, 2014). Many states have responded to the growing body of evidence

by expanding their scope of practice laws.

Despite unified national standards, laws regulating scope of practice vary by state.

Wide variations in state practice laws range from independent practice with full

autonomy to restricted practice requiring protocols to deliver health care under physician

supervision. Overly restrictive scope of practice laws limit the NP's ability to prescribe

medications, assess patient conditions, and admit patients to the hospital---all services they are educated to perform. As of January 2015, independent practice is recognized by 20 states, reduced practice in 18 states, and restricted practice in 12 states (AANP, 2014). Ironically, many states with the most rural or mountainous terrain have experienced the most success with the CAH model of health care also have the least restrictive scope of practice laws.

Scope of practice laws have been changing. Although states have been expanding their SOP laws, an interesting phenomenon was noticed during the 2014 legislative session. States have been tethering a time specified collaborative practice requirement before granting independent practice. For example, Connecticut passed legislation requiring 3 years and 2000 hours collaborative practice before granting independent practice (Connecticut Advanced Practice Registered Nurse Society, 2014) and New York requires 3600 hours to eliminate the requirement for a written collaborative agreement (Modern Healthcare, 2014). Minnesota passed legislation requiring 2080 hours of collaborative practice before granting independent practice (Minnesota Board of Nursing, 2014). Unfortunately, Nebraska's governor vetoed a similar bill after consulting with its chief medical officer who expressed concern for patient safety and recommended 4,000 hours of clinical practice prior to granting independent practice (AANP, 2014). Trends regarding expanded scope of practice laws seem to recognize the need for additional education and collaboration beyond the entry-level NP education.

Postgraduate Education Needs

The need for postgraduate education reflects the changing nature of 21st century healthcare. Universities excel in educating entry-level NPs for entry-level positions. However, many organizations, especially those located in rural and critical access areas often hire entry-level NPs into advanced roles because they are unable to recruit and retain experienced providers. Providing care in the rural setting requires the NP to function as an "expert generalist" with the ability to assume multiple roles including a specific skill set allowing them to care for all disciplines, acuity levels, and age groups simultaneously (Bushy, 2006; Hurme, 2007; Molanari, Jaiswal, & Forest, 2011). Many rural communities rely on family nurse practitioners (FNPs) to provide primary care in the clinic, provide patient care in the hospital, and share emergency department on-call responsibilities. Despite extensive nursing experience before pursuing NP education, the FNP curriculum is focused on primary care with limited clinical experiences in the acute care setting. Rural NPs are required to work in multiple practice settings, function beyond protocols, practice autonomously, take on more decision-making, and often function without a physician on-site (Hurme, 2007). The expectations exceed the entry-level education.

Balancing the need for patient access and safety are valid concerns. However, the skill and competency needed to be safe and successful can also be addressed with a transition-to-practice program such a residency or fellowship. Benner and colleagues (2009) acknowledge the limitations of formal nursing education to teach basic nursing skills and recognize the urgent need to engage healthcare organizations to provide students with clinical experiences to learn more skills and achieve a higher level of

competency. Unfortunately, some opportunities are not available to students in their clinical sites leaving many graduates inadequately prepared for practice. Expecting an educational institution to prepare the NP to assume autonomous management of complex patients upon graduation is simply unrealistic. Although many organizations provide basic orientation programs and mentoring opportunities, longer support programs are frequently needed.

Review of Literature

Nurse practitioners experience significant role stress transitioning to practice expectations. Although most NPs have many years of nursing experience prior to entering an advanced practice program, the scope of practice changes creating a stressful transition into the new role. The experienced RN becomes a novice NP. Ineffective transition-to-practice causes stress, role dissatisfaction, and wastes healthcare resources (Bahouth & Esposito-Herr, 2009; Cusson & Strange, 2008; Wallace, 2012, Yaeger, 2010). Fledgling NPs often struggle with the challenge of providing safe and competent care while filling gaps in knowledge. According to a study of 445 new NPs, transition-to-practice was so traumatizing that 6% left their NP position within the first year and 38% were not practicing in the role (Bahouth & Esposito-Herr, 2009). Unfortunately, successful integration into clinical practice is challenging as healthcare becomes more complex and specialized (Yaeger, 2010).

A variety of programs have been proposed to ease NPs into their new role. Orientation programs are helpful but tend to be generalized, focus on administrative tasks, and often lack formal structure. Very few rural employers offer an orientation

specific to the NP role as compared to those provided by large, education-based organizations (Bahouth et al., 2009). Many rural NP orientations are similar to on-the-job training programs where the new NP fills out credentialing paperwork, work with another provider for a short period of time, and gradually assumes responsibilities of over a few months. Mentorship programs have helped support the transition to practice process (Chen & Meei-Fang, 2014). However, mentorships offer limited benefit in the rural setting where NPs are often required to work in isolated satellite locations.

Residency or fellowship programs are another option. Much success has been documented with the University HealthSystem Consortium Post-Baccalaureate Nurse Residency Program documenting a 95.6% retention rate among participants (AACN, 2015). Postgraduate residencies and fellowships are an option available to health professionals such as pharmacists, physical therapists, optometrist, dentists, and physician assistants. Flinter (2012) introduced the NP residency concept at FQHCs after recognizing significantly less role transition stress among physicians after completing a formal residency program. Residency programs have been shown to reduce stress experienced during the first year NPs transition into clinical practice (Cusson & Strange, 2008; Flinter, 2012). The IOM's (2010) report *The Future of Nursing: Leading Change, Advancing Health* recommended transition-to-practice programs (nurse residency) for nurses who have completed a prelicensure or advanced degree program or when they are transitioning into new clinical practice areas.

Theoretical Frameworks

Benner's novice to expert theory provides a framework that guides nurses through a process of professional development (Benner, 1984). The theory outlines five levels of professional development that allow progress along a continuum from beginner to expert including: novice, advanced beginner, competent, proficient, and expert. Central concepts of Benner's model are those of competence, skill acquisition, experience, clinical knowledge and practical knowledge with stages occurring over time along a continuum as the nurse gains experience. Despite having experience in one area, when faced with a new role or new content, the nurse would once again be performing at a novice level or higher based on similarities or differences in the new role.

From Limbo to Legitimacy (FLL) model builds on Benner's theory providing a framework to explain NP role transition (Brown & Olschansky, 1996). The theory describes the transition to practice experience of new NPs and outlines four major themes. *Laying the Foundation* is the first stage and involves recuperating from school, negotiating the bureaucracy, looking for a job, and passing boards. *Launching* occurs with the first NP job and is the most painful involving feelings of an imposter, confronting anxiety, getting through the day and battling time. *Meeting the Challenge* comes next when the new NP acquires skills, gains confidence and becomes comfortable with the new role. The last stage involves *Broadening the Perspective* when the NP develops and affirms capabilities within the larger system developing system savvy and affirming oneself as a NP.

Emergency Nurse Practitioner Certification

A new certification program has become available allowing NPs to become certified as emergency nurse practitioners. In 2008, the Emergency Nurses Association (ENA) released *Competencies for Nurse Practitioners in Emergency Care* recognizing NP contributions working in the emergency department (ENA, 2008). Sixty entry-level competencies were identified by an expert consensus panel laying the foundation for certification. Unfortunately, there are only seven Emergency Nurse Practitioner programs in the United States (ENA, 2014a). The majority of NPs working in the emergency department are family NPs with on-the-job training. Therefore, the ENA collaborated with American Nurses Credentialing Center (ANCC) to offer the emergency nurse practitioner certification through portfolio review allowing the NP the opportunity to document competency through practice hours, continuing education and professional development (ANCC, 2014a). Refer to Figure 1.

Emergency Nurse Practitioner Eligibility

- Current RN or APRN licensure plus national certification as a NP in acute care, adult, adult-gerontology acute care or primary care, FNP, Pediatric acute care or primary care;

- Master's postgraduate or doctoral degree in the NP program;

- Have practiced the equivalent of 2 years full time as a NP in the past 3 years;

- Have a minimum of 2,000 hours of advanced practice in emergency care in the past 3 years;

- Have completed 30 hours of continuing education in advanced emergency care in the past 3 years;

- Fulfill two additional professional development categories from the following list: academic credits, presentations, publication or research, preceptor, or professional service.

Figure 1. ENA/ANCC Emergency Nurse Practitioner Requirements. Source: http://www.nursecredentialing.org/EmergencyNP

Rural Emergency Nurse Practitioner Residency Program

A rural hospital in northwestern Minnesota was at risk for closure prior to converting to the CAH model in 1998. As Minnesota's first CAH, the administrator immediately began staffing the emergency department with NPs and PAs without on-site physician coverage. After 15 years, the rural community experienced a significant turnover of 8 physicians and 16 NPs or PAs. The most cited reason for departure was ER-on call expectation. Executives from the regional health system recognized a similar trend in other CAHs.

The problem was clearly identified. A taxonomy commonly used to formulate evidence-based questions is PICO that identifies the patient population (P), intervention (I), comparison (C), and outcome (O). The PICO problem statement for the clinical question was identified in Figure 2.

Figure 2. PICO Statement

P- Critical Access Hospitals staffing NPs for ED on-call services

I- Residency Program

C- Standard Orientation

O- Increased quality of care, increased patient safety, increased job satisfaction, and decreased turnover.

The purpose of the project was also identified. The CAH lacked resources to support NPs providing emergency department care in the CAH. The purpose of the project was to develop a transition-to-practice residency program to support the NP working in the CAH of a rural health network. As primary care physicians become less available, CAHs are hiring more NPs to provide ED coverage in rural communities. The goal of the project was to develop a transition-to-practice program to develop skill and competency enabling the NP to deliver safe, high quality patient care, increase job satisfaction, and reduce turnover. The healthcare organization accepted responsibility to create a desirable work environment with adequate support allowing new practitioners to assume role responsibilities efficiently and reduce transition to practice role stress.

The logic model was used to design, implement and evaluate the program. The framework was also useful to guide managers, policy-makers, and evaluators in the program planning process allowing the team leader to differentiate between inputs, outputs, outcomes, and impact (Kettner, Moroney & Martin, 2013). The World Health Organization successfully used the logic model to address the shortage of health workers in underserved areas and the adapted model was helpful guiding the project design. Refer to Figure 3. The conceptual framework had two aims: (1) to guide the thinking in evaluating an intervention to increase access to health workers in underserved areas from project inception/design phase through to its results, by suggesting key questions about

the relevance, efficacy, efficiency, effectiveness and sustainability of the interventions;

and (2) to guide the monitoring of interventions, through a focus on a routine collection

of a set of indicators, applicable to the specific context (Huicho et al., 2010).

Context:
Social determinants, political situation, stakeholders power and interests,
economic issues (fiscal space, fiscal decentralization), individual level factors (marital status, gender)

	Design	Implemen-tation	Outputs	Outcomes	Impact
Dimensions	**Situation analysis** Labour market Organization and management capacity Regulatory systems Resources needs Criteria for choosing interventions Feasibility analysis	**Interventions** Education Regulatory Financial incentives Management and social support	**Attractiveness** Intentions to come, stay, leave **Engagement** **Deployment** Effective contracting and posting **Retention** Duration in service Job satisfaction	**Workforce performance** Availability Competence Productivity Responsiveness **Accessibility** Coverage of interventions **Productivity** Service utilization **Responsiveness** Patient satisfaction	**Improved performance health service delivery** *contributing to* **Improved health status**
Indicators (examples)	- Total graduates - Total health workers - Budget for human resources for health strategy/plans	- Policies on education and recruitment - Career pathways - Regulatory frameworks - Type/costs of incentives	- Intention to stay/leave - Number of health workers recruited - Funded positions - Stability index - "Survival" rates	- Staff ratios - Waiting lists - Absence rates - Coverage rates patient satisfaction	- Millennium Development Goal indicators - Health status - MMR / IMR

Figure 3. Logic Model. From "Increasing access to health workers in underserved areas: A conceptual framework for measuring results," by L. Huicho, M. Dieleman, J. Campbell, L. Codija, D. Balabanova, G. Dussault, C, Dolea, 2010, *Bulletin World Health Organization,* 88, p. 358. Reprinted with permission.

Inputs included an assessment of resources. The rural health network was

considered an ideal location for the project due to favorable APRN scope of practice

laws, high concentration of CAHs, physician shortages associated with increasing use of

NPs for ER coverage. An experienced FNP working in one of the CAHs within the

network developed the project as her DNP capstone project. Support from senior

management along with foundation support provided forward momentum for the project.

A team of institutional and community stakeholders was assembled.

Implementation includes interventions to address the problem. The intervention

consisted of developing an Emergency NP residency program and curriculum for the

CAH. A residency program was developed using guidelines from the Practice Transition

Accreditation Program (ANCC, 2014b). Accreditation requires a 12-month long

residency program with a structure that clearly defines program content and design,

organizational support, leadership credentials, nursing professional development and

quality outcomes. Eighteen curriculum modules were developed based on national

competencies from the Emergency Nurses Association (2008).

The plan also included pilot implementation at target CAH and future expansion

to additional network sites. The stakeholder team considered inputs and projected

implementation over a 3-year period of time. Phase 1 focused on hiring staff to develop

the residency program, creating an onboarding emergency care boot camp course for new

NPs, and convert modules onto a digital platform allowing for a combination of on-site

and asynchronous delivery. Phase 2 focused on pilot implementation with on-site mobile

simulation lab support for NPs in select CAH sites, data collection for accreditation, and

plans for further expansion. Phase 3 focused on expanded implementation offering the

program to additional NPs and CAHs within the network.

The evaluation plan included goals with measurable outcomes. The project

focused on outcomes related quality care, patient safety, job satisfaction, and reduced

turnover. Patient care data was selected from the quality management dashboard reflecting mandated reporting requirements. CAHs must report data on metrics such as door to diagnostic evaluation by a qualified medical professional, time to pain management for long bone fracture, admission to discharged time, decision time to discharge for inpatient admission as well as care for pneumonia, acute MI, and stroke (Casey, Moscovice, Klingner, Prasad, 2012). Outcomes related to job satisfaction and turnover were interrelated. Research suggests NPs who are satisfied with their jobs are significantly less likely to leave their current positions (DeMilt, Fitzpatrick & McNulty, 2010; Hill, 2011). The Misener Nurse Practitioner Job Satisfaction Scale was selected to evaluate job satisfaction (Misener & Cox, 2001). Human resources was consulted to obtain baseline data to document start and departure dates of NP employment to compare pre and post residency program participation data. Length of service will be measured in months. Data analysis will include NP and physician length of service among CAHs participating in the residency program comparing participants and non-participants at 3, 5, and 10 year intervals.

Implications

Practice implications are important considerations. Translation of evidence into the clinical setting is essential as health care becomes increasingly more complex and specialized. Rural communities must incorporate best-practices to maintain a competitive edge to recruit and retaining qualified providers. The IOM's (2010) report, *The Future of Nursing: Leading Change Advancing Health,* recognizes the destabilizing effect turnover has on the workforce and specifically recommends residency programs. Health care

reform encourages clinicians to partner with their healthcare organizations to develop innovative approaches to address current and emerging problems. NPs with a DNP education are uniquely positioned to translate evidence-based research into clinical practice solutions.

Educational implications are also noted. Higher education has the reputation for providing excellent entry-level NP education. Unfortunately, the NP curriculum has expanded over the years requiring 50% more credits than the typical master's programs limiting the ability to add additional curriculum without adding additional credit load (Zaccagnini & White, 2011). Only seven universities are offering NP programs with emergency care subspecialty leading to much opportunity for other institutions to expand their offerings (ENA, 2014). Healthcare organizations should collaboration with higher education to develop a mechanism allowing mentored practicum time and clinical projects developed during the residency program to count toward formal degree granting programs. Vanderbilt University offers a postmasters Doctor of Nursing Practice (DNP) curriculum with a 2 year paid critical care fellowship, and Duke University offers a psychiatric mental health NP residency in collaboration with the Veterans Affairs Medical Center (VAMC) allowing clinical projects to be counted toward their DNP degree (Bush, 2014).

Research implications stimulate further study. Postgraduate NP training is in its infancy. The literature reflects transition-to-practice difficulties many NPs experience in the first year after graduation. Unfortunately, there is very little outcome data to document NP residency effectiveness. Terminology is confusing when residency and

fellowship are used interchangeable in the literature. Controversy persists among nursing organizations regarding the need for postgraduate education. The NP roundtable, a national collaborative of NP organizations, released a position statement in 2014 that NP graduates are fully competent for entry into practice, acknowledged lack of evidence to support the need for postgraduate training, and endorsed the terminology "fellowship" rather than "residency" to emphasize the optional nature of postgraduate education (NP Roundtable, 2014). Data is needed to document outcomes of postgraduate residencies. This project is uniquely positioned to produce data related to patient outcomes, clinician competency, job satisfaction, and turnover rates.

Conclusion

Residency programs are becoming increasingly popular. This conference proceeding addressed rural healthcare challenges, nurse practitioner role and scope of practice, postgraduate education needs, review of the literature including role transition and theoretical models describing role development. A rural health network developed an emergency NP residency program to address the problem related to NP turnover in CAHs. Practice, education, and research implications are important considerations. The future of NP residency programs is an exciting postgraduate education option. Success and expansion is highly dependent on documenting effectiveness.

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Appendix A: Residency Program

Program Overview

Rural communities in the Midwest rely on family nurse practitioners to provide primary care services to patients in the clinic setting as well as fill the gap in providing patient care in the critical access hospital (CAH) emergency department.

The Transition to Practice Residency Program is located within an integrated health system in the Midwest (USA) provides the FNP with the opportunity to gain knowledge, skill, and clinical experience to assume Emergency Department responsibilities in the Critical Access Hospital. The 12-month post graduate residency provides advanced didactic instruction and clinical experiences beyond the entry-level education provided by local NP programs. All residents work under the direct mentorship of an experienced NP or physician. The program was created for recent NP graduates and experienced NPs who wish to expand their practice into the ED setting.

The integrated health system headquartered in the Dakotas that is the largest, rural, not-for-profit health care system in the nation spanning a 9 state and 39-hospital network. Three hospitals within the network are designated Level II emergency and trauma centers that serve as referral centers for regional and CAHs.

Accreditation/Designations

- Magnet Hospitals

- 100 Top Hospitals

- Level II Emergency and Trauma Centers

- Primary Stroke Center

- Joint Commission

The residency program is administered through the Center for Learning based in Sioux Falls, SD.

Program Eligibility

- Master's degree or higher from an accredited nursing program

- National certification as a Family Nurse Practitioner

- RN and APRN license in Minnesota, North Dakota, and/or South Dakota

- Priority given to those who commit to a 2 year (minimum) term of employment

Residency Program Goals

- To educate motivated NPs with knowledge and procedural skill to provide high quality, evidence-based emergency health care.

- To prepare FNPs for the additional responsibilities of emergency health care in a rural community.

- To provide NPs with further education and clinical experience to qualify for Emergency Nurse Practitioner certification.

- To recruit and retain well-trained NPs in Critical Access Hospital sites within the health system.

Application Timeline

To be announced

Program Leadership

Program Director Job Description

Organizational Committee Participation

Organizational Culture

Mission- Dedicated to the work of health and healing

Vision- Improving the human condition through exceptional care, innovation and discovery.

Values-

- Courage- The strength to persevere, use our voices and take action

- Passion- The enthusiasm for patients and work commitment to the organization

- Resolve- The adherence to the system that aligns actions to excellence, efficiency and purpose

- Advancement- The pursuit of individual and organizational growth and development

- Family- The connection and commitment to each other through it all.

The NP residency program mission aims to prepare the NP to provide safe, culturally competent, evidence-based health care to patients across the lifespan in the Critical Access Hospital emergency department setting.

Program Development and Design

The dynamic curriculum includes didactic instruction and clinical training components over 12 months. Approximately 6 weeks is spent in orientation focused on credentialing and EPIC training. Clinical time is spent in the primary care setting and becoming familiar with the CAH site.

Residency structure

- 2-3 days per week in family practice clinic setting

- 1 day per week in urgent care/ER call CAH

- 1 night per week CAH emergency department coverage

- 1 weekend per month CAH emergency department coverage

- ½ to 1 day per week in team learning

- Optional specialty rotations every 6-8 weeks

Specialty rotations

- Telehealth

- Ophthalmology

- Anesthesia

- Orthopedics/Splinting

- Radiology

- Ultrasound

Program Faculty

NP

(include license, educational background, academic preparation, adult learning

theory expertise)

ER physician

(include license, educational background, academic preparation, adult learning

theory expertise)

Simulation center staff-

(include license, educational background, academic preparation, adult learning

theory expertise)

Preceptors- TBA

(describe method to prepare preceptors & preceptor program curriculum)

Preceptor Training Program- (formal program available February 2015)

Program Content

Global ANCC competencies integrated into the curriculum modules include:

- Communication

- Critical Thinking

- Ethics

- Evidenced-based practice

- Informatics

- Patient-centered care

- Quality improvement

- Role transition

- Safety

- Stress management

- Time management

Program Evaluation

- Performance evaluations by preceptors

- Clinical logs

- Resident evaluations of the program, clinical experiences, specialty rotations

- Simulation skills observations by faculty

- Stakeholder evaluation (CAH & network leadership).

Program Content

The program integrates the ANCC accreditation process into the program structure and curriculum design. Competencies are further aligned with the learning objectives from the Emergency Nurses Association's (ENA) Competencies for Nurse Practitioners in Emergency Care. Over sixty competencies serve as the core foundation for the curriculum modules. Additional competencies reflect the unique nature of the NP's role in a CAH

Core Curriculum

- Orientation & introduction to emergency care

- Professional role & legalities

- Interprofessional teamwork & telehealth

- Radiology & lab interpretation

- Pain & anesthesia

- Infectious disease & shock

- Dermatology problems

- Head, ears, nose, throat problems

- Respiratory problems

- Cardiopulmonary problems

- Gastrointestinal problems

- Endocrine problems

- Orthopedic problems

- Neurologic problems

- Obstetric, gynecologic and genitourinary problems

- Pediatric problems

- Mental health problems & toxicology

- Critical care and trauma

Professional Development

Upon completion, residents receive a Sanford Health certification documenting participation in the 12-month postgraduate residency in Emergency Medicine. The graduate may apply for ANCC's emergency nurse practitioner certification available through portfolio review. Eligibility includes, but is not limited to, current RN/APRN license, national certification as NP, master's degree or higher, 2 years full-time as NP in past 3 years, minimum 2,000 hours in emergency care in the past 3 years, 30 hours continuing education in advanced emergency care in the past 3 years, and evidence of professional development. Specific eligibility requirements can be viewed at the following link: http://www.nursecredentialing.org/EmergencyNP-Eligibility

Quality Outcomes

1. Clinical outcomes- Facility QI dashboard measures

2. Executive leadership satisfaction

3. Resident ability to staff CAH-Emergency Department

4. Participant satisfaction (Misener NP job satisfaction scale)

5. Participant successful completion (%)

6. Preceptor satisfaction

7. Return on investment

8. Turnover

Outcome Data

Data will be available after first cohort completes the program (approximately 18 months after program initiation). The residency structure will be evaluated based on

ANCC's accreditation standards with the ANCC Primary Accreditation Organizational

Self-Assessment Tool.

Appendix B: Curriculum Modules

Program Content

Course Materials

Text- Mahadevan, S.V., & Garmel, G.M. (2012). An Introduction to Clinical

Emergency Medicine (2nd ed.). New York: Cambridge University Press. ISBN:

9780521747769

Media- TBA

Articles- TBA

Competencies

The majority of competencies are aligned with Learning Objectives from the

Emergency Nurses Association's (ENA) Competencies for Nurse Practitioners in

Emergency Care (2008). The ENA has identified 60 competencies that have been

integrated into the following curriculum modules. Some competencies may not be

relevant to the practice site. However, opportunity to demonstrate competency will be

provided through simulation experiences. Other competencies have been included to

reflect the unique nature of the NP's role in a Critical Access Hospital. Competencies

have been tagged to objectives as follows:

ENA competencies identified as (ENA-#)

ANCC competencies identified as (ANCC-#)

Unique or optional CAH competencies are identified as (CAH-#)

Didactics include, but not limited to:

- Lectures to cover core curriculum

- Weekly case presentations

- Journal club

- Case-based and procedural simulation

- Certification in ACLS, PALS, ATLS or CALS, NRP, BLSO

- Ultrasound course

- ER boot camp Level I & II

  Section 1- Curriculum Modules

  Section 2- Skills Check-Off

Module I- Orientation & Introduction to Emergency Care

Emergency medical care in rural communities is challenging because of limited resources and scarcity of medical providers. Providing quality care with low patient volumes creates a unique challenge recruiting and retaining a qualified workforce. This module introduces the resident to the CAH Emergency Department and general role expectations.

Upon completion of the module, residents will be prepared to:

1. Triage patient health needs/ problems (ENA-1).

2. Respond to the rapidly changing physiologic status of emergency care patients (ENA-3)

3. Use current evidence-based knowledge and skills for the assessment, treatment, and disposition of acute and chronically ill or injured emergency patients (ENA-4, ANCC-evidence-based practice & patient centered care)

4. Order and interpret diagnostic tests (ENA-9)

5. Order pharmacologic and non-pharmacologic therapies (ENA-10)

6. Assess response to therapeutic interventions (ENA-13)

7. Document assessment, treatment, and disposition (ENA-14, ANCC-informatics)

8. Function as a direct provider of emergency care services (ENA-15)

9. Participate in internal and external emergencies, disasters, and pandemics (ENA-17,ANCC-safety)

10. Maintain awareness of known causes of mass casualty incidents and the treatment modalities required for emergency care (ENA-18, ANCC-safety)

11. Interpret patient diagnostics as communicated by prehospital personnel (ENA-59)

12. Perform radio communication with prehospital units (ENA-58)

13. Manage time effectively (ANCC-time management).

14. Manage stress effectively (ANCC-stress management)

15. Successfully manage role transition responsibilities (ANCC-role transition)

16. Integrate quality improvement goals into patient care (ANCC-quality

   improvement)

Assigned Reading: Mahadevan & Garmel Text

   Chapters 1 -Approach to patient

       8- Emergency Medical Services (EMS)

       50- Safety

       51- Occupational exposure

Lecture

Case Presentation

Journal Articles- TBA

Clinical Focus: ACLS, PALS, ATLS or CALS

       Epic Training

       Credentialing

       ER Boot Camp- Level I

Module 2- Professional Role & Legalities

Critical Access Hospital legislation allows NPs to provide ED services at times without a physician on-site. The NP must be aware of federal laws that regulate scope of practice. Additional ethical concerns may present in the context of delivering emergency care. This module introduces the resident to ethical and legal responsibilities.

Upon completion of the module, residents will be prepared to:

1. Complete EMTALA- specific medical screening examination (ENA-2).

2. Specifically assess and initiate appropriate intervention for violence, neglect, and abuse (ENA-5,ANCC-Safety)

3. Specifically assess and initiate appropriate intervention for palliative care, end-of-life, and delivering bad news (ENA-7)

4. Recognize, collect, and preserve evidence as indicted (ENA-8)

5. Direct and clinically supervise the work of nurses and other health care providers (ENA-16)

6. Act in accordance with legal and ethical professional responsibilities (ENA-19, ANCC-Ethics)

Assigned Reading-   Mahadevan & Garmel Text

    Chapters 46- Abuse

          48- Ethics,

          49- Legal, Culture, End-of-Life

Lecture

Case Presentation

Journal Articles- TBA

Clinical Focus- Communication

Patient Satisfaction

Challenging patients

Patient safety

Failure to diagnose liability

Module 3- Pain & Anesthesia

Pain is one of the most common complaints of patients presenting to the emergency department. Recognizing and treatment pain is essential to patient comfort. Differentiating between acute and chronic pain as well as recognition of drug seeking behavior is important. This module introduces the resident to pain management and procedural sedation concepts.

Upon completion of the module, residents will be prepared to:

1. Assess patient and family for levels of comfort and initiate appropriate interventions (ENA-7)

2. Assess and manage procedural sedation patients (ENA-24)

3. Inject local anesthetics (ENA-27)

4. Perform digital nerve blocks (ENA-50)

5. Recognize opioid seeking behavior (CAH-1)

Assigned Reading: Mahadevan & Garmel Text

Chapter 9- Pain management

Appendix D-Procedural Anesthesia

Lecture

Case Presentation

Journal Article- TBA

Clinical Focus- Rapid Sequential Intubation

Conscious Sedation

Digital blocks

Optional -Sim Lab

Videos-

Digital Block-- https://www.youtube.com/watch?v=FKUhh9IWwGU

Module 4- Interprofessional Teamwork & Telehealth

Providing quality emergency care in rural hospitals with low patient volume can be cost prohibitive. There are not enough formally trained emergency providers to work in CAHs. Telemedicine has become a valuable resource for rural providers to link with emergency medicine physicians. This module introduces the resident to collaboration concepts associated with consultation, telehealth, and transfer to higher level care. Upon completion of the module, residents will be prepared to:

1. Demonstrate the ability to communicate with other members of the health care team (ANCC-Communication, interprofessional collaboration)

2. Recognize opportunities to utilize telehealth in patient care (CAH-2)

3. Demonstrate ability to operate telehealth equipment. (CAH-3)

Assigned Reading- TBA

Lecture

Case Presentation

Journal Article- TBA

Clinical Focus- Transfers & telehealth consultation

> Rotation- Level II Trauma Center & Telehealth

Videos-

> Presenting your patient to your attending in Emergency Medicine—
>
> > https://www.youtube.com/watch?v=EGNe_lzCDUA
>
> Telemergency - https://www.youtube.com/watch?v=oxdLBrWDbvU

Module 5- Radiology & Lab Interpretation

Diagnostic testing plays an important role in evaluating a patient presenting to the emergency department. Lab tests and imaging can be very expensive thus consideration for orders based on best practice recommendations, patient safety, and cost consciousness are important. This module introduces the resident to the CAH Emergency Department and role expectations.

Upon completion of the module, residents will be prepared to:

1. Order and interpret diagnostic tests (ENA-11)

2. Order and interpret radiographs (ENA-12)

3. Demonstrate understanding of best-practice recommendations when ordering diagnostic tests and imaging (ANCC-evidence based practice)

Assigned Reading: Mahadevan & Garmel Text

Appendix E- Guide to ED ultrasound

Appendix F- Interpreting labs

Lecture

Case Presentation

Journal Article- TBA

Clinical Focus- Radiology & Laboratory interpretation

Rotation- Radiology

Ultrasound course, lab interpretation

Videos

Chest xray interpretation-- https://www.youtube.com/watch?v=F8TYLT0-5fs

FAST ultrasound- https://www.youtube.com/watch?v=Yg78aU93SZE

Module 6- Infectious Disease & Shock

Fever is a common reason for visiting the emergency department (ED). Although most fevers are self-limiting, some may be indicative of infectious disease that may progress to sepsis or death. This module introduces the resident to the ED management of infectious disease, shock, and sepsis.

Upon completion of the module, residents will be prepared to:

1. Assess and manage infections (CAH#4)

2. Demonstrate evidenced-based antibiotic prescribing practice (CAH#5)

3. Assess and manage shock (CAH#6)

4. Assess and manage anaphylaxis (CAH#7)

Assigned Reading: Mahadevan & Garmel Text

       Chapters- 27 Fever

              5-6 Sepsis & Shock

Lecture

Case Presentation

Journal Article- TBA

Clinical Focus- Antimicrobial prescribing

              Shock management

              Vascular access

               Optional Sim Lab

Videos

       Shock- https://www.youtube.com/watch?v=Yg78aU93SZE

Module 7- Dermatology Problems

The skin is the most visible organ system on the body. Although most dermatologic presentations are benign and self-limiting, others are associated with serious systemic disease. This module introduces the resident to the ED management of dermatologic conditions

Upon completion of the module, residents will be prepared to:

1. Perform ultraviolet examination of skin and secretions (ENA-25)

2. Treat skin lesions (ENA-26)

3. Perform nail trephination (ENA-28)

4. Remove toe nails (ENA-29)

5. Perform nail bed closure (ENA-30)

6. Perform wound closure (ENA-31)

7. Revise a wound for closure (ENA-32)

8. Debride minor burns (ENA-33)

9. Incise, drain, irrigate, and pack wounds (ENA-34)

10. Remove foreign bodies (ENA-60)

Assigned Reading: Mahadevan & Garmel Text

Chapters 35 Rashes

15 Bleeding

16 Burns

47 Environmental

Appendix C-Laceration Repair

Lecture

Case Presentation

Journal Articles- TBA

Clinical Focus- Suture, I & D, wound management, nail injury management

Rotation- Suturing workshop

Module 8- ENT Problems

Problems associated with the eyes, ears, nose, and throat (EENT) are common reasons patients present to the emergency department for treatment. Although many infections, injuries, and foreign bodies can be benign maladies that cause discomfort, other conditions can cause permanent impairment. This module introduces the resident to the ED management of minor and serious conditions affecting the eyes, ears, nose, and throat.

Upon completion of the module, residents will be prepared to:

1. Dilate eyes (ENA-35)

2. Perform fluorescein staining (ENA-36)

3. Perform tonometry to assess intraocular pressure (ENA-37)

4. Perform slit lamp examination (ENA-38)

5. Perform cerumen impaction curettage (ENA-39)

6. Control epistaxis (ENA-40)

7. Remove foreign bodies (ENA-60)

8. Perform dental blocks, drain abscess, temporary fillings (CAH#8)

Assigned Reading: Mahadevan & Garmel Text

    Chapters 20 Dental pain

        25 Ears-Nose-Throat

        26 Eye

    Lecture

    Case Presentation

    Journal Articles- TBA

Clinical Focus- Dental procedures (dental blocks, temporary fillings)

Eye procedures (slit lamp, corneal FB removal)

Epistaxis management

Optional rotations- Dentist & Eye Specialist

Videos

Dental Box-- https://www.youtube.com/watch?v=0sw21apS6MM

Inferior Alveolar Dental Block-

https://www.youtube.com/watch?v=58CY6-5uyYI

Temporary filling -- https://www.youtube.com/watch?v=_FxTlWsAOPE

Epistaxis Management-

https://www.youtube.com/watch?v=KyXjc9Ok_xk

Module 9- Respiratory Problems

Many respiratory problems are described by patients as dyspnea or shortness of breath. Dyspnea is a subjective term associated with disorders, from non-urgent to life-threatening conditions arising from the heart or lungs. This module introduces the resident to the ED management of respiratory conditions.

Upon completion of the module, residents will be prepared to:

1. Assess and manage airway (ENA-21)

2. Perform needle thoracostomy for life threatening conditions (ENA-41)

3. Perform chest tube insertion for life threatening conditions (CAH#9)

    Assigned Reading- Text ch 38 (SOB), 2 (airway management),

    ch 13- anaphylaxis,

Lecture

Case Presentation

Journal Articles- TBA

Clinical Focus:

    CPAP versus Bi-pap,

    Rapid Sequential Intubation

    Chest tube

    Specialty rotation- Anesthesia or Sim lab

Videos

Module 10- Cardiac Problems

Many cardiac problems present with the primary complaint of acute chest pain. Causes can range from self-limiting chest wall strain or reflux to more serious life-threatening conditions such as myocardial infarction (MI), pulmonary emboli (PE), or aortic dissection. This module builds upon a basic understanding of cardiopulmonary function and introduces the resident to the ED management of cardiac conditions. Upon completion of the module, residents will be prepared to:

1. Order and interpret electrocardiograms (ENA-9)

2. Assess and manage a patient in cardiopulmonary arrest (ENA-20)

3. Assess and obtain advanced circulatory access (ENA-22)

Assigned Reading: Mahadevan & Garmel Text

       Chapter 3- Resuscitation

        4- Cardiac dysrhythmias

       17- Chest pain

       31- HTN

Lecture

Case Presentation

Journal Articles- TBA

Clinical Focus- Management of Hypertensive urgency & emergency,

       High-Low risk chest pain,

       STEMI versus NSTEMI management

       Congestive Heart Failure & Pulmonary Emboli management.

       Anticoagulation management

Module 11- Gastrointestinal Problems

Complaints related to the abdomen are the most challenging aspect of providing emergency care. Benign appearing conditions may progress to life-threatening conditions if not properly evaluated. This module introduces the resident to the ED management of gastrointestinal conditions

Upon completion of the module, residents will be prepared to:

1. Replace a gastrostomy tube (ENA-42)

2. Remove fecal impactions (ENA-47)

3. Incise thrombosed hemorrhoids (ENA-48)

Assigned Reading: Mahadevan & Garmel Text

Chapters 10- Abdomen pain

44-Vomiting

18- Constipation

22- Diarrhea

29- GI bleed

Lecture

Case Presentation

Journal Articles- TBA

Clinical Focus

Abdomen Pain

GI Bleed

Optional rotation-Paracentesis

Videos-

Replace gastrostomy tube-- https://www.youtube.com/watch?v=seyzqkdQFP0

and https://www.youtube.com/watch?v=7RucGZaSVw0

Fecal impaction removal-- https://www.youtube.com/watch?v=93xaEu5fOlc

Module 12- Endocrine Problems

Patients with endocrine, electrolyte, and acid-base imbalance occasionally present to the emergency department (ED) for care. Diabetes is a common condition affecting patients that may result in life-threatening emergencies. Patients often present with blood glucose emergencies such as diabetes ketoacidosis or hyperglycemic hyperosmolar syndrome as well as the extreme opposite --hypoglycemia. Other endocrine, electrolyte and acid-base disorders will also be addressed.

Upon completion of the module, residents will be prepared to:

1. Assess and manage endocrine disorders (CAH#10)

2. Assess and manage electrolyte and acid-base Disorders (CAH#11)

Assigned Reading: Mahadevan & Garmel Text

    Chapter 21- Diabetes emergencies

Lecture

Case Presentation

Journal Article- TBA

Clinical Focus- Diabetes complications

            Fluid & electrolyte imbalance

Module 13- Orthopedic Problems

Orthopedic injuries result in fractures, sprains, strains and diseases of the musculoskeletal system are a common reason for patient to present to the emergency department. Proper diagnosis and treatment minimizes long-term pain and disability. This module introduces the resident to the ED management of orthopedic conditions.

Upon completion of the module, residents will be prepared to:

1. Reduce fractures of small bone (ENA-51)

2. Reduce fractures of large bones with vascular compromise (ENA-52)

3. Reduce dislocations of large and small bones (ENA-53)

4. Apply immobilization devices (ENA-54)

5. Bivalve/remove casts (ENA-55)

6. Perform arthrocentesis (ENA-56)

7. Measure compartment pressure (ENA-57)

Assigned Reading: Mahadevan & Garmel Text

       Chapter 32 - Joint pain

            33 - Back pain

            25- Extremity trauma

Clinical Focus- High-yield ortho exam

       Ortho Splinting

       Fracture care

       Dislocation reduction Specialty rotation- Ortho or Sim lab

Videos-

       Boxers Fracture-- https://www.youtube.com/watch?v=6fXYHhb_P0E

Thumb dislocation -- https://www.youtube.com/watch?v=HBEqslqCSxw

Finger dislocation -- https://www.youtube.com/watch?v=FR35qkzCIQs

Shoulder dislocation-- https://www.youtube.com/watch?v=3RDfvLBq94s

Arthrocentesis-- https://www.youtube.com/watch?v=fZ2dcZhoGP8

Measure Compartment Pressure-

     https://www.youtube.com/watch?v=rtysrBh7AP0

Forearm reduction-- https://www.youtube.com/watch?v=cdodDRv9Nms

Module 14- Neurologic Problems

Patients come to the Emergency Department with a variety of neurologic complaints. Although some are benign (vertigo), other symptoms are indicative or more serious and life threatening conditions. Headaches, stroke, TIA, and seizure assessment and management are the focus of this module.

Upon completion of the module, residents will be prepared to:

1. Assess and manage patients with disability (ENA-23)

2. Perform lumbar puncture (ENA-44)

3. Assess and manage seizures (CAH#12)

4. Assess and manage Stroke (CAH#13)

Assigned Reading: Mahadevan & Garmel Text

   Chapters 14 -Altered mental status

      23 –Dizziness

      40 -Syncope

      30 –Headache

      37- Seizures

Lecture

Case Presentation

Journal Article- TBA

Clinical Focus- Migraine, seizure, TIA & stroke management

    Simulation Lab- lumbar puncture

Videos

   RSI Drugs -- https://www.youtube.com/watch?v=wbUDS_OrDiY

Status Epilepticus Management

https://www.youtube.com/watch?v=gS69O7yH__A

Lumbar Puncture-- https://www.youtube.com/watch?v=weoY_9tOcJQ

Module 15- Obstetric, Gynecologic and Urology Problems

Gynecologic and urologic problems represent infrequent but not uncommon concerns leading an emergency department visit. Disorders such as female pelvic pain, bleeding or infections, kidney stones, STIs, torsions, sexual assault, and pregnancy-related issues will be addressed.

Upon completion of the module, residents will be prepared to:

1. Specifically assess and initiate appropriate intervention for sexual abuse (ENA-5)

2. Incise and drain a Bartholin's cyst (ENA-45)

3. Assist with imminent childbirth and post-delivery maternal care (ENA-46)

4. Perform sexual assault examination (ENA-49)

5. Assess and manage urology problems (CAH#14)

Assigned Reading: Mahadevan & Garmel Text

Chapters 34- Pelvic pain

36- Scrotal pain

42- Urinary complaints

43 -Vaginal bleeding

Lecture

Case Presentation

Journal Article- TBA

Clinical Focus-

Scrotal exam

STDs

Emergency Childbirth

Neonatal Resuscitation Program (NRP)

Basic Life Support in Obstetrics (BLSO)

Sexual Assault Nurse Exam (SANE) training

Videos

Bartholin's cyst I & D-- https://www.youtube.com/watch?v=ex20D6CkBXA

SANE exam-- https://www.youtube.com/watch?v=vRcR8s6oQtg

Testicular torsion-- https://www.youtube.com/watch?v=fXwz3aY4AAA

Module 16- Pediatric Problems

Children present to the Emergency Department with a variety of problems including fever, breathing difficulty, rashes, unique orthopedic injuries, and other conditions. Although vaccines have changed the approach to the febrile child, other "do-not miss" conditions should be on the radar.

Upon completion of the module, residents will be prepared to:

1. Differentiate pediatric rashes. (CAH#15)

2. Assess and manage pediatric infections (CAH#16)

3. Assess and manage GI emergencies (CAH#17)

4. Recognize and manage nurse maid elbow, Synovitis, and Salter-Harris fractures (CAH#18)

5. Recognize and manage child abuse (CAH#19)

Assigned Reading: Mahadevan & Garmel Text

   Chapters 19-Crying & irritability

           28-Fever

           39- SOB

           40- Rashes

Lecture

Case Presentation

Journal Articles- TBA

Clinical Focus—Pediatric issues

Module 17- Mental Health Problems & Toxicology

Patients present to the ED with psychiatric conditions that can be symptoms of life threatening conditions. Topics to be considered include depression, suicide, psychotic patients, overdoses, and chemical dependency issues. Recognition and management of intentional and unintentional exposure to toxic substances is within the spectrum of responsibilities within the emergency department. Civil commitments are also addressed in this unit.

Upon completion of the module, residents will be prepared to:

1. Specifically assess and initiate appropriate interventions and disposition for suicide risk (ENA-6).

2. Detox management (CAH# 20)

Assigned Reading: Mahadevan & Garmel Text

Chapters 11 Abnormal behavior

12 Alcohol-related

41 Toxicology

Lecture

Case Presentation

Journal Article- TBA

Clinical Focus-

Overdoses

Detox

Suicidal patients & 72-hour holds

Module 18- Critical Care and Trauma

It can be overwhelming when a critically ill trauma patient arrives in the resource limited CAH. Recognition of injury pattern, assessment, management, and stabilization are critical to maximize patient survival.

Upon completion of the module, residents will be prepared to:

1. Clinically assess and manage cervical spine (ENA-43)

2. Clinically assess and manage head trauma (CAH#21)

Assigned Reading: Mahadevan & Garmel Text

Chapter 7 -Traumatic injuries

Lecture

Case Presentation

Journal Article- TBA

Clinical Focus

Manage trauma codes

Blunt and penetrating trauma

FAST ultrasound

Pneumothorax needle decompression

Chest tube

SIM lab

Videos-

Pneumo needle decompression-- https://www.youtube.com/watch?v=HbCuqpvx2EU

Chest tube insertion-- https://www.youtube.com/watch?v=qR3VcueqBgc

FAST ultrasound-- https://www.youtube.com/watch?v=cjF7EYVR1f0

Appendix C: Implementation Plan

Inputs

- Competitive labor market (few NPs interested in ER call—stressful, burnout)

- Favorable scope of practice (MN, ND, IA- independent practice; SD, Nebraska-reduced)

- Strong organizational support (CAH & managing health system)

- Resources -DNP project & volunteer time, telehealth program, IT program, mobile simulation lab, preceptor training, EMS training programs, learning center, boot camp I & II, foundation grant $5000 (pending), Cargill foundation Grant 3-year grant (pending).

  Outputs- NP Residency Program

Phase I: Program Planning

1. NP residency program development (hire program director & faculty, accreditation)

2. Develop detailed PowerPoint presentations, convert curriculum modules onto digital platform, instructional videos, guest speakers, specialty clinical experiences

3. Coordinate plan for general orientation- HR orientation, EPIC training, credentialing and EMS courses (ACLS, PALS, BLSO, NRP), Boot Camp I & II, SANE & Ultrasound

4. Coordinate plan for preceptor training, simulation training schedule

5. Establish evaluation tools: identify CAH dashboard metrics, HR data.

6. Market program internally- identify CAHs, champions, preceptors

7. Obtain continuing education credit for program

8. Secure funding

Phase II: Pilot Residency Implementation

1. Admission Application – Priority given to NPs in high need CAH.

2. Create 12 month schedule coordinate guest speakers, simulation lab, HR orientation, EPIC training, and EMS courses (Emergency Boot Camp I & II, ACLS, PALS, BLSO, NRP, SANE, Ultrasound)

3. Collect evaluation data, analyze, report to stakeholders

Phase III: Expanded Residency Implementation

1. Offered every 3 months (January, April, July, October)

2. 4-5 CAH sites increasing as program design, simulation lab & funding allows

3. Collect evaluation data, analyze, report to stakeholders

4. Share program experiences/outcomes at conferences & in publications

Nurse Practitioner Residency Program Budget

	Phase I - FY 16	Phase II - FY 17	Phase III - FY 18
Projected # NP's Trained/Annually	20	40	40
Expense			
Salaries (2.25 FTE's)	$ 145,600	$ 149,968	$ 154,467
Benefits (25%)	$ 36,400	$ 37,492	$ 38,617
Subtotal	**$ 182,000**	**$ 187,460**	**$ 193,084**
Other Expenses			
Office & Admin Supplies	$ 750	$ 750	$ 750
Instruments & Minor Equip (simulation task trainers $1000/ea)	$ 3,000	$ 6,000	$ 6,000
Educational Materials (avg $200 per NP annually)	$ 4,000	$ 8,000	$ 8,000
Telephone	$ 750	$ 750	$ 750
Printing ($25 per NP)	$ 500	$ 1,000	$ 1,000
Books & Subscriptions ($100 per NP)	$ 2,000	$ 4,000	$ 4,000
Education Conference (for staff)	$ 3,000	$ 3,000	$ 3,000
Travel (Mobile simulation expense - avg $1500 per training day/CAH site) - Phase I = 12; Phase II = 24; Phase III = 36	$ 18,000	$ 24,000	$ 36,000
Occupancy/Rent (for staffing)	$ 5,000	$ 5,000	$ 5,000
Other Expenses	$ 750	$ 750	$ 750
Subtotal	**$ 37,750**	**$ 53,250**	**$ 65,250**
Overall Total Expenses	**$ 219,750**	**$ 240,710**	**$ 258,334**
Description of Expenses			
Staffing Salaries	*Avg Salary*	*FTE*	*Projected Expense*
Program Coordinator	$ 35	1.0	$ 72,800
Simulation Specialist	$ 28	1.0	$ 58,240
Instructional Designer	$ 28	0.25	$ 14,560

Appendix D: Evaluation Plan

Evaluation Plan

- NP ability to take ER call in CAH (increased skill & competency)

- Quality Management CAH Dashboard metrics

- Job Satisfaction- Misener Nurse Practitioner Job Satisfaction Scale (baseline, 1-3

  5 (Appendix F)

- Reduced turnover HR employment records- Baseline data NPs hired over

  previous 10 years, resignation dates, new hire dates

Phase I: Program Planning

1. Collect baseline data from HR on NP employment data (turnover and

    openings)

2. Collect baseline data from CAH on NP skill & competency (Appendix F)

3. Develop CAH dashboard with NP specific metrics (financial impact)

4. Administer baseline Misener NP Job Satisfaction Scale to NPs working in

    CAH

5. Complete ANCC's PTAP planning & self-evaluation (Appendix F)

6. Submit reports to financial sponsors (Cargill Foundations, Sanford

    Foundation)

Phase II: Pilot Residency Implementation

1. Resident skills check-off (Appendix F)

2. Ongoing monitoring of CAH dashboard metrics

3. Preceptor evaluations of residency & program

4. Resident evaluations of preceptor, CAH, and program

5. CAH administrator evaluations

6. Senior management evaluations

7. Submit reports to financial sponsors (Cargill Foundation, Sanford Foundation)

Phase III: Expanded Residency Implementation

1. Resident skills check-off

2. Ongoing monitoring of CAH dashboard metrics

3. Preceptor evaluations of residency & program

4. Resident evaluations of CAH, preceptor & program

5. 1st Cohort- Misener NP Job Satisfaction Scale -1 year post residency

6. CAH administrator program evaluation

7. Senior management program evaluation

8. Submit reports to financial sponsors (Cargill Foundation, Sanford Foundation)

9. Apply for ANCC accreditation after 1st cohort

Impact-

- Improved CAH financial performance

- Stable workforce

- Morbidity and mortality reports

ANCC Primary Accreditation Organizational Self-Assessment Tool

The first step in pursuing accreditation as an ANCC Accredited Provider is an organizational self-assessment. The self-assessment process is used to evaluate organizational readiness to meet accreditation criteria, and to identify potential gaps that may need to be addressed within the organization.

	Current State (Describe)	Compliant with Requirement (Yes/No)	Gap (Yes/No)	Action Plan to Address Gap (Describe)
Eligibility Requirements				
1. There has been a qualified Lead Nurse Planner within the applicant organization for at least 6 months (currently licensed registered nurse with a graduate degree, and either the baccalaureate or graduate degree must be in nursing).				
2. The Lead Nurse Planner has the authority within the organization to ensure adherence to ANCC accreditation criteria.				
3. Nurse Planners (if any) within the applicant organization are currently licensed registered nurses with a baccalaureate degree or higher in nursing.				

4. The applicant organization has position descriptions for the Lead Nurse Planner (required) and Nurse Planner (if applicable) that accurately reflect job responsibilities according to ANCC accreditation criteria.				
5. The applicant organization has planned, implemented and evaluated at least 3 educational activities of at least one hour in length using ANCC accreditation criteria with active involvement of a qualified Nurse Planner.				
6. The applicant organization has been operational using ANCC accreditation criteria for at least 6 months.				
7. The applicant organization is not classified as a commercial interest organization, or is not owned or operated by an organization classified as a commercial interest organization.				

Criterion/Responsibility Requirements				
8. The Lead Nurse Planner is responsible for ensuring all members of the applicant organization have been oriented to the ANCC accreditation criteria.				
9. A Nurse Planner has actively participated in planning, implemented and evaluating each educational activity awarding or to award ANCC contact hours.				
10. Each educational activity has been developed to address an identified gap in knowledge, skills and/or practices for registered nurse learners.				
11. Content for educational activities has been developed using best-available evidence.				
12. All educational activities have been planned independently, free from the influence of commercial interest organizations.				
13. The Lead Nurse Planner and all				

Nurse Planners are able to correctly calculate contact hours (continuing education credit) for live and enduring educational activities.			

14. The Lead Nurse Planner and all Nurse Planners are able to operationally define the following:
 	
    a. commercial interest
 	
       organization
 	
    b. conflict of interest
 	
    c. commercial support
 	
    d. sponsorship
 	
    e. co-providing
 	
    f. content integrity			

15. The Lead Nurse Planner and all Nurse Planners are able to describe			

required disclosures that must be provided to learners prior to an educational activity:
 	
    a. purpose/objectives
 	
    b. criteria for successful
 	
       completion
 	
    c. presence or absence of
 	
       conflict of interest
 	
    d. commercial support
 	
    e. sponsorship
 	
    f. expiration date				

16. The Lead Nurse Planner and all Nurse Planners are able to identify and evaluate appropriate outcome measures at the individual activity level.				
17. The Lead Nurse Planner and all Nurse Planners are able to identify the requirements for a certificate of completion provided to learners.				
18. The Lead Nurse Planner ensures that the applicant organization identifies and				

evaluates appropriate strategic goals and quality outcome measures related to the organization as an entity.				
19. The Lead Nurse Planner ensures that the applicant organization identifies and evaluates outcome measures related to improving nursing professional development and/or patient outcomes.				
Other				
20. The applicant organization has the resources to maintain records for 6 years.				
21. The applicant organization understands and has the resources to pay all accreditation-related expenses including application, annual and other associated fees.				
22. The applicant organization understands and has the resources to submit all required accreditation documents to ANCC in a timely manner.				

Skills Check Off

Name_____

Competency	Observation	Supervised/ Emerging Competence	Independent/ Competent
1. Triage patient's health needs/problems			
2. Completes EMTALA-specified medical screening examination.			
3. Responds to the rapidly changing physiological status of emergency care patients.			
4. Uses current evidence-based knowledge and skills in emergency care for the assessment, treatment, and disposition of acute and chronically ill and injured emergency patients.			
5. Specifically assesses and initiates appropriate interventions for violence, neglect, and abuse.			
6. Specifically assesses and initiates appropriate interventions and disposition for suicide risk.			

7. Assesses patient and family for levels of comfort and initiates appropriate interventions.			
8. Recognizes, collects, and preserves evidence as indicated.			
9. Orders and interprets diagnostic tests.			
10. Orders pharmacologic and non-pharmacologic therapies.			
11. Orders and interprets electrocardiograms.			
12. Orders and interprets radiographs.			
13. Assesses response to therapeutic interventions.			
14. Documents assessment, treatment, and disposition.			
15. Functions as a direct provider of emergency care services.			
16. Directs and clinically supervises the work of nurses and other health care providers.			
17. Participates in internal and external emergencies, disasters, and pandemics.			
18. Maintains awareness of known causes of mass casualty			

incidents and the treatment modalities required for emergency care.			
19. Acts in accordance with legal and ethical professional responsibilities.			
20. Assesses and manages a patient in CPR-leads code team.			
21. Assesses and manages airway - intubation & vent management			
22. Assesses and obtains advanced circulatory access-IO, central line			
23. Assesses and manages patients with disability.			
24. Assess and manages procedural sedation			
25. Performs UV exam of skin & secretions- Woods lamp			
26. Treats skin lesions			
27. Injects local anesthetics.			
28. Performs nail trephination.			
29. Removes toenails.			
30. Performs nail bed closure.			
31. Performs wound closure.			
32. Revises a wound for closure.			
33. Debrides minor burns.			

34. Incise, drain, irrigate, and packs wounds			
35. Dilates eyes.			
36. Performs fluorescein staining.			
37. Performs tonometry to assess intraocular pressure.			
38. Performs Slit lamp examination.			
39. Performs cerumen impaction curettage			
40. Controls epistaxis			
41. Performs needle thoracostomy.			
42. Replaces gastrostomy tube.			
43. Clinically assesses and manages cervical spine.			
44. Performs lumbar puncture.			
45. Incises and drains Bartholin's cyst.			
46. Assists with imminent childbirth and post-delivery maternal care.			
47. Removes fecal impactions.			
48. Incises thrombosed hemorrhoids.			
49. Performs sexual assault examiniation.			
50. Performs digital nerve block.			
51. Reduces fractures of small bones (fingers-toes)			
52. Reduces fractures of large bones with			

vascular compromise (traction splint)			
53. Reduces dislocations of large and small bones.			
54. Applies immobilization devices (splint, traction)			
55. Bivalves/removes casts.			
56. Performs arthrocentesis (knee & elbow)			
57. Measures compartment pressure.			
58. Performs radio communication with prehospital units.			
59. Interprets patient diagnostics (V.S., EKG) as communicated by prehospital personnel.			
60. Removes foreign bodies(orifices & soft tissue)			
61. Performs paracentesis			
62. Recognize and manage opioid seeking behavior			
63. Telehealth for patient care			
64. Manage Infections w/ appropriate antibiotic prescribing			
65. Manage shock			
66. Recognize & manage anaphylaxis			

67. Dental procedures			
68. Insert chest tube			
69. Manage diabetes-related emergency			
70. Manage acid-base or electrolyte imbalance			
71. Manage seizures			
72. Manage acute stroke			
73. Manage acute urology problem			
74. Recognize and manage pediatric rash			
75. Recognize and manage pediatric GI problem			
76. Recognize and manage pediatric ortho problem			
77. Manage detox			
78. Manage trauma patient			

Misener NP Job Satisfaction Scale

Instructions: The following is a list of items known to have varying levels of satisfaction among NPs. There may be items that do not pertain to you, however please answer it if you are able to assess your satisfaction with the item based on the employer's policy, i.e., if you needed it would it be there?

HOW SATISFIED ARE YOU IN **YOUR CURRENT JOB AS A NURSE**

PRACTITIONER WITH RESPECT TO THE FOLLOWING FACTORS?

VS = Very Satisfied   MD = Minimally Dissatisfied S=Satisfied D =Dissatisfied

MS = Minimally Satisfied   VD = Very Dissatisfied

		VS	MD	S	D	MD	VD
1.	Vacation/Leave policy	6	5	4	3	2	1
2.	Benefit package	6	5	4	3	2	1
3.	Retirement plan	6	5	4	3	2	1
4.	Time for answering messages	6	5	4	3	2	1
5.	Time for review of test results	6	5	4	3	2	1
6.	Your immediate supervisor	6	5	4	3	2	1
7.	Time spent in patient care	6	5	4	3	2	1
8.	Time for seeing patient(s)	6	5	4	3	2	1
9.	Amount of administrative support	6	5	4	3	2	1
10.	Quality of assistive personnel	6	5	4	3	2	1
11.	Pt. scheduling policies & practices	6	5	4	3	2	1
12.	Patient mix	6	5	4	3	2	1

HOW SATISFIED ARE YOU IN YOUR CURRENT JOB AS A NURSE PRACTITIONER WITH:

VS=Very Satisfied   MD= Minimally Dissatisfied   S=Satisfied   D = Dissatisfied

M.S. = Minimally Satisfied   V.D. = Very Dissatisfied

			VS	MD	S	D	MS	VD
13.	Sense of accomplishment		6	5	4	3	2	1
14.	Social contact at work		6	5	4	3	2	1
15.	Status in the community		6	5	4	3	2	1
16.	Contact with colleagues /p work		6	5	4	3	2	1
17.	Interaction with other disciplines		6	5	4	3	2	1
18.	Support for CME (time and $$)		6	5	4	3	2	1
19.	Opportunity for professional growth	6	5	4	3	2	1	
20.	Time off for committees		6	5	4	3	2	1
21.	Amount of involvement in research	6	5	4	3	2	1	
22.	Opportunity to expand practice		6	5	4	3	2	1
23.	Interaction with other NPs (faculty)	6	5	4	3	2	1	
24.	Consideration -opinion for change		6	5	4	3	2	1
25.	Input into organizational policy		6	5	4	3	2	1
26.	Freedom to question practices		6	5	4	3	2	1
27.	Expanding skill level/procedures		6	5	4	3	2	1

28. Ability to deliver quality care   6   5   4   3   2   1

HOW SATISFIED ARE YOU IN YOUR CURRENT JOB AS A NURSE PRACTITIONER WITH:

VS=Very Satisfied   MD=Minimally Dissatisfied   S=Satisfied   D=Dissatisfied

M.S. = Minimally Satisfied   V.D. = Very Dissatisfied

		VS	MD	S	D	MS	VD
29.	Opportunities to seek advanced ed.	6	5	4	3	2	1
30.	Recognition for your work from superiors	6	5	4	3	2	1
31.	Recognition of your work from peers	6	5	4	3	2	1
32.	Level of autonomy	6	5	4	3	2	1
33.	Evaluation process and policy	6	5	4	3	2	1
34.	Reward distribution	6	5	4	3	2	1
35.	Sense of value for what you do	6	5	4	3	2	1
36.	Challenge in work	6	5	4	3	2	1
37.	Opportunity to develop & implement ideas	6	5	4	3	2	1
38.	Process used in conflict resolution	6	5	4	3	2	1
39.	Consideration given to personal needs	6	5	4	3	2	1
40.	Flexibility in practice protocols	6	5	4	3	2	1
41.	Bonuses in addition to your salary	6	5	4	3	2	1
42.	Opportunity to earn compensation outside	6	5	4	3	2	1

of normal duties

43.	Respect for your opinion	6	5	4	3	2	1
44.	Acceptance by physicians outside of your practice (ex. specialist)	6	5	4	3	2	1

Curriculum Vitae

NANCY JEAN STOCK

CURRICULUM VITAE

<u>Experience</u>   **Sanford Health System,** Mahnomen, MN

7/13-present Family Nurse Practitioner
- Accountable for primary care family practice-infant through elderly populations
- Clinic, nursing home, hospital, ER settings
- Preceptor for APRN students

Sanford Health System, Twin Valley, MN

9/97- 7/13 Family Nurse Practitioner
- Accountable for primary care family practice-infant through elderly populations
- Clinic, nursing home, hospital, ER settings
- Preceptor for APRN students

Minnesota State University-Moorhead, Moorhead, MN

8/02 to present Adjunct Graduate Faculty
- Teaching graduate level courses
- Advanced Health Assessment, Pharmacology, Adult Health
- Curriculum development, D2L online platform
-
Bridges Medical Services, Ada, MN

7/96-9/97 Family Nurse Practitioner
- Accountable for primary care family practice-infant through elderly populations

Northwest Technical College, Detroit Lakes, MN

9/92- 6/96- Lead Faculty Practical Nursing program
- Teaching theory, clinical, and lab to entry level nursing students
- Curriculum development, student advisor

- Campus representative Nursing Curriculum Committee
- 100% pass rate on state board testing

Staff Nurse Experience:

- 2/88 – 5/92 Meritcare Hospital, Fargo, ND
  PICU staff, charge, and transport roles

- 8/86- 2/88 Multi-County Nursing Services in Detroit Lakes
  Public Health Nurse

- 7/84-7/86 Mahnomen Hospital, Mahnomen, MN
  Rural hospital- Med-Surg, OB, ER

Education

Walden University- DNP (projected graduation-March 2015)

University of Minnesota- MS, Family Nurse Practitioner, 1996

Bemidji State University- vocational education core, 1992-94

Moorhead State University- BSN, 1986

North Dakota State University- ADN, 1984

Licenses/Certifications

American Nurses Credentialing Center
- Family Nurse Practitioner

Minnesota Board of Nursing
- Registered Nurse
- Licensed APRN
- Public Health Nurse
- Prescriptive Privileges
- DEA Number
-

Clinical Certifications

- Basic Life Support
- Advanced Cardiac Life Support
- Pediatric Advanced Life Support

- Comprehensive Advance Life Support
- Advanced Trauma Life Support

Professional
Organizations

- Sigma Theta Tau Honor Society
- Minnesota Coalition of APRNs
- Emergency Nurses Association
- American Academy of Nurse Practitioners

Awards

- Eva Vraspir Excellence in Nursing Award MSUM 2014
- National Health Service Corp 1997-99
- Professional Nurse Traineeship 1994-96
- American Cancer Society Scholarship 1994