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Walden University

College of Health Sciences

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Anna Bolima

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Walden University
2016

Implementation of a Nurse Practitioner Residency

Program in Critical Access Hospitals

by

Anna Bolima

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

May, 2015

Abstract

Access to health care in rural communities is challenged by workforce shortages. Nurse practitioners (NP's) 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 without on-site physicians. NP education often lacks emergency and trauma curriculum resulting in gaps practice expectations leading to significant role transition stress and turnover. The purpose of this project is to construct from the scholarly literature a transition-to-practice residency program to support NP's providing emergency department care in the critical access hospital (CAH). Theoretical frameworks used to guide the project is the "Limbo to Legitimacy" theory. Global outcomes include increased quality of care, increased patient safety, increased NP job satisfaction, and decreased turnover. The Quality Improvement (QI) initiative engaged an interprofessional team of institutional stakeholders to develop primary products including the residency program and curriculum modules and the secondary products necessary to implement and evaluate the project. The project expands our understanding of the on-boarding needs of rural nurse practitioners (NPs) and produces outcome data to evaluate results. Recommendations include outcome data publication and collaboration between healthcare organizations and institutions of higher learning to promote postgraduate emergency care education leading to post-masters certificate or Doctor of Nursing Practice with emergency care sub-specialization.

Implementation of a Nurse Practitioner Residency

Program in Critical Access Hospitals

by

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Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

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May 2015

Dedication

This work is dedicated to my husband, Mr. Nelson Bolima work love and support had been the wind beneath my wings. It is also dedicated to my children who provide me with impetus to make be an effective change agent.

Acknowledgments

I want to acknowledge the support and dedication of my committee members chaired by Dr. Andrea Jennings. Thank you for your patience and tolerance during this process. I could not have made it without your guidance. I would also acknowledge the support provided me by Walden's faculty and staff throughout my educational journey here at Walden and to the many friends and family who supported me along the way. To all of you I am truly grateful.

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Section 1: Overview of Project

The lack of adequate access to healthcare is one of the challenges facing the U.S healthcare system. Barriers to healthcare access have been a direct and correlating influence on quality of health outcomes, disease morbidity and mortality of populations (Healthy People, 2014). Compounding factors such as the present shortage of healthcare providers (primary care physicians and Registered Nurses) have a significant and disproportionate impact in rural and underserved areas where there is limited health infrastructure thus resulting in limiting health outcomes for those populations (Grober, Mariais, Mabunda, Marindi, Reuter & Volmink, 2009). Nowhere is this more apparent than in rural areas which are already challenged with having disproportionate high chronic disease, and significantly high premature death and mortality rates in the U.S (China, Park & Galloway-Gilliam, 2012). Several states and jurisdictions in the U.S have been declared as being health professional shortage areas (HPSA). Examples include Minnesota and similar states whose primary product is farming (NHSC, n.d; GWDC, 2011).

In the U.S, an approximate number of more than 60 million people live in rural areas. This number comprises 19% of the U.S population (U.S. Bureau of Labor, 2012). This population is considered vulnerable due to their lack of access to health services, limited infrastructure available, and the fact that they are more susceptible to negative health outcomes (Choi, 2012). Available data reveal that only about 10% of U.S physicians practice in a rural community (NRHA, n.d). Over the last two decades, this shortage of primary physicians in rural areas has not improved and estimations are that it will only get worse (Marsh, Diers & Jenkens, 2012). This estimation is supported by the fact that over the last decade only 45% of medical school graduates in the U.S elected to choose family practice as their areas of practice as compared to 90% who elected for a specialized area such as cardiology, oncology, surgery

(NRMP, 2014). The implications of this are that there will continue to be few providers in rural areas. For this reason, Healthy People 2020 included on its agenda, access to health services to be amongst its top priority (Brolin & Bellamy, 2012).

In the early sixties, the role of the nurse practitioner (NP) was established due to the limited numbers of primary physicians and the limited physicians who were available to practice in rural communities. The Nurse practitioner was created as a means to address this gap in primary healthcare practice which explains the alignment and focus of their educational preparation in areas of health education, disease prevention, and management of chronic diseases at the primary level (AANP, 2014). Given the continued decline in the availability of primary physicians, and change in paradigm in healthcare which places emphasis more on prevention rather than treatment, the role of the NP has gained greater significance and today NP's play an important role as team members in multiple settings such as neonatal care, gerontology, obstetrics, and mental health (ANA, 2009; AANP, 2014).

Educational preparation for NP's is tailored to address the specific population that the healthcare provider will be serving. The NP curriculum is based on the framework of primary and preventive care. Given the existing physician shortages and the need for services from an increasing population, many NPs are expanding their services into acute care settings (such as emergency and critical care) to meet increasing healthcare demands. This poses a problem in that the typical NP curriculum does not include preparation in these specialty areas as it usually focuses on just one type of practice setting. Furthermore, challenges exist with recruitment of nurse faculty who are prepared in multiple areas as reflected in the various practice settings (Wallace, 2012). The scope of practice for NPs allows for autonomy in decision making, and to function as an "expert generalist" in addressing a wide variety of diseases and health conditions

(Hurme, 2007; MacLeod et al., 2004). Sadly, the majority of NPs are not adequately prepared to transition into their new roles, and very few healthcare organizations provide orientation and ongoing support to ensure successful transition for the new graduate NP (Bahouth & Esposito-Herr, 2009).

Increase role stress and dissatisfaction by healthcare providers is attributed to lack of a structured residency program (Wallace, 2012; Yaeger, 2010; Bahouth & Esposito-Herr, 2009; Cusson & Strange, 2008). Due to the increasing need for primary care providers and expanding healthcare services, NP's are often expected to assume full responsibilities within a short period of time and many novice and new graduate NP's find that there still have many areas of knowledge gaps. In a qualitative study by Bahouth & Esposito-Herr (2009), the authors found that among 445 newly graduate NPs that were sampled, 6% of the sampled population had quit their jobs, within the first year, while 38% reported job dissatisfaction due to the lack of support and transitioning. Compared to physician residency programs, Flinter (2012) reports less stress and job dissatisfaction when this same survey was conducted for physician residents. From this data, a hypothesis can be developed that a structured residency program can also be beneficial to NPs.

The literature mentions several models that have been established to guide the development of NP residency program. However, these models focus heavily on administrative duties, are too generic and not applicable to all settings, and lack a formal structure (Yaeger, 2010). Additionally, given the increase in demand and emergent need that many institutions face to address provider shortages, many institutions do not adopt or provide any sort of integration program for the NP. In small, medium size and not-for-profit organizations where resources are limited, NP orientation programs are nonexistent (Bahouth & Esposito-Herr, 2009). The typical

orientation program for NPs in the majority of settings involves the new NP shadowing a seasoned NP for a couple of days to a week with assumption of greater and increasing responsibility over a course of a week to a month at the end of which they are expected to function independently. As an alternative or supplement to this, many institutions provide mentorship programs for the new NP (Chen & Mee-Fang, 2014). Mentorship programs however, are not sufficient to address knowledge gaps or develop competencies in clinical skills especially for NPs who often work in remote areas, or as the only provider in a particular healthcare setting. Given the above, the case can be made that a more structured and longer residency program could yield greater benefit for the NP and to the profession.

Healthcare provider entering practice would not be expected to be equipped with the skills and knowledge to begin independent and autonomous practice immediately. For this reason, residency programs were established to aid that period of transition from novice to expert. Several different terms have been used to refer to residency programs. These include preceptorship, and internship. Regardless of these differences, the purpose remains the same. Residency programs are especially important for NPs given the fact that NPs have an advanced scope of practice which is quite different from the of registered nurses. The increased responsibility, advanced education and greater scope of practice is what makes a seasoned RN to become a novice NP. It is for this reason that residency programs were established to help ease the transition from one level of practice to another in the first year of practice where new NP is most at risk of burnout and job dissatisfaction (Cusson & Strange, 2008; Flinter, 2012).

Problem Statement

The problem statement for this project is that of challenges in recruitment and retention of new graduate NPs in critical access hospitals (CAHs). The availability of a residency program

contributes significantly to reduce job dissatisfaction and turnover (DeMilt, Fitzpatrick & McNulty, 2010). Despite the shortage of primary healthcare providers, the need for providers continues to grow due to an increase in demand for services and expansion of healthcare access (Healthy People, 2014). Current trends are for rural and acute care hospitals to supplement their pool of physicians with NPs given the limited numbers of primary care physicians. In most institutions, it is not uncommon to find NP's working in critical care and emergency rooms (ER). The problem with this is that these specialty areas require a set of specialized skills that is not covered in the traditional NP curriculum (Cusson & Strange, 2008). For this reason, many NPs cite significant role strain and burnout due to the increased demands and lack of preparation to meet the required tasks (DeMilt, Fitzpatrick & McNulty, 2010). This leads to an increase in turnover for NPs which disrupts continuity of care for the patients and further impacts healthcare access for those affected (Institute of Medicine (IOM), 2010). As recommended by the IOM, registered nurses and NPs are advised to complete a residency program following their educational program (IOM, 2010).

Purpose Statement

The purpose of this project is to develop a structured transition residency program for the NP working in an acute care setting. This project is a collaborative effort that involves guidance from multiple entitles namely; American Academy of Nurse Practitioners (AANP), American Association of Family Physicians (AAFP), American Nurses Credentialing Center (ANCC), Emergency Nurses Association (ENA), Maryland Board of Nursing (MBON). This project will focus on developing educational modules and curriculum specific to the acute care setting. The literature (Joyce & Choi, 2013; DeMilt, Fitzpatrick & McNulty, 2010) reveals that increased job satisfaction and high nurse retention rates are directly correlated to increased quality of care and

patient safety. Given the fact that traditional NP programs focus only on primary and preventive care in their educational preparation of the NP, and that an increasing number of hospitals are resorting to using NPs to meet patient needs in areas such as the ED, it is evident that there will be a skills gap for the NP assigned to work in these settings. Implementation of an NP residency program will help facilitate NP success into their new role, promote patient safety, and quality of care (Marsh et al., 2012).

Goals and Objectives

In accordance with the IOM's recommendation for nurse residency programs, this project will focus on the development of an NP residency program that facilitates role transition in the acute care setting (IOM, 2010). This specific organization in question utilizes an informal and unstructured process for new graduate NPs to serve as their orientation program. This project will developed a structured program with specific educational outcomes that aligns with NP competencies.

Theoretical Foundation

This project will follow a contextual and guided approach (McEwen & Willis, 2011). One particular theory will be used to guide this project namely; the Limbo to Legitimacy Theory. This theory informs the understanding and competency required of NPs as they transition into their new roles (Brown & Olshansky, 1997) and provides a comprehensive framework within which the NP residency program can be built and developed upon.

Significance of the Project

In alignment with the IOM's Future of Nursing Report (IOM, 2010) which called for establishment of residency programs for new graduates and practitioner's transitioning into a new or different area of practice, this project seeks to impact this issue by making a contribution to

addressing that recommendation. With specific focus on acute care hospitals located in rural communities, this project address two of the major priority areas as highlighted in the IOM report.

Implications for Social Change

As cited in the American Association of Colleges of Nursing Essentials of Doctoral Education document (ANCC, 2006), the second essential criteria is that of systems leadership for quality improvement in which the doctorally prepared nurse should be able to improve patient care through development of initiatives that improve the delivery and provision of services. This project thus follows along these lines by developing a formal and structured residency program that aims to improve nursing practice as well as the quality of patient care provided. By so doing, this project has potential to impact NP workforce challenges and serve as a model that can be replicated in similar institutions. The implications for social change are evidenced in the outcomes that this project aims to achieve. NP residency outcomes link professional development to expanded competencies for the practitioner. Implications of this project include the following, amongst others. First is that of enhanced use of evidence-based decision making tied to case review which improves patient outcomes (Bahouth & Esposito-Herr, 2009). Related to this, is that the NP becomes an advocate for the patient with knowledge and based on real-world experiences. A further implication for social change is that of expanded leadership through principled action and network building (Boyar, 2012), resulting in a documented and expanded portfolio of leading groups and defined interprofessional cohorts. Lastly, social change is also affected through projecting a trajectory for individual patient-centered care into the family and community, based on case review and peer review.

Definitions of Terms

The following terms were utilized in this project.

Advanced Practice Registered Nurses (APRN): Advanced practice registered nurses (APRNs) are registered nurses (RNs) who have attained advanced education and expertise and specialize in such medical fields as pediatrics, anesthesiology, gerontology, neonatology and mental health. APRNs include nurse practitioners, clinical nurse specialists, certified nurse-midwives and certified registered nurse anesthetists (AANP, 2014). Advanced practice registered nurses manifest a high level of expertise in the assessment, diagnosis and treatment of the complex responses of individual, families, or communities to actual or potential health problems, prevention of illness and injury and maintenance of wellness. The advanced practice registered nurse has a master's or doctoral education concentrating in a specific area of advanced nursing practice. The difference in this practice as compared to RNs without the advanced degree relates to a greater depth and breadth of knowledge, a greater degree of synthesis of data, complexity of skills and intervention, and prescriptive authority (AANP, 2014)

Critical Access Hospital. A Critical Access Hospital (CAH) is a hospital certified under a set of Medicare Conditions of Participation which are structured differently than the acute care hospitals (Hurme, 2007). Requirements to be certified as a CAH include having no more than 25 inpatient beds; maintaining an annual average length of stay of no more than 96 hours for acute inpatient care; offering 24-hour, 7-day-a-week emergency care; and being located in a rural area, at least 35 miles drive away from any other hospital (Hurme, 2007). The limited size and short stay length allowed to CAHs encourage a focus on providing care for common conditions and outpatient care, while referring other conditions to larger hospitals.

Healthcare Reform. Health care reform is the general term used when referring to policy creation or changes that affect health care delivery. Health care reform typically addresses access to care and services, expansion of healthcare to consumers, quality of care and cost of care.

Nurse Practitioner (NP). A nurse practitioner is a nurse with a graduate degree in advanced practice nursing who is qualified to treat certain medical conditions without the direct supervision of a doctor. Nurse practitioners are allowed to provide a broad range of health care services, which may include diagnosing, treating, and managing diseases, writing prescriptions. They are allowed to practice autonomously in a collaborative fashion with other healthcare professionals and have prescriptive authority (AANP, 2014).

Primary Care. Primary care is the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients over time, and practicing in the context of family and community (HRSA, n.d.).

Registered Nurse (RN). A nurse who has graduated from a from a school of nursing and has passed a national licensing exam and is licensed by a state authority to practice as a registered nurse.

Residency Program. Residency programs are a joint partnership between academia and practice that is a learner focused, postgraduate experience designed to support the development of competency in nursing practice to increase retention and provide essential tools to promote graduate nurse success and productivity. Nursing residency programs (NRPs) provide a smooth transition from student life into professional life and establish clinical competence, provide

emotional support through transition, and facilitate recruitment and retention of strong nurse beginners (Flinter, 2012).

Rural. An area with fewer than 1,000 people per 2.6 square kilometers (square mile), and surrounding areas with fewer than 500 people per 2.6 square kilometers (square mile).

Assumptions and Limitations

Assumptions

An assumption is a principle that is accepted as true based on logic based on logic or custom (Grove, Burns & Gray, 2013). The following assumptions will apply to this project. The first assumption is that NP's in authors practice setting are leaving within a year of employment because of a lack of organizational support. The second assumption is that this program will be a positive experience both for the NP and the hosting organization. Lastly, the final assumption is that the program will lead to cost effective outcomes thus facilitating replication to multiple locations.

Limitations

Limitations are potential weaknesses in a study. They include those characteristics of design and methodology that impact or influenced the interpretation of the findings of a study (Grove, Burns & Gray, 2013). Limitations for this project include the following. First is that the educational models, implementation and evaluation methodology developed as a result of this project are specific to this practice setting and cannot be generalized to other areas. Secondly, the author of this project is a staff member at the designated institution for which the program is being pilot-tested. For this reason, administrative leadership will significantly influence the design and implementation of the program.

Summary

This chapter provided an overview of the project and its problem statement which is that of challenges of recruitment and retention of NPs in acute care rural hospitals. The establishment of a pilot NP residency program was advocated as a possible solution to address these challenges following evidenced-based theory. Such a program will contribute to the development of nursing practice and serve as a model for replication at other sites. Chapter 2 of this project will provide a review of the relevant literature that pertains to this topic.

Section 2: Review of the Scholarly Literature

The purpose of this project is to develop a residency program specific for NPs in the acute care setting that will facilitate transition into their new role and describe plans for implementation and evaluation of the program. A review of relevant literature would be discussed that supports the need for this project. This section will discuss the available literature describing the rural community within which the NP practices, role of the NP, the need for reform in the healthcare system, challenges/barriers in NP role transitions and lastly, the theoretical framework that underpins this project.

Literature Search Strategy

To obtain relevant articles and studies, the following database amongst others were included in the search namely; PubMed, Cochrane Library, Medline, CINAHL. With the exception of classical or groundbreaking work, only articles published within the last 10 years were included in the search. Search terms that guided this process included: *nurse practitioner, residency, turnover, acute care, orientation, healthcare access, rural health, mentoring*. These terms were used singularly and in various combinations to yield number of articles..

The Role of the Nurse Practitioner

A study by AANP (2014) reveals that the role of the NP was created in the U.S in the 1960's in response to the need for more primary healthcare providers given the migration of a large number of physicians into specialty areas thus creating areas of deficits in primary practices. This shortage provided impetus for the establishment of the NP role. O'Brien (2003); reveals that initial NP programs lacked formal training, did not include credentialing. In addition, O'Brian (2003) observes that many of these programs were not widely received and were opposed both by physician and nurses groups alike. These programs only continued to exist and

grow following results showing patient satisfaction with the care provided by this new category of practitioners (AANP, 2014). Within the next decade this role had grown significantly that in the early 1970's there was a total of 63 formal NP programs in the U.S. The curriculum was developed to focus on primary and preventive healthcare (AANP, 2014) and legislation was passed that facilitated the utilization of NPs in rural communities as a measure to address provider shortages.

Transformation of the NP Role

Crim, Wiley, and Clark (2007) explain that following the passage of the Rural Health Clinic (RHC) Act in 1977, there was an increase in the number of health clinics established to address health disparities and provided shortages in these areas. This act established reimbursement for providers who participate in government sponsored programs such as Medicare/Medicaid as well as provided incentives for advanced practice providers (nurse midwives and physicians assistants) who provide services in rural areas (RHC, 2004). A groundbreaking longitudinal study by Sox (1979) conducted over a 10 year period, explored the difference of care being provided by NPs and physicians. With a total of 2100 participants, the authors compared clinical outcome measures of care provided in an office-based environment. Results reveals that NPs and PAs provide office-based that that is indistinguishable from that provided by physicians. This study served as an impetus that expanded the utilization of NPs and this model of care into other healthcare settings.

Critical Access Hospital

Marsh et al (2012) describe the program known today as Critical Access Hospital (CAH) which was created in 1977 following the passage of the Balanced Budget Act (BBA); which is a federal designation of healthcare facilities that participate in cost based reimbursement to provide

stabilization in rural areas. Hospitals with this designation were allowed to utilize NPs and PA's in the emergency department without having physician oversight (RAC, 2013; Marsh et al., 2012).

In her editorial, Mundinger (1994) argues that the utilization of NPs in the ED is equally as cost effective and of similar quality of care to that of physicians and justifies this assertion by stating that the BBA has expanded to cover APRNs in all locations not just rural areas (AANP, 2014). This has not only fueled the growth of the NP practitioner but led to an increase wealth of data on this subject.

With the establishment of Federal Qualified Health Centers (FQHCs), this increased the visibility and utilization of NPs into the healthcare system. A systemic review of more than 34 studies by Horrocks, Anderson, & Salisbury (2002), provided additional evidence by asserting that utilization of NPs result in quality outcomes and greater patient satisfaction. Using both a randomized control trial and prospective observational design, this 35 year (1966-2001) system review included 11 trials and 23 observational studies. Data was analyzed using meta analytical techniques including Odds Ratio and Random effects. Results found that patients were satisfied with NP care and quality of care was better with NP consultation.

The Affordable Care Act

A report by Brolin & Bellamy (2012) noted that the passage of the Affordable Care Act changed the paradigm of U.S healthcare system. This Act expanded health insurance coverage for more than 30 million U.S. citizens (Brolin & Bellamy, 2012). The authors note that this Act has severe implications for rural communities and facilitates in the sense that it increases the burdens of rural healthcare organizations that are already dealing with provider shortages by expanding the number of consumers to an already limited provider system (Brolin & Bellamy,

2012). Another report by Marsh et al (2012) goes on to state that rather than increase access to care, these limitations actually serve as a barrier to receiving care. The authors suggest that one provision of the ACA is that of provision of funds for scholarship and tuition reimbursement through participation in the National Health Service Corps (NHSC) for those who elect to work in designated shortage areas (NHSC, n.d). Marsh et al (2012) continue to assert that despite this program, the availability of primary care physicians continues to decline and is expected to continue with a downward trend by as much as 43%. Thus NPs are a viable alternative to addressing this gap and more effort needs to be placed in recruitment and retention.

In their systemic review Laurant, Reeves, Hermens, Braspenning, Grol, & Sibbald (2014) concluded that provision of care by NPs meets safety and quality measures. This review included a total of 25 articles over a period of 36 years (1966-2002) that were designed as randomized control trials and focused on assessing the impact of doctor-NP substitution. Data was analyzed using meta analysis techniques and conducted by two independent reviewers. It is important to acknowledge that an important barrier that limits the effective utilization of NPs is that of licensure and scope of practice restrictions for APRNs; which in many jurisdictions is very restrictive beyond the education and competency of the NP. Recognizing this issue, the IOM issued a call supporting the expansion of scope of practice for APRNs in their groundbreaking *Future of Nursing* Report (IOM, 2010).

Nurse Practitioner Scope of Practice

The AAFP (2011), acknowledge that while there is standardization and consistency in the educational preparation for NP's wide differences exist in licensure requirements, and scope of practice based on their respective state boards as defined in each state's nurse practice act which allows different levels of autonomous practice for the APRN. A report by the Federal Trade

Commission (FTC) (2014) advocated for removing APRN scope of practice restrictions adding that such restrictions should only be considered for issues that jeopardize patient safety. As a result an increase number of states have now lifted restrictions on APRN scope of practice. Presently, 19 states have passed legislation allowing independent practice for APRNs.

CAPRNS (2014) explain that presently many states have adopted a tethered approach to addressing APRN scope of practice issues. In Connecticut for example, a requirement of 2,000 hours in collaboration with a physician was imposed as a condition for the APRN to practice independently (CAPRNS, 2014). In Minnesota, a similar stipulation was also put in effect but requiring a total of 2080 hours that can be achieved either with an NP or physician (Minnesota Statutes, 2014; AANP, 2014). In the state of New York, restrictions were relaxed for NP with 3,600 or more hours of clinical practice to retire their collaborative agreements (Modern Healthcare, 2014). In the state of Nebraska, regulations were made much more restrictive requiring a minimum of at least 4,000 hours of practice (AANP, 2014). As noted by Laurent et al, (2014) the fact that many states and jurisdictions are adopting a tethering approach provides justification and validation for the need of an organized and structured support and transition program for new NPs during their first year of practice.

Yee, Boukus, Cross, & Samuel (2013) highlight the fact that restricting APRN scope of practice has negative impact for all concern; it becomes difficult for the NP to find and maintain a collaborative agreement with a physician as many are unwilling to enter into such agreements and it is even more difficult in rural areas where NP services are most needed but physicians are unavailable. The authors assert that collaborative agreements also require the APRN to pay a fee to the said physician which is not only expensive but there is no evidence that these fees provide any particular benefits to the patient or the APRN (Yee et al, 2013). Fairman, Rowe, Hassmiller

& Shalala (2011), noted that these agreements are in fact counter intuitive to the purpose and intent of expansion of scope of practice for the APRN in the sense that the requirement for supervision by the physician of the APRN's work actually limits their opportunities for practice. Fairman et al (2011), also highlight another area of limitation to APRNs scope of practice which is the lack of consistency in interpretation of APRN practice by regulatory agencies which varies from one agency to another thus limiting the provision of comprehensive services by APRNs. As concluded in the article by NNP (2014), the argument made to restrict APRN practice citing concerns of patient safety, quality and satisfaction has not been supported by any available data.

Lui (2013) highlights another important barrier to APRN scope of practice which is that of federal and interpretative guidelines. The Centers for Medicare and Medicaid requires a physician to co-sign clinical documentation made by NP as a validation of supervision, requires a physician to be physically present during sessions of cardiac rehabilitation (Lui, 2013). These guidelines are not always possible especially in rural settings where there is already a shortage of physicians and even more important when many of these services can effectively be addressed by the NP. Thus the NP' effectiveness remains limited and underutilized.

Transition and Residency for NPs

Flinter (2012) opines that NPs are required to function as "expert generalists" and this is particularly significant in rural settings where often, additional physician support is not always available. Flinter (2012) asserts that educational programs cannot sufficiently prepare new graduate NPs to assume autonomous roles and function effectively in the management of complex conditions and a variety of patients.

Cussion & Strong (2008), observes that educational preparation of physicians consists of 4 years of medical school with a 3 year residency , while the NP's educational preparation is less

robust and intensive (2 years of graduate education). Cussion & Strong (2008) further explain that while NP programs prepare students to function as entry-level NPs, upon entry to practice, they are however, expected to assume 80-100% of the same tasks and duties as physicians. Dyess & Sherman (2009) observed that state licensure and agency accreditation does not take into consideration whether or not safe, effective and quality care is being provided. It thus becomes incumbent upon individual institutions to provide the necessary and required training and supportive services to ensure that the NP can gain clinical skills competency to meet complex patient needs (Dyess & Sherman, 2009). Sulllivan-Benz et al., (2010) observed that the standard orientation program provided by most organizations such as preceptorship or mentorship is not adequate to meet the specific needs of NPs given their increased scope and advanced education. The IOM (2010) recommends a residency program for NPs. The IOM recommends using the following implementation for such programs:

Support for NP residency programs by State Boards of Nursing and accreditation agencies following completion of licensure program.

- DHHS should increase funding to support NP residency programs in rural areas.
- Greater investments by public & private institutions for NP residency programs

In summary, the literature discloses that in healthcare organizations that has implemented NP residency programs significant increases have been seen in positive patient outcomes, provider job satisfaction, increased retention rates, reduction of costs, and increase patient satisfaction (Flinter, 2012; Cussion & Strong, 2008; Dyess & Sherman, 2009; Sullivan-Benz et al., 2010). As such, it is logical to draw the inference that in a specific critical access hospital, these same benefits might also be realized.

Theoretical Framework

From Limbo to Legitimacy

The *Limbo to Legitimacy* (FLL) theory provides an explanation on the transition process for NPs (Brown & Olshansky, 1997). This theory was developed following observation of new NPs' during their first year of practice post licensure and is a model to understand NP transition into practice. Brown and Olshansky (1997) identified four themes that help explain this theory which are; foundational laying, launching, addressing challenges, and expanding one's perspectives. These themes are described below:

1. *Laying the Foundation*. This is the stage immediately following program completion to the time it takes to acquire one's first NP employment.

2. *Launching*. This stage begins with the obtainment of one's initial NP job and last for several months as the individual transitions into the position. At this stage the individual may suffer from anxiety, time management, prioritization of tasks and feelings of insecurity.

3. *Meeting the Challenge*. At this stage the NP has acquired sufficient experience and knowledge that they feel confident and conformable in their skill sets.

4. *Broadening the Perspective*. At this stage the NP is able to function within the broader healthcare system. They take on more challenging roles and tasks in an effort to affirm their capabilities (Brown & Olshansky, 1997).

The model enables the NP to demonstrate attainment of knowledge and experience as they transition in their new role. Given their advance knowledge and expanded scope of practice, new NP's have to take on a new identity different and separate from that of a registered nurse. Until they become familiar and comfortable with this new identify, the initial stages of the transition process is described as a phase of "being in limbo" because of their limited experience

at this point. This theory also enables the new NP to be adequately socialized into their new role and address the challenges of insecurity, stress, disorganization, and uncertainty that many of them feel.

This theory has been used in this project to guide the development of strategies to aid NP role transition process. Appendix C outlines the implementation plan and provides an overview of how this model has been incorporated into the project. The three phases of the plan aligns with the stages of this model beginning with the development of an awareness in the NP (laying the foundation), engagement in self-refection activities and setting realistic expectations (launching), participation in seminars to aid the adjustment phase, establishment of curricular that emphasizes increase interprofessional collaboration (meeting the challenge), and support and connection through professional organizations (broadening the perspective).

Figure 1. provides an illustration of the FLL model. .

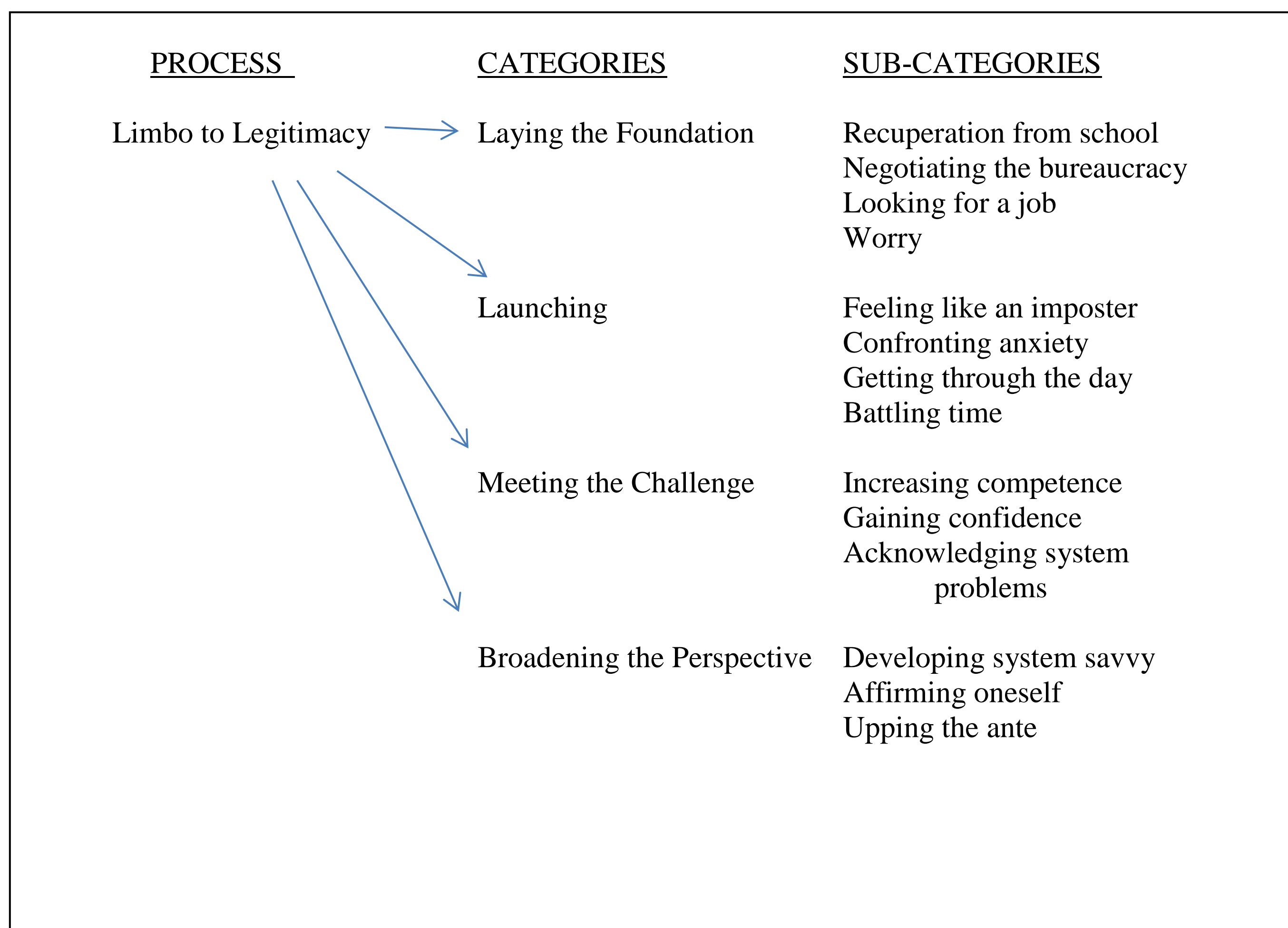

Figure 1. From Limbo to Legitimacy Model. Adapted from “From Limbo to Legitimacy: A theoretical model of the transition to the primary care nurse practitioner role,” by M. Brown and E. Olschansky, E., 1997. Nursing Research, 46(1), Copyright 1997 by Wolters Kluwer Health. Adapted with permission.

Background and Context

This quality improvement project will be implemented in a critical access hospital located in a rural community in the southern area of the state of Maryland. This community ranks last in health outcomes for the state (UWPHI, 2014). This community is comprised of primary farmers. The targeted site for implementation of this project was one of the first to implement the CAH model thus allowing for the utilization of NPs and PA's in the ED. Recruitment and retention of physicians, NPs and PAs have continued to exist in this community. Management of the facility is through an integrated approach with centralized decision making at other site more than 50 miles away.

The author of this project is an employee at the proposed implementation site. Author is also a resident of this rural community and has practiced as an NP in the CAH for more than 15 years providing care in various departments. The author is also one of 3 NPs who is full time at this facility. Exit interview from HR reflect that New NPs at author's setting leave within the first 1 year, or find rural area not a preference.

Summary

In this literature review, topics discussed included the rural community, the role of the NP, healthcare reform, and NP transition. A theoretical framework that will underpin this project was also discussed to provide the context within which this project can be understood. This project specifically does not address the role expectations of NP in CAH. The literature provides evidence supporting difference in rural and urban settings as well as the challenges NP encounter

during transitioning into their new roles. An identified gap in the literature is that of residency programs designed to assist NPs in rural communities working in CAHs.

A retrospective review of the literature provides few suggestions to address this issue. Mentorship and orientation programs are one suggested solution, however, these strategies are not effective in rural settings where there is limited support and NPs are often required to practice solo (Bahouth & Esposito-Herr, 2009). As an alternative, many jurisdictions have implemented collaborative practice agreements following an agreement to provide support to aid NP transition. This author has firsthand experience witnessing the many barriers and challenges that new NPs face during their transition process at the implementation site, thus justifying the need for this project to be conducted. Author's doctoral education, healthcare practitioner status, member of the community, and as a staff of CAH, will serve as excellent background to enable facilitation of this project. Senior management and organizational leadership at the CAH have also expressed support and availability of resources to facilitate the aims of this project.

Section 3 describes the methodology of this project. It will discuss the process utilized, describe the team members, how evidence was reviewed and how the curriculum was developed. Finally, the implementation and evaluation plans will also be discussed.

Section 3: Approach

The purpose of this project is to develop a residency programs for NPs to facilitate role transition in CAHs. This project will develop curriculum and describe plans for implementation and evaluation of the program.

This section will outline the process that will be utilized in the development of this program and how implementation and evaluation will be conducted. This project will not collect any data and there will not be recruitment of participants. Given that this project focuses on developing curriculum, implementation will only occur once the project has been completed. The Gant chart (Figure 2) provides an outline of the steps involved.

1. Create interdisciplinary team.

2. Literature Review

3. Seek IRB approval.

4. Develop educational modules.

5. Validation of materials.

7. Implementation.

6. Evaluation.

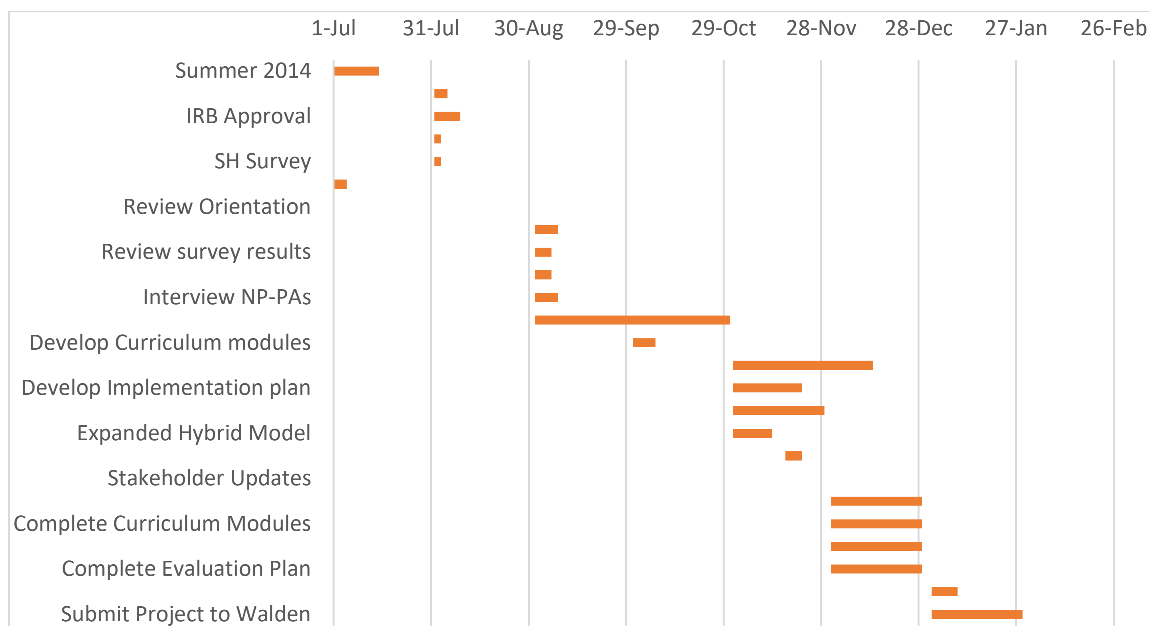

Figure 2. Gantt Chart of Project time line.

Interdisciplinary Project Team

Members of the interdisciplinary team will be identified and selected based on their knowledge, skills and expertise to make a contribution in achieving the desired outcomes for this project. Stakeholders included individuals with decision making capacity at the organizational level who best understand health systems and navigation (Kelly, 2013, p. 34-38).

Careful consideration was given to selection of members for this project to ensure diversity in perspective (Kelly, 2013, p. 154). Using the *Diffusion of Innovation Theory* as a guide, members were sought with an understanding of how individuals adopt new ideas and how to guide responses (White & Dudley-Brown, 2012, p. 30). Both early and late adopters of change were actively sought to be recruited for inclusion on this project team to provide a comprehensive and balanced approach. Specific team members will include:

1. Doctoral student and project author functioning in the role of facilitator.
2. Hospital Administrator at the implementation site.
3. Chief Operating Officer (COO) for the hospital.

4. Chief Nursing Officer (CNO) for the hospital.

5. Vice President of Education for the organization.

6. Chief Medical Officer (COO) for the hospital.

7. Nurse practitioners and physicians assistants employed at the hospital.

9. Nurse managers of the ED and Critical Care Units.

Review of Evidence

For the purposes of this project it is important that the project aligns with the healthcare organization's mission and vision. A summary of the relevant literature and frameworks utilized will be provided to the interdisciplinary team. To facilitate IRB approval, data that is not part of the literature review would not be considered during interdisciplinary team meetings.

The Logic Model will be used to guide the project development. This model is beneficial in that it provides guidance on policy making, planning and evaluation process (Kettner, Moroney & Martin, 2013). This model has been adapted by the World Health Organization (WHO) to address the problem of provider shortages in rural and underserved areas. This model provides a validated process through which programs can be designed to address healthcare provider shortages in underserved areas, and secondly it provides an established process for monitoring and evaluation of outcomes for programs (Huicho, Dieleman, Campbell, Codjia, Balabanova, Dussalut & Dolea, 2010). Figure 3 provides an illustration of the model.

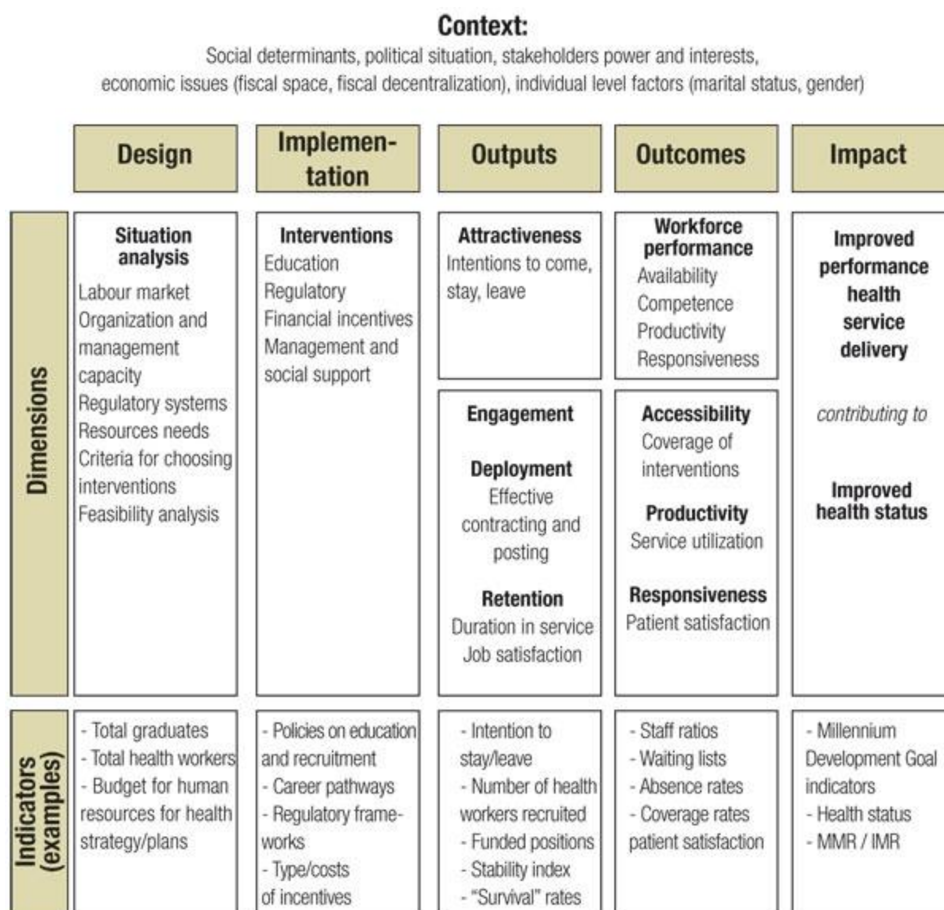

Figure 3. Logic Model. From "Increasing Access to Health Workers in Underserved Areas: A Conceptual Framework for Measuring Results," by L. Huicho, M. Dieleman, J. Campbell, L. Codija, D. Balabanova, G. Dussault, C, Dolea, 2010, Bulletin World Health Organization, 88, p. 358. Reprinted with permission.

Ethical Considerations

Institutional Review Board approval for this project will be sought from Walden University's IRB Office. Permission to use Theoretical Framework models "From Limbo to Legitimacy" "Logic Model", and "Misener Job Satisfaction Scale" will also be obtained and acquired. This project does not involve participants and there is not collection of data required. Consent is not relevant for the purposes of this project and so is data analysis. The implementation and evaluation of the project will take place at a later date once project has been completed.

Products of the DNP Project

Residency Program and Curriculum Modules.

This project will focus on creating a residency program for the NP to facilitate role transition in the CAH. The desired product for this project will be the actual program and educational modules. This program will be designed to align with the structure and outline from ANCC's *Practice Transition Accreditation Program* (ANCC, 2014b). A search of the literature identified NP residency programs. However, many of these focused on specialized areas such as cardiology, urology, palliative care, but none specifically addressing rural healthcare or CAHs.

A review of established and functioning NP residency programs will be conducted so as to design this program. Existing programs provide a good frame of reference to understand and built a new program as elements can be replicated (Cappel, Hoak & Karo, 2013; Nelson, 2013). Other resources that will be consulted include ANCC program guidelines (ANCC, 2014b; ENA, 2008).

This program will be developed to align with the healthcare organization's mission and vision statement, accreditation requirements, and NP competencies. Attendance at an upcoming NP Educational Conference will provide author the opportunity to explore subject further with NP educational leaders

Using the national certification standards for ENAs, " *Competencies for Nurse Practitioners in Emergency Care",* the curriculum will be designed to reflect the 60 competency areas for new graduate ENPs (ENA, 2008). Additional areas of competencies included were critical thinking, collaboration, management and evidence-based practice (ANCC, 2014b). A total of seven modules will be developed.

Content validation. Subject matter experts will be sought to serve as validators of this project. Review will be obtained from current directors of established NP residency programs.

Implementation Plan

A timeline for project implementation will be established in consultation with the interdisciplinary team and will commence once the program has been developed. A tentative plan will be developed as used as the working tool for this project. Utilization of the Logic Model will allow for this project to be tailored to timeline established (Huichio et al., 2010).

Inputs for this project include NP providers. Recognition of labor and market forces, and an understanding of the great demand but scare and supply for primary care providers in rural areas resulted in the executive leadership's decision to increase investment in this project and length the duration of the program so that it is beneficial to both the NP and the organization and achieves the desired aims.

Resources to support this project are readily available by the host organization and senior leadership has expressed support for author to utilize available resources. These include computer lab, simulation lab, medical library database, and funding from the Staff development budget.

Implementation can be defined as the use of inputs to achieve objectives (Kettner, 2013). The residency program is the intervention for implementation. Deliverables include the educational modules and curriculum.

Potential outputs for this project include increase recruitment, competitive salary, supportive environment, decrease burnout, increase job satisfaction, and decrease stress. This project has a great impact on addressing these issues (Sawatzky & Enns, 2012).

The last phase of the Logic model is that of addressing outcomes and impact of the project which is usually included during the evaluation phase of a project. However, it is critical these measures be identified early on in the planning phase so data is collected throughout the project that will be used for evaluation (CDC, 2011). Program objectives will be framed using the SMART criteria (specific, measurable, attainable, relevant, and timely) (Kettner, 2013). Measurement tools will also be included. Evaluation of this project will be discussed under the evaluation section.

Following multiple discussion, the interdisciplinary team decided on 3 year implementation plan. This timeline would allow for essentials elements to be put in place to ensure success of the program as well as allow the organization flexibility to adapt and adopt many of the elements that will facilitate change. Organizational elements that would need to be put in place prior to program implementation include amongst others, hiring of a staff educator, converting the modules into digital format, hiring a program director, developing a pool of mentors and preceptors. Once these issues have been put in place implementation will begin and the second year would focus on pilot-testing the program so that changes and or revisions can be made to refine and develop the program during the third year of implementation.

Implementation includes budgetary planning. External funding sources will be explored and potential stakeholder groups have been identified for purposes of seeking grant funding. Internal funding sources include funds from the Staff-Education development which is part of the organizational operation budget with a line item for education and professional development programs. This will have to be explored and utilized in addition to any external funding that is available. Another potential source of funding is through Graduate Medical Education (GME)

programs for which a percentage s specifically dedicated to rural and CAHs (Flinter, 2010; Trepanier, Early, Ulrich, Cherry, 2012; IOM, 2010).

Expenditures were another item in budgetary planning and discussion. Infrastructure and equipment was readily available and owned by the organization as such would not incur any additional expenses. Infrastructure included a simulation lab, video and audio equipment, computer and digital services, library facilities. Expenditures including NP salary with additional incentives so as to recruit and retain interested providers, salary for the program director, fees and costs associated with accreditation of the program, stipend for mentors and preceptors, and operational costs such as cost and usage of equipments were also included in the planning.

The project will also include addressing return on investment. Assessment will be based on cost of resources, cost of operations, and revenue generation of the program (Schifalacqua, Mamula & Mason, 2011). The literature provides evidence supporting the cost-benefit of instituting an NP residency program as opposed to utilizing contract staff (Trepanier, Early, Ulrich & Cherry, 2012). This is particularly important in areas experiencing provider shortages such as rural communities where the use of contract labor is significantly high (Marsh et al., 2012). Marsh et al (2012) reveal that contract physicians cost the organization about $800,000 a year compared to hiring an NP which is about $400,000 a year thus making a business case in support for NPS. Additionally, the use of physicians in rural communities is 5% less (Marsh et al, 2012). Further details on budget will be addressed in Section 4

Evaluation Plan

Evaluation was based on measuring the effectiveness of the residency program that would lead to an increase in NP retention. A survey tool was developed to use in collection of data for evaluation purposes. The framework that guided the design of this tool was Patricia

Benner's Skills Acquisition model. Areas of focus for program evaluation included: the need for change in preceptor preparation, linking problem with intervention and outcomes, synthesizing best practices and translating them into program design, integration and maintenance of program changes.

Another area of evaluation is that of job satisfaction. The literature reveals that job satisfaction is an important and essential factor for NPs which directly correlated to retention (DeMilt, Fitzpatrick & McNulty, 2010; Hill, 2011, Kacel, Miller & Norris, 2005). The Misener NP Job Satisfaction tool was selected for this purpose (Misener & Cox, 2001). Designed in the format of a Likert scale, this tool measures satisfaction in six areas namely; 1. Partnership, 2. Autonomy, 3. Professional interaction, 4. Growth, 5. Time, 6. Benefits. This tool has previously been validated for reliability and validity (Misener & Cox, 2001).

Evaluation will also be conducted on a long-term basis. In collaboration with Human Resources department, employment data will be analyzed before and after program implementation to obtain retention data. This data will be made available to stakeholders. See Section 4

Scholarly Paper

The development of a scholarly paper is another product of this project. The target audience for this paper was NPs and the purpose was for presentation at a seminar. This paper addressed the following areas; 1. Problem, 2. Purpose, 3. Goals, 4. Significance, 5. Literature review, 6. Theoretical framework, 7. Methodology, 8. Interdisciplinary team, 9. Implementation and evaluation. See Section 5.

Summary

Section 3 discussed the development, implementation and evaluation and data collection for this project. The model utilized for planning, design, implementation and evaluation of this project is the Logic model. Structure and format issues for development of this program were based on guidelines from established programs and accreditation standards. Formal IRB approval will be sought prior to development of the educational modules before implementation can begin.

Section 4: Findings, Discussion, and Implications

This project focused on developing an NP residency program so as to impact the provision of quality healthcare by the NP. Specific problems that this project aimed to address included high turnover rate among NP, job stress and dissatisfaction, lack of adequate skills and competency. This section addresses the implications of the project, limitations and author self analysis.

Discussion of Project Product

Residency Program

This program was established to reflect similarly existing and established programs. The structure included both classroom and clinical components with faculty and preceptors for identified components. Since this program was developed to address CAH's, curriculum modules mirrored elements from ENP competencies. Outcomes reflected professional accreditation standards (Appendix A).

Curriculum Modules

Educational modules were based on national standards and aligned with objectives from Emergency Nurses Association competencies for NPs (ENA, 2008). Objectives were also aligned with American Nurses Credentialing Center Transition to Practice Program (ANCC, 2014). A total of seven educational modules were developed with each corresponding to an individual body system and a learning objective. (Appendix B).

Implementation Plan

The implementation of this project was a secondary outcome of this project. Recognizing the high turnover rate for NP's, priority was given to focus on specifically on NP's in the ED

setting. This project was developed as a pilot program with plans to extend to other CAHs based on success.

At this point, implementation included developing lecture notes, obtaining lecturers for the different areas, convert the materials into digital formats, hire a program director, and begin the accreditation process . A three-year implementation plan was agreed as feasible to achieve all of the above. The program director will be responsible for the operationalization of the program including program feasibility and sustenance. Program will also provide certification such as ACLS, PALS, simulation, SANE, ultrasound. Continuing education credit would be sought for the educational offerings. Administrative help would also be required to support the functioning of the program in areas such as documentation, budgetary, compliance, and regulatory requirements.

The implementation site for this project is the facility where this author is employed. Program implementation will commence only after curriculum has been developed and associated costs secured and obtained. Serving as the project facilitator, many of the components of this project were developed by this author which reduced required cost to the organization and facilitated the process for the program director. Seasoned NP's and physicians have been recruited to serve as mentors and preceptors for those beginning the program. To address specialty areas, learning opportunities will be provided through simulation lab and memorandum of understandings with other facilities. The lessons learned from this pilot implementation will enable program leadership to revise and make amendments to the program as necessary to fit the needs of the program.

Efforts to expand this program will include address financial and logistical issues. The curriculum will need to be presented in a format that maintains the learning objectives and goals

of the program. To address conflict in work schedules, materials might have to be made available via distance education so as to accommodate different schedules. Leadership and relevant stakeholders all agreed that during the first year of expansion, the program will be offered at 2 sites given limitations of finances and the need to provide simulation lab for training purposes. (Implementation Plan Appendix C)

Evaluation Plan

Evaluation was based on measuring the effectiveness of the residency program that would lead to an increase in NP retention. A survey tool was developed to use in collection of data for evaluation purposes. The framework that guided the design of this tool was Patricia Benner's Skills Acquisition model. Areas of focus for program evaluation included: the need for change in preceptor preparation, linking problem with intervention and outcomes, synthesizing best practices and translating them into program design, integration and maintenance of program changes.

Evaluation by preceptors was developed in alignment with the program. Monitoring of clinical outcomes was documented through the use of clinical dashboard focusing on specific NP metrics. Job satisfaction scores were monitored using Misener Job Satisfactions scale (Appendix D). Documentary evidence will be maintained by program director to include statistics on NP obtaining specialty certification, employment tenure and performance scores. Appendix D provides an outline of the evaluation plan.

Implications

The *Essentials of Doctoral Education for Advance Practice* (ANCC, 2006) advocates for translation of evidence into practice. The DNP learner view practice problems as opportunities to address and improve these gaps. One specific criteria is Essential # 2 which focuses on systems

leadership for the purposes of quality improvement. This project aligns with this criteria by providing an opportunity for the learner to address and improve an identify area of deficit.

The DNP learner through this project was able to translate evidence into practice. Recognition of identified problems such as role stress, high NP turnover, recruitment and retention challenges provided an excellent opportunity for problems to be linked with solutions. Support for establishment of NP residency programs is widely available in the literature and organizational and structure issues have been developed by national accreditation bodies to provide and format and structure for such. Development of this program was in collaboration with relevant stakeholders. The implementation was organized over 3 phases to include educational modules development, pilot implementation and expansion to other sites.

Policy

Nursing policy advocates for the establishment of NP residency programs. The IOM's *Future of Nursing* report (IOM, 2010) recognized the barriers and challenges NP face and recommends establishment of NP residency programs as a means to address these barriers. It is noteworthy to mention that even though many nursing bodies and organizations advocate for the need for residency programs, the NP Roundtable does not hold this same view citing a lack of outcome (NP Roundtable, 2014). Several NP organizations do not share this view and disagree with the NP Roundtable. It is interesting to note that regardless of the great need for NP's to address healthcare access challenges, scope of practice issues for the NP has been tethered over time and collaborative practices have been implemented before independent practice for the NP can be obtained. By establishing a 12 month residency program, this provides a better and feasible solution where new NPs can be supported as they become familiarized with their roles

and competencies. This project being new to the organization required board support and approval especially for financial reasons.

Practice

The healthcare industry is complicated and increasingly specialized. This means that educational institutions are facing greater challenges in providing quality education that is evidence-based and reflects clinical competencies. Realization of the challenges and barriers that NP's face, the burden is now being carried by healthcare organizations who are tasked with recruiting and retaining qualified NP's and providing them with the skills and knowledge that are not presently being met by traditional NP education programs. Given the projected shortage of primary care physicians, the need for qualified and competent NPs will only grow and be a valuable alternative that is cost effective and accessible. The existing gaps between practice and education can be addressed through an NP transition-to-practice program where patient quality and safety is impacted as well as job satisfaction and retention can also be increased.

Research

The available literature supports the need for NP residency programs (Flinter, 2012). These programs provide an opportunity for novice and new graduate NP's to be groomed and gained required skills and knowledge from seasoned practitioners. The fact that many of these programs are still in their early stages, provides justification for the need for outcome data to be collected. Such data will provide much needed evidence supporting its value for stakeholders, policy makers and the wider professional audience.

Social Change

One of the healthcare disparities identified in the Healthy People 2020 is that of the gaps between urban and rural communities (Healthy People, n.d.). This presents an ideal opportunity

to affect social change. The shortage of primary care physicians in rural settings presents both a challenge and an opportunity for the NP. A challenge in the sense that the NP has to practice at their fullest scope autonomously, and an opportunity in the sense that they take on the role of physicians. The establishment of a 12 month NP transition-to-practice program provides a mechanism for these two areas to be addressed; the educational preparation of the NP can be addressed in a structured and organized approach while giving sufficient time for the NP to become comfortable in their new role. This program can then serve as a model for replication.

Strengths and Limitations of the Project

This project included several areas of strength. An exhaustive review of the literature highlights the unique nature of rural health and the existing opportunities for NPS to fill gaps in practice. A second strength of this project is the theoretical framework utilized which provide context toward understanding of this topic. A third strength is the fact that the educational modules are based on national accreditation standards providing consistency and standardization. Finally, implementation of the project follows a logical and sequential approach from planning, development, pilot testing, to evaluation that utilized reliable and valid tools.

Limitations of this project include the fact that implementation and evaluation will only be conducted after project completion. Another limitation is the fact that this project addressed NP in CAHs as such, is limited as far as applicability to other settings where variables are dissimilar.

Recommendation for this project include development of the educational modules, program implementation, and program expansion. Evaluation will only become possible with collection of data once project has been initiated. Another recommendation might also include

consulting opportunities with higher learning organizations to develop similar programs specific to the needs of rural NP's.

Analysis of Self

My doctoral educational journey has given me new levels of growth and professional development. The courses have developed my ability to think and analysis information using an Open Systems framework. My ability to critique, analysis and integrate information has also greatly improved. The process of developing this project has made me an expert on this subject area. I have been able to utilize my years of experience in nursing to integrate knowledge and translate evidence into practice. Obtainment of the DNP credential will open a new "set of doors" to my career and professional development enabling me to achieve greater career opportunities and make a greater impact on the profession.

Summary

This project focused on development of a residency program for the NP working in the ED in a CAH. An exhaustive literature review was conducted to explore this subject area and theoretical models were discussed to provide context to this topic. The aim of this project was to address many of the challenges and barriers that NP face that impact the delivery of safe, and quality patient care. Implementation and evaluation plans have been developed and will continued as the project is launched.

Section 5: Scholarly Product

Abstract

Introduction: The shortage of primary care physicians has led to an increase in hospitals utilizing NP's to fill this need. However, the existing gaps in training and preparation for NP's causes increase in role strain, job dissatisfaction, and turnover.

Purpose or Goals: This project aimed to develop a transition-to-practice program for new nurse practitioners in the acute care setting.

Approach: This project utilized an interdisciplinary approach in developing the transition-to-practice program. Multiple stakeholders from the various disciplines and agencies were consulted in development of the educational modules for this project. A framework for implementation and evaluation was also provided.

Results: Various tools were utilized to measure outcomes which included management dashboards, Misener Job Satisfaction Scale, HR retention and turnover data.

Implications for Practice: Responsibility for ensuring adequacy of training and competency for the new NP is an obligation for healthcare institutions. Through partnerships, hospitals can collaborate with educational institutions to develop and design mechanisms for such programs.

Bridging the Gap Between Education and Practice:

The existing shortage of primary care physicians is a growing concern in the U.S given that many new physicians choose specialty areas other than primary care. This problem is especially evident in rural and community areas where it is not uncommon for physicians to be nonexistent (AAFP, 2014). Over the last 20-30 years, there has been a greater utilization of NPs

to fill this gap. However, NPs are not trained to provide acute care services. Factors that account for the greater utilization of NP's in the acute care setting include healthcare reform, and changes in residency requirements (Rosenthal & Guerrasio, 2010). This paper discusses the rural healthcare environment, scope and practice for the NP, review of the literature on this subject, and provides a model for a residency program for NPs. This paper concludes with implications for practice.

Rural Healthcare Challenges

Data from the U.S Census Bureau (2012) reveals demographic changes and trends that affect rural areas. These include a declining population (19% in 2012 compared to 21% in 2002), more resident over age 65 (17% in rural areas as compared 13% in urban areas). Residents living in rural areas are considered vulnerable due to their socioeconomic disadvantages in areas of health, income, resources, and infrastructure (Choi, 2012). Other socioeconomic disparity affecting rural residents include higher poverty rates (18.4% compared to 15.5 in urban areas), poorer health outcomes (19.5 rural compared to 15.6% urban), and increase in prevalence of chronic conditions such as obesity, diabetes, heart disease, substance abuse (Choi, 2012). Rural communities also experience disproportionate higher death rates from injury and motor vehicle accidents (60% rural, 48% urban) (NRHA, 2012). Only 24% of rural residents can reach a trauma center within a hour as compared to 85% of the general population thus increasing their incidence of death from injury (NCSL, 2013).

Access to healthcare in rural communities is affected by the availability of providers. Data reveals that primary healthcare providers make up 15% nationally, however, in rural areas, this is only 10% thus leading to disproportionate workloads (AAFP, 2014). Furthermore, with an increase in the aging workforce many providers are reaching retirement age and there are fewer

providers interested in going into primary care (Fordyce, Skillman & Doescher, 2013). Data from medical school graduates reveal a decline in number of physicians selecting primary care from 45% in 2001 to 38.9% in 2014 (NRMP, 2014). Presently, there exists 6,100 health professional shortage areas in the U.S with more than 57% of these areas in rural communities (NHSC, 2014).

Implementation of the Affordable Care Act (ACA) expands healthcare coverage to an additional 32 million Americans (7.8 million in rural areas) (NARHHS, 20124) thus placing additional burdens on rural communities who are already facing primary care physician shortages thus further increasing the burden on healthcare institutions that serve rural areas (Healthy People, 2014).

Nurse Practitioner Role and Scope of Practice

The role of the NP was initially developed as a response to limited primary healthcare providers in rural areas. Following the success of the fist NP program created by Dr. Ford and Dr. Silverman (a nurse-physician team) at the University of Colorado, NP programs grew exponentially. From 63 programs in 1973, there are now 350 programs that prepare NPs to address healthcare needs of all age groups and to practice in various healthcare settings (AANP, 2014).

The passage of the Rural Health Clinic Act in 1977 enabled NPs to serve in rural communities as well as be reimbursed for their services (Marsh, Diers & Jenkins, 2012). This act also provided additional incentives for healthcare organizations that employed NPs to work in rural communities. Compared to Physician Assistants (PAs), a higher percentage of NPs work in primary care (50% NPs, 33%PAs). The NP model of care was determined to be successful in rural clinics that it was replicated in rural hospital settings.

In 1997, passage of the Balanced Budget Act established the Medicare Rural Hospital Flexibility program. This program enabled participating hospitals to allow NPs to provide services without the presence of an onsite physician (Marsh et al., 2012; AHA, n.d.). The evidence suggests that use of NPs without the presence of onsite physician does not impact the quality of care or the financial viability of the institution (Marsh et al., 2012).

Almost 50 years following establishment of the NP role, the available research has been consistent in its findings of positive outcomes from care delivered by NPs. A systemic review of more than 26 studies by Newhouse (2011), reveals evidence of safe, effective and quality care at the same level as provided by physicians. Multiple studies have not found any differences in quality or safety of care between NPs and physicians (AANP, 2014). In recognition and acknowledgement of this body of evidence, many states responded by expanding NP scope of practice.

It is noteworthy to mention that NP scope of practice (SOP) differs by jurisdiction. Each state varies widely with laws that range from independent and autonomous practice, to restricted practice that requires physician supervision. Presently only 20 states allow autonomous practice, 18 states have reduced practice and 12 states with restricted practice (AANP, 2014).

An important trend currently being implementing in several states is that of tethering NP and physician collaboration before granting the NP autonomous practice. In Connecticut, legislation was passed that requires 3 years and 2000 hours of collaboration prior to granting autonomous practice (CAPRNS, 2014). In the state of New York, collaboration is required for 3600 hours (Modern Healthcare, 2014), while in Minnesota it requires 2080 hours (MBN, 2014). These trends recognize the need for and importance of education and collaboration for the new NP beyond their educational preparation.

Postgraduate Education Needs

The traditional NP educational program focuses on preparing the NP for entry level roles. However, given the shortage of primary care physicians, many organizations are hiring entry level NPs into advanced roles. NPs are expected to function as "expert generalist" and required to assume full provider roles in providing care for all types of acuity, age groups, and disciplines (Bushy, 2006, Hurme, 2007; Molanari, Jaiswal & Forest., 2011). Entry level NPs have limited experience in the acute care setting and this is especially significant in rural areas where the NP is required to practice autonomously across multiple disciplines often without physician supervision (Hume, 2007).

The NP role was established to address patient access to care. However, concerns about safety are also valid. A transition-to-practice program for the NP can address both areas. In their study, Benner (2009), highlights the limitations of nursing educational programs and recommends initiatives for the NPs to improve clinical skills and gain additional competencies. Benner (2009) acknowledges that many entry level NPs are not adequately prepared to assume independent practice as this cannot fully be achieved in the educational environment. Benner (2009) advocates for much longer and structured program to support the entry level NP.

Review of Literature.

The advanced education and expanded scope of practice requires the NP to function at a higher level and with much responsibility than the RN. The entry level NP has to transition into this new role. As such, the lack of, or unstructured transition program increases the likelihood of job dissatisfaction, and stress for the NP (Wallace, 2012, Yaeger, 2010; Bahouth & Esposito-

Herr, 2009; Cusson & Strange, 2008). Entry level NPs have to balance the challenges of providing safe and effective care, while also filling in knowledge gaps. In their 2009 study that evaluated transition-to-practice programs , Bahouth & Esposito-Heer surveyed 445 entry level NPs and reveal that that 6% of the NPs surveyed quit their jobs within 1 year, while 38% no longer function in that role. As healthcare become more complex, integration of transition-to-practice programs will also become more challenging (Yaeger, 2010).

Several suggestions have been proposed to address NP role transition. Orientation program were deemed not able to meet the needs of the NP as these tend to focus on more on administrative tasks than clinical competency. Additionally, few organizations, particularly those in rural areas do not provide NP specific orientation (Bahouth et al., 2009). Mentorship programs while beneficial, have limited impact in rural setting given the lack of physician preceptors and the isolated nature of rural communities (Chen & Meei-Fang, 20014).

Residency programs is an alternative that has been demonstrated to be successful. A glaring example is the residency program implemented by University Health System Consortium which has a 95.6% retention rate (AACN, 2015). Residencies have been demonstrated to be success across various healthcare disciplines. These programs have been shown to lead to less strain for the entry-level NP as they transition into their new role (Cusson & Strange, 2008; Flinter, 2012). The IOM's report *The Future of Nursing: Leading Change, Advancing Health* recommends a residency program for nurses transitioning into a new role or clinical area (IOM, 2010).

Theoretical Frameworks

From Limbo to Legitimacy

The Limbo to Legitimacy (FLL) theory provides a framework to understand NP role transition (Brown & Olschansky, 1996). This theory outlines identifies four separate phases that new NPs go through as they transition. First is the *Laying the Foundation* phase which comprises recovering from school and looking for a job. The second phase is *Launching* and happens with the first job. This is the phase where the NP faces job anxiety and learns time management and prioritization. The third phase is *Meeting the Challenge* and is where the NP acquires and improves on their clinical skills and competencies. The last phase is that of *Broadening the Perspective* deals with the NPs ability to understand the grater healthcare system and affirm them self as a competent provider.

Rural Emergency Nurse Practitioner Residency Program

Problem

A rural hospital in Maryland had recently converted to utilizing the CAH model. Within a few years of implementation of this model, the facility experienced significant turnovers in physicians and NPs (10 physicians, 16 NPs). Exit survey data revealed a common denominator being unrealistic job expectations.

Purpose

This project aimed to develop a residency program to support the entry level NP as they transition into their new role and allow them to gain the required knowledge, and clinical competency and reduce the stress experienced transition.

Project Design

This project utilized the Logic model in design and implementation. This model serves as a guide to the planning, evaluation and enabled project projects to be identified (Kettner, Moroney & Martin, 2013). This model has successfully been utilized to address healthcare

workforce shortages in underserved areas by the World Health Organization. Utilization of this model achieves two purposes; (1) it guides development of the initiative from inception to collection of results, to determination of effectiveness and efficiency; (2) it guides the monitoring of the project through focus on key indicators applicable to the specific context (Huicho, Dieleman, Campbell, Codjia, Balabanova, Dussalut & Dolea, 2010).

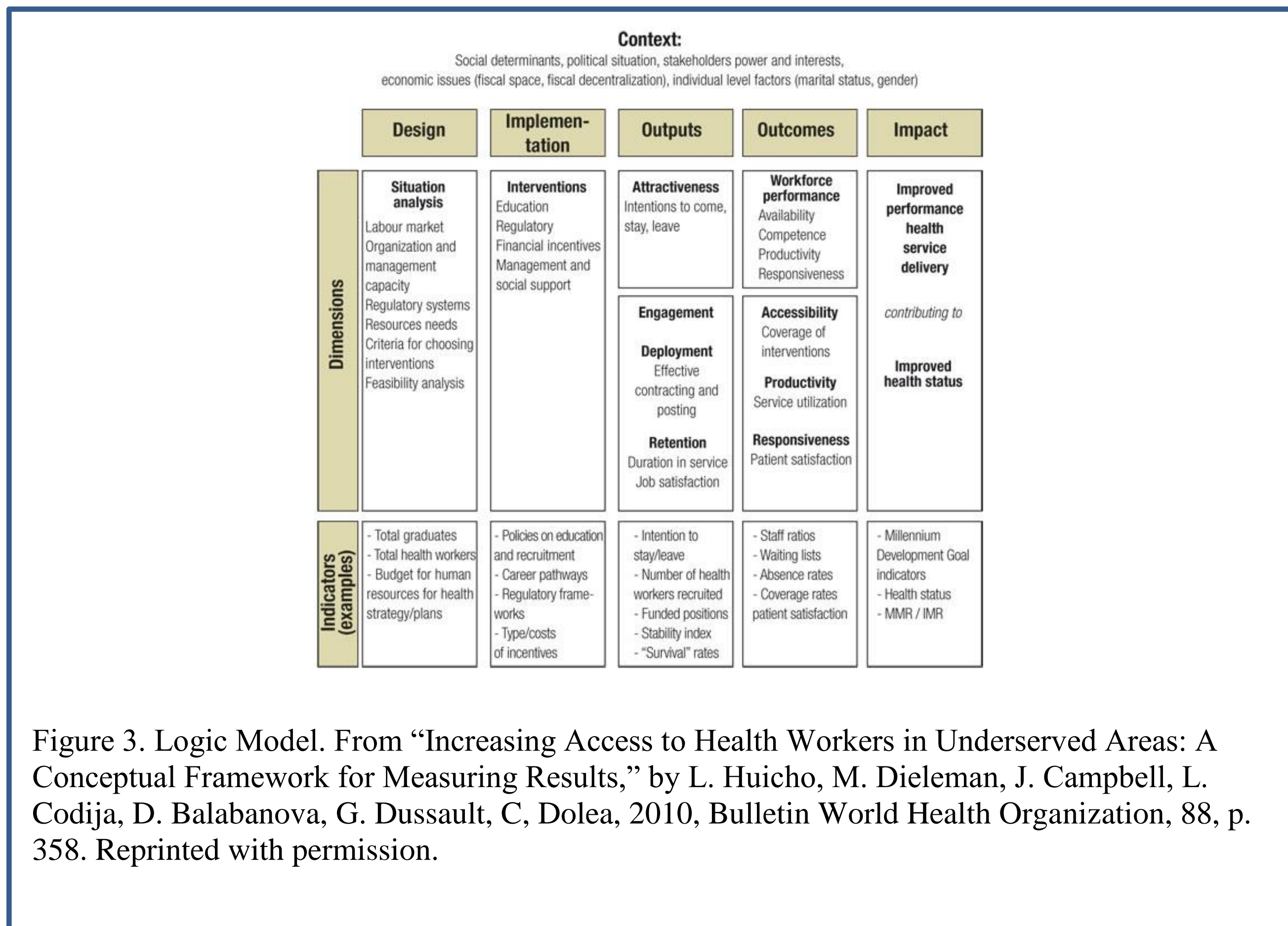

Figure 3. Logic Model. From "Increasing Access to Health Workers in Underserved Areas: A Conceptual Framework for Measuring Results," by L. Huicho, M. Dieleman, J. Campbell, L. Codija, D. Balabanova, G. Dussault, C, Dolea, 2010, Bulletin World Health Organization, 88, p. 358. Reprinted with permission.

Inputs for this project included assessment of resources. The rural community hospital was an excellent site for this project given the jurisdiction's favorable scope of practice regulations, a shortage of primary care physicians, and the institution's use of NP's in the clinical setting. This project was developed as a DNP capstone project to meet the requirements for the DNP degree.

This project gained approval and support from executive leadership of the host site and included collaboration from stakeholders.

This project developed a NP residency program for a CAH within the guidelines of the Practice Transition Accreditation Program (ANCC, 2014b). Curriculum modules were developed based on national competencies for acute care (EAN, 2008). Accreditation of the program residency program will be achieved following a 12 month implementation with documentary evidence on project design, project content, quality outcomes and credentials the program leadership.

Implementation of this project involved a establishing the program as a pilot program in one site with plans to expand to additional sites. Implementation was designed to occur over 3 years with each year as a separate phase. Phase 1 focuses on development of the program, hiring staff to oversee the program, and creating the necessary curriculum. Phase 2 begins the program implementation at the pilot site and collection of data as to program deliverables and outcomes. Phase 3 focuses on program expansion to multiple locations at other CAH.

Evaluation of this project focused on patient outcome criteria that reflects quality of care and patient outcomes. Clinical dashboard measures that were evaluated included length of time between patient arrival and diagnosis, admission to discharge time, patient length of stay for inpatient admission (Casey, Moscovice, Klingner, Prasad, 2012). Job satisfaction criteria was also evaluated as research indicates that higher job satisfaction levels reduces the likelihood for NPs to quit (DeMilt, Fitzpatrick & McNulty, 2010; Hill, 2011). The tool used for this evaluation was the Misener NP Job Satisfaction Scale (Misener & Cox, 2001). Employment data will be obtained from the HR department which will provide the basis for conducting a pre and post program analysis.

Conclusion and Implications

Practice

The need for evidence to be translated into the practice become even more critical especially as healthcare complexity increases. In this present healthcare environment characterized by reform, there is a greater need for collaborative partnerships to address emerging issues and challenges. Doctoral educated nurses are able to make a contribution in this area by translating evidence into practice.

Education

There are currently only seven nursing programs that offer NP specialization in acute care (ENA, 2014). This means that there is much opportunity for educational institutions to expand their program offerings. Collaboration between institutions of higher education and healthcare organizations is imperative to addressing this issue through the development of formal structured programs that integrate didactic and practicum aspects.

Research

Several research gaps are highlighted from this project. First is that of the challenges faced by entry level NPs within the first year of practice. Second is the confusion with the terms fellowship and residency when used interchangeably. Third, is the conflicting positions among nursing organizations with regards to postgraduate education for the NP. A joint statement released by the NP Rountable (2014), while acknowledging the competency of NPs at the entry level practitioners, also acknowledged the lack of and need for data to support postgraduate education for the NP. This project produces this required data.

Conclusion

This paper describes an NP residency program developed for implementation in author's practice setting. It discussed challenges of rural health nursing, scope and practice for the NP, a review of the literature, and a theoretical framework to guide development of the program. Establishment of NP residency programs is gaining increased attention and becoming more available in healthcare settings. What is needed now is dissemination of program outcome data.

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Appendices

Appendix A. Residency Program

Program Overview

Rural communities 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 Northeast (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 Maryland 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 Baltimore, MD.

Program Eligibility:

- Master’s degree or higher from an accredited nursing program
- National certification as a Family Nurse Practitioner
- RN and APRN license in Maryland.
- 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- TBA

Program Leadership- TBA

Ann Bolima, DNP-c, RN-BC, Interim Director

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-

Anna Bolima, DNP-c, RN-BC
(license, educational background, academic preparation, adult learning theory expertise)

ER physician
(license, educational background, academic preparation, adult learning theory expertise)

Simulation Center Staff-
(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 June 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 (ANCC, 2014). Competencies are further aligned with the learning objectives from the Emergency Nurses Association's (ENA) Competencies for Nurse Practitioners in Emergency Care (ENA, 2008). 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 the ANCC 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 F).

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 Article- 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 Article- 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 4- 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 5- 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 6- 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 Article- TBA

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

Module 7- 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 Article- 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 8- 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 Article- TBA

Clinical Focus: CPAP versus Bi-pap,
Rapid Sequential Intubation
Chest tube
Specialty rotation- Anesthesia or Sim lab

Videos
CPAP vs. BIPAP-

Module 9- 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 Article- 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 10- 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 Article- 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 11- 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 12- 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 13- 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 14- 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.

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)
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 15- 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 Article- TBA

Clinical Focus—Pediatric issues

Module 16- 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 17- 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
Pneumo 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
- 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

The following outcomes will be expected of NP's completing the 6 month Residency

Program:

- NPs completing the 6 month residency program will be able to take ER call in CAH independently, with resources available by phone.
- Quality Management CAH Dashboard metrics: The NP expected will be expected to a) collect data b) analyze data to improve patient outcome
- Job Satisfaction- Misener Nurse Practitioner Job Satisfaction Scale: NPs who complete the residency program will report increase job satisfaction and have decrease rate of job employee turnover (Appendix F)
- NPs completing the CAH residency program will collectively demonstrate higher satisfaction after an additional six months of independent practice when compared to NPs who did not complete the residency at a similar timeframe.

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): NPs will demonstrate competency in the listed skills.
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

Phase III: Expanded Residency Implementation

1. Resident skills check-off: NPs will demonstrate competency in the listed skill set.
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-

- Stable workforce

Nurse Residency Evaluation Survey

I. Evaluation of Offerings: (**1** = Strongly Disagree, **2** = Disagree, **3** = Agree, **4** = Strongly Agree)

Topic #1 by Presenter #1				
The presentation gave me good and useful information.	1	2	3	4
The presenter was a good teacher with good teaching materials.	1	2	3	4
I can (objective) as a result of participating in this presentation.	1	2	3	4
Topic #2 by Presenter #2				
The presenter was a good teacher with good teaching materials.	1	2	3	4
The presentation gave me good and useful information.	1	2	3	4
I can (objective) as a result of participating in this presentation.	1	2	3	4
Topic #3 by Presenter #3				
The presenter was a good teacher with good teaching materials.	1	2	3	4
The presentation gave me good and useful information.	1	2	3	4
I can (objective) as a result of participating in this presentation.	1	2	3	4
Topic #4 by Presenter #4				
The presenter was a good teacher with good teaching materials.	1	2	3	4
The presentation gave me good and useful information.	1	2	3	4
I can (objective) as a result of participating in this presentation.	1	2	3	4
Topic #5 by Presenter #5				
The presenter was a good teacher with good teaching materials.	1	2	3	4
The presentation gave me good and useful information.	1	2	3	4
I can (objective) as a result of participating in this presentation.	1	2	3	4

The workshop environment made it easy to learn.	1	2	3	4
There was sufficient time for breaks and other diversions.	1	2	3	4
I would recommend this to other new graduate nurses.	1	2	3	4

II. Content Evaluation

What did you like best about this program?

____

____

What did you like least about this program?

____

____

What are the two most important things you learned today?

____

____

Name two things you learned today that you will use on your next shift.

____

____

How would you improve this workshop?

____

____

What would you like to discuss in future sessions of the nurse residency program?

____

____

Any other comments?

____

____

Thanks for taking the time to fill this out. Your comments are greatly appreciated!

Source: Nurse Residency Program Builder: Tools for a Successful New Graduate Program *by Jim Hansen, MSN, RN-BC. To find out more about the book or to order a copy, visit*
http://www.hcmarketplace.com/prod-9202/Nurse-Residency-Program-Builder.html

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.			
Competency	Observation	Supervised/ Emerging Competence	Independent/ Competent
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.			
Competency	Observation	Supervised/ Emerging Competence	Independent/ Competent
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			
Competency	Observation	Supervised/ Emerging Competence	Independent/ Competent
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.			

Competency	Observation	Supervised/ Emerging Competence	Independent/ Competent
49. Performs sexual assault examiniation.			
50. Performs digital nerve block.			
51. Reduces fractures of small bones (fingers-toes)			
Competency	Observation	Supervised/ Emerging Competence	Independent/ Competent
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			
Competency	Observation	Supervised/ Emerging Competence	Independent/ Competent
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?

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

		V.S.	**S.**	**MS.**	**M.D.**	**D.V.**	**D.**
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 allotted for answering messages	6	5	4	3	2	1
5.	Time allotted for review of test results	6	5	4	3	2	1
6.	Your immediate supervisor	6	5	4	3	2	1
7.	Percentage time spent in patient care	6	5	4	3	2	1
8.	Time allocation 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
13.	Sense of accomplishment	6	5	4	3	2	1

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

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

		V.S.	S.	M.S.	M.D.	D.	V.D.
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 professional committees	6	5	4	3	2	1
21.	Amount of involvement in research	6	5	4	3	2	1
22.	Opportunity to expand your practice	6	5	4	3	2	1
23.	Interaction with other NPs (faculty)	6	5	4	3	2	1
24.	Consideration for 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
29.	Opportunities to seek advanced ed.	6	5	4	3	2	1

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

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

		V.S.	**S.**	**M.S.**	**M.D.**	**D.**	**V.D.**
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 Normal duties	6	5	4	3	2	1
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

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Appendix E. Curriculum Vitae

Anna N. Bolima, RN, BSc, MSN

14408 Burslem Terr

Burtonsville, MD 20866
Tel: 301 847 0935 (H) 301 793 3797 (cell)
E-mail annabolima@yahoo.com

Professional Goal
To provide high quality nursing services and engage in evidence based research in a challenging clinical setting.

Education

- MSN Clinical System Management Excelsior College 2010
- Registered Nurse Board Certification 2005.
- VMT Washington DC LPN 2000
- B.Sc. Chemistry University of Illorin, Nigeria 1995

Professional Experiences

2005- Present Clinical Nurse Level III Washington Hospital Center

- Perform role as main preceptor in the medical surgical unit in charge of training new nurse on policies and procedure.
- As a super user in the new EMR was in charge of training staff on the new patient care landscape.
- Work with developing staff of patches for glitches that arose from the use of the EMR
- Supervise the third shift of the unit and succeeded in cutting patient complaints by half in the last six months.
- Prepare orientation packages for temporary personnel assigned to the unit and coordinate this with other units
- Main liaison with the IT department in trouble shooting software and sometimes hardware issues in the unit.
- Assess and complete patient's admission procedures
- Prepare patients for invasive and non invasive procedure and take care of same on return to unit.
- Administer prescribed medication while watching out for counter indications with other medications

- Advice supervisors on patients that need further follow up care.
- Educate and work with family members how to supplement and continue patient care at home.
- Prepare and manage and supervise tasks for other departmental staff.

Jan 2000 – 2006

Charge Nurse Holy Cross Rehabilitation and Nursing Center, Burtonsville MD

- Coordinate, supervise and manage the daily activities of a team of ten
- Prepare paper work for the admission, transfer or discharge of patients
- Ensure that patients receive the right medication at the right and at the right dosage
- Maintain open communication lines between patients' relations and management with the goal of optimizing patient care.
- Effectively manage a unit with a patient load of twenty five.
- Prepare annual evaluation of members of my team
- Prepare, set and implement performance goals for team members
- Widely accepted as the main person to train/oriented new nurses to the facility.

2004- 2005

Clinical Nurse Maxim Health Care Agency Silver Spring MD

- Work independently assessing patients and with management to customize the evaluation of patient care to the facility.
- Efficiently manage patient's recuperation or rehabilitation through timely mixing of medication administration and seeking support from family members.
- Ensure that patient condition does not worsen and seek physician's intervention if the healing process stagnates or regresses.
- Document all aspects of patients care for the duration of the shift with complete and detailed charting.
- Keep colleagues and administrative office abreast with any changes in either patient condition or relevant family discussion to ensure continuity of care.
- Enhance and facilitate communication among client, physician and family members
- Maintain inventory of medication and administer same as directed by physician

Licensure and Certifications

2010 Graduated with a MSN in Clinical system Management

2005 Registered Nurse Maryland, District of Columbia and the Commonwealth of Virginia

2010 Certificate of completion of two day training in Case Management in New Jersey

Research:

2006 in partnership with the minority project in Silver Spring MD investigated the impact of African customs on the propagation of HIV in Washington DC.

1995 Investigated the correlation between bacteria and the yield of cassava in Ilorin Nigeria as part requirements for BSc in Chemistry.

Volunteer activity

Organized a health fair in Silver Spring Presbyterian Church where congregants were screened for diabetes, High blood pressure and arthritis

Continuing Education

Advanced training in treating behavioral patients

Two day training in IV therapy

Certificate in Case management