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Walden University

College of Health Sciences

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Gregory Rys

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
2015

Abstract

Nurse Practitioner Residency Programs: An Educational Journey

by

Gregory P. Rys

MS, The Sage Colleges 2001

BS, Siena College 1993

Project Submitted in Partial Fulfilment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

February 2016

Abstract

Primary care is in a state of crisis due to the lack of clinicians and increasing numbers of insured patients. Encouraging more students to go directly through school for their doctor of nursing practice degree and nurse practitioner (NP) certifications is one proposal to alleviate this crisis. However, this approach would deliver graduates with minimal leadership and clinical experiences directly into practice. One resolution to mitigate this concern would be an NP residency program. Evaluating the knowledge and attitudes of stakeholders prior to the implementation of a NP residency program is an important first step to this implementation plan. The purpose of this project was to assess the knowledge and attitudes about NP residency programs of 2 stake holders: administrators and NPs at a rural upstate New York health care system, Bassett Healthcare, and to compare responses of those fiscally with those clinically oriented. Using literature less than 6 years old about NP residencies, a 28-question survey tool was created to assess knowledge and attitudes of NP residency programs. Content validity was established by 6 hand-selected NPs and administrators who had expert knowledge of residency programs. Once validity was established, the tool was distributed to a convenience sample of NPs and administrators at Bassett Healthcare Network via e-mail. The sample included 20 administrators and 44 NPs. A Mann-Whitney U test revealed no statistical differences between the 2 groups on any item. However, a majority of both groups felt the programs should be mandatory for all NPs. This project may be the first step in formation of a NP residency program that could alleviate transitional stress, decrease turnover, and produce better clinically-prepared NPs, thus benefitting the profession and society.

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Section 1: Nature of the Project

Introduction

According to the Institute of Medicine (IOM; 1996), primary care is defined as the establishment 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, and practicing in the context of family and community. Jaspin (2013) postulated that any given region of the United States should have 80 primary care providers per 100,000 patients, but in reality, most regions of the country have less than half that number. It was estimated with the additional 32 million patients slated to enter the healthcare system by the end of 2014 with full implementation of the Patient Protection and Affordable Care Act (PACA; 2010), that primary care delivery will reach a worsened state of crisis than it is currently (Woolf, 2012), with at least 52,000 more primary care providers needed by 2025 (U.S. Senate Committee on Health, Education, Labor and Pensions, 2013) to meet the demand of the current population.

One plausible solution to this pending crisis is the use of advanced practice registered nurses (APRNs) to meet the estimated needs of primary care delivery. The IOM (2010) supported this recommendation, as APRNs are qualified practitioners who can readily fill this gap. Moreover, McKinlay (2008) predicted that in the near future, the majority of primary care will be provided by APRNs, with physicians focusing more on specialty care. Currently, the majority of APRNs are employed in primary care settings

(U.S. Dept. Of Health and Human Services, 2010), yet there are not enough APRNs to support the estimated gap brought on by the advent of PACA (Jaspen, 2013).

In order to address this concern, current APRN students are being encouraged to complete their degree immediately following their RN education, instead of working first as an RN (Fitzgerald et al., 2012). The hope is that this will hasten the preparation of APRNs and their entrance into the workforce, thus achieving the vision of developing an improved U.S. healthcare system as defined in the IOM's "Future of Nursing" report (2010). However, as the number of new nonexp1erienced APRNs entering the work force rises, it raises the question of how prepared these individuals are as they transition into the new advanced practice role. Ford and Silver, a nurse and a physician who created the first training program for nurse practitioners, only admitted experienced nurses to their program as their definition of an advanced practice nurse was one whose experiences along with further education allowed for an increase in scope of practice (Ford, 1986). Thus, the transition of less experienced RNs into the role of the APRN may call into question the ability of the individual to maintain current standards of patient and organizational outcomes.

In many health care fields, the initial year of professional practice is a pivotal transitional year in which new professionals refine their abilities to provide high-quality health care for the public (American Medical Association, 2013; Newton, 1987). Many health care professionals, for example, physicians, dentists, physician assistants, physical therapists, and graduate registered nurses, have at least a year of residency where mentors and supervisors help in this transition (Brown & Olshansky, 1997). In the early 1900s,

the idea for residency programs for physicians was proposed, and a program was started by Dr. William Osler at Johns Hopkins Institute (Johns Hopkins, 2013). According to The American Society of Health-System Pharmacists (2014), pharmacy residencies date back to the early 1930s, with accreditation standards being set in the 1960s. Dental residencies started in the 1930s and were codified in the 1950s (Council on Dental Education, 1957). Physician assistant postgraduate training programs have been in place since the 1970s (Fishfader, Hennig & Knott, 2002), and graduate nurse residency programs started in the late 1980s and were codified in the early 2000s (Good et al., 2009). This calls into question the plausibility of an APRN residence program.

It is well documented that as physicians move through their residency programs, they achieve higher levels of confidence (Woolliscroft et al.,1985). Kromar (1991) posited that it takes at least 1 year for a nurse to master his/her job because the health care culture emphasizes specialization, technology, and perfectionist standards. The University Health System Consortium and the American Association of Colleges of Nursing (AACN) residency program has demonstrated that after a 1-year residency, the nurse has transitioned to an insider with the skills, knowledge, and confidence needed to provide safe, quality care (Goode & Williams, 2004; Krugman et al., 2006; Williams et al., 2007). Flinter (2012) posited that during the critical first year of practice, the new APRN's growth is largely tied to the abilities and scope of a colleague whose primary skill, patience, interest, and/or time is used first for his or her own patients and only then for the APRN with whom they collaborate. A residency program would be overseen by a director whose primary concern is the residents working with him/her.

In today's health care climate, the legitimacy of advanced practice nurses continues to be called into question by hostile, challenging colleagues or a nonsupportive practice environment (American Academy of Family Practice, 2012; AMA, 2012). It is, therefore, imperative to reduce the vulnerability of new APRNs, bolster their confidence, and ensure they are delivering safe, quality care to the patients with whom they interact. In this climate, the potential exists for normal stresses of the initial year of practice to have a devastating effect on the development of competence and confidence among new APRNs. This in turn can and does lead to poorer retention and recruitment by primary care organizations in dire need of competent primary care practitioners (Community Health Center, 2013). Thus, it has been suggested that since nurse residency programs have helped with transitions into practice and have been an effective tool for recruitment and retention, the same process should apply to the new APRN primary care practitioner who is transitioning from RN to APRN (Flinter, 2005; Goode & Williams, 2004; Krugman et al., 2006; Lindsey & Kleiner, 2005; National Council of State Boards of Nursing, 2013; Williams et al., 2007).

In a survey by Hart and Macnee (2004), only 10% of the APRNs sampled perceived that they were well prepared for practice as an NP after completing their basic education. These same numbers were matched in other professions prior to residency programs as well, but increased to 95% after the initiation of these programs (Brown & Olshansky, 1997). Flinter (2012) found that 100% of the graduates of the multisite federally qualified health center residency program, started in 2007 in Connecticut, felt prepared and confident to provide quality primary care. This attitude regarding new NP

graduates' capabilities appears to be shared by employers as well. According to Bullen (2013), in a recent survey, more than 91% of employers felt uncomfortable hiring a new grad with less than 1 full year of residency or internship, yet do so anyway. The answer to this dilemma appears to be obvious, yet the research is still limited in supporting NP residencies.

Problem

Primary care in today's healthcare industry is in a state of flux (Institute for Alternative Futures, 2012). With the lack of medical students interested in becoming primary care providers (U.S. Senate Committee on Health, Education, Labor and Pensions, 2013) and the introduction of the PACA (2010), it is predicted that, without change, by 2025, quality primary care delivery will be in a state of crisis or even abject failure (Sanders, 2013). According to the IOM (2010) report, APRNs are qualified practitioners who can and should be an answer to this crisis. However, in order for there to be enough APRNs to meet this growing need, 68% of programs are encouraging students to go straight through school for their APRN degree instead of working first as an inpatient RN, minimizing their clinical and leadership skills (Fitzgerald et al., 2012). With their lack of clinical background, it remains to be seen if the new graduate APRN can function as a patient centered care team leader.

According to the Liberal Education and America's Promise Employer Educator Compact Survey (2013), 93% of employers favor new graduates who have had at least a 1 to 2 year internship involving collaborative problem solving and team work. Given that other providers engage in a residency program following their formal education, which

encompasses what those employers are seeking, it is important for organizations to understand how to address this issue using NP residency programs as a plausible solution. This is especially pertinent since there is current resistance to residency programs among some administrators due to financial concerns (Lesko, Fitch, & Pauwels, 2011). Lesko et al. (2011) also found that over the past 10 years the per-resident expense for a family medicine residency increased 64% while the funding by the federal government for these programs only increased by 47%.

Purpose Statement/Project Objectives

The purpose of this project is to assess the knowledge and attitudes of administrators and NPs at Bassett Healthcare regarding NP residency programs and to identify any differences between these two groups. In today's turbulent healthcare market, the primary focus of the administration is on having practitioners deliver quality care to as many patients as possible, as soon as possible. Thus, from an administrative perspective, a NP residency program may not be deemed as necessary as it could be construed to delay time to practice. However, said program could also be looked at to enhance the level at which new NPs function and ease the transition from RN to NP, which may in the long term lead to the retention of a quality employee. From an NP perspective, an NP residency program may be a necessary need in order to enhance the level at which new NPs function; however, it may also be construed as an unnecessary delay to practice and increased cost in time and money. Thus, it is important to understand the attitudes and knowledge of these important stakeholders surrounding nurse practitioner residency programs.

The objectives of this scholarly project are as follows:

- Develop a survey, based on the surveys by Castiglioni, Bellini, and Shea (2004), Fishfader et al. (2002) and the Nurse Executive Center's 2007 practice readiness survey (2008) that would assess the knowledge and attitudes regarding NP residencies.
- Establish the content validity of the survey.
- Use the survey to determine the attitudes and knowledge of Bassett Healthcare leaders and NPs regarding NP residency programs.

Project Question

Is there a difference in the attitudes and knowledge of NP residencies between administration and practicing NPs in an upstate New York rural healthcare system?

Evidence-Based Significance of the Project

According to the AACN (2006), understanding how to evaluate, implement, and translate research into the clinical setting are integral parts of evidence-based nursing practice. Nurses prepared at the DNP level should be able to do the following:

- Provide leadership for evidence-based practice in nursing and translate evidence-based research into practice,
- Disseminate and integrate new knowledge, and
- Participate as members of a research team to conduct translational research or research utilization projects.

Participants, policy makers, funders, and program leaders all have a stake in assuring the best outcomes (Hodges & Videto, 2011). This interest has stimulated an increasing

emphasis on the adoption of evidence-based projects. Expanding the definition of evidence-based to include experimental, quasi-experimental, and descriptive research, as well as professional and family experience, can increase the array of programs to be considered (Kettner, Moroney, & Martin, 2013).

Regarding NP residency programs and retention/ recruitment, there is limited but positive evidence of its benefits (Flinter, 2012; Sargent & Olmedo, 2013). However, in physician, physician assistant, RN, dentist, and pharmacist residencies, strong evidence exists for increased recruitment and retention with these programs (Brown & Olshansky, 1997). It is reasonable to assume the same would hold true for the APRN. Evidence shows, however, that it is necessary to first assess one's knowledge regarding existing programs prior to the development of an educational program on that topic, and the program should expand on the existing knowledge of the participants (Davis & Winek, 1989; Squire, 1983; Weisberg, 1988).

Implications for Social Change in Practice

There is a slow but growing movement toward nurse practitioner residency programs in the United States (Flinter, 2012; Sargent & Olmedo, 2013). Hospital- or community-based residency programs began a few years ago, but a lack of funds, a sluggish government response, and scant professional awareness seem to impede progress (Boyar, 2012). However, by educating more professionals about these programs, the availability of funds may increase. Additionally, it is critical to view the movement's impact on how prospective nurse practitioners and new graduates consider employment options and alternate pathways to practice. Flinter (2005) also posited that it is critical to

examine how future employers will critique the prospective clinician's entry to practice, credentials, and experience when it comes time to hire the new graduate.

Definitions of Terms

In this paper, *APRN* is interchangeable with the term nurse practitioner (*NP*). This is defined as, "registered nurses who are prepared, through advanced education and clinical training, to provide a wide range of preventive and acute healthcare services to individuals of all ages"(p. 16; AACN, 2006). *Knowledge* is defined as information, understanding, or skill obtained from experience or education (Merriam-Webster, 2014). *Attitude* is defined as a settled way of thinking or feeling about someone or something (Oxford, 2014).

Assumptions and Limitations

Assumptions are the premises or suppositions upon which a project is based. Leedy and Ormrod (2010) posited, "Assumptions are so basic that, without them, the research problem itself could not exist" (p. 62). Although the data are limited on NP residency programs, residencies in other professions including physicians, physician assistants, nurses, and dentistry have more than shown the importance of these programs for transitions into practice (Brown & Olshansky, 1997). Therefore, assumptions could be made that the same is true for a NP residency program. Since evidence has shown that employers want practitioners to keep their "numbers up" and see "more patients" (Colbert, 2013), attitudes towards a residency program should differ between an NP and an administrator, with the administrator looking mainly at the cost and the NP the benefit.

The limitations of a study are those characteristics of design or methodology that impact or influence the application or interpretation of the results of the study (Terry, 2012). This study was conducted in a small upstate NY healthcare organization. It may be generalizable to other facilities in upstate NY of similar size and make up; however, the knowledge and attitudes or lack thereof cannot be generalized to the overall population of healthcare organizations and/or NPs in general. Currently, there is not a reliable or valid survey that assesses the knowledge and beliefs of NP residency programs; therefore, one had to be created from surveys studying this for graduate nurse residencies and PA residencies. While the content validity of this survey was established, cautious interpretation of the results is still recommended.

Summary

In this chapter, I presented an overview of the problem awaiting new graduate NPs and their employers. In the ever challenging and changing primary care setting of today's health care system, new graduate NPs can feel overwhelmed. One solution to help in this the transition period for new graduates is a residency program. There is, however, limited data regarding these programs as of yet due to their novelty. In this study, I will create and validate a tool to collect data regarding both administrator and NP knowledge and beliefs regarding these new programs.

Section 2: Review of Literature and Theoretical and Conceptual Framework

Introduction

As the age of accountable care develops and the medical home model becomes more prevalent in organizations, the delivery of effective patient outcomes is expected to be increasingly dependent on the performance of an operational patient care team (Health Policy Briefs, 2013; Jayadevappa & Chaatre, 2011; Mitchell et al., 2012). This issue is increasingly becoming more important to stakeholders who are primarily responsible for primary care delivery in a variety of settings. The literature has demonstrated that experienced NPs' outcomes of patient satisfaction, access, quality, and costs of the health care match those of physicians (Lenz et al., 2004; Mangelsdorff et al., 1992; Mark, Byers, & Mays, 2001; Mundinger et al., 2000; Pinkerton & Bush, 2000; Rand Health, 2005), yet none of these researchers have examined how these outcomes compare among new NPs in their all-important transitional first year of practice.

Search Strategies

For this evidence-based project, the search for literature was conducted electronically and used the following databases: CINAHL, Medline, PubMed, EBSCO, and Cochrane Library. Only articles from peer-reviewed journals were selected for this project. A total of 35 articles were selected for this review. Articles older than 10 years were discarded, with the exception of two that were deemed essential to show the history of the issue being addressed. The terms used for the search were as follows: *nurse practitioner residencies, nurse residencies, physician residencies, dentistry residencies, pharmacy residencies, physician assistant residencies, attitudes and beliefs, transitions*

into practice, nurse practitioner outcomes, physician outcomes, mentoring, and *advanced education*. In order to produce a larger volume of articles, Boolean "and" and "or" were used between the words.

Transitions

The problem of transitioning to a new role is evident in many fields (Cave et al., 2009; Hartman, 2006; NCSBN, 2013; Simmonds, 2012). This transition period has been shown to typically last about a year in the professions of nurses, dentists, physician assistants, pharmacists, and physicians (AMA, 2013; Blanchard & Blanchard, 2006; Bucci et al., 1995; Flinter, 2012; Hooker, 1991). In their 2011 study, Hill and Swatzky showed that transitioning from the RN to the NP role is stressful. The stress arises from both internal and external sources. They showed that some novice NPs had a sense of inadequacy and lack of confidence in the ability to provide optimal patient care. They also showed that organizational expectations to be clinically competent and able to meet the demands of a complex health care system could be quite overwhelming. They concluded that most NP programs excelled in their ability to provide the didactic information and clinical exposure necessary for the beginning-level practitioner; however, additional guidance and support were essential for the novice NP to evolve into an expert clinical practitioner.

Bahouth and Esposito-Herr (2009) found that the transition from student to practicing clinician is often a challenging and difficult period for many nurse practitioners. In their study, newly graduated NPs commonly described feelings of inadequacy in assuming clinical responsibilities, lack of support by team members,

unclear expectations for the orientation period, and role isolation as reasons for failure or near failure during this transition period. Likewise, Hart and Macnee (2007), based on a questionnaire distributed in 2004, found that only 10% of new-graduate NPs perceived being ‘‘very well’’ prepared for practice after completing basic education, whereas 38% thought they were ‘‘generally well prepared,’’ and 51% perceived they were ‘‘only somewhat or minimally prepared.’’ They felt that collaborating physicians and medical directors had expectations that the new NP should be able to quickly provide autonomous patient care and felt inadequate when not “living up” to those expectations. Those surveyed indicated that they desired more content in their clinical education as well as clinical experience and competency testing. Eighty-seven percent of respondents reported that they would have been interested in a clinical residency program had one been available when they graduated from their NP programs.

Residencies

In a study done by The American College of Clinical Pharmacy (2008), the task force on residencies showed that residency training was imperative to prepare new pharmacists to meet the needs of medication use systems in the evolving U.S. health system and that doctoral level preparation alone was not sufficient. Residents rotating through the Ventrans Associations dental clinics gain experience in a wide range of challenging dental procedures while working under the close supervision of highly skilled general and specialty attending faculty members (Department of Veterans Affairs, 2011). In addition to clinical supervision and direct mentoring, residents receive ongoing education through conferences, web-based training, and participating in specific VA

programs and research activities; therefore, upon completion of their training, dental residents have the experience to maximize their performance to be able to function as expected by their respective patients (Lam et al, 2012).

Similarly, Bodheimer (2011) and Colbert (2013) found that primary care residencies were essential for internal medicine physicians to help them be able to reconcile the patient's medications, refill prescriptions, review cancer screening, update health maintenance items, provide counseling on healthy lifestyle choices, review new symptoms, and perform a physical exam (all in a 20- minute visit), which new practicing primary care physicians are expected by administrators to be able to do. Although established residency programs are present in pharmacy, dentistry, and medicine, only in medical residencies are they mandatory with support for clinical faculty time, salary, and an established curriculum in which completion leads to board certification and stated competency in a particular specialization.

In comparison, the majority of APRNs do not have a residency program to enter. They are mainly dependent on their clinical experiences, limited by their preceptors' time constraints, to support their performance during their transition in their early careers (Flinter 2005, 2012). This highly challenging early transitional period is quite daunting. It is during the first year of transition that the largest turnover occurs in APRNs (American Medical Group Association, 2013; De Milt, Fitzpatrick, & McNulty, 2010; Nursing Solutions Incorporated, 2013). According to AMGA (2013), the turnover rate for both nurse practitioners and physician assistants is12.6%, which nearly doubles the combined, adjusted physician turnover rate of 6.0%.

Addressing APRN/NP Turnover

In a time when APRNs are most critical to health care delivery, it is vital that the issue of APRN turnover is addressed. Three main attempts to solve this early turnover rate have been postulated in the literature, including mentoring, advanced education, and NP residencies. Hill and Sawatzky (2011) found that expert NPs as mentors play a valuable part in easing the transition into the NP role, but they should not be solely responsible for this task. They posited that health care organizations likewise need to embrace a culture of mentoring to promote a healthy work environment, facilitate learning, and encourage staff retention (Hill &Sawatzky, 2011). Most importantly, organizations must earmark funding for this culture. This involves providing orientation and educational training programs and supplying opportunities for personal and professional growth over this transitional year. Harrington (2011) likewise found that new NPs could benefit from role clarification as well as support with role transition and that a mentoring program could help the new NP further develop competencies and capabilities as a primary care provider. However, they also found that this is only one aspect of NP growth needed to advance the novice to an expert NP.

Advanced education is another plausible solution to early NP turnover. It was postulated by the AACN (2006) that by increasing the educational preparation of advanced practice nurses, it would place nursing on par with other similar professions including physicians, pharmacists, dentists, and physical therapists, giving nurses equal footing. This increased educational program also includes increased clinical hours, felt to help in increasing the comfort of new NPs as well. However, in a study by Lyon and

Peach (2005), it was found that many preceptors cited increasing difficulty with teaching students in primary care sites due various organizational constraints, such as the imperative to increase productivity. They found that this imperative to increase productivity makes the preceptor's priorities to be inclined first to their patient populations and secondly to their students (Lyon & Peach, 2005).

NP residency programs, though newly established and few in number, show compelling evidence as the best solution to early turnover of the graduate NPs as they incorporate both increased education and mentoring (Department. Of Veteran Affairs, 2013; Flinter, 2005; Flinter, 2012; Sargent & Olmedo, 2013). The effort to start a NP primary care residency program began at a Connecticut community clinic eight years ago (Flinter, 2005). Flinter (2012) refers to the NP program as one that "emphasizes a continuous relationship with a primary care provider; coordinated, team-based care; integrated behavioral health services; electronic health records; chronic disease management; prevention and health promotion; and continuous performance improvement."(p. 6)

Components of this program consist of precepted clinics, specialty rotations, independent clinics, and didactic sessions, supplemented by resident involvement in workgroups and data-driven quality initiatives of the involved organization. However, there are no federal or state sources of financial support for residency training for nurse practitioners, and the costs of the NP residency programs are not insignificant (Sargent & Olmedo, 2013). These costs stem from four major areas: NP resident salary and benefits; compensation for the NP residency program coordinator; lost revenue when the preceptor

is exclusively assigned to a precepting session with a resident versus being assigned to seeing the preceptor's own patients; and facility overhead and administrative expenses. This could be a major reason why administration would look unfavorably at these programs.

In conclusion, transition into practice from a RN to APRN is a tumultuous time linked with early turnover. The literature shows that residency programs are a good solution to this problem, linking further clinical training, mentoring and education. So the question remains why more organizations are not using these programs. The literature also shows, however, that there is no federal or state support for these programs and there are quite a few costs making them administratively-speaking not a positive solution. Therefore, evidence would suggest there would be a difference in the attitudes and knowledge of NPs and administrators regarding NP residency programs.

Theoretical Framework

For this project Benner's (1984) From Novice To Expert Theory was used. Patricia Benner's work was first published in 1984. It incorporated the Dryfus model of skill acquisition to nursing. It outlines the five stages of skill acquisition, to include: novice, advanced beginner, competent, proficient, and expert. Benner posited that there is importance in experiential learning in moving from novice to expert, and that if the expert nurse is moved into a different function/situation they can become a novice again. According to McEwen and Wills (2011), areas especially utilizing this theory include management, career development, clinical specialization, staff development, clinical precepting, and clinical internships. This work will utilize the importance of this theory in

explaining why the transitions occur and why experiential learning can help in this transition. It will also help in interpreting the data to decipher if the subjects being surveyed are experts or novices in regards to knowledge about APRN residency programs.

Summary

In the literature review I focused on the primary care market and the NP role in that complex structure. For the theoretical framework I chose Benner's novice to expert theory which provides contextual understanding of the role development in that transitional period and beyond. I reviewed transition into care difficulties and the role residencies play in similar health care fields. The literature supports the problems NPs face transitioning into practice. However, there remains a gap in literature regarding NP residency programs. Retrospective studies suggest mentoring and precepting programs may help in transitioning, however , this is what is in place now and new research still shows NPs having difficulties in that transition year. That research gap needs to be filled in order for residencies, which according to the limited data is a better solution to this problem, can take hold. the following tool and study should be a large step in gaining that needed information.

Section 3: Methodology

Introduction

According to the AACN (2006), the underlying theme in any DNP project should be the use of evidence to improve practice through health care delivery or patient outcomes. I have gathered information on improving practice through health care delivery. This will be accomplished through the gathering of evidence as to whether administrators and NPs share common thoughts on the issue of NP residency programs. With the dissemination of this knowledge, a NP residency program may eventually be initiated, thereby changing the shape of healthcare delivery.

Phase I: Adapting a Tool and Establishing Content Validity

To date, no current instrument existed that specifically assessed the knowledge and attitudes of NPs and administrators regarding NP residency programs. Thus, the first stage of this scholarly project was to adapt existing tools that evaluate the attitudes and knowledge of residencies in other related fields such as medicine and nursing in order to create a tool specific to NP residency programs. Using existing literature as a knowledge base for the questions, the Knowledge and Attitudes Regarding NP Residencies Survey (KARNPR) was fully created. (Appendix A). Following IRB approval, from both the Mary Imogene Bassett Hospital project number 1082, and Walden University project number 01-12-15-0370347, in order to validate its content, three NPs and three administrators were identified and invited to participate in Phase I. I hand-selected these individuals based on their knowledge surrounding the topic of residency programs. For the purpose of this part of the project, the inclusion criteria for the NP and administrator

was at least 5 years of experience so that they would meet the criteria of being at least proficient according to Benner's theorem (Benner, 1984).

According to Polit and Beck (2003), evidence of content validity is usually provided by the scholar in the form of a content validity index, I-CVI, using evaluations of item relevance by content experts, and a full scale validity of all those items or (S-CVI). Content validity has been defined by multiple authors. Polit and Beck defined content validity as "the degree to which an instrument has an appropriate sample of items for the construct being measured" (p. 423). Waltz, Strickland, and Lenz (2005) defined content validity as "whether or not the items sampled for inclusion on the tool adequately represent the domain of content addressed by the instrument" (p. 155). The scale that was used to calculate the I-CVI for this scholarly project was (1) *not relevant*, (2) *somewhat relevant*, (3) *quite relevant*, and (4) *highly relevant*. Then, for each item, the I-CVI was computed as the number of experts giving a rating of either 3 or 4, divided by the number of experts. For the S-CVI, I computed the I-CVI for each item on the scale and then calculated the average I-CVI across items or the S-CVI/AVE, which was posited as the best way to calculate the S-CVI (Polit, Beck & Owen, 2007; Appendix B).

An invitation including a link to the content validity survey was distributed electronically to the identified participants. These individuals were asked to review the KARNPR survey and complete the content validity scale as described above. In the case where the I-CVI did not meet the required standards of 0.80, the question was discarded and the question did not move into the survey for Phase II (Appendix C).

Phase II: (KARNPR) Population and Sampling

Following successful creation and validity of the KARNPR I survey (Appendix C), a convenience sample of administrators and NPs was recruited to participate in a survey at Bassett Healthcare, an upstate rural healthcare system in New York state. Inclusion criteria for the survey were current employees of Bassett Healthcare who work in the role of administrator or nurse practitioner. NP was operationally defined as an advanced practice nurse working in the role as a nurse practitioner. Administrator was operationally defined as an employee whose job definition includes oversight/management of said NPs.

A list of potential participants was developed by using the organization's directory and email address distribution list. A recruitment message was sent electronically to the participants with the link to the survey included in the message. The potential participants were asked to complete the KARNPR survey within 3 weeks. Four demographic questions (age, gender, years of experience, and number of years at the organization) were also asked. After 1 week, a reminder email was sent to the potential participants to encourage participation. A second e-mail went out the following week to let the potential participants know the survey was ending at the end of that week. Following the second email, no additional communication between me and the participants occurred. It is estimated that with alpha set at 0.05, power at 0.80, and a medium effect size, 33 individuals were needed for this project to be valid (Polit & Beck, 2004).

Data Collection

Invitations to participate in both surveys (Phase I and Phase II) were distributed to the identified participants via email. Participants were instructed to complete an anonymous online survey via Survey Monkey. A total of 110 surveys were distributed with a return rate of 64. I then collected and analyzed the surveys. E-mail identification was removed prior to collection process to maintain anonymity.

Data Analysis

The data were abstracted from Survey Monkey and downloaded into SPSS. The data were assessed for missing data, normality, and outliers. A Shapiro-Wilk test was used to test the normality of distribution for the administrators and a Kolmogorov-Smirnov test was used to determine linearity and normality for the NP group. Both of these tests were significant at a level of $p < 0.01$, indicating nonnormality of the sample. Based on this result, nonparametric tests were used to estimate the results of this study (Polit, 2010).

Summary

This section addressed how the formal tool was created validated and distributed. I created the tool adapting questions from similar tools used in the nursing and medical professions. After obtaining formal IRB approval, the KARNPR survey was validated. This tool was then distributed to administrators and NP at a rural upstate healthcare system in NY State. The data were collected and run through SPSS with nonparametric tests used to estimate results.

Section 4: Findings Discussion and Implications

Introduction

The problem addressed in this project was turnover of new graduate NPs and turbulent transitions from RN to NP. I focused on knowledge and beliefs about NP residency programs through the development and validation using S-CVI (Polit et al., 2007), of a new tool the KARNPR survey. I obtained the results through the use of this survey. Discussion of the findings, implications, strengths, limitations, social change and analysis of self follows.

Results

The demographics of the survey were quite diverse between the two groups for most of the categories. The majority of the administrators were over 55 years of age while the NPs were more evenly dispersed by age (Figure 1). The gender of the administrators was evenly divided between males and females, while for the NPs, it was mainly female (Figure 2). The majority of the administrators had worked for more than 20 years while the majority of the NPs had worked 0 to 5 years (Figure 3). The majority of the administrators had completed or worked with individuals in a residency program while very few of the NP respondents had (Figure 4).

In both groups the majority of respondents, more than 90%, completed graduate school.

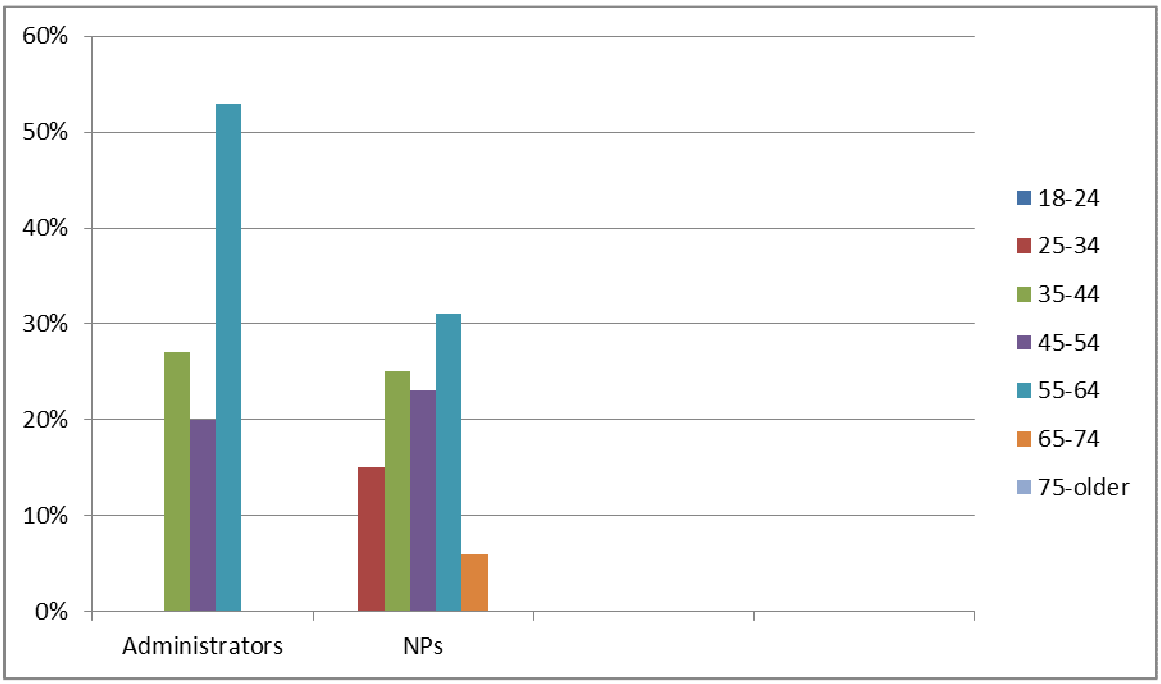

Figure 1. Age percentages of administrators and NPs from survey sample.

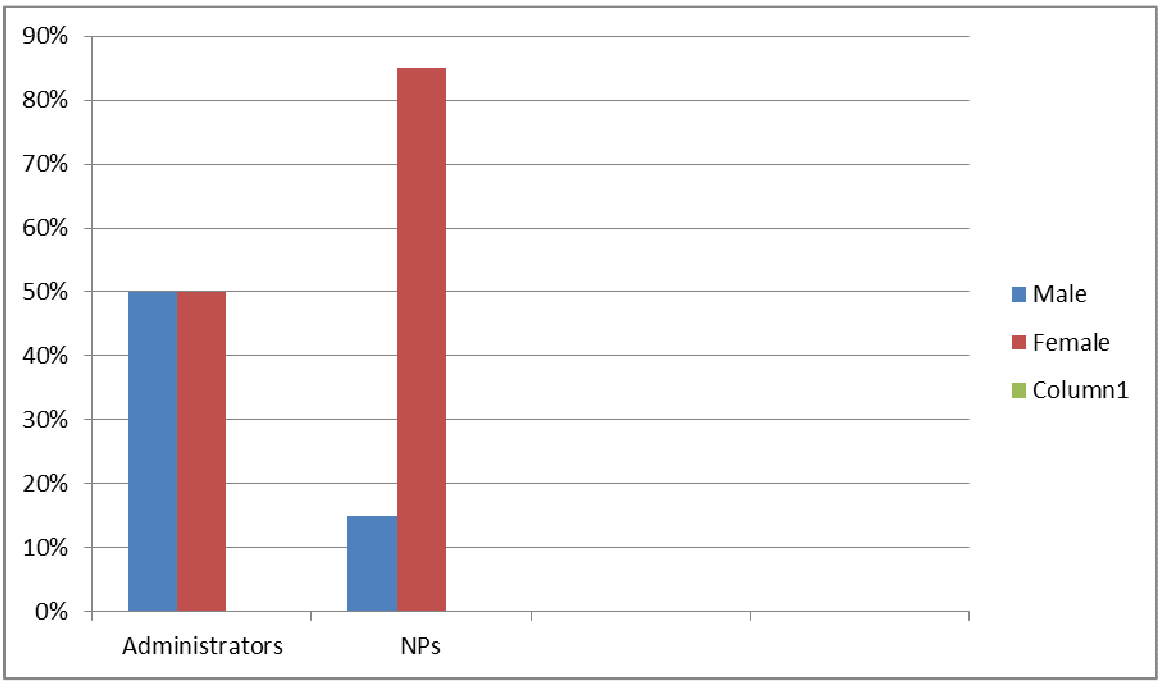

Figure 2. Gender differences in survey respondents for administrators and NPs.

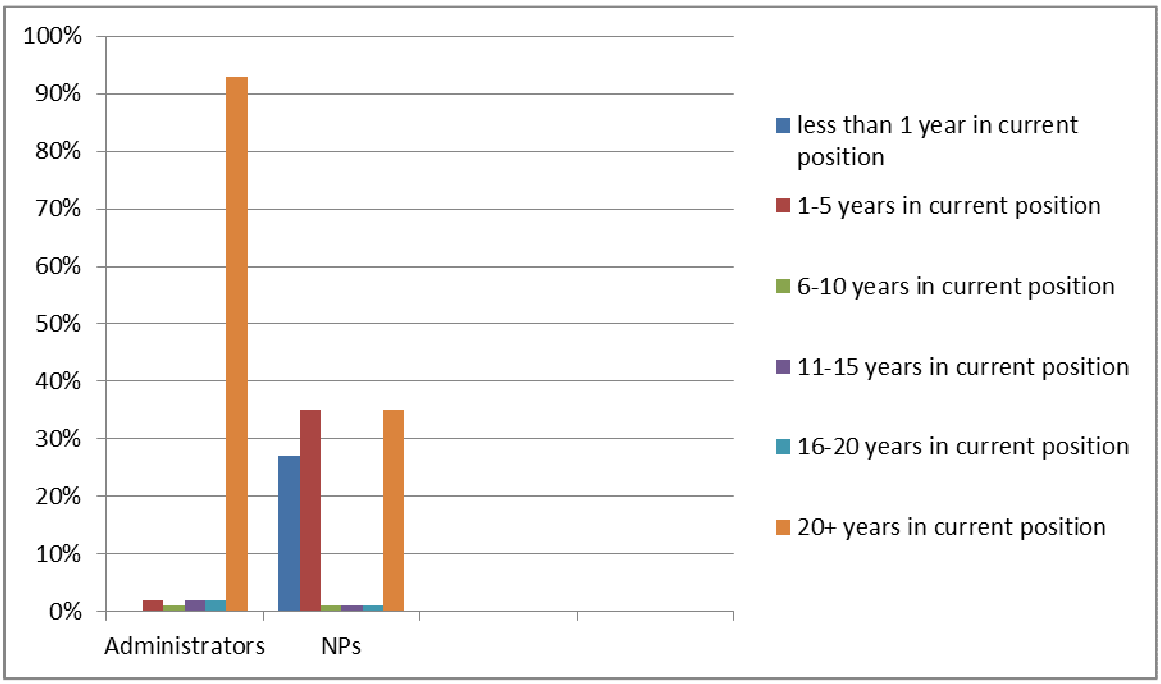

Figure 3. How long administrator and NP respondents had worked in their current positions.

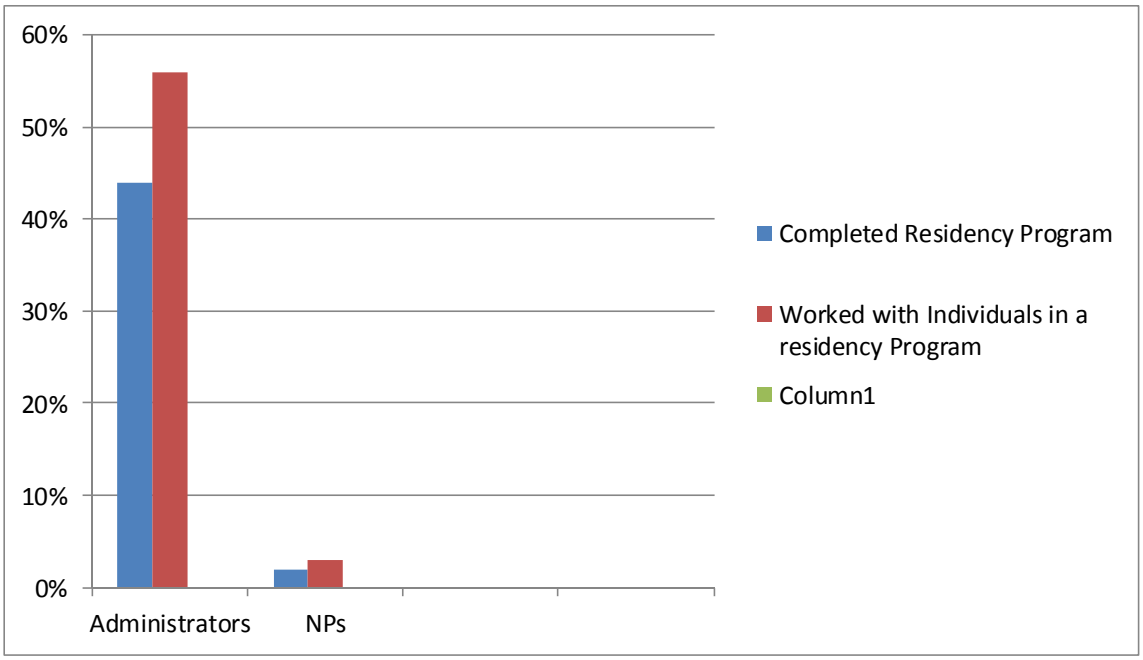

Figure 4. Administrator and NP survey respondents who had been in or worked with individuals in a residency program.

On completion of the demographic portion of the survey, the administrators and NPs were asked to complete the rest of the KARNPR survey (Appendix C). The KARNPR survey consisted of 28 statements that the participants were asked to rank on a 5-point Likert scale with 1 equaling *strongly disagree* to 5 equaling *strongly agree*. Nine of the questions, which were negatively asked, were reversely scored. A total of 44 NPs and 20 administrators responded to the survey. A Mann-Whitney U-Test was used to compare differences between the groups. There was no significant difference in the statements between the two groups (Table 1).

Table 1

Statistical Analysis Looking for Difference Between Administrators and NPs

Question	*Mann-Whitney U*	*Wilcoxon W*	*Z-score*	*A-symp. Sig. (2-tailed) p value*
A patient-centered care approach required the need for greater experiential learning including, a post-graduate NP residency	306.000	1482.000	-1.269	.204
NP residency programs will improve access to care for vulnerable patient populations	322.000	1498.000	-1.017	.309
NP residency programs cause an unnecessary increase in existing providers' workloads	361.500	497.500	-.370	.711
NP residencies can improve the quality of health care given by NP's	373.500	509.500	-.045	.964
NP residency programs can help with the transition from RN to NP	372.000	1500.000	-.072	.942
NP residency programs will greatly improve patient safety	350.000	1478.000	-.440	.660

Table 1 continued

Question	*Mann-Whitney U*	*Wilcoxon W*	*Z score*	*A-symp. Sig.(2-tailed) p value*
NP's who complete a residency program will be more costly to employ	**282.000**	**1458.000**	**-1.680**	**.093**
NP residency programs can help in retention	**303.000**	**423.000**	**-.894**	**.371**
NP residency programs will decrease the availability of care to vulnerable patient populations	**.371**	**1507.000**	**-.929**	**.353**

Table 1 continued

Question	*Mann-Whitney U*	*Wilcoxon W*	*Z Score*	*A-symp. Sig (2-tailed) p value*
NP residency programs can alleviate some of the existing workloads	319.500	1447.500	-.937	.349
NP residency programs can help with recruitment	343.000	1519.000	-.737	.461
NP residency programs will be costly to consumers of care	312.500	448.500	-1.088	.276
NP residency programs will compromise patient safety	346.500	482.500	-.259	.796

Table 1 continued

Question	*Mann-Whitney U*	*Wilcoxon W*	*Z Score*	*A-symp. Sig (2-tailed) p value*
NP's who complete residency programs will be more employable	335.000	1511.000	-.829	.407
An NP residency program will be an attractive recruitment tool for employers	332.000	1460.000	-.788	.430
NP residency programs should be required for all NP students	303.500	1431.500	-1.190	.234
NP residency programs will result in health care cost savings	315.000	1491.000	-1.151	.250

Table 1 continued

Question	*Mann-Whitney U*	*Wilcoxon W*	*Z Score*	*A-symp. Sig (2-tailed) p value*
A NP residency program will be more costly for employers	**352.000**	**488.000**	**-.526**	**.599**
NP residency programs are likely to discourage them from choosing to enter primary care	**356.500**	**1484.500**	**-.334**	**.738**
NP residency programs will result in few improvements in patient outcomes	**360.500**	**496.500**	**-.399**	**.690**

Table 1 continued

Question	*Mann-Whitney U*	*Wilcoxon W*	*Z Score*	*A-symp. Sig (2-tailed) p value*
Implementation of a residency program will result in preparation of fewer NP's	**311.500**	**1487.500**	**-1.194**	**.233**
NP residents will have greater job mobility	**352.500**	**488.500**	**-.275**	**.783**
Beginning salaries will be higher for those NP's who have completed a NP residency program	**341.000**	**1517.000**	**-.724**	**.469**

Table 1 continued

Question	*Mann-Whitney U*	*Wilcoxon W*	*Z Score*	*A-symp. Sig (2-tailed) p value*
NP residency programs will greatly reduce patient errors	365.000	1541.000	-.317	.751
Implementation of a residency program will likely attract more candidates into the field	349.500	1529.500	-.579	.563
NP residency programs currently exist in some states	340.000	476.000	-.755	.450
NP residency programs will greatly improve patient outcomes	354.000	1530.500	-.491	.623

In the last two questions of this survey, I asked if a NP residency program was mandated or initiated, how long it should be, and who should bear the costs. For the administrators and NPs, both felt the program should run for 1 year; however, the administrators felt all NPs should participate in a residency program while the NPs surveyed felt only the inexperienced should (Figure 5). When it came to paying for a NP residency program, the administrators were evenly divided on who the felt should pay for the program, while the NP group mainly felt that employers or the federal government should subsidize said program (Figure 6).

A significant question that both groups agreed upon was question 25, that NP residency programs should be required for all NP students (Figure 7).

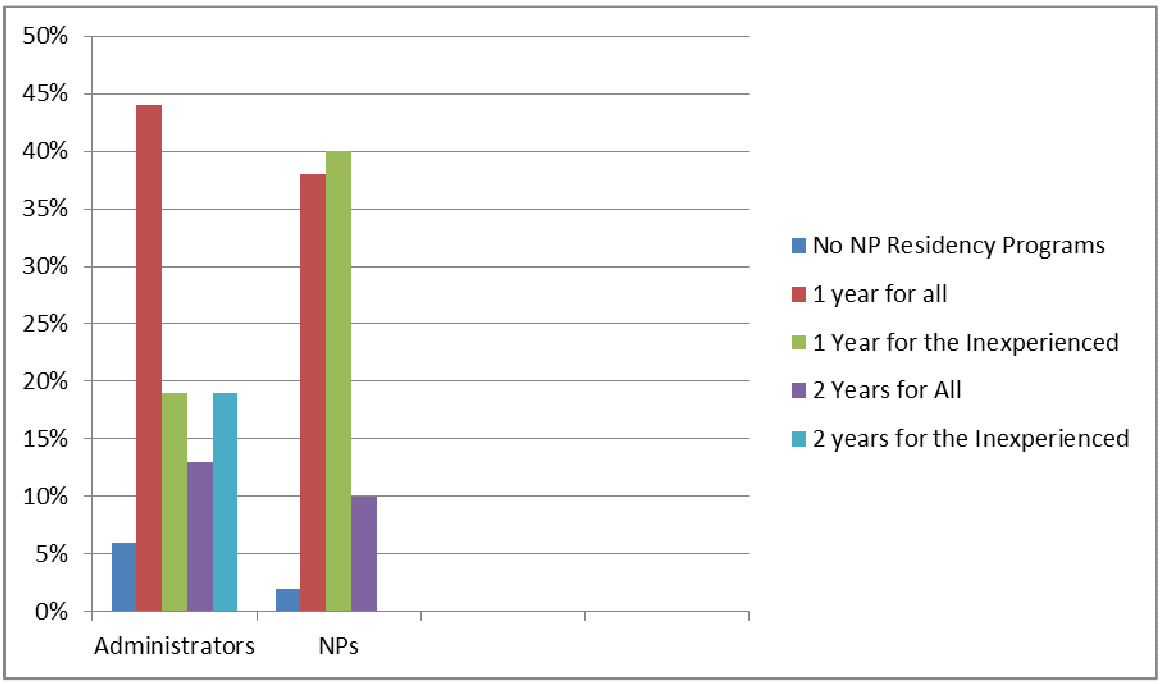

Figure 5 Administrator and NP survey respondents feelings on how long NP residency programs should be and for whom

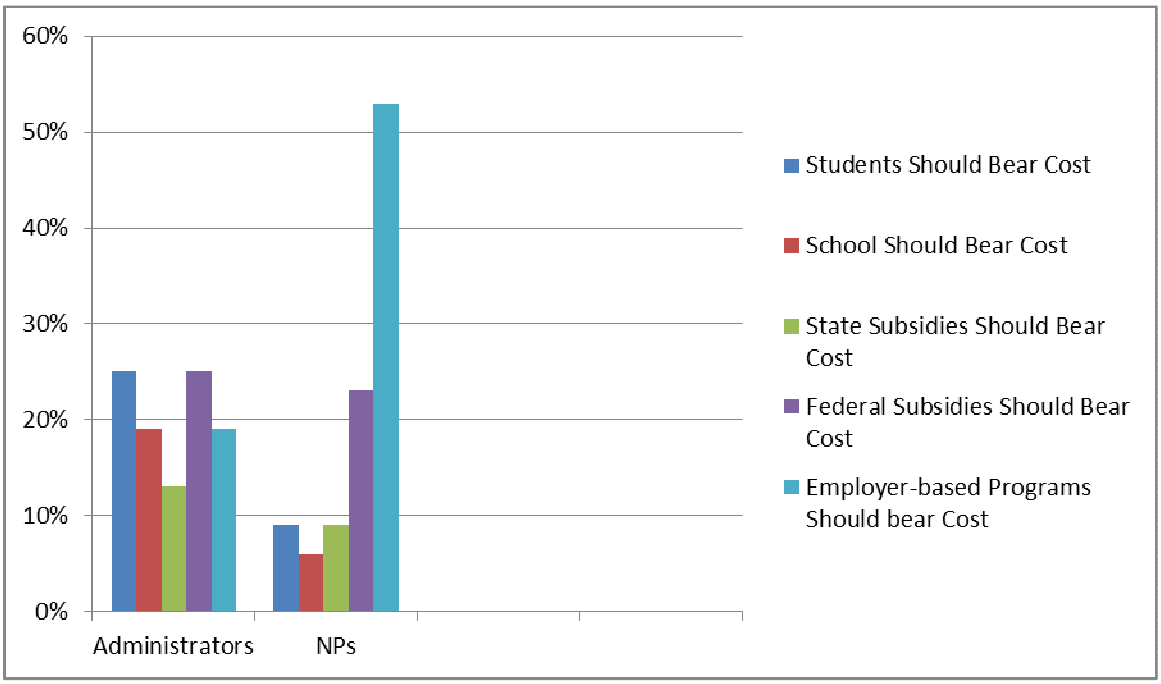

Figure 6 Administrator and NP survey respondents feelings on who should bear the cost for the NP residency programs

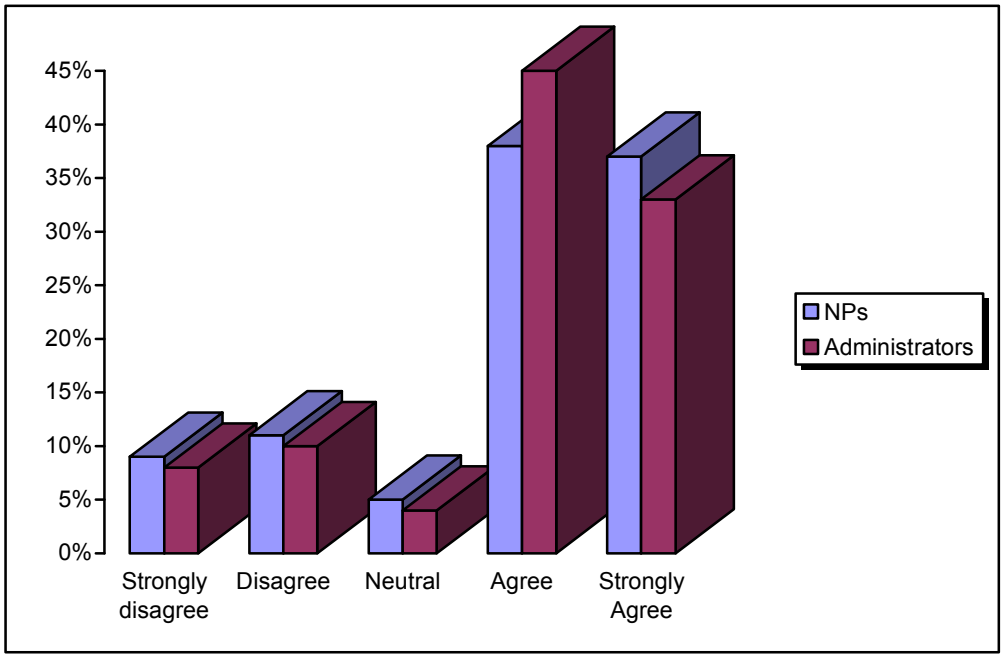

*Figure7.*Administrators and NPs feelings on whether NP residencies should be mandatory for all NP students.

Summary of Findings

In today's volatile healthcare market, primary care delivery is in a state of crisis (Institute for Alternative Futures, 2012). With the advent of the Patient Protection and Affordable Care Act (2010), researchers have estimated that there are too few primary care providers to meet the expanded need. The NP has been identified as a plausible solution in solving this disparity (IOM, 2010). However, studies have shown that both new graduate NPs and employers of newly graduated NPs are uncomfortable with the new role (Bullen, 2013; Hart & Macnee, 2004). One solution used by other professions to help with transitions from student to a functioning practitioner are residency programs (Brown & Olshansky, 1997). Residency programs for NPs are a relatively new concept, with little supportive data and/or up-and-running programs (Flinter, 2012; Sargent &

Olmedo, 2013). Due to NP residencies being a new idea, it stands to reason that there are not many administrators and or NPs themselves who have knowledge about them. Also, in my literature search, I found no tool to evaluate them. I attempted to assess whether there was a significant difference between the knowledge and attitudes about NP residencies between administrators and NPs in a rural upstate NY healthcare organization. Results of this study did not find any significant difference in the knowledge and beliefs regarding NP residency programs between administrators and NPs. Both groups who were studied agreed that NP residency programs are a good solution in helping with the transition from RN to NP in recruitment and retention and in improvements in quality care. As in Benner's theory (1984), a NP residency program could enable a new graduate NP to become an advanced beginner before emerging into today's volatile healthcare market. This could allow for a more experienced clinician starting their career leading to less stress and frustration and therefore less turnover for employers. Both administration and NPs are on the same page when it comes to NP residencies, therefore planning a program of this nature in the future, should be easier. The main difference in opinion in this study, however, was who should pay for these programs.

In 2010, the Unite States Government earmarked 253 million dollars to boost the national primary care workforce a part of which included support of NP residency programs in Federally Qualified Health Centers (Unites States Department of Health and Human Services, 2010). However, no other funding sources have been identified or

allocated for this much needed project, and the funding sources were only earmarked for Federally Qualified Health Centers no other programs.

One possible funding source that should be examined is employer based programs (Flinter, 2012; Sargent & Olmedo, 2013). The current cost of educating a nurse practitioner is still considerably less than the cost of educating a physician. In terms of cost and efficiency, it is estimated that between three to four nurse practitioners can be educated for the price of educating one physician (Fairman et al. 2011). Even though it has been shown to be more cost efficient to hire a nurse practitioner, it still costs employers considerable amounts of money to recruit and hire one. Then, if that NP leaves his or her job, which according to a 2011 survey is on average 12.6% for the first year for NPs (AMGA, 2013), this becomes quite expensive. According to this same survey, the loss of one new NP can cost an organization over $500,000.00 after totaling recruitment, start up, and lost revenue costs. Nurse residency programs that have been used in transitioning from graduate nurse to RN have been shown to improve retention significantly. In one study, over a 10-year period, retention rates improved from 22.3% prior to the residency program to 94.6% after the 10th year of the program (Goode et al, 2013). It is reasonable to conclude that a similar increase in retention would occur with a NP residency program, thereby saving the employer considerable money, enticing them to consider paying for said program.

Implications

In the literature there is limited but positive evidence of NP residency program benefits (Flinter, 2012; Sargent & Olmedo, 2013). However, in other health care fields,

strong evidence exists for increased recruitment and retention with these programs (Brown & Olshansky, 1997). Evidence has shown, however, that it is necessary to assess one's knowledge regarding existing programs prior to development of an educational program on that topic, and the program should expand on the existing knowledge of the participants (Davis & Winek, 1989; Squire, 1983; Weisberg, 1988). The DNP project described in this paper allowed me to translate evidence into practice regarding knowledge about NP residency programs and create a tool that can be further used to study aspects of these programs in the future. This is in conjunction with the ANCC position on the DNP essentials (2006) that nurses prepared at the DNP level should be able to do the following:

- Provide leadership for evidence-based practice in nursing and translate evidence-based research into practice,
- Disseminate and integrate new knowledge, and
- Participate as members of a research team to conduct translational research or research utilization projects.

Policy

Policy implications support residency programs as tools to alleviate some of the burden caused by transition into practice. According to the IOM (2010), each state board of nursing, accrediting body, the federal government, and health care organizations should take actions to help nurses' finish a transition-to-practice program after they have completed a pre-licensure or advanced practice degree program or whenever they are transitioning into any new clinical practice areas. This view however, is not supported by

the American Academy of Nurse Practitioners. In a position statement, (AANP, 2014), a round table discussion concluded that no further programs are needed post-graduation for the NP as the NP is an advanced practice nurse. This author contends as more programs push students to go straight from RN to DNP to fill the gaps in primary care there will be less experienced nurses entering the work force as NPs. This may increase the need for a residency type program. It will need further study to see if this will change patient outcomes. The round table did concede that post graduate programs could be beneficial in certain areas where care is more challenging like community health centers and the Veterans Administration health system (AANP, 2014). However, they fail to mention rural communities where primary care need is greatest and care is just as challenging if not more so due to the lack of referral sources. The literature shows that rural patients have higher rates of chronic disease, and access to specialty providers is more challenging as well, with patients driving on average 40 miles to see a specialist (Bodenheimer, & Hoangmai, 2010). This lack of agreement on the necessity of these programs, and the fact that this idea of a post graduate residency program for the NP is a relatively new idea, means that budgetary considerations will need to be reviewed by the board of any institution looking to introduce one of these programs. As my study showed the question of who should pay for these programs is a debated one.

Practice

Practice implications should also be considered. With the degree for the NP entering practice going from masters to the doctorate preparation there may be more of a financial burden on the NP. Adding a residency to the educational trajectory may add to

the burden thereby decreasing the number of NPs choosing that career path. However, as my study's results indicated, a residency program is an accepted even encouraged idea. Institutions especially in rural settings are noticing the need for further clinical experience to allow the NPs to function at an expert level autonomously in the challenging environment of rural health care today.

Research

The research though limited, did support the idea of a residency program to help the transition from RN to NP (Flinter, 2012; Sargent & Olmedo, 2013). However, a tool needed to be created to assess the knowledge about and support for said programs. This tool was developed utilizing tools from residencies in other healthcare fields and allowed me a unique look into this new field. As with nurse residencies, funding for these programs became the major focus of the survey. As these programs become more available partnering with PhD prepared nurses to look at outcome studies focusing on retention as has been done in nurse residency programs (Goode, et. al., 2009; Goode, et. al., 2013; &Goode & Williams, 2004), will be invaluable to attain further funding sources and show the benefit of these programs.

Social Change

According to Connell, and Kubisch (1998), for social change to occur you should have a plan and strategy, build awareness, mobilize, collaborate, fundraise, and keep supporters engaged. Rural settings are in desperate need of autonomous primary care providers who can take care of the complex needs of that challenging population. The properly prepared NP could fill this role, however, change needs to occur in how this is

viewed; less as an expense and more as an investment in our future. The current healthcare model is patient centered homes where the primary care provider leads a team that evaluates the whole person; their social, spiritual, mental, and physical wellbeing, the current gold standard of care (Auerbach et. al., 2013). Well prepared NP's can be leaders in a health care revolution. What better leader than a NP, who already practices that philosophy, who has completed a residency where they have an experienced mentor to help transition them to fill that role.

Project Strengths and Limitations

Strengths

There are several strengths to this project. First is this project's strong review of the literature emphasizing the importance of residency programs in regards to transition into practice. This transition time has been shown to cause the most turnover in the health care industry costing institutions millions of dollars annually. The project was further strengthened by the theoretical framework that provided perspective to the problem. Another strength of the project was the creation and validation of a tool that can be used to assess knowledge and beliefs about NP residency programs. A tool of this nature did not exist before this. With this tool, institutions and/or researchers have a starting point to base assumptions on. Lastly, the sample size was remarkably large for the size of the instutition studied.With a population of 110, an N of 64 was a large response rate, showing great interest in this important topic.

Limitations

There are likewise limitations of this study. The study took place in a rural upstate health center and results cannot be extrapolated to more urban or general population. The study took place in New York State where the Modernization act recently passed and experienced NPs do not even need a written practice agreement. Each state has different laws; therefore the results might be different in different areas. This study was also very focused on one topic, beliefs and knowledge about NP residencies, the survey results gleaned much more information that was not utilized in this study.

Recommendations

Recommendations for future projects are diverse. With the creation of this tool, this study can now be repeated in other states, and areas to include urban, suburban settings, and even schools. Other questions can be asked and more needed information can be gained for our knowledge base on this growing topic of NP residencies. With this information, programs can develop to meet the needs of the NPs with follow up outcome studies which can then generate more funding for these projects. As this study showed funding still remains a large question in regards to these programs.

Dissemination Plan

This author plans to disseminate this data at a nursing research night at his intuition in the winter. It will be published in the Journal of the Nurse Practitioner Association of New York state a peer reviewed journal. The data will also be used in discussion of a newly developing joint effort in creating a NP and family practice residency program at his intuition.

Analysis of Self

Pursuit of this author's doctoral of nursing practice degree began as a push from the regulatory bodies. It has however, turned into a journey of unforgettable personal and professional growth. This journey began after practicing for 12 years as a family Nurse Practitioner in a rural upstate health center watching quick turnover of new graduates who would fail within their first year of practice. This started happening all too regularly. When it came time to think of a final project I knew I wanted to do something to incorporate this into this. The DNP courses gave this author an insight into healthcare systems, evidence-based practice and improved writing and leadership skills. Through this journey, expertise has been gained in leadership, healthcare policy and on NP residencies and may lead to a new position as director of an NP residency program currently being developed with this author's help and expert knowledge. This author has now sat at the table on more boards, and has become more active politically in his state and national organizations. This project and education has allowed him to evolve into a new chapter in his nursing career.

Summary

The purpose of this project was to assess the knowledge and attitudes of administrators and NPs at Bassett Healthcare regarding NP residency programs, and to identify any differences between these two groups. The literature review provided the evidence, and the theoretical model provided the framework to comprehend the problem. A gap was discovered in the literature leading to creation and validation of a tool for the study. Findings showed that both NPs and administrators were on the same page when it

came to understanding the need for a NP residency program. However, they differed drastically on the question of who should pay for said program. Funding for NP residency programs has been a hot topic lately and appears will continue to be one in the future. This subject however needs to be addressed before a project of this nature can go forward. Section five introduces the scholarly product/executive summary that will be presented to a group of key players at this author's institution who are evaluating the possibility of initiating a NP residency program there.

Section 5: Scholarly Product

Executive Summary

Primary care today is in a state of crisis. Multiple solutions are being attempted to solve this problem, one of which is encouraging more RN students to go straight through school for their DNP and nurse practitioner certifications. Solutions of this nature, however, lead to new NPs with less experience and leadership skills in a healthcare system that is becoming more complex. One answer to this problem is the creation of an NP residency program.

Prior to implementing this solution, it is important to assess the knowledge and attitudes regarding this innovative program. A tool was validated and created to serve this purpose and the above two end points were tested in an upstate rural healthcare system in New York State.

The results found no statistical differences in the groups when it came to knowledge and beliefs regarding these programs. Both groups were in agreement that NP residency programs were needed. However, in this study, I found that the significant question of who should pay for them could create contention in starting NP residency programs in the future.

This same contention is echoed in nurse residency programs; however, these have shown long term savings in retention and recruitment that offset the initial costs for organizations (Goode et al. 2013). My recommendations are that this solution be looked at as a feasible solution for this increasing problem and that dialogue continues on the

problem of funding for this program that has been endorsed, as needed, by both administrators and NPs.

References

American Academy of Family Physicians. (2012). *Independent practice authority for NPs threatens to splinter care, undermine PCMH.* Retrieved from http:// www.aafp.org/news/nppolicy.

American Association of Colleges of Nursing. (2006). *The essentials of doctoral education for advanced nursing practice.* Retrieved from http://www.aacn.org/dnpessentials.

American Association of Nurse Practitioners. (2014). *Nurse practitioner perspective on education and post-graduate training.* Retrieved from: http://www.aanp.org/nproundtablestatementmay6th.pdf.

American College of Clinical Pharmacy. (2008). *Task force on residencies.* Retrieved from: http://www.accp.com/whitepapers/residencies.

American Medical Association. (2012). *The AMA M*

medical student assembly meeting handbook. Retrieved from: http://www.ama.org/resources/np/medicalhome.

American Medical Association. (2013). *Residency programs: an inside look.* Retrieved from: http:// www.ama.org/residency.

American Medical Group Association. (2013). *Physician turnover hits new high as housing and stock markets recover.* Retrieved from: http://www.amga.org/news/article.

American Society of Health-System Pharmacists. (2014). *History of residency training.* Retrieved from: http://www.ashp.org/residencyhistory. Association of American

Colleges and Universities (2013). *The liberal education and america's promise (LEAP) employer educator compact survey.* Retrieved from: http://www.aacu.org/leap/presidentstrust/compact/documents/compact.pdf.

Auerbach, D. I., Chen, P. G., Friedberg, M. W., Reid, R., Lau, C., Buerhaus, P. I., & Mehrotra, S. (2013). Nurse managed health centers and patient-centered medical homes could mitigate expected primary care physician shortage. *Health Affairs, 32,* 1933-1941.

Bahouth, M. N., & Esposito-Herr, M. B. (2009). Orientation program for hospital-based nurse practitioners. *Advanced Critical Care, 20,* 82-90. doi:10.1377/hlthaff.2013.0596

Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice.* Menlo Park, CA: Addison Wesley.

Blanchard, S. B., & Blanchard, J. S. (2006). The prevalence of mentoring programs in the transition from student to practitioner among U.S. dental hygiene programs. *Journal of Dental Education, 70,* 531-535. Medline

Bodenheimer, T., & Hoangmai, H. (2010). Primary care: Current problems and proposed solutions. *Health Affairs, 29*, 799-805. doi:10.1377.hlthaff.2010.0026

Bodenheimer T. (2011). Lessons from the trenches: A high-functioning primary care clinic. *New England Journal of Medicine, 65,* 5-8. doi:10.1056.nejmp1104942

Boyar, K. L. (2012). *Nurse practitioner residency programs and healthcare reform.* Retrieved from. Brown, M. A., & Olshansky, E. F. (1997). From limbo to legitimacy: A theoretical model of the transition to the primary care nurse

practitioner role. *Nursing Research, 46,* 46-51. doi:1097/00006199-199701000-00008

Bucci, K. K., Knapp, K. K., Ohri, L. K., & Brooks, P. J. (1995). Factors motivating pharmacy students to pursue residency and fellowship training. *American Journal of Health System Pharmacists, 52,* 696-701.Medline

Bullen, D. (2013). *Opening doors.* Retrieved from http://www.nurse-practitioners-and-physician-assistants.advanceweb.com.

Castiglioni, A., Bellini, L. M., & Shea, J. A. (2004). Program directors' views of the importance and prevalence of mentoring in internal medicine residencies. *Journal of General Internal Medicine, 19,* 779-782. doi:10:1111/j.1525.1497.2004.30169.x

Cave, J., Woolf, K., Jones, A., & Dacre, J. (2009). Easing the transition from student to doctor: How can medical schools prepare their students for starting work? *Medical Teacher, 31,* 403-308. doi:10.1080/01421590802348127

Colbert, J. A. (2013). Experiments in continuity: Rethinking residency training in ambulatory care. *New England Journal of Medicine, 369,* 504-506. doi:10.1056/nejmp1301604

Community Health Center INC. (2013). *Assuring transition success: A scalable and replicable design for family nurse practitioner residency programs.* Retrieved from http://www.chc1.com. Connell, J., & Kubisch, A. (1998). Applying a theory of change approach to evaluating comprehensive community initiatives. In K.Fulbright-Anderson, A.Kubisch, & J.Connell (Eds.) *New approaches to*

evaluating community initiatives, Vol 2. Washington, DC: Aspen Institute.

Council On Dental Education. (1957). Hospital dental internships andresidencies approved by the council on dental education. *Journal of the American Dental Association, 55,*302-320. Medline

Davis, S. J., & Winek, J. (1989). Improving expository writing by increasing background knowledge. *Journal of Reading, 33*(3), 178-181. Cocrine Reviews

Department of Veterans Affairs. (2011). *VA dental residency programs.* Retrieved from http://www.va.gov/residencyDepartment of Veteran Affairs. (2013). A *pilot program: Mental health nurse practitioner residency.* Retrieved from http:// www.va.gov/oaa.

Fairman, J. A., Rowe, J. W., Hassmiller, S., & Shalala, D. E. (2011). Broadening the scope of nursing practice. *New England Journal of Medicine, 364,* 194-196. doi:10.1056/nejmp.1012121

Fishfader, V., Hennig, B., & Knott, P. (2002). Physician assistant student and faculty perceptions of physician assistant residency training programs. *Perspective on Physician Assistant Education, 13,* 34-38. doi:10.1097/013367895-200213010-00006

Fitzgerald, C., Kantrowitz- Gordon, I., Katz, J., & Hirsch, A. (2012). Advanced practice nursing education: Challenges and strategies. *Nursing Research and Practice, 201,* 1155-1163. doi:10.1155/2012/854918

Fletcher, K. E., French, C. T., Irwin, R. S., Corapi, K. M., & Norman, G. R. (2010). A

prospective global measure, the punum ladder, provides more valid assessment of quality of life than a retrospective transition measure. *Journal of Clinical Epidemiology, 63, 1123-1131.* doi:10.1016/j.jclinepi.2009.09.015

Flinter, M. (2005). Residency programs for primary care nurse practitioners in federally qualified health centers: a service perspective. *Online Journal of Issues in Nursing, 10, 3-13.* Medline-plus

Flinter, M. (2012). *From new nurse practitioner to primary care provider: Bridging the transition through FQHC-based residency training.* Retrieved from: http://www.nursingworld.org/anaperiodicals.

Ford, L. (1986). Nurse, Nurse practitioners: the evolution of primary care. *Image Journal of Nursing Scholarship, 18, 177-180.* Medline

Goode, C. J., Lynn, M. R., Krsek, C., and Bednash, D. (2009). Nurse residency programs: an essential requirement for nursing. *Nursing Economics, 27, 142-147.* Medscape

Goode, C. J., Lynn, M. R., McElroy, D., Bednash, G.D., Benjamin, M. (2013). Lessons learned from 10 years of research on a post-baccalaureate nurse residency program, *Journal of Nursing Administration, 43, 73-79.* doi:10.1097/nna.0b013e31827f205c

Goode, C. J., & Williams, C. A. (2004). Post- baccalaureate nurse residency program. *Journal of Nursing Administration, 34, 71-77.*

doi:10.1097/00005110-200402000-00004

Harrington, S. (2011). Mentoring new nurse practitioners to accelerate their development as primary care providers: a literature review. *Journal of the American Academy*

of Nurse Practitioners, 23,168-174.

doi:10.1111/j.1745-7599.2011.00601

Hart, A. M. (2013). *National NP preparedness survey, 2012.* Retrieved from: http://www.nonpf.org/annualmeeting.

Hart, A. M., & Macnee, C. L. (2004). How well are nurse practitioners prepared for practice: results of a 2004 questionnaire study. *Journal of the American Academy of Nurse Practitioners, 19, 35-42.* doi:10.1111/j.1745-7599.2006.00191

Hartman, C. (2006). *Making the transition.* Retrieved from: http://www.uspharmacist.com.

Health Information Technology for Economic and Clinical Health Act. (2009). *About HIT.* Retrieved from: http://www.hhs.gov/hitec.

Health Policy Briefs. (2013). *Patient engagement.* Retrieved from: http://www.healthaffairs.org.

Hill, L. A., & Sawatzky, J. V. (2011). Transitioning into the nurse practitioner role through mentorship. *Journal of Professional Nursing, 27, 161-167.* doi:10.1016/j.profnurs.2011.02.004

Hooker, R. S. (1991). Employment specialization in the PA profession. *Journal of the American Academy of Physician Assistants, 5, 695-703.* Pubmed

Institute for Alternative Futures. (2012). *Primary Care 2025: A scenario exploration.* Retrieved from: http://www.altfutures.org/pubs.

Institute of Medicine. (1996). *Primary Care: America's health in a new era.* Retrieved from: http://www.iom.edu/primarycare.

Institute of Medicine. (2010). *The future of nursing: leading change, advancing health*.Retrieved from: http://www.iom.edu/futureofnursingJaspen, B. (2013). *Amid doctor shortage, hospitals turn to dwindling supply of nurses, physician assistants.* Retrieved from: http://www.forbes.com.

Jayadevappa, R., & Chaatre, S. (2011). Patient centered care : a conceptual model and review of the state of the art. *The Open Health Services and Policy Journal, 4, 15-25.* doi:10.2174/1874924001104010015

Johns Hopkins. (2013). *The four founding physicians.* Retrieved from: http://www.hopkinsmedicine.org/history.

Kettner, P. M., Moroney, R. M. & Martin, L. L. (2013). *Designing and managing programs: an effectiveness-based approach.* Los Angeles, California, Sage.

Kromar, C. (1991). Organizational entry: the case of the clinical nurse specialist. *Clinical Nurse Specialist, 5, 38-42.*

doi:10.1097/00002800-199100510-00012

Krugman, M., Bretschneider, J., Horn, P. B., Krsek, C. A., Moutafis, R. A., & Smith, M. A. (2006). The national post-baccalaureate graduate nurse residency program: a model for excellence in transition to practice. *Journal For Nurses in Staff Development, 22, 196-205.*

doi:10.1097/00124645-200607000-00008

Kuzon, W. M., Urbanchek, M. G., & McCabe, S. (1996). The seven deadly sins of statistical analysis. *Annals of Plastic Surgery, 37, 265-272.* doi:10.1097/00000637-199609000-00006

Lam, H. T. C., O'Toole, G. T., Arola, P. E., Kashner, M., & Chang, B. K. (2012). Factors associated with the satisfaction of millennial generation dental residents. *Journal of Dental Education, 76, 1416-1426.* Cochrane

Leedy, P.D. & Ormrod, J. E. (2010). *Practical research: planning and design*. (NinthEdition). NYC: Merrill.

Lenz, E. R., Mundinger, M. O., Kane, R. L., Hopkins, S. C., & Lin, S. X. (2004). Primary care outcomes in patients treated by nurse practitioners or physicians: two-year follow-up. *Medical Care Research and Review,* 61, 332-351. doi:10.1177/1077558704266821

Lesko, S., Fitch, W., & Pauwels, J. (2011). Ten year trends in the financing of family medicine training programs: considerations for planning and policy. *Journal of Family Medicine, 43,543-550.* Medline

Lindsey, G. & Kleiner, B. (2005). Nurse residency program: an effective tool for recruitment and retention. *Journal of Health Care Finance, 31, 25-32.* PubMed

Lyon, D. E. & Peach, J. (2005). Primary care providers' views of precepting nurse practitioner students. *Journal of the American Academy of Nurse Practitioners, 13, 237-241.* doi:10.1111/j.1745-7599.2001.tb00027.x

Mangelsdorff, A.D., Twist, P., Zucker, K., Ware, J., & George, J. (1992). Patient satisfaction survey, 1991-1992. (Consultation Report No. CR92-005). Fort Sam Houston, TX: U.S. Army Health Care Studies & Clinical Investigation Activity.

Mark, D. D., Byers, V. L., & Mays, M. Z. (2001). Primary care outcomes and provider practice styles. *Military Medicine,* 166, 875-880. Medline

McEwen, M., & Wills, E. M. (2011). *Theoretical basis for nursing.* (3rd Edition). Philadelphia, P.A.: Lippincott Williams & Wilkins.

McKinlay, J. (2008). When there is no doctor: reasons for the disappearance of primary care physicians in the U.S. during the early 21st century. *Social Science & Medicine, 67*, 1481–1491. doi:10.1016/j.socscimed.2008.06.034

Merriam-Webster. (2014). *Definition of knowledge.* Retrieved from: http://www.merriam-webster.com.

Mitchell, P., Wynia, M., Golden, R., McNellis, B., Okun, S., Webb, C. E., Rohrbach, V., and Von Kohorn, I. (2012). *Core principles and values of effective team-based health care.* Retrieved from: http://www.nationalalahec.org.

Mundinger, M. O., Kane, R. L., Lenz, E. R., Totten, A. M., Tsai, W., & Cleary, P. D. (2000). Primary care outcomes in patients treated by nurse practitioners or physicians: a randomized trial. *Journal of the American Medical Association,* 283(1) 59-68. Cochrane

National Council of State Boards of Nursing. (2013). *Transition to practice.* Retrieved from: http://www.ncsbn.org/transitions.

Newton, J. W. (1987). The employment experience and professional development of first year New Zealand dental graduates. *New Zealand Dental Journal, 83, 98-100.* PubMed

Norman, G. (2010). Likert scales, levels of measurement and the "Laws" of statistics. *Advance In Health Science Education, 15, 625-632.* doi:10.1007/s10459-101-9222-y

Nurse Executive Center. (2008). *Bridging the preparation-practice gap.* Retrieved from: http://www.hci-portal.hci.utah.edu/sites/hch-nursing.

Nursing Solutions Inc. (2013). *2013 national healthcare and RN retention report*. Retrieved from: http://www.nursingsolutions.com.

Oxford Dictionary. (2014). *Definition of attitudes.* Retrieved from: http://www.oxforddictionaries.com.

Patient Protection and Affordable Care Act. (2010). *about.* Retrieved from: http://www.hhs.gov/paca.

Pettigrew, A. & Whipp, R. (1991). *Managing change for competitive success.* Oxford, England, Blackwell.

Pinkerton, J. & Bush, H. A. (2000). Nurse practitioners and physicians: patients' perceived health and satisfaction with care. *Journal of the American Academy of Nurse Practitioners,* 12, 211-217.

doi:10.1111/j.1745-7599.2000.tb00184.x

Polit, D. F., & Beck, C. T. (2003). The content validity index: are you sure you know what's being reported? Critique and recommendations. *Research in Nursing and Health, 29, 489-497.* doi:10.1002/nur.20147

Polit, D. F., & Beck, C. T. (2004). *Nursing research: principles and methods.* (7th Edition). Philadelphia: Lippincott, Williams & Wilkins.

Polit, D. F., Beck, C. T., & Owen, S. V. (2007). Focus on research methods: is the CVI an acceptable indicator of content validity? Appraisal and recommendations. *Research in Nursing and Health, 30, 459-467.* doi:10.1002/nur.20199

Polit, D. F. (2010). *Statistics and data analysis for nursing research.* (2nd Edition). New Jersey: Pearson Education Inc.

Rand Health Website, (2005). *NP survey.* Retrieved from: http://www.rand.org/health/surveys.

Sanders, B. (2013). *Senate panel diagnoses primary health care crisis.* Retrieved from: http://www.sanders.senate.gov/newsroom. Sargent, L., & Olmedo, M. (2013). Meeting the needs of new-graduate nurse practitioners:a model to support transition. *Journal of Nursing Administration, 43, 603-610.* doi:10.1097/01.nna0000434506.77052.d2

Simmonds, E. (2012). *How to make the transition from student to professional.* Retrieved from: http://www.careeroptionsmagazine.com.

Squire, J. R. (1983). Composing and comprehending: two sides of the same basic process. *Language Arts, 60*, 581-589. Medline

U.S. Department of Health and Human Services. (2010). *The registered nurse population: findings from the 2008 national sample survey of registered nurses.* Retrieved from: http://www.bhpr.hrsa.gov/healthworkforce/rnsurveys/final. U.S. Department of Health and Human Services (2010). *HHS awards $320 million to expand primary care workforce.* Retrieved from: http://www.hhs.gov/news/press/2010pres/09/20100927e.html.

U.S. Senate Committee on Health, Education, Labor and Pensions. (2013). *Report by the subcommittee on primary health and aging.* Retrieved from: http://www.help.senate.gov.

Waltz, C. F., Strickland, O. L., & Lenz, E. R. (2005). *Measurement in nursing and health research.* (3rd Edition). New York: Springer.

Weeks, W. B., Yano, E. M., & Rubenstein, L. V. (2002). Primary care practice management in rural and urban veterans health administration settings. *Journal of Rural Health, 18, 298-303.*

doi:10.1111/j.1748-0361.2002.tb00890.x

Weisberg, R. (1988). 1980s: A change in focus of reading comprehension research: a review of reading/learning disabilities research based on an interactive model of reading. *Learning Disability Quarterly, 11*, 149-159. doi:10.2307/1510993

Williams, C. A., Goode, C. J., Krsek, C., Bednash, G., & Lynn, M. (2007). Post-baccalaureate nurse residency one-year outcomes. *Journal of Nursing Administration, 37, 357-365.* doi:10.1097/01.nna.0000285112.14948.0f

Woolliscroft, J. O., Palchik, N. S., Dielman, T. E. & Stross, J. K. (1985). Self-evaluation by house officers in a primary care training program. *Journal of Medical Education, 60, 840-846.* Cochrane

Woolf, S. H. (2012). The price of false beliefs: unrealistic expectations as a contributor to the healthcare crisis. *Annals of Family Medicine, 10,491-494.* doi:10.1370/afm.1452

Zaccagnini, M. E., & White, K. W. (2011). *The doctor of nursing practice essentials: a new model for advanced practice nursing.* Boston, Massachusetts, Jones and Bartlett.

Appendix A: Knowledge and Attitudes Regarding NP Residencies (KARNPR)

Demographic Questions

Age (in years):

Gender:

- Male
- Female

Professional Licensure:

- RN
- NP
- MD
- CRNA
- Other
- None

Current Title:

- CXO (CFO, CNO, CIO, COO, CEO)
- Director
- Manager
- Supervisor
- Other

Years in current position:

Years of work experience under current licensure:

Have you completed a residency program?

Have you worked with or overseen individuals in a residency program?

Highest level of education completed?

- High School
- Bachelor prepared
- Master's degree
- Doctoral degree

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A patient-centered care approach requires the need for greater experiential learning, including a post-graduate NP residency					
NP residency programs will improve access to care for vulnerable patient populations					
NP residency programs cause an unnecessary increase in existing providers' workloads					
NP residencies can improve the quality of health care given by NPs					
NP residency programs can help with the transition from RN to NP					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
NP residency programs will greatly improve patient safety					
NPs who complete a residency program will be more costly to employ					
NP residency programs can help in retention					
NP residency programs will decrease the availability of care to vulnerable patient populations					
NP residency programs can alleviate some of the existing workloads					
NP residency programs can help with recruitment					
NP residency programs will be costly to consumers of care					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
NP residency programs will compromise patient safety					
NPs who complete residency programs will be more employable					
A NP residency program will be an attractive recruitment tool for employers					
NP residency programs should be required for all NP students					
NP residency programs will result in health care cost savings					
A NP residency program will be costly for employers					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
NP residency programs are likely to discourage them from choosing to enter primary care					
NP residency programs will result in few improvements in patient outcomes					
Residency training is equal to on the job training					
NP residents will commit/lead to more patient errors					
Implementation of a residency program will result in preparation of fewer NPs					
NP residents will have greater job mobility					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
NP residency programs should be required only for those NP students who are inexperienced RNs					
NP residency programs are likely to encourage specialization					
Beginning salaries will be higher for those NPs who have completed a NP residency program					
NP residency programs will greatly reduce patient errors					
Implementation of a residency program will likely attract more candidates into the field					
NP residency programs currently exist in some states					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
NP residency programs will greatly improve patient outcomes					
(NPs only) I felt confident in my skills as a NP when I completed my graduate education and training					

If NP residency programs were to be required, who should bear the cost?

- Student
- Training program
- State subsidies
- Federal subsidies
- Employer-based programs

What should the length of the residency programs be?

- None
- One year for the inexperienced
- One year for all
- Two years for the inexperienced
- Two years for all

Appendix B: I-CVI and S-CVI Scores for Knowledge and Attitudes Regarding NP Residencies Survey

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	I-CVI Score
A patient-centered care approach requires the need for greater experiential learning, including a post-graduate NP residency						1.00
NP residency programs will improve access to care for vulnerable patient populations						1.00
NP residency programs cause an unnecessary increase in existing providers' workloads						0.83
NP residencies can improve the quality of health care given by NPs						1.00

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	I-CVI Score
NP residency programs can help with the transition from RN to NP						1.00
NP residency programs will greatly improve patient safety						1.00
NPs who complete a residency program will be more costly to employ						1.00
NP residency programs can help in retention						1.00
NP residency programs will decrease the availability of care to vulnerable patient populations						1.00
NP residency programs can alleviate some of the existing workloads						1.00
NP residency programs can help with recruitment						1.00

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	I-CVI Score
NP residency programs will be costly to consumers of care						1.00
NP residency programs will compromise patient safety						0.83
NPs who complete residency programs will be more employable						1.00
A NP residency program will be an attractive recruitment tool for employers						0.83
NP residency programs should be required for all NP students						0.83
NP residency programs will result in health care cost savings						0.83
A NP residency program will be costly for employers						0.83

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	I-CVI Score
NP residency programs are likely to discourage them from choosing to enter primary care						1.00
NP residency programs will result in few improvements in patient outcomes						0.83
Residency training is equal to on the job training						0.67
NP residents will commit/lead to more patient errors						0.67
Implementation of a residency program will result in preparation of fewer NPs						0.83
NP residents will have greater job mobility						1.00

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	I-CVI Score
NP residency programs should be required only for those NP students who are inexperienced RNs						0.67
NP residency programs are likely to encourage specialization						0.67
Beginning salaries will be higher for those NPs who have completed a NP residency program						0.83
NP residency programs will greatly reduce patient errors						0.83
Implementation of a residency program will likely attract more candidates into the field						1.00
NP residency programs currently exist in some states						1.00

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	I-CVI Score
NP residency programs will greatly improve patient outcomes						1.00
(NPs only) I felt confident in my skills as a NP when I completed my graduate education and training						1.00

If NP residency programs were to be required, who should bear the cost? I-CVI Score 1.00

- Student
- Training program
- State subsidies
- Federal subsidies
- Employer-based programs

What should the length of the residency programs be? I-CVI Score 1.00

- None
- One year for the inexperienced
- One year for all
- Two years for the inexperienced
- Two years for all

The S- CVI score was 0.91.

Appendix C: Knowledge and Attitudes regarding NP Residency Programs I

Demographic Questions

Age (in years):

Gender:

- Male
- Female

Professional Licensure:

- RN
- NP
- MD
- CRNA
- Other
- None

Current Title:

- CXO (CFO, CNO, CIO, COO, CEO)
- Director
- Manager
- Supervisor
- Other

Years in current position:

Years of work experience under current licensure:

Have you completed a residency program?

Have you worked with or overseen individuals in a residency program?

Highest level of education completed?

- High School
- Bachelor prepared
- Master's degree
- Doctoral degree

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A patient-centered care approach requires the need for greater experiential learning, including a post-graduate NP residency					
NP residency programs will improve access to care for vulnerable patient populations					
NP residency programs cause an unnecessary increase in existing providers' workloads					
NP residencies can improve the quality of health care given by NPs					
NP residency programs can help with the transition from RN to NP					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
NP residency programs will greatly improve patient safety					
NPs who complete a residency program will be more costly to employ					
NP residency programs can help in retention					
NP residency programs will decrease the availability of care to vulnerable patient populations					
NP residency programs can alleviate some of the existing workloads					
NP residency programs can help with recruitment					
NP residency programs will be costly to consumers of care					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
NP residency programs will compromise patient safety					
NPs who complete residency programs will be more employable					
A NP residency program will be an attractive recruitment tool for employers					
NP residency programs should be required for all NP students					
NP residency programs will result in health care cost savings					
A NP residency program will be costly for employers					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
NP residency programs are likely to discourage them from choosing to enter primary care					
NP residency programs will result in few improvements in patient outcomes					
Implementation of a residency program will result in preparation of fewer NPs					
NP residents will have greater job mobility					
Beginning salaries will be higher for those NPs who have completed a NP residency program					
NP residency programs will greatly reduce patient errors					

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Implementation of a residency program will likely attract more candidates into the field					
NP residency programs currently exist in some states					
NP residency programs will greatly improve patient outcomes					
(NPs only) I felt confident in my skills as a NP when I completed my graduate education and training					

If NP residency programs were to be required, who should bear the cost?

- Student
- Training program
- State subsidies
- Federal subsidies
- Employer-based programs

What should the length of the residency programs be?

- None
- One year for the inexperienced
- One year for all
- Two years for the inexperienced
- Two years for all