THE ROLE OF THE NURSE PRACTITIONER IN THE PATIENT CENTERED MEDICAL HOME

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Abstract

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Since the 1960's Nurse Practitioners (NPs) have been successfully providing primary care to individuals throughout the life cycle. The role of the NP, however, is not currently well defined. The public and even other health care providers do not always understand the skill set and training of the NP. Consequently, NPs are not always able to practice to the full extent of their state-mandated scope of practice or to fully utilize their training. At a time when health care in general and primary care in particular are the focus of national debate, NPs should mount a coordinated effort to define their unique contribution. The nursing model focuses on health maintenance, education, and partnerships with patients. This background prepares NPs to function effectively as primary health providers (PCPs) in a healthcare model that emphasizes health promotion, continuity and, patient-centered care such as the Patient Centered Medical Home (PCMH). This paper presents an argument for the full inclusion of NPs as PCPs within the PCMH.
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Introduction

Healthcare in the United States stands poised for a period of change. The conversation regarding healthcare reform is far-reaching and often polemic. A current focus is expanding access to primary care services in order to improve health outcomes while preserving resources. One model proposed for this expansion is the Patient Centered Medical Home (PCMH). "A medical home is a patient- and family-centered source of care that offers regular, continuous primary and preventive care for the people it serves" (Hawkins & Groves, 2011, p. 93)

The nurse practitioner (NP) role represents an as yet ill-defined variable in the process. In the United States, NPs, also referred to as Advanced Practice Nurses (APNs) or Advanced Practice Registered Nurses (APRNs), "are registered nurses who are prepared, through advanced education and clinical training, to provide a wide range of preventive and acute health care services to individuals of all ages" (American College of Nurse Practitioners, n.d., para. 1). Approximately 70-80 percent of APNs work in primary care (Naylor & Kurtzman, 2010). Since the inception of the nurse practitioner role, NPs have trained for and practiced in primary care. They have lead innovations for increasing access to care in rural and urban communities. NPs are trained to provide care from birth to death, emphasizing health maintenance and partnerships with patients: essential components of primary care.

When exercising their full scope of practice, NPs are licensed by their state to assess, diagnose and treat patients independently. This includes full prescriptive privileges. Several barriers exist that prevent NPs from practicing to their full scope. Those frequently cited include variations in legislation from state to state and disparities in reimbursement when NPs perform similar services as physicians (Naylor & Kurtzman, 2010). With respect to the PCMH, a significant barrier to participation by NPs is the definition of a primary care
provider. Specifically, some proponents of the PCMH do not consider licensed primary care providers other than physicians as qualified to lead the PCMH (American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association, 2011).

Nurse practitioners should participate in the conversation on health care reform in order to establish their position in emerging healthcare models. NPs must provide policy makers, the healthcare community, and the public with evidence for their inclusion in reforms aimed at bolstering the primary care qualities of patient centered, regular, continuous, preventative care in the present health care delivery system. To that end, this paper offers an argument for the full inclusion of NPs as primary care providers in the patient centered medical home.

Methods

Several literature searches produced definitions for PCMH, primary care and primary health care. Literature searches were also performed to determine the evidence for several factors of role development of the NP including the current and theoretical role of the NP, care outcomes of NP practice, and legislative issues relating to NP scope of practice. Using the Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed, and the Cochrane Collaboration, the following search terms were utilized: medical home, patient centered medical home, primary care, primary health care, health care reform, nurse practitioners, NP, FNP, role, advanced practice, advanced practice nursing, APN, health outcomes, comparison, physicians, quality of care, cost of care, models of care, scope of practice. The majority of studies and essays included were published between 2000 and 2011 although some older material was consulted in order to understand the development of the NP role and the history of primary health care. Searches of reference pages from these sources
yielded more material not found in the original literature searches. Additionally, professional association sites, governmental sites, and not-for-profit organization sites were searched for materials regarding policy, legislation, and theory in health care reform and the role of the nurse practitioner.

**Review of Literature**

**Primary Care**

In the drive for healthcare reform attention has focused on expanding and strengthening primary care as a way to improve access, efficiency, and overall health outcomes (Bernstein, Chollet, Peikes, & Peterson, 2010; Grundy, Hagan, Chin Hansen, & Gumbach, 2010; Hawkins & Groves, 2011; Stange et al., 2010; Starfield, Shi, & Macinko, 2005). Currently, however, primary care in the United States is more aptly described as a medical specialty than a system of care delivery (Howell, 2010). A thorough discussion of primary care is beyond the scope of this paper. Nevertheless, in order to draw a comprehensive argument for the role of the NP within health care reform, it is helpful to clarify certain terms.

The International Conference on Primary Health Care convened by the World Health Organization (WHO) in September of 1978, in the former USSR city of Alma-Ata, defined primary health care as,

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Essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination.(World Health Organization, 1978, para. 6)
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The choice of the term primary health care rather than primary care was significant in this document. Framing the definition of primary health care was a broader description of health as, “a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity,” (World Health Organization, 1978, para. 1). Furthermore, the declaration of Alma-Ata stated that attaining the highest possible level of health should be a world-wide social goal and required actions in social and economic sectors in addition to the health sector (WHO, 1978). As Keleher has noted, “primary health care is a strategy of public health, derived from the social model of health,” (Keleher, 2001, p. 6). In their 2008 world health report, the WHO distinguished primary health care characteristics from those of conventional care in ambulatory or outpatient settings. These included: a) a focus on health needs rather than illness and cure; b) enduring personal relationships instead of relationships limited to the consultation; c) care that is continuous, comprehensive, and person-centered as opposed to episodic curative care; d) and health care providers who take responsibility for the health of the community all along the lifecycle and who address the determinants of ill health rather than limiting their responsibility to safe and effective advice at the moment of consultation (World Health Organization [WHO], 2008). Finally, primary health care was characterized by a partnership between people, their communities, and health care providers and not by consumer-provider relationships (WHO, 2008). The report cited evidence for direct correlations between the quality of care and improved outcomes and these characteristics: person-centeredness, comprehensiveness, continuity, and a regular entry point (WHO, 2008).

When Starfield, Shi, and Macinko (2005) reviewed the evidence regarding the relationship between primary care (their term) and health, they described the four main features of primary care services as: (a) first contact access for each new need, (b) long-term person-
disease) focused care, (c) comprehensive care for most health needs and, (d) coordinated care when it must be sought elsewhere (Starfield et al., 2005). In the literature reviewed for this paper, the term primary care referred predominantly to these services.

There is a significant body of evidence that primary care thus defined and practiced, can lead to better health outcomes. Utilizing both systematic literature reviews and their own collection of articles from major national and international general medical journals, Starfield and colleagues presented evidence, “first, that health is better in areas with more primary care physicians; second, that people who receive care from primary care physicians are healthier; and, third, that the characteristics of primary care are associated with better health,” (Starfield et al., 2005, p. 459).

Friedberg and colleagues explored the nuances of defining primary care in their review of the evidence regarding its efficacy (Friedberg, Hussey, & Schneider, 2010). They focused on three general definitions of primary care. In the first definition, primary care was a specialty and those providing this care (general pediatricians, general internists, family physician, other generalists, non-physician providers) were specialists (Friedberg et al., 2010). A second definition enumerated a set of health care functions; first-contact care for new health problems, comprehensive care for a majority of health problems, long-term person-focused care, and care coordination across providers; all provided at a usual source of care (Friedberg et al., 2010). In the third definition, primary care refered to the orientation of the health system (Friedberg et al., 2010).

They concluded that the best evidence supports both improving providers’ ability to fulfill primary care functions and reorienting the health system toward primary care (Friedberg et al., 2010). They cautioned against policy aimed simply at increasing the number of primary care
providers without reorienting the health system (Friedberg et al., 2010). They also noted that public expectation and use of primary care should be addressed as in for example, encouraging patients to go to primary care providers as first contact for new symptoms (Friedberg et al., 2010).

The Patient Centered Medical Home Model

The patient centered medical home (PCMH) has been advanced by various policy groups, government and non-governmental agencies, and professional organizations as a way to emphasize the characteristics of primary care within the current health system (American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association, 2011; American Nurses Association, 2010; Berenson et al., 2008; (Bernstein et al., 2010; Fellows of the American Academy of Nurse Practitioners, 2007; National Committee for Quality Assurance, 2011; U.S. Department of Health & Human Services, 2011). As currently envisioned the PCMH revises but does not replace the existing health system. The PCMH is a care delivery model introduced by the American Academy of Pediatrics (AAP) in 1967 (American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association, 2011). The model evolved in response to the challenges posed by providing care to children with special needs (Fellows of the American Academy of Nurse Practitioners, 2007). As described in the Joint Principles of the Patient-Centered Medical Home published by the AAFP, AAP, ACP, and AOA in 2007, the chief characteristics of the PCMH included:

1. A personal physician,
2. Physician-directed team-based medical practice,
3. Whole person orientation,
4. Coordinated and/or integrated care,

5. Quality and safety,

6. Enhanced access to care and,

7. Payment that appropriately recognizes the added value of the PCMH (p. 1–2).

In their 2007 report, the Fellows of the American Academy of Nurse Practitioners pointed out that this description excluded non-physicians from the definition of primary care provider. They proposed instead this definition of the primary care provider described by the Institute of Medicine Committee on the Future of Primary Care: “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.”(Fellows of the American Academy of Nurse Practitioners, 2007, expression Steps toward patient centered care). The committee noted that for 40 years, NPs have been providing primary care in a variety of collaborative models that pre-date the PCMH(Fellows of the American Academy of Nurse Practitioners, 2007).

In 2009 the American College of Physicians (ACP) published an executive summary entitled, “Nurse Practitioners in Primary Care.” This document reaffirmed that care within the PCMH was best provided by a physician led team. In particular, they stated that, “Patients with complex problems, multiple diagnoses, or difficult management challenges will typically be best served by physicians working with a team of health care professionals that may include nurse practitioners and other non-physician clinicians,”(American College of Physicians, 2009, Position 1 B). Nevertheless, in the interest of evaluating alternative models of care, the ACP suggested that demonstration projects could also investigate the effectiveness of nurse practitioner-led PCMH practices(American College of Physicians, 2009). In 2011, the ACP,

Both NPs and primary care physicians claim the PCMH model of care delivery particularly suits their skill set. The director of health policy for the American Academy of Nurse Practitioners, in describing the PCMH as patient centered with an emphasis on continuous, coordinated, and comprehensive care added, “all of this is basic nursing” (Lowes, 2011, p. 1). In contrast, the President of the American Academy of Family Physicians explained that primary care physicians, “are uniquely trained, comprehensively oriented, and prepared best to be the leader and coordinator of the patient-centered medical home” (Lowes, 2011, p. 2).

The publication of the ACP Executive Summary on Nurse Practitioners in Primary Care came in response to the many test projects and the increasing interest in the PCMH concept which in turn have led to the development of recognition or accreditation programs (American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association, 2011). If widely adopted, the standards for recognition from such organizations will affect both the kind of primary care provided in the United States and the types of providers reimbursed for this care. The nature of the participation of NPs is still in question.

The National Committee for Quality Assurance (NCQA) is a private, not-for-profit accrediting agency. The NCQA PCMH recognition program began in 2008 with 214 recognized
clinicians and 28 recognized sites and in December of 2010 there were 7,676 recognized
clinicians and 1,506 recognized sites (National Committee for Quality Assurance, 2011).
To date, healthcare organizations which have successfully used the NCQA’s standards to
improve care include integrated delivery system models both private not-for-profit (Group
Health Cooperative of Puget Sound) and governmental (Veterans Health Administration and VA
Midwest Healthcare Network, Veterans Integrated ServiceNetwork 23), private payer sponsored
initiatives, and Medicaid sponsored initiatives (Grumbach & Grundy, 2010).

Although not initially included in the definition of primary care provider under NCQA,
NPs eventually gained this recognition (Kidder, 2011). NP-led practices have also applied for and
gained certification as PCMHs (Kidder, 2011). One NP in such a practice, commented, “In many
respects, we view the medical home concept as ‘Nursing 101.’ We hope this inspires other NPs
to take this journey, so we can continue to demonstrate the added value of our profession in
primary care” (Kidder, 2011, p. 245).

The National Committee for Quality Assurance is not the only provider of accreditation
for PCMH. URAC (originally incorporated as, “Utilization Review Accreditation Commission,”
but now known only as, “URAC”), another independent, nonprofit organization, provides
accreditation, education and measurement programs (URAC, 2011). The Joint Commission has
also begun a Primary Care Medical Home (PCMH) Model for accredited Ambulatory Care
customers (The Joint Commission, 2011).

In 2006, the Tax Relief & Health Care Act mandated a demonstration of the PCMH
applied to Medicare (U.S. Department of Health & Human Services, 2011). This was called the
Medicare Medical Home Demonstration Project. Through the efforts of numerous nursing
organizations, including the American Academy of Nurse Practitioners, American College of
Nurse Practitioners, and the American Nurses Association, nurse practitioners and other non-physicians were included in the 2008 extension of the Medical Home Demonstration Expansion (Parsons Schram, 2010). Currently, the Centers for Medicare and Medicaid Services (CMS) are testing the PCMH in the Multi-payer Advanced Primary Care Practice Demonstration as well as the Federally Qualified Health Centers Advanced Primary Care Practice Demonstration (U.S. Department of Health & Human Services, 2011). Additionally, the Patient Protection and Affordable Care Act created the CMS Innovation Center which is directed to test a variety of models and expand them if they meet cost, quality, and access requirements (U.S. Department of Health & Human Services, 2011). These test projects replace the Medicare Medical Home Demonstration of 2006 (U.S. Department of Health & Human Services, 2011).

Clearly the definition of a primary care provider as well as the designation of providers eligible to coordinate a PCMH have implications both for the public receiving care and the providers who are reimbursed for that care. If widely recognized, organizations such as NCQA, URAC, or the Joint Commission have the power to dictate the standards by which healthcare is measured. The federal government has channeled a great many health care reform resources toward the PCMH and similar primary care oriented models. To remain actively involved in healthcare reform and as patient advocates, NPs must achieve national recognition as primary care providers.

**Nurse Practitioner Role: Current Evidence**

**Lack of Clarity and Existence of Barriers**

The struggle over recognition as primary care providers within the medical home model, or, indeed, any models of care, highlights a crucial challenge for nurse practitioners today. The role of the nurse practitioner is still not well defined even though nurse practitioners have been
providing care, especially primary care since 1960 (Miller, Snyder, & Lindeke, 2005). The NP role is not well-understood by laypersons or even by some health care professionals. Many professional nursing organizations, policy experts, and independent organizations call for an enhanced role for the nurse practitioner in an improved healthcare system, especially given the shortage of primary care providers (American Nurses Association, 2010; Bodenheimer & Pham, 2010; Institute of Medicine, 2010; Fellows of the American Academy of Nurse Practitioners, 2007; Parsons Schram, 2010). Yet, in order for NPs to assume a credible and permanent role in primary care, that role must be more clearly defined both to the general public and to other health care professionals.

In their summary of findings from 14 research studies and a review of legislation and regulation of practice across the United States, Miller, Snyder, and Lindeke (2005) argued that despite evidence that NPs provided quality, cost-effective care, barriers existed that limited practice and thus reduced the positive effects of this role. These included resistance and resentment to NP presence by physicians and also a lack of support from nurse colleagues and nurse administrators (Miller et al., 2005). A lack of peer networking was identified by rural NPs and a lack of public education regarding the NP role identified by both rural and urban NP’s (Miller et al., 2005). The latter also identified a lack of understanding of the role by other health professionals as a barrier to implementation of the NP role (Miller et al., 2005). The researchers also cited reimbursement as a barrier to the NP role in home health care (Miller et al., 2005). State regulations, restrictions on prescriptive authority, and the lack of hospital admitting privileges also prevented NP’s from contributing to the full extent of their knowledge and expertise (Miller et al., 2005).
The NP, also referred to as the advanced nurse practitioner (ANP) role, exists in many countries but the training and scope of practice vary widely (Pulcini, Jelic, Gul, & Yuen Loke, 2009). Therefore, comparisons between countries require cautious interpretation. Nevertheless, to one degree or another, the NP-APN role is in a formative stage globally and parallels can be identified (Pulcini et al., 2009). For example, a Canadian study of role development provided useful guidelines for United States NPs seeking to define their role within the PCMH model of primary care. In an analysis of the APN role introduction in Canada, the authors noted six issues:

1. Confusion about APN terminology,
2. Failure to define clearly the roles and goals,
3. Role emphasis on physician replacement/support,
4. Underutilization of all APN role domains,
5. Failure to address environmental factors that undermine the roles and,

The authors cautioned that poor or inadequate planning could lead to APNs functioning in a variety of ill-defined roles that did not take advantage of their full scope of practice and/or placed unrealistic expectations on the APN (Bryant-Lukosius et al., 2004). They suggested the introduction of APN roles in response to health needs rather than a transfer of role functions from physicians (Bryant-Lukosius et al., 2004). They argued that APNs are best utilized when given the opportunity to exercise the education, research and leadership aspects of the role as well as the clinical aspect (Bryant-Lukosius et al., 2004). In this manner, APNs could truly function as change agents for health care delivery (Bryant-Lukosius et al., 2004). APN roles
should be developed such that they complement rather than compete with existing roles (Bryant-Lukosius et al., 2004). It should be recognized that the kind of health care policy changes needed to advance the APN role are politically challenging and thus proceed slowly and often lag behind the implementation of new roles (Bryant-Lukosius et al., 2004). Continuous collection of evidence could direct and support the creation and implementation of APN roles (Bryant-Lukosius et al., 2004).

The Evidence for Nurse Practitioner Delivered Primary Care

As mentioned above, statements issued by various professional organizations representing physicians, describe physicians as the logical choice for coordination of primary care (American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association, 2007; American College of Physicians, 2009; American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, American Osteopathic Association, 2011; Lowes, 2011). The evidence however, does not support these statements. In fact, a large body of evidence indicates that NPs are a logical choice for coordinating primary care.

In 2010, the American Academy of Nurse Practitioners (AANP) released a revised, annotated bibliography describing studies published between 1974 and 2008 (American Academy of Nurse Practitioners, 2010). The studies included controlled trials, randomized controlled trials, literature reviews, meta-analyses, systematic reviews, governmental reports, survey data, policy analyses, cross-sectional studies, and retrospective observational studies (American Academy of Nurse Practitioners, 2010). This evidence, collected over more than 24 years indicated that NP care in a variety of settings was at least equivalent to that of physicians in quality (American
Academy of Nurse Practitioners, 2010). These settings included long-term care, primary care, emergent care and care of diabetic patients (American Academy of Nurse Practitioners, 2010).

Two of the more recent systematic reviews cited in the AANP document stand out for the rigor with which studies were assessed for inclusion. Horrocks, Anderson, and Salisbury (2002) conducted a systematic review of randomized controlled trials and prospective observational studies to determine whether nurse practitioners providing care at first point of contact, produced equivalent outcomes to physicians. They concluded that NPs were able to provide care that resulted in better patient satisfaction and similar health outcomes compared to care provided by physicians (Horrocks et al., 2002). The quality of care provided by the NP was at least as good and in some aspects better than that provided by the physician (Horrocks et al., 2002).

Because their work was international, Horrocks and colleagues captured a variety of healthcare models that utilized nurse practitioners. Their findings indicated that the organizational model in which care was delivered affected the care provided by NPs and the heterogeneity of measures of quality made comparisons difficult (Horrocks et al., 2002). The term “nurse practitioner,” was not used consistently and among countries, the training of the NP was not consistent (Horrocks et al., 2002). The authors stated that the quality of studies continued to improve over time (Horrocks et al., 2002). More attention to measuring consistent outcomes and using standardized methods for valuing resources could shed further light on the NP contribution (Horrocks et al., 2002).

The Cochrane review by Laurant and colleagues was originally published in 2005 and updated in 2009 (Laurant et al., 2009). Studies were chosen which compared primary care provided by nurses and doctors in similar settings (Laurant et al., 2009). The heterogeneity of outcomes measured across studies limited the authors’ ability to draw definitive
conclusions (Laurant et al., 2009). They cautiously concluded that appropriately trained nurses could provide primary care with as high quality and equivalent patient outcomes as physicians (Laurant et al., 2009). Patients may also generally have been more satisfied with the care provided by NPs (Laurant et al., 2009). NP’s might have created a demand for care by addressing previously unmet needs (Laurant et al., 2009). They may also have been less productive as certain studies show that they tend to offer more health advice and perhaps order more tests and utilize more services than physicians (Laurant et al., 2009).

These two, comprehensive reviews of the literature highlight several important aspects of NP role development to date. First, internationally, the NP/APN has been trained and utilized in a variety of settings to meet a wide variety of health care needs and while this provides useful information to apply to healthcare innovations it also leads to role ambiguity. Secondly, when appropriately trained, NPs/APNs can and have provided a high standard of care to a variety of patient populations. Lastly, both reviews point out that the data, collected over 36 years (from 1966-2002), demonstrates a very heterogeneous set of outcomes. There are in fact many ways of measuring the quality of care delivered and the nursing model addresses many aspects of care. It is logical that those who study advanced practice nursing will observe a wide variety of effects in health outcomes.

No one study measures quality to every critic’s satisfaction. Yet, on balance, the evidence demonstrates that NPshave provided care of equivalent quality to their physician colleagues. Most studies are critiqued with the assumption that the goal is to replace physicians with NPs. This inaccurate assumption leads to fruitless arguments. Instead, the conversation should focus on the principles articulated by the Board of Directors of the National Organization of Nurse Practitioner Faculties:
Nurse practitioners have always consulted physicians and other nurse practitioners when caring for patients who do not respond to treatment. The goal of nurse practitioner practice is not to replace or supplant physicians but, rather, to increase access to quality health care for the many patients whose health care needs fall within the nurse practitioner's scope of practice. In this role, nurse practitioners provide important services and free physicians' time to focus on the high-level diagnostic and therapeutic services for which they have been trained. Consultation and collaboration are essential skills for nurse practitioners, as they are for all members of the health care team. (The Board of Directors of the National Organization of Nurse Practitioner Faculties, 2000, p. 2523-2524)

Collaboration, not competition, can lead to improvements in healthcare quality. Such collaboration comes about in models of care that emphasize the strengths of NPs and of the nursing model.

**Defining a Current Role for Nurse Practitioners**

**Utilization of Nurse Practitioners in Primary Care**

Various studies examining the use of NPs in a variety of care delivery models illustrate how NPs are already contributing significantly to primary care. For example, Lin and colleagues used data from the National Hospital Ambulatory Medical Care Survey (NHAMCS) from 1997 to 2000, to describe the visits made to nurse practitioners in outpatient hospital clinics (general medicine, pediatrics, and obstetrics/gynecology) (Lin, Gebbie, Fullilove, & Arons, 2003). Of the estimated 256 million visits made to outpatient hospital clinics between 1997 and 2000, approximately 17 million visits involved NPs (Lin et al., 2003). This number included 48.9% in which the NP saw the patient independently, 18% in which the NP saw the patient in the
presence of a physician or resident, and 33.1% in which the NP acted as part of a team along with a licensed practical nurse, a registered nurse, or medical/nursing assistant (Lin et al., 2003). Visits to NPs accounted for 6.4% of the visits to general medicine clinics, 7.1% of the visits to pediatric clinics, and 9.8% of the visits to obstetrics/gynecology clinics (Lin et al., 2003). The NHAMCS excludes patient visits made to clinics run by NPs (Lin et al., 2003).

The authors noted that a greater number of NP attended visits were made in non-metropolitan areas which may have reflected the federal investment in programs to encourage NPs to practice in rural areas with a shortage of physicians and decreased access to primary care (Lin et al., 2003). Furthermore, a regional difference in NP involvement in hospital outpatient care may have been related to the differences in practice environment, with the West offering the most favorable environment in terms of independence and scope of practice (Lin et al., 2003). The authors attributed a long-standing acceptance by physicians of NPs in the care of women and children for the greater representation of NPs in pediatric and OB/GYN clinics (Lin et al., 2003).

When the Department of Veterans Affairs (VA) sought to expand primary care and contain costs, they endorsed the use of NPs as primary care providers (Huang, Yano, Chang, & Rubenstein, 2004). A survey of 131 primary care directors of all U.S. Department of Veterans Affairs medical centers (VAMC’s) in 1996 and 1999 found that NP use increased from 75% in 1996 to 90% in 1999 in VA primary care practices (Huang et al., 2004). The mean number of NPs per practice increased by approximately 60% and the rate of NP/10,000 primary care patients trended upward (Huang et al., 2004). The number of other primary care clinicians on staff remained stable (Huang et al., 2004). Variables linked to increased NP use in primary care were greater reliance on managed-care-oriented provider education programs, presence of NP
training programs, and more specialty-trained physicians/10,000 primary care patients (Huang et al., 2004). The authors noted that use of NPs varied significantly from practice to practice (Huang et al., 2004).

In the Institute of Medicine report, "The Future of Nursing: Leading Change, Advancing Health," the VA system was held as an example of redesigning the role of advanced practice nurses (Institute of Medicine, 2010). Features of the system commended by the report included promotion of a collaborative team and employing NPs as researchers, educators, and contributors to policy as well as primary care providers (Institute of Medicine, 2010). Additionally, the report noted that when compared with care provided to participants in the Medicare fee-for-service program, VA members received better care as measured by a variety of quality indicators (Institute of Medicine, 2010).

The evidence demonstrates that NPs can increase access to primary care as well as improve the quality of care delivered. Since the inception of the role, NPs have been meeting the healthcare needs of patients throughout the lifespan. They have done this independently and in collaborative environments. The nursing model guides this care and ensures a patient-centered, comprehensive, and health-maintenance orientation. As the nation considers redesigning healthcare to improve outcomes as well as access, NPs are an indispensible resource and a logical choice to lead a PCMH.

**Unique Contribution of Nurse Practitioners to Primary Care**

Two important aspects of defining the NP role within the context of healthcare reform are establishing the unique contribution of NPs and affirming the high quality of the care they provide. The latter has been well documented as noted above. The question of the unique nature of NP practice is a more subtle one but has been addressed both in research and theory.
De Geest and colleagues utilized research data and policy reports to apply systems theory to healthcare (De Geest et al., 2008). Although the authors practice in the Swiss health care system, their argument was based on international data and policy. They concluded that APNs could contribute to improving healthcare by focusing particularly on chronic illness care (De Geest et al., 2008). Their review of data showed that in health care models in which APNs took a central role, favorable outcomes were achieved in the five D’s of outcome research: death, disease, disability, discomfort, dissatisfaction and dollars (De Geest et al., 2008).

Pogue outlined an improved healthcare system in Canada and proposed the NP as the catalyst to enable the current system to evolve (2007). Such a system should emphasize prevention of diseases, illness, and injury and self-care of chronic disease, a focus which is already part of the “nursing paradigm” (Pogue, 2007, p. 35). Pogue quotes Uhlig in a 2006 presentation on collaborative practice, wherein he described nurse practitioners as a “disruptive innovation” (Pogue, 2007, p. 36). To that end, NPs could function as change agents within the healthcare system (Pogue, 2007).

Allan, Stanley, Crabtree, Werner, and Swenson (2005) reviewed the foundations of nursing practice and affirmed that health promotion and disease prevention were cornerstones of this practice. They presented the standards for Master’s Education for Advanced Practice Nursing and noted that among the core competencies related to health promotion and disease prevention there was an emphasis on clinical prevention concepts, research, epidemiology, policy, organization, and financing of health care (Allan, Stanley, Crabtree, Werner, & Swenson, 2005). Their conclusion: “A major responsibility of the nurse practitioner (NP) role historically has been health promotion” (Allan et al., 2005, p.262).
In their framework for introducing and evaluating APN roles, Bryant-Lukosius and DiCenso (2004), reaffirmed the unique contribution of the nursing model. While medicine often has directed the development of APN roles, better outcomes could be achieved when the APN role was given a strong nursing orientation (Bryant-Lukosius & Dicenso, 2004). In many settings this involved transition from a model based on illness towards a patient-focused, holistic, and integrated model of care which promoted health and quality of life (Bryant-Lukosius & Dicenso, 2004).

Dontje, Corser, Kreulen, and Teitleman (2004) captured the unique contribution of NPs in a conceptual model of nurse practitioner care delivery, the MSU Sustained Partnership Model of NP Primary Care. Of particular interest in the context of defining the role of the NP in the PCMH were the four components that the authors described as unique to NP practice: empowerment, continuity of care, shared decision making, and holistic care (Dontje, Corser, Kreulen, & Teitleman, 2004). They suggested that NPs had been taught to foster self-empowerment in clients by developing a helping relationship that enabled goal-setting and included advocacy where appropriate (Dontje et al., 2004). NPs fostered continuity of care by communicating client needs within their own teams and to providers in other health care settings (Dontje et al., 2004). They also assisted the client in navigating the health care system (Dontje et al., 2004). Shared decision making resulted when NPs made the effort to understand clients in the context of their real life situations, assisted clients in understanding their health situation so that they could make informed decisions, and affirmed client choices which met identified needs (Dontje et al., 2004). The authors described holistic care as a principal nursing value which was demonstrated by NPs providing primary care in a respectful, caring, and hopeful manner leading to a unique client-provider relationship (Dontje et al., 2004).
This work demonstrates how NPs make a unique contribution to primary care. Perhaps as importantly, given the current debates, NPs neither act as physician extenders nor do they attempt to replace physicians. NPs, practicing from the nursing model of care, provide a unique set of healthcare services that supports disease prevention, adjusts to the individual patient and family, and works collaboratively with other health professionals. Historically, nurses’ flexibility, adaptability, and creativity have enabled them to be at the forefront of innovation in care delivery. The PCMH is such an innovation for U.S. health care today and NPs are perfectly suited as primary care providers and leaders for such a model.

Conclusion

The PCMH is one of a number of healthcare redesign options seeking to expand the role of primary care in the US. The common themes of increasing access, coordination, communication, and continuity of care drive the development of these reform models. NPs already provide the kind of care that improves outcomes in terms of morbidity, mortality, function, patient satisfaction and cost. They have participated in expanding access to care, improving the quality of care, and controlling costs. Truly patient-focused, NPs seek to create relationships with clients that lead to self-empowerment and facilitate reaching optimal health. The nursing paradigm, within which NPs train and practice, emphasizes prevention, education, and patient-focused, integrated care. This is what the PCMH seeks to provide.

The nursing model has motivated nurses to act as change agents within healthcare since the beginning of the profession. Currently, the professional mission of NPs should include demonstrating the contribution they can make to improving healthcare in the US. The PCMH provides an excellent model in which NPs can exercise their full scope of practice while delivering care within an interdisciplinary team. Nurse Practitioners acting as fully recognized
primary care providers and leading teams providing integrated care will generate evidence to further define the NP role within a genuinely improved health care system.
References


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