

Jill Curren

Nurse Practitioners and Physician Assistants: Do You Know the Difference?

When I was a new graduate nurse working on a medical-surgical unit, I assumed that Karen was a physician as she rounded and wrote patient care orders. Another nurse identified Karen as a nurse practitioner (NP) and opened my eyes to a whole new world of advanced nursing practice. I was curious to know more about NPs and physician assistants (PAs), whom I also saw in patient care. Was it legal for them to write orders and prescriptions? My interest prompted a debate during lunch about what nurse practitioners and physician assistants could and could not do legally, and what their educational background and qualifications were. I was not the only one who couldn't identify the difference between them. Staff nurses should be able to distinguish their practice, privileges, and limitations.

Health care delivery in the United States has changed dramatically in the last few decades. The introduction of non-physician clinicians began in the 1960s with NPs and PAs filling some of the traditional physician roles (Hooker, 2006). Because of gaps in the distribution of physicians and services in the rural and inner city geographic regions, the roles were created originally to enhance and extend the medical care provided to patients by a professional who could function as an extension of a physician (Hooker & Berlin, 2002). These providers would have approxi-

mately one-half the education time of the physician, but would provide quality care under the supervision of a physician. They also saw a comparable number of patients at a significantly lower salary, thereby making them more cost effective (Hooker, 2006). Due to the rising costs of health care, viable cost-conscious alternatives have become increasingly popular with hospitals, physician practices, and insurers. The popularity and acceptance of these providers has been rooted not only in the finances but also in positive patient satisfaction and clinical outcomes (Roblin, Becker, Adams, Howard, & Roberts, 2004).

In 2004, 165,000 clinically active PAs and NPs accounted for approximately one-sixth of the medical workforce in the United States (Robert Graham Center, 2005). Their roles are not interchangeable, with some fundamental differences in scope of practice, licensure, legal definition, and independence in practice. Nurse practitioners are all registered nurses who have graduated from an accredited school and have passed a certification exam (Hooker, 2006). Physician assistants have varied backgrounds and may not have any medical education or experience before starting training. They are educated using a traditional medical model to become physician extenders. Nurse practitioners are skilled in health care maintenance and disease prevention, not just disease diagnosis and treatment. An important difference is that NPs are allowed to practice autonomously in most states. Physician assistants

are truly physician extenders because they practice under the license of a physician, never independently (Buppert, 2004).

Scope of Practice and Background

Physician assistants. Physician assistants are health care professionals who must be certified by a national examination process. They practice in accordance with the state law and under the supervision of a physician. Their scope of practice is related directly to the supervisory physician's practice. They are considered physician representatives and treat patients in the style favored by their employers. The supervisory physician is responsible for the PA at all times and must be available for consultation, either by phone or in person (American Academy of Physician Assistants [AAPA], 2006).

The PA role was initiated in the 1960s by a group of physicians at Duke University who recognized that a group of combat medics with experience from Vietnam lacked formal education. They started the first PA education program, training these medics similarly to the way physicians were "fast-track" trained during World War II (Society of Army Physician Assistants [SAPA], 2006). The background of the PA traditionally has been military corpsmen or medics but is now varied to include allied health professionals, such as respiratory therapists, physical therapists, and emergency medical technicians. However, many PAs have had little to no formal medical training or exposure prior to PA education.

Jill Curren, FNP-C, is an OB/GYN Nurse Practitioner, Florida Fertility Institute, St. Petersburg, FL.

Nurse practitioners. “A nurse practitioner is a registered nurse with advanced academic and clinical experience that enables him or her to diagnose and manage most common and many chronic illnesses. The nurse practitioner works either independently or as part of a health care team” (American Academy of Nurse Practitioners [AANP], 2005). All NPs must be certified nationally by examination before practicing (Hooker & Berlin, 2002).

Education

Like the first PA program, the first nurse practitioner educational program was started due to physician shortages in the 1960s. Henry K. Silver, a pediatrician, and Loretta C. Ford, a nursing professor, founded the first program at the University of Colorado. By the mid-1970s, most states had revised their regulations to allow NPs to diagnose and treat patients as well as prescribe medications (Buppert, 2004).

All PAs and NPs are now graduates of formal, accredited education programs. Historically, these tracks started as certificate programs, but now most are at the graduate level, providing a master's degree as a standard of education for both NPs and PAs (Hooker, 2006). More than 130 accredited PA programs exist, most of them affiliated with universities, but a few are associated with hospitals or the military. Master's degrees are offered in 90% of PA programs (U.S. Department of Labor [USDOL], 2006). Many emphasize generalist primary care modeled after allopathic and osteopathic curricula (Hooker & Berlin, 2002), but specialty programs do exist. For example, Duke University has an emphasis on surgery and the University of Colorado at Denver has a pediatric specialty (AAPA, 2006).

Admission requirements regarding college credit hours vary by school; some require previous work experience in the health care field. Most students attend full-time for an average of 2 years. The number of graduates has increased by 9% over the last 7 years (Hooker, 2006). All states require a passing grade on the Physician Assistant

National Certification Examination (PANCE) before entering practice. Physician assistants also must complete 100 hours of continuing medical education every 2 years and pass recertification exams every 6 years (USDOL, 2006).

More than 300 NP programs in the United States produced 6,552 graduates in 2005, a number that decreased from 8,200 in 1998 (Hooker, 2006). The decrease could be attributed to multiple factors, including a shortage of registered nurses in all roles. Most NPs (88%) hold a master's degree (Hooker & Berlin, 2002). Students attend school for an average of 2 years full-time. Most follow the primary care track, which includes adult, family, pediatrics, geriatrics, and women's health. Specialty tracks in neonatology, oncology, psychiatry/mental health, and emergency medicine also are available. The NP curriculum follows nursing models of practice and emphasizes health assessment, diagnosis, and treatment, as well as health care maintenance and disease prevention. More than 300 schools in the United States offer NP curricula (Hooker, 2006) (see <http://www.allnursingschools.com>).

Demographics and Characteristics

In addition to the differences in background and education, the characteristics and demographics for the two groups differ in several areas (see Table 1). A trend toward greater diversity in student ethnicity has been seen. Nonwhite students compose about 25% of the PA group and 15% of the NP students, due at least in part to the provision of government grants to schools that show active recruitment of minorities (Hooker & Berlin, 2002).

Areas of Practice

Approximately 85% of NPs and 50% of PAs practice in primary care (family practice, internal medicine, pediatrics, and women's health), compared to 30% of physicians. The others work in surgery, orthopedics, emergency medicine, and other medical specialties. Physician assistants are more often found in surgery, while many NPs gravitate to pediatrics and women's health (Hooker, 2006).

Supplying health care providers to areas of need has been a primary goal for the implementation of NP and PA programs. In rural areas, these providers may be the only clinician patients see. Currently, 23% of care in rural areas is given by NPs and PAs, compared with 13% by physicians (Hooker & Berlin, 2002). One study about care for the underserved in Washington and California found that PAs and NPs were more likely to work in rural locations with vulnerable populations or practice in areas with a shortage of health care professionals (Grumbach, Hart, & Mertz, 2003).

While the population is growing and baby-boomers are living longer, the number of physicians has not increased proportionately. More PAs and NPs will continue to be needed. Restriction in the number of hours in the residents' work week has created roles for NPs and PAs in acute care teaching hospitals, where they often are paired with a physician or physician group. More NPs and PAs also are becoming hospitalists, able to fill roles previously held by residents or interns (Hooker, 2006).

Abilities and Limitations

Licensure of NPs and PAs is a state responsibility, with each having regulations and statutes that define scope of practice. The state medical board is the usual licensing agency for PAs, while the state board of nursing licenses NPs. Each state's NP scope of practice, as established by the Nurse Practice Act, defines the roles, responsibilities, duties, and services for the profession. Some are very detailed and restrictive, and some are more broadly defined. Table 2 identifies several Web sites with more information about each role's practice.

In most states, NPs work in collaboration with a physician. However, in 16 states nurse practitioners are able to practice independently; 11 states provide prescriptive authority. According to the AAPA (2006), PAs now are licensed in 44 states. Only recently have PAs had any licensure requirement; previously, they were regulated through registration and certification. In all 50 states, PAs are man-

Table 1.
Comparison of Nurse Practitioners and Physicians

Characteristic	Nurse Practitioner	Physician Assistant
Average Age	46.3 years	41.5 years
Gender	Male (4.1%) Female (95.9%)	46.2% 53.8%
Average Years in Practice	9.0	9.5
Number Employed	115,000	50,000
Background	All are RNs	RN, EMT, Medic, RT, PT
Number of U.S. Schools	337	132
Curriculum Focus	Health assessment, diagnosis, and treatment	Primary care, allopathic, osteopathic
Length of Education	12-43 months; mean = 21.5	12-39 months; mean = 25.5
Master's Degree	72.4%	25.0%
Number of Graduates	102,829	52,716
Average Salary	\$73,620	\$69,410
Certification Requirements	Boards required before practice as of 7/1/06 (NCC, AANP, ANCC, NCBPNP)	Boards required before practice (PANCE)
Practice Autonomy	Autonomous in most states	Physician supervision required in most states
Primary Care Practitioners	85%	50%

Sources: Buppert, 2004; Hooker, 2002; Hooker, 2006; NP Central Gateway, 2002; USDL, 2006.

Table 2.
Resources for More Information

Resource	Web site
State nurse practitioner regulations	http://www.ncsbn.org/
American Academy of Nurse Practitioners	http://www.aanp.org
State medical board regulations	http://www.fsmb.org
General information – physician assistants	http://stats.bls.gov/oco/ocos081.htm

dated to work under the authority of a physician.

Both groups were granted prescriptive privileges in 1969 (Cipher, Hooker, & Guerra, 2006). By 2003, 47 states allowed these rights; California, Michigan, and Georgia are the only states not giving prescriptive authority to NPs (Cipher et al., 2006). For PAs, the ability to write prescriptions is always

dependent on delegation by a supervising physician. Both groups can prescribe controlled substances in 11 states. According to the AANP Site Survey in 2004, 96.5% of NPs prescribe medications and write an average of 19 prescriptions a day. Nurse practitioners write more than 494 million prescriptions annually (AANP, 2005).

Satisfaction Levels

At a time when the health care system seems to be in crisis, NPs and PAs have provided greatly needed services, particularly to the underserved (Hooker & Berlin, 2002). With a shortage of physicians interested in primary care or practice in rural communities, and restrictions on the number of resident work hours, NPs and PAs are in demand. Not only have they met patients' needs, they have demonstrated their efficiency and cost effectiveness (Hooker, 2006).

Literature and research in the area of patient and provider satisfaction support the use of these medical professionals. In one study on the substitution of NPs for doctors in primary care (Laurant et al., 2004), the impact of the NP role was evaluated on the basis of patient outcomes, process of care, and resource utilization. No differences in patient outcomes existed between the two groups, but patient satisfaction was much higher with the NP-led care. This was attributed to NPs spending more time and giving more information to the patients. Findings strongly suggested that NPs can provide care with quality equal to primary care physicians, leading to good health outcomes and high patient satisfaction.

In another study of patient satisfaction with nurse practitioners, health status and physiologic results were analyzed from selected patients at four community-based primary care clinics (Mundinger et al., 2000). As in earlier studies, no significant differences were found in the patients' health status at the 6-month mark; satisfaction outcomes were comparable between physicians and NPs. Another recent study concluded that patients are far more likely to be satisfied with their NP or PA as compared with a physician (Roblin et al., 2004).

Cost effectiveness of NPs and PAs also has been studied. A family practice model was scrutinized to compare the economic benefits of hiring a PA or an additional physician (Grzybicki, Sullivan, & Oppy, 2002). With the PA seeing the same types of patients and giving the same care as the supervisory physician, researchers found the PA to be beneficial to the practice economi-

cally. In comparing the costs to employ the provider with revenue generated from his or her services, a practice with a PA had an annual positive differential of \$52,592. According to Buppert (2002), a full-time NP who sees an average of 20 patients a day will generate \$188,000 revenue for the practice. If the cost of salary, benefits, and overhead to employ a NP is estimated at \$118,750, the practice's annual profit would be approximately \$69,250. The cost savings in employing NPs and PAs can be attributed largely to the fact that their salaries are lower than doctors but their productivity is comparable.

Third-party payers reimburse NPs and PAs at a lower rate, leading to further popularity of these alternative providers among insurance companies and health maintenance organizations (HMO). In one study by a HMO (Hooker, 2002), the cost of care by a PA was less than the cost of care by an MD when all else was held constant. This was due in some cases to the PA's lower salary, but it also was attributed to less frequent use of resources (labs, imaging, medications, and referrals) per episode. PAs and NPs play a vital role in patient care among large HMOs, utilized in more than 25% of group practices (Kaissi, Kralewski, & Dowd, 2003).

What is the attitude of the average RN toward NPs? Few studies exist in this area. Gooden and Jackson (2004) found RNs were supportive of the NP role, identifying NPs as knowledgeable, approachable, and competent health care providers.

Conclusion

The rising cost of health care and the growing population have provided support for the roles of the NP and PA. Research offers strong evidence that cost effectiveness and satisfaction levels with these clinicians are excellent, further reinforcing the demand for their services. With the rise in the number of graduates from PA schools and the decline in the number of graduates from NP schools (Hooker, 2006), health care services may be affected. NPs provide more health promotion and disease prevention activities than physician

and PA groups (Moody, Smith, & Glenn, 1999). A decline in the number of NPs could impact these services in some populations.

Occupational growth is estimated at the highest level for PAs through the year 2014, making them one of the fastest growing occupations (U.S. Department of Labor, 2006). This can be attributed to the increase in utilization of PAs by both physicians and hospitals. Because the education and training are much shorter than for physicians, NPs and PAs can be delivered to the workforce more quickly. Combined with their willingness to work where the demand is greatest in rural and underprivileged communities, the increasing need for their services offers employment security to NPs and PAs. ■

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Uncompensated Care Costs Rise

Community hospitals' uncompensated-care costs rose 7.1% in 2005 to \$28.8 billion from \$26.9 billion in 2004, the American Hospital Association said. Meanwhile, Medicare and Medicaid shortfalls at community hospitals increased 14.5% to \$25.3 billion last year from \$22.1 billion in 2004, the AHA said.



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