New Directions for Nurse Practitioners and Physician Assistants in the Era of Physician Shortages

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Abstract

During the past 35 years, the roles for nurse practitioners (NPs) and physician assistants (PAs) have evolved in parallel with the roles that physicians have come to play. Shifting needs in primary care and expanding opportunities in specialty medicine have been the dominant trends. Future directions will be influenced additionally by the deepening physician shortage. NPs are preparing for this future by developing doctoral-level training programs in comprehensive care, whereas PAs are adding training opportunities in specific specialties. Yet, neither discipline has expanded its training capacity to the degree that will be required, and, like physicians, neither will have a supply of practitioners that will match future demand. Coordinated planning to increase the educational infrastructure for physicians, NPs, and PAs is essential.

Acad Med. 2007; 82:827–828.

Editor's Note: This is a commentary on the article that appears on page 882 of this issue.

This issue of *Academic Medicine* carries a publication by P. Eugene Jones[1] entitled "Physician Assistant Education in the United States," a timely article at this time of deepening physician shortages.[2] Indeed, its timeliness is emphasized by Whitcomb's[3] recent editorial challenging nurse practitioners (NPs) to fill the gap. But what can reasonably be asked of NPs and physician assistants (PAs), and what can reasonably be expected of them? Before addressing these important questions, let me recount my understanding of the history.

The First 20 Years

It was in the late 1960s, during the depths of the last physician shortage, that the PA profession was born and the NP profession was reinvigorated.[4] Although the United States had embarked on a major expansion of medical schools, it was unclear whether sufficient numbers of new doctors could be produced. One way to fill the gap was to develop training programs for NPs patterned after the successful model of nurse–midwives that had evolved in the 1930s. A second was to create the new profession of PAs, modeled after the corpsmen who had served in the Korean War and who were returning to civilian life. The hope was that both would play important roles in primary care, which, as now, had many unmet needs.

The impact of NPs and PAs in meeting these needs during the next two decades was significant, but it was tempered by their small numbers.[5] Ramping up education programs is an arduous process, and by 1990 there were still fewer than 20,000 PAs and 30,000 NPs in active practice. Moreover, the output of physicians was increasing, so the gap in supply that had been anticipated was vanishing. But something else was changing—the intensity and complexity of what physicians do was increasing. What was needed was a cadre of highly trained "extenders" who could assist physicians by accepting delegated tasks of greater complexity than had previously been delegated to RNs and office assistants with lesser training. It was only in severely underserved locations that additional primary care providers were needed, but that offered sufficient opportunity for NPs and PAs to demonstrate their ability to function autonomously, and states' boards responded accordingly by increasing their practice prerogatives.[4,6]

The 1990s

In the early 1990s, policy makers rallied around the concept of a primary-care-dominated health care system, which would demand many more primary care providers. Most NPs were already engaged in primary care, as were more than half of PAs, so it was natural for the training programs in these disciplines to expand again. But, once again, it was a false alarm. Growth of specialties dominated the rest of the decade, and specialists increasingly looked for skilled assistants to aid them in accomplishing their tasks. Generalist physicians had a somewhat different need—to become more efficient amidst a constrained reimbursement environment. Experience had shown that NPs and PAs could deliver 70% or more of the office-based primary care and, thereby, substantially increase the efficiency of generalist practices.[4]

These two pathways—skilled technical assistance in specialty practices and autonomous primary care in generalist practices—form the polar ends of the spectrum that PAs and NPs now occupy, but a hybrid of the two is emerging as an even more important model. It is the general care of the specialty patient, whether that patient is in a phase of active treatment or is among the increasing numbers of survivors whose disease is quiescent but whose medical and psychological needs are substantial.

Response of the NP and PA Professions

These circumstances have had somewhat different effects on the NP and PA professions. Given the large body of data confirming that NPs could provide a spectrum of primary care services as

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effectively as physicians, the nursing leadership saw a renewed opportunity for NPs to become independent providers of primary care within the nursing model of care, which emphasizes the wholeness of patients and stresses patient education. To better prepare them to do so, schools of nursing have ratcheted up their training programs to the doctoral level, broadening the training experience to embrace comprehensive care and granting degrees as doctor of nursing practice (DrNP).[7] During the past few years, more than 200 such programs have been established, and the profession is now examining ways to ensure that the graduates of these programs are held to rigorous standards. Whereas most DrNPs can be expected to practice as independent primary care providers, some are being recruited by clinically demanding specialties, such as transplant programs, to manage the general care and follow-up of complex groups of patients—tasks that they are well equipped to undertake.

Whereas the NP profession is moving in the direction of general care, the PA profession clearly sees its future in the specialties. As Jones[1] notes, PA training has traditionally been oriented toward primary care, and the majority of PAs have practiced in primary care settings, but only about one third do so now. The vast majority fill the need for skilled assistants in specialty physicians' practices. In response to this need, the PA profession is developing various mechanisms to train and credential PAs in particular specialties. Although their added training and credentialing will permit still greater degrees of autonomy, PAs see their role within the medical model of care under the overall supervision of physicians. It is a role well suited to the future. Given the current shortages of specialty physicians and the projections of more severe shortages ahead, there are few other ways for specialty practices to become more efficient, ensuring that the demand for specialty-trained PAs is certain to grow.

Meeting Future Needs

It is hard not to be impressed by the vigor and creativity of both the NP and PA professions in responding to the need for practitioners with advanced skills. Each has raised the standards of training and lifted the bar for credentialing. But have they sufficiently expanded the size of their training programs? On the NP side of the ledger, the answer is a clear *no*. Current output is approximately 8,000 yearly, a level that has not changed for several years. Given this output, the number of NPs will increase from about 90,000 in 2000 to as many as 135,000 by 2015, but the need is much greater.[5] For example, even if all new NPs practiced primary care (whether independently or not), the services that they delivered would be equivalent to approximately 25,000 primary care physicians; yet, the deficit of primary care physicians in 2015 will be twice that number, and, of course, not all NPs will practice primary care. Many will engage in specialty care, and others will perform a range of other tasks that require advanced training. Unfortunately, too few will teach. Indeed, a major impediment to training more NPs is an insufficient number of faculty.

PAs face a similar dilemma. Although, as Jones has noted, the growth in the number and size of PA training programs has been substantial, with more than 5,300 graduates projected in 2010, and although the number of PAs in practice could reach 110,000 by 2015—double the number today—this is fewer than one PA for every five medical and surgical specialists.[5] Many older physicians are accustomed to practicing without PAs, but residents and fellows in technically demanding specialties learn in teams that include PAs, and they expect PAs to be part of their teams in the future. Yet, there simply won't be enough.

Discussions of the worsening physician shortage frequently end with the comforting notion that NPs and PAs will fill the gap. So, too, do discussions of limitations in house-staff duty hours—don't worry, NPs and PAs will fill the gap. Although a testimony to the respect with which both professions are held, this is a vain prophecy. As has occurred for physicians, the United States has failed to ramp up the training of NPs or PAs to the extent that will be needed by a technologically advanced and accessible health care system.

There is no plan for health care reform that can succeed without adequate numbers of physicians, and it will not be possible to ensure the adequacy of physician supply unless major portions of the work that physicians now do are undertaken by other skilled professionals, principally PAs and NPs. Therefore, it is incumbent on physicians and medical educators to work with these two disciplines as each develops its agenda for the future.

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