

Research Corner

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The development of varying physician assistant roles in the United States

An increasing number of publications investigate the use of PAs in specific practice settings. This installment of Research Corner reviews recent publications that address the utilization or the potential utilization of PAs in emergency medicine, primary care, and specialty physician postgraduate training settings.

Menchine MD, Wiechmann W, Rudkin S. Trends in midlevel provider utilization in emergency departments from 1997 to 2006. *Acad Emerg Med.* 2009;16:963-969.

OBJECTIVES: The objective was to quantify the expansion of midlevel provider (MLP) practice in US emergency departments (EDs) over the past decade. Specifically, we sought to quantify the absolute number of patients seen by MLPs, the annual growth rate of patients seen by MLPs, and the expansion in the proportion of EDs using MLPs. **METHODS:** Data were analyzed from the ED portion of the 10 most recent years (1997-2006) National Hospital Ambulatory Medical Care Survey (NHAMCS), a nationally representative survey of ED visits compiled by the CDC. The main outcomes of interest were the proportion and absolute numbers of ED patients seen by MLPs during the 10-year study period. National estimates derived from sample weights are reported. In addition, a multivariate logistic regression model was created with "seen by midlevel provider" as the dependent variable to determine factors associated with being seen by a MLP. Results: Between 1997 and 2006, 8.23% (95% confidence interval [CI] =

7.31%-9.15%) of ED patients were seen by a MLP. The proportion of ED patients seen by MLPs increased from 5.5% (95% CI = 3.8%-7.1%) in 1997 to 12.7% (95% CI = 10.5%-14.9%) in 2006 (13% annual growth). This corresponds to an increase in the number of ED patients seen by MLPs from 5.2 million in 1997 to 15.2 million in 2006.

The proportion of hospitals using MLPs in the ED increased from 28.3% (95% CI = 22.4%-34.1%) in 1997 to 77.2% (95% CI = 71.2%-83.3%) in 2006 (17% annual growth). Slightly over half of MLP cases (54.9%; 95% CI = 49.1%-60.7%) were also seen by staff physicians. On multivariate regression, younger patient age, nonsouthern geographic region, and triage acuity were associated with increased MLP use. **CONCLUSIONS:** The number of ED patients seen by MLPs has increased sharply, from 5.2 million in 1997 (5.5% of all ED cases) to 15.2 million in 2006 (12.7% of all ED cases). Similarly, the proportion of EDs reporting use of MLPs has increased from 28.3% in 1997 to 77.2% in 2006.

Everett CM, Schumacher JR, Wright A, Smith MA. Physician assistants and nurse practitioners as a usual source of care. *J of Rural Health.* 2009;25(4):407-414.

PURPOSE: To identify characteristics and outcomes of patients who use physician assistants and nurse practitioners (PA/NPs) as a usual source of care. **METHODS:** Cross-sectional analysis using the telephone and mail surveys of the Wisconsin Longitudinal Study (WLS), a prospective cohort study of Wisconsin high school graduates and selected siblings (n = 6,803). **FINDINGS:** Individuals from metropolitan (OR = 0.40, 95% CI = 0.29-0.54) and micropolitan (OR = 0.65, 95% CI = 0.44-0.95) areas were less likely to utilize PA/NPs than participants from rural locations. Participants without insurance or with public insurance other than Medicare were more likely than those with private insurance to utilize PA/NPs (OR = 1.71, 95% CI = 1.02-2.86). Patients of PA/NPs were more likely to be women (OR = 1.77, 95% CI = 1.34-2.34), younger (OR = 0.95, 95% CI = 0.92-0.98) and have lower extroversion scores (OR = 0.81, 95% CI = 0.68-0.96). Participants utilizing PA/NPs reported lower perceived access ($\beta = -0.22$, 95% CI = -0.35 -0.09) than those utilizing doctors. PA/NP utilization was associated with an increased likelihood of chiropractor visits (OR = 1.57, 95% CI = 1.15-2.15) and decreased likelihood of complete health exams (OR = 0.74, 95% CI = 0.55-0.99) or mammograms (OR = 0.65, 95% CI = 0.45-0.93). There were no significant differences in self-rated health or difficulties/delays in receiving care. **CONCLUSIONS:** Populations served by PA/NPs and doctors differ demographically but not in complex-

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ity. Though perceived access to care was lower for patients of PA/NPs, there were few differences in utilization and no differences in difficulties/delays in care or outcomes. This suggests that PA/NPs are acting as primary care providers to underserved patients with a range of disease severity, findings which have important implications for policy, including clinician workforce and reimbursement issues.

Jones PE, Cawley JF. Workweek restrictions and specialty-trained physician assistants: potential opportunities. *J Surg.* 2009;66:152-157.

ABSTRACT: The increasing use of physician assistants (PAs) in surgical settings is part of a continuing trend of PA specialization, and many graduate medical education (GME) programs in teaching hospitals have hired PAs to augment physician housestaff duties. PAs have been shown to be effective in these roles by contributing to the continuity of care and enhancement of resident educational experiences. One strategy for educating and training specialty PAs to help augment perioperative surgical workforce needs for acute and critically ill patients is PA postgraduate training programs, which are typically offered as formal 1-year experiences following entry-level PA education and based on the GME model. Many academic health centers (AHCs) are well positioned to host such educational programs by collaborating with PA educators to develop additional surgical postgraduate training programs. We propose a model to produce an increased supply of specialty-trained PAs to serve as permanent hospital-based clinicians who could enable surgical residency training programs to meet critical resident education and operative experience needs by providing team-oriented and physician-supervised perioperative care.

DISCUSSION

Health workforce researchers are increasingly describing both new and old roles for PA utilization in the United States. These three articles address very different unique settings where PAs are utilized currently.

The article by Menchine and colleagues utilizes data from the ED section of the National Hospital Ambulatory Medical Care Survey compiled by the CDC. The data demonstrated a greater than doubling of the proportion of ED patients seen by PAs and NPs over the decade from 1997-2006, from 5.7% to 12.7%. Additionally, during this decade the proportion of hospital EDs utilizing PAs or NPs increased from 28.3% to 77.2%. These data demonstrate that the use of PAs and NPs in the ED setting has increased substantially over the recent decade.

The article by Everett and colleagues reviews survey data collected by the Wisconsin Longitudinal Study that includes a random sample of Wisconsin high school class

of 1957 graduates and their siblings. The survey measured the “usual source of (health) care” and compared the results by demographic measurements. The investigators found that those who identified a PA or NP as their “usual source of care” were more likely to be female, younger, more medically underserved, and more likely funded by a public funding option than those seen by physicians. Additionally, the complexity of patients seen by nonphysician providers was similar to those seen by physicians. These data add evidence to the perception that PAs and NPs contribute substantially to providing care to medically underserved populations regardless of patient complexity.

Jones and Cawley review the utilization of PAs to augment housestaff in physician GME training programs. Utilization of PAs in this setting, most often in medical specialties, has increased in response to recent mandated

“Will increasing demand for PAs in medical specialty settings eventually result in a shortage of PAs in primary care?”

limits on the weekly workloads of resident physicians. The authors review a variety of PA descriptive statistics and publications on PA education, specialty utilization, and practice location, as well as data on PA residency training and attitudes of physicians in residency training who interact with PAs. Of note in this article is data projecting that a substantial increased demand for physician specialists combined with a worldwide trend toward further limiting resident workweek will likely result in increasing demand for PAs utilized in GME settings. One study quoted in the article projected a future need for 984 nonphysician providers to compensate for reduced resident work hours.

Taken together, these three articles illustrate the growing demand for PAs in the American health care workforce across a variety of settings. Recent data trends for PAs show an increasing trend for PAs to practice in medical specialties rather than primary care. However, the Everett article points out the important contribution made by PAs and NPs in the delivery of medical services to poorer underserved populations. These three articles raise an additional question of the increasing demand and diversification of specialty utilization for PAs: will increasing demand for PAs in medical specialty settings eventually result in a shortage of PAs willing to work in primary care settings? If a disproportionate number of the medically underserved are currently seen by PAs and NPs, a lack of providers choosing primary care will only further disenfranchise such populations. **JAAPA**