

Excellence in Physician Assistant Training Through Faculty Development

Anita Duhl Glicken, MSW

Abstract

Once again, experts predict a shortage of health care providers by 2020. The physician assistant (PA) profession was created in the 1960s to address a similar need. Currently, there are 141 accredited PA training programs in the United States, 75 of them established in the 10 years between 1993 and 2002. Historically, PA education and practice models have been responsive to the ever-changing landscape of health care. It may be the profession's flexibility and adaptability that has enabled it to survive and flourish in a competitive service environment. The growth of new PA programs mandates a need for continuing faculty development, as

increasing numbers of educators hail primarily from clinical practice and come equipped with minimal teaching experience. PA faculty development addresses these new recruits' needs to develop model curricula, implement new courses, and enhance instruction—all with the goal of improving both access to and quality of health care.

The author describes the impact of Health Resources and Service Administration Title VII, Section 747 (Title VII) contracts in addressing this need. Title VII-funded PA education projects, considered innovative at the time of implementation, included both faculty

development workshops that promoted active learning of basic teaching and administrative skills and new curricula designed to enhance faculty teaching in genomics and practice management. These projects and others resulted in enduring professional resources that have not only strengthened the PA community but also enjoyed broad applicability within other health professions groups.

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Once again, experts predict a shortage of health care providers by 2020.¹ The physician assistant (PA) profession was created in the 1960s to address a similar projection. Currently, there are 141 accredited PA training programs in the United States, with 75 of them established in the 10 years between 1993 and 2002.^{2,3} A recent Physician Assistant Education Association (PAEA) study revealed that as many as 70 (59%) of responding PA programs may expand during the next five years (2007–2011). Of the 135 programs established at the time, 119 (88%) responded, so expansion could be even more extensive. According to the study, total projected net increase among responding programs is 526 students, a 10.9% increase over the 4,853 total 2006–2007 enrollment reported by all survey respondents. Among the 87 responding programs that had either recently expanded their enrollments or were planning or considering expansion,

57.7% were planning to expand their existing program. Other options included adding new clinical affiliations (85.2%) or new regional or satellite sites (12.5%). Reasons for expansion include a projected shortage of health care providers in the state or region of current PA programs and a large unmet applicant pool.⁴

Although the projected shortage represents opportunity for the profession, it also highlights the need to train new faculty to teach growing numbers of medical trainees. As in other areas of medicine, most PA instructors come directly from clinical practice,⁵ establishing a rationale for applying grant funds to education and training. Although the learning that prepares one to practice medicine and the learning that prepares one to teach in medical institutions overlap to some extent, the dual role of clinician–educator requires faculty to master additional knowledge and skills to maximize student learning.⁶ Two publications in the 1990s, including one by the U.S. Department of Education, state that educator professionalism is a critical issue in education reform and that strengthening the profession is an effective means of improving the quality of education.^{7,8}

This article describes the impact of Health Resources and Service Administration (HRSA) Title VII, Section 747 (Title VII) contracts in promoting ongoing PA faculty development through models and resources that address the need to develop model curricula, implement new courses, and enhance instruction.

Contract Funding to Develop National PA Faculty Development Workshops

The rapid growth in the number of PA training programs in the 1990s was a direct response to a projected shortage of health care providers. The federal government designed Title VII funding grants to support several projects promoting the growth of the PA profession. In 1993, the first Title VII contract awarded to the Association of Physician Assistant Programs (APAP), now the PAEA, helped build an infrastructure for the profession. This first contract funded the development of a mechanism to collect and disseminate a growing body of information about PA programs and faculty. Data from this project further documented the need for subsequent funding to address the

Ms. Glicken is professor and section head of pediatrics and director, Child Health Associate Physician Assistant Program, University of Colorado Denver, School of Medicine, Denver, Colorado.

Correspondence should be addressed to Ms. Glicken, University of Colorado Denver, Anschutz Medical Campus, Mail Stop F543, Aurora, CO 90045-0508; telephone: (303) 724-1338; fax: (303) 724-1350; e-mail: (Anita.Glicken@ucdenver.edu).

List 1

Workshop Sessions from the Basic Skills Faculty Development

Workshop: Networking and Active Learning

1. Welcome and introductory exercise:
Where have we been and where are we going? Defining excellence in education
2. Applied concepts of adult learning/course design
3. Writing course objectives
4. Assessment and evaluation
5. Cultural competency
6. Writing effective test questions
7. The complete course syllabus
8. Enhancing student–faculty communication
9. Managing time and effort
10. Understanding the academic environment and faculty survival skills
11. Creating your academic teaching portfolio

recruitment, retention, and development of this new group of clinician educators.

During the next decade (1994–2003), several projects focused on specific needs of faculty with varying levels of experience. For example, an early project, funded in 1994, helped faculty identify effective strategies, such as increased attention to noncognitive variables in the admissions process (community service, volunteer work, evidence of sustained motivation and support, leadership experience, use of academic pipelines, and partnerships with feeder institutions) and various approaches to increasing faculty roles in fostering diversity for admitted students across the institutional culture in order to recruit and retain minority candidates into PA programs. The 1996 PA Workforce and Faculty Development Contract, which also supported a visioning project on the future of the PA profession, was the first major contract from HRSA to APAP/PAEA specifically addressing the need for a comprehensive faculty development program for new educators. The Basic Skills Faculty Development Workshop is an enduring product of this contract. The three-year (1996–1999) project funded the development and implementation of a model, two-day workshop designed to orient and educate new faculty with fewer than two years of teaching experience. The workshop used an approach, innovative for the time, integrating emerging theories of adult learning with an active learning environment, in which

faculty participants experienced a range of adult-centered, interactive teaching strategies (List 1) while they networked with other new colleagues from across the United States. The Basic Skills Faculty Development Workshop, which is still offered biannually, maintains a long waiting list and has trained almost 400 new faculty. Attendees span a diverse group of PA educators including PAs, physicians, basic scientists, and clinical social workers.

At the same time (the mid-1990s), the APAP Leadership Training Institute addressed the training needs of new faculty administrators. HRSA funds supported the development of a five-day workshop designed to foster leadership and administrative skills in a new generation of PA educators who were increasingly called on to start new PA programs in a variety of educational settings (e.g., private and public colleges and universities, academic health centers). Many of these early workshop participants now fill important leadership roles throughout their own local institutions as well as serving in key positions in national professional organizations.

Finally, a series of Title VII-funded regional grant-writing workshops in 1998 promoted projects introducing novel PA curricula and teaching strategies. These workshops, which resulted in an increase in the number and quality of applications submitted to HRSA for Title VII funding under the Training in Primary Care Medicine and Dentistry grant program, helped establish best practices in medical education through measurable outcomes.

Innovative Methods and 21st-Century Priorities for Faculty Development

Whereas early contracts focused on increasing the understanding of the PA profession and fostering general faculty skills, subsequent federal funding emphasized information and skills for new areas of practice and the promotion of interdisciplinary faculty teams. An excellent example of this work is the three-year (2001–2004) cooperative agreement between Duke University and HRSA's Bureau of Health Professions, Division of Nursing, and Division of Medicine and Dentistry. The Genetics Interdisciplinary Faculty Training

(GIFT) Program created an innovative partnership among Duke's Physician Assistant Division of the Department of Community and Family Medicine, the School of Nursing, and the Center for Human Genetics. The GIFT faculty development program was designed to bring 28 graduate faculty teams from other institutions together for training in the most current advances in genetics. The interdisciplinary faculty teams consisted of a PA, nurse–midwife, nurse practitioner, and medical geneticist or genetic counselor who served as a resource for the primary clinicians at their home institutions. The faculty development program, through which participants learned methods of incorporating new genetic content into their curricula, included an online introduction to genetics that prepared teams for their coursework on the Duke campus; an intensive, weeklong series of classes at Duke that addressed the legal, political, cultural, ethical, religious, and social implications of genetics; and a follow-up implementation phase at each member's home institution that provided participating faculty with resources, a program development stipend, and faculty forums.

The GIFT program provided an effective model for interdisciplinary training in a rapidly changing area of practice. Also, leaders from across the PA profession recently attended a meeting organized by the National Human Genome Research Institute to develop an outline for PAs so that they might better utilize knowledge of genetics and genomics as the basis for improving clinical practice. Acting Surgeon General Kenneth Moritsugu noted, "What we are looking at today is 21st century medicine with the PA playing a key, integral part of our health care system."⁹ This agenda is a logical extension of the visionary faculty development efforts of the GIFT program, positioning PA faculty and their interprofessional partners to meet future health care needs.

Enduring Resources

At about the same time, in 2001, APAP/PAEA recognized a critical need to develop a mechanism to address current and future needs for faculty development. The goal was to create enduring, accessible, and easily updated resources supported by a model delivery platform

for medical educators. Accordingly, HRSA funded the PA Faculty Development Education and Practice (PAFDEP) Project, a three-year (2001–2004) contract to increase faculty development among PA educators and in the broader educational community. Whereas previous projects had focused on building faculty skills or increasing knowledge in specific content areas, the PAFDEP Project expanded these efforts to create an enduring mechanism for distribution of resource products. Three faculty development resources, designed to enhance the overall quality of PA training in order to better prepare providers to deliver quality primary health care services, resulted:

- faculty resource articles published in APAP's (PAEA's) official journal, *Perspective on Physician Assistant Education* (now *Journal of Physician Assistant Education*);
- an online practice management/reimbursement curriculum resource for PA faculty, students, and others (described below); and
- a faculty resource manual for writing educational learning objectives, including objectives corresponding to competencies for PA practice (described below).

As training programs expand in number and capacity, and as the PA profession is expected to grow much faster than other occupations (27% between 2006 and 2016, according to the U.S. Bureau of Labor Statistics¹⁰), two important components of this 2001 contract bolster the resources of PAs for clinical practice and help prepare increasing numbers of clinicians for new teaching roles.

According to the HRSA contract guidelines, grant winners had to use funds to develop resources readily adaptable to an online delivery system. A Web-based platform, created for easily managing project outcomes and new information, features an electronic distribution method that allows for revisions based on the dynamic changes in medical education and practice. This platform is free to users and serves as a model for health curriculum educators seeking to provide sustainable and up-to-date resources for faculty development.¹¹

Table 1

Practice Management/Reimbursement Curriculum Modules

Module name	Brief description
Introduction to Coding	An introduction to concepts in the coding of diagnoses, procedures, and other services
Reimbursement 101	An overview of issues in health care finance and payment for services
Evaluation and Management	How to determine proper codes for evaluation and management services, along with issues of supporting documentation
Quality Improvement	An introduction to the basic concepts and methods of quality improvement including the Focus Analyze Develop Execute Evaluate (FADE) and Plan Do Study Act (PDSA) models

Project one: An online practice management/reimbursement curriculum

This electronic resource identifies, describes, and disseminates the key content areas, knowledge, and skills for PA practice that are mandated by ongoing changes in the health care system's administrative process. The resource consists of a set of four curricular modules (Table 1) designed for broad use by PA faculty, students, and providers. Each module includes a faculty guide with objectives, suggested teaching and evaluation strategies, and the following:

- readings and suggestions for further learning;
- PowerPoint slides with speaker notes;
- a brief, multiple-choice quiz which can be used to assess the students' understanding of the module material;
- additional teaching materials specific to the content of the module (i.e., cases for discussion, sample chart notes for review, small-group exercises, project ideas, and/or handouts and resource materials); and
- a glossary of terms (spanning the series).

To increase the curriculum's utility, its design enables faculty to choose selected segments as "reusable learning objects," digital resources that can be reused to support learning, education, or training. Individual instructors can alter slides as needed. Alternatively, faculty or individuals may adapt the entire package of materials to fit either a particular program structure or their individual learning needs. The entire resource curriculum is available for downloading through a link on the PAEA project Web page (www.paeonline.org). PDF files

and PowerPoint slides make for easy revision and adaptation, corresponding to changes in medical practice or individual need. Even though the PDF files are free, because of the need to protect their content (like that of sample exams), individuals who want to download them need to contact PAEA staff, who will grant access.

Project two: Resource manual of educational learning objectives for core competencies

The goal of this project was to help faculty obtain instructional design skills to support both higher-level thinking and problem-solving abilities in teaching and assessment. The resource manual consists of two main parts. Part I describes how outcomes-based learning serves as a framework for curriculum planning, design, and assessment. The manual presents a basic approach to preparing instructional goals and objectives and relates these to various assessment strategies. Sidebars in the manual present teaching tips from PA educators. Part II contains sample instructional goals and objectives. The manual's authors chose 69 content areas from a broad sampling of PA curricular themes that correspond to practice competencies identified both in a previous HRSA contract and by the Accreditation Standards for Physician Assistant Education.¹² A guiding principle of this project was that course design and objectives are unique to the individual PA program and user. Although the manual identifies specific objectives in a collection of content areas, these objectives serve only as illustrative examples. Sample objectives corresponding to each curricular goal identify the knowledge, skills, and/or attitudes requisite for clinical competency. The manual enhances these

objectives through the inclusion of real-world examples of “How We Do It,” provided by PA educators. PDF files make this resource user-friendly and adaptable to individual program use.

Summary—The Ongoing Need for Faculty Development

Title VII federal funds have played a critical role in faculty development, promoting excellence in PA teaching and clinical practice. Faculty development continues to be a strong professional need for PAs as PA education evolves in a changing health care system. An ongoing challenge remains the lack of sufficient educators to train the next generation of PA students. These educators must not only possess practice expertise, but also master advanced skills in teaching, evaluating, supervising, and mentoring students. Title VII federal funding for PA faculty development has promoted excellence in training, with benefits that extend far beyond the traditional classroom. Throughout its short history,

PA education has a strong record of adaptability, incorporating new innovations in science and clinical medicine as they emerge. The next generation of educators will use advanced skills and knowledge to enhance the PA educational curriculum so that PA graduates enter the workforce better prepared to meet the evolving health care needs of all patients.

References

- 1 Salsberg E, Grover A. Physician workforce shortages: Implications and issues for academic health centers and policymakers. *Acad Med.* 2006;81:782–787.
- 2 Physician Assistant Education Association. Physician assistant faculty development education and practice: Enhancing physician assistant education through faculty development. Available at: (<http://www.paeaonline.org/members/project04/main/html/index.html>). Accessed July 24, 2008.
- 3 Glicken AD. Physician assistant education in an evolving health care delivery system. *J Am Acad Physician Assist.* 2002;15:16–26.
- 4 Glicken AD, Lane S. Results of the PAEA 2006 survey of PA program expansion plans. *J Physician Assist Educ.* 2007;18:48–53.
- 5 Simon MA. The clinician educator. *J Bone Joint Surg Am.* 2005;87:2131–2132.
- 6 Glicken AD, Merenstein GB. Addressing the hidden curriculum: Understanding educator professionalism. *Med Teach.* 2007;29:54–57.
- 7 United States Department of Education. Systematic Reform in the Professionalism of Educators—September 1995. Available at: (<http://www.ed.gov/pubs/SER/ProfEd/bkgd.html>). Accessed July 17, 2008.
- 8 Reynolds PP. Reaffirming professionalism through the education community. *Ann Intern Med.* 1994;120:609–614.
- 9 Scott D. NIH, genomics experts, PA organizations meet to plan a future for PAs in genomics. *AAPA News.* May 15, 2007: 1,9.
- 10 U.S. Department of Labor, Bureau of Labor Statistics. Occupational Outlook Handbook, 2008–09 Edition. Physician Assistants. Available at: (<http://www.bls.gov/oco/ocos081.htm>). Accessed July 17, 2008.
- 11 Wiley DA. Connecting learning objects to instructional design theory: A definition, a metaphor, and a taxonomy. Available at: (<http://reusability.org/read/chapters/wiley.doc>). Accessed July 25, 2008.
- 12 Accreditation Review Commission for Physician Assistants. Accreditation Standards. Available at: (<http://www.arc-pa.org/Standards/standards.html>). Accessed July 17, 2008.

Glossary of Federal and Title VII-Related Acronyms

Acronyms of Federal Acts, Agencies, Departments, and Services

AHRQ: Agency for Health care Research and Quality
 CDC: Centers for Disease Control and Prevention
 CHC: Community Health Centers
 FDA: Food and Drug Administration
 HHS: U.S. Department of Health & Human Services
 HRSA: Health Resources and Services Administration
 IHS: Indian Health Service
 NHSC: National Health Service Corps
 NIH: National Institutes of Health
 PHSA: Public Health Service Act
 SAMHSA: Substance Abuse & Mental Health Services Administration

Acronyms of Title VII Programs

AHEC: Area Health Education Centers
 COE: Centers of Excellence
 HCOP: Health Careers Opportunity Program
 HPSL: Health Professions Student Loan
 LDS: Loans for Disadvantaged Students
 PCL: Primary Care Loan
 SDS: Scholarships for Disadvantaged Students