ABSTRACT

In this article, we describe the developmental process of a Doctor of Nursing Practice (DNP) program that uses interdisciplinary resources to create unique DNP curriculum opportunities. Other schools may benefit from this experience in the development of their own DNP programs. The program delivers an innovative curriculum from post-baccalaureate to doctorate, emphasizing health care engineering and interdisciplinary collaboration among faculty, hospitals, community leaders, and policymakers. This DNP program is uniquely situated to provide leadership in solving complex clinical problems through its partnership with the Regenstrief Center for Healthcare Engineering, the School of Pharmacy, the Homeland Security Institute, and the Center on Aging and the Life Course.

Doctoral coursework, interdisciplinary collaboration, health care engineering/systems approaches, and new knowledge result in uniquely qualified providers. Post-baccalaureate students complete the university’s Adult Nurse Practitioner program during the first 2 years of the 4-year curriculum. A total of 83 post-baccalaureate credit hours include 1,526 hours of supervised clinical practice, a health policy residency, and cognate residencies in an area of specialization. The seven core competencies recommended by the American Association of Colleges of Nursing are incorporated into the curriculum.

With costs escalating dramatically and access to services inadequate, the U.S. health care delivery system is in turmoil and has been described as broken by the American Association of Colleges of Nursing (AACN) (2004) and the Institute of Medicine (2000). To respond to this crisis, nursing leaders at the highest levels have determined that a Doctor of Nursing Practice (DNP) should be the terminal practice degree. Many schools of nursing are in various stages of development or implementation of DNP programs. In this article, we provide a step-by-step process of development of a DNP program that uses interdisciplinary resources to create unique curriculum opportunities. This process will provide examples to other institutions as they develop similar programs.

The DNP program is part of a transforming initiative that involves new ways of thinking about doctoral education. The program integrates advanced practice, entrepreneurial clinical projects, interdisciplinary collaboration, health policy initiatives, and systems thinking to “reengineer” health care delivery in new and unique ways. The interdisciplinary focus of the DNP has the potential to bring a college’s or university’s major strengths to bear on a public policy issue that affects every citizen in the country—health care delivery. To meet this challenge, Purdue University School of Nursing (PUSON), West Lafayette campus, developed the DNP to deliver an innovative curriculum from post-baccalaureate to doctorate, with an emphasis on interdisciplinary collaboration among faculty.
hospitals, community leaders, policymakers, and state, national, and international health care administrators.

During the past several years, there has been an increased interest in developing a viable alternative to the research-focused degrees of Doctor of Philosophy (PhD) and Doctor of Nursing Science (DNS, DNSc) (Diers, 1983; Fitzpatrick, 2003; Marion et al., 2003; Mundinger & Kane, 2000; Shiotfeldt, 1978; Veeser, Stegbauer, & Russell, 1999). The DNP, or practice doctorate, presents students with a degree that centers on evidence-based practice. Melnyk and Fineout-Overholt (2005) defined evidence-based practice as:

- a problem solving approach to clinical practice that integrates: 1) A systematic search for and critical appraisal of the most relevant evidence to answer a burning clinical question; 2) One's own clinical expertise; and 3) Patient preferences and values. (p. 6)

Students focus on research use for the improvement of clinical care delivery, patient outcomes, and systems management (AACN, 2004). Scholars at the Agency for Health Care Research and Quality (2005) reported that it can take up to 20 years before scientific findings become part of practice at the bedside. The DNP program's emphasis on interdisciplinary, evidence-based projects attempts to significantly decrease that lag time. Because of the practice doctorate's commitment to translational knowledge that takes research findings to frontline providers, real meaning is given to improving quality of life by putting a face on research (AACN, 2004). Thus, the practice doctorate has the potential to embrace cultural change and integrated care through an interface with a broad range of disciplines, including PhD nurse researchers.

Collaboration with other disciplines is not commonly considered by nursing can be useful to schools as they develop their DNP programs. For example, the PUSON has established partnerships with the new Homeland Security Institute; the recently developed Regenstrief Center for Healthcare Engineering; the Schools of Pharmacy, Management, and Engineering; and the Center on Aging. In these collaborative endeavors, nursing brings its distinct focus on the patient's perspective in determining and evaluating practice decisions. Thus, the DNP is uniquely positioned to apply expertise from multiple disciplines to improve the delivery of health care to consumers. With its focus on innovation and testing of care delivery models, history, leadership, practice improvement, evaluation of health outcomes, and health policy, the DNP program fills the growing need for expert clinicians who can strengthen health care delivery systems in local to global settings (AACN, 2004).

The DNP program also meets the needs of prospective students who typically shy away from nursing because the discipline does not offer a comparable credential after more than 120 credit hours in a nursing baccalaureate program and up to 55 credit hours in a master's program. For example, other health care professions, such as pharmacy, audiology, occupational therapy, and physical therapy, require a professional doctorate to assure graduates direct access to patients such as that enjoyed by dentists and optometrists. In these services, a physician's referral is not needed (Marion et al., 2003). The DNP program provides nurses with a professional doctorate analogous to the Doctor of Pharmacy (PharmD) and Doctor of Audiology (AuD) currently offered at Purdue University. Thus, the DNP offers nurses degree parity with other professionals (AACN, 2004). Schools of nursing that are developing DNP programs will find comparable programs in their own institutions, which will enhance their arguments regarding resource allocation to upper administration and oversight bodies.

DEVELOPMENT OF THE DNP

In 2000, the National Organization of Nurse Practitioner Faculties (NONPF) began studying the practice doctorate by forming a Practice Doctorate Task Force in 2001 and holding a teleweb conference on the topic in 2002. Also in 2002, the AACN charged a task force to examine the current status of clinical or practice doctoral development. This task force recommended that the practice-focused doctoral program "be a distinct model of doctoral education that provides an additional option for attaining a terminal degree in [nursing]" (AACN, 2004, p. 8). At the time this article was written, only four programs (Columbia University; the University of Kentucky; the University of Tennessee at Memphis; and the University of Colorado's Nursing Doctorate to DNP) are admitting students, but at least 20 other programs are in the developmental stages (AACN, 2005). Concurrently, Rush University, the University of South Carolina, and the Frances Payne Bolton School of Nursing at Case Western Reserve University are converting their Nursing Doctorate (ND) programs to DNP programs.

Strong faculty support is critical to the success of DNP program development. The planning process that resulted in PUSON's DNP program began during the fall 2003 semester when 45 faculty members voted unanimously to pursue its development. A Doctoral Program Development Committee reviewed AACN documents, collected materials from developing and existing DNP programs, and discussed a proposed curriculum. Through a conference call, the Chair of the AACN Practice Doctorate Task Force provided additional insight and guidance.

In December 2003, Dr. Julie Novak, Head of PUSON and Associate Dean of the College of Pharmacy, Nursing, and Health Sciences, was invited to an AACN Deans and Credentialing Bodies meeting in Washington, DC, regarding the practice doctorate. The credentialing bodies, the AACN, and the NONPF expressed support for the development of the DNP. The entire PUSON faculty then met with the Chair of the NONPF DNP Task Force (a past president of the NONPF), regarding the task force's activities and recommendations. In January 2004, the Committee on Institutional Cooperation Deans Group, composed of deans/directors of schools of nursing in the Big Ten universities (a consortium of Level-I Midwest universities), voted unanimously to support the concept of the DNP.
In March 2004, the AACN Essentials of DNP Programs Task Force was appointed. A panel presentation and breakout sessions on the DNP and the future of nursing doctoral education were presented at AACN conferences. Subsequently, a member of the Essentials of DNP Programs Task Force interviewed the first (B.M.W.) and second (J.C.N.) authors of this article.

STUDENT DEMAND

The practice doctorate meets a critical need for advanced nurse practitioners. It heeds the recommendation by the Pew Health Professions Commission (1998) that the number of advanced practice nurses should be doubled to meet the needs of underserved populations, particularly in rural areas. For example, a national survey conducted in 2000 revealed that Indiana had 722 nurse practitioners, equal to 11.9 nurse practitioners per 100,000 citizens, which was significantly lower than the national rate of 35.7. In fact, Indiana has the lowest per capita ratio of nurse practitioners in the country (Division of Nursing, Bureau of Health Professions, Health Resources and Services Administration, U.S. Department of Health and Human Services, 2000). Post-baccalaureate DNP students acquire a master’s degree with specialization as an Adult Nurse Practitioner or Pediatric Nurse Practitioner during the first 2 years of the PUSON DNP program.

In January 2004, faculty at PUSON developed a DNP needs assessment to survey 155 central Indiana nurses and students. RN respondents were randomly selected from the Board of RN Licensing registrants. Those surveyed included 60 senior nursing students, 70 RNs, 20 adult nurse practitioners, and 5 master’s-prepared nursing faculty. Ninety-two (59%) surveys were completed. In the survey, graduate education choices were listed. The survey revealed that 33% of respondents desired a master’s degree and 18% desired a DNP. Thus, 51% of respondents identified a need for graduate education at the master’s or doctoral level. The career goals identified included teaching (48%), clinical practice (35%), and research (2%).

Just as strong faculty support is important, community support also is essential. In two local hospitals, there are 570 RNs who do not have advanced practice preparation. Nursing leaders at the hospitals expressed support for the DNP program and offered scholarships. Eight other major health care systems were surveyed, and each expressed significant interest in and commitment to developing new partnerships and expanding existing partnerships, and nursing leaders identified prospective DNP students. In addition, 27 current master’s-prepared clinical experts in faculty positions at various central Indiana campuses expressed interest in the DNP program. With the DNP program in place, it is expected that there will be increased interest in and application to the existing master’s program, as students will have additional educational opportunities to continue on to the DNP.

PROGRAM DESCRIPTION

The DNP program was planned to allow for three types of prospective students: post-baccalaureate RNs, current master’s degree in nursing students, and advanced practice nurses who have completed their master’s degree. In the DNP program development, PUSON faculty planned for a post-baccalaureate program that maintained its current Adult Nurse Practitioner program and its developing Pediatric Nurse Practitioner program. This existing master’s curriculum, which totals 46 to 49 credit hours, incorporates the AACN (1998) recommended thematic areas of graduate nursing core, advanced practice nursing core, and specialty core. These hours are added to 37 credit hours in the DNP program to total 83 post-baccalaureate semester credit hours. Also included are 630 hours of supervised clinical preceptorship (master’s program) and an 896-hour residency (DNP program), for a total of 1,526 hours of supervised clinical practice, a health policy residency, and cognate residencies.

The DNP program has multiple points of entry. Nurses who enter with a baccalaureate degree may complete the 88-credit hour requirement in 4 years (full time). For these students, the first 2 years are the masters’ level courses. In years 3 and 4, additional coursework and clinical residencies are completed. Applicants who have already completed a master’s program and who have maintained their practice and certification are given credit for previous graduate study. They may apply for direct entry into the DNP program (57 credit hours). However, to meet Purdue University’s graduate program requirements, applicants may be required to take additional courses. Consistency with the graduate school is important to academic rigor and provides students with access to graduate school resources (e.g., fellowships for DNP students).

Course of Study

The AACN (2004) conceptualized seven areas as essential content in practice-focused doctoral programs:
- Scientific basis for practice.
- Advanced nursing practice.
- Organization and systems leadership, and quality improvement.
- Analytic methods for implementation and evaluation of evidence-based practice.
- Information technology use in health care delivery systems.
- Development, implementation, and evaluation of health policy.
- Interdisciplinary collaborative practice models to improve client outcomes.

Based on these core competencies, the PUSON DNP program objectives state that graduates will be able to:
- Evaluate client responses to health and illness as a basis for the promotion, restoration, and maintenance of health and functional abilities, and the prevention of illness.
- Synthesize theory and research in the management of care as advanced practice nurses.

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### TABLE 1
Curriculum Requirements, Including Credit Hours, Preceptorships, and Residencies, for the DNP Program*

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Title</th>
<th>Semester Hours</th>
<th>Clinical Clock Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YEAR 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>Theoretical Constructs in Nursing</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Sociocultural Influences on Health</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Physiologic Concepts for Advanced Practice Nursing</td>
<td>4</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>10</strong></td>
<td>—</td>
</tr>
<tr>
<td>Spring</td>
<td>Pharmacotherapeutics in Primary Care</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Clinical Applications in Pharmacotherapeutics</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Nursing Research</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Advanced Health Assessment</td>
<td>3</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>10</strong></td>
<td>45</td>
</tr>
<tr>
<td>Summer</td>
<td>Health Promotion for Advanced Nursing Practice</td>
<td>3</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Health Promotion in Special Populations</td>
<td>3</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>8</strong></td>
<td>165</td>
</tr>
<tr>
<td><strong>YEAR 2 (Adult Nurse Practitioner Specialty Courses)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>Acute Illness: Adult Health Practice</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Acute Illness: Adult Health Preceptorship</td>
<td>3</td>
<td>210</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>6</strong></td>
<td>210</td>
</tr>
<tr>
<td>Spring</td>
<td>Chronic and Commonly Recurring Conditions: Adult Practice</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Chronic and Commonly Recurring Conditions: Adult Preceptorship</td>
<td>3</td>
<td>210</td>
</tr>
<tr>
<td></td>
<td>Health Care Policy, Organization, and Economics</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>9</strong></td>
<td>210</td>
</tr>
<tr>
<td>Summer</td>
<td>Leadership Role Transition and Synthesis</td>
<td>2</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Research project</td>
<td>3</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thesis option</td>
<td>6</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td><strong>5 to 8</strong></td>
<td>—</td>
</tr>
<tr>
<td><strong>Total: Years 1 and 2</strong></td>
<td></td>
<td><strong>46 to 48</strong></td>
<td><strong>120</strong></td>
</tr>
</tbody>
</table>

- Use nursing interventions based on the knowledge of interrelationships among people, the environment, health, and nursing.
- Demonstrate role competence as advanced practice nurses.
- Use advanced knowledge of drug therapy.
- Provide leadership in effecting positive changes in professional, social, political, and ethical situations to advance nursing, health care, and health policy.
- Evaluate the effectiveness of nursing and health systems based on outcomes.
- Demonstrate competencies as advanced practice nurses through successful program completion and advanced practice nursing certification.
- Demonstrate advanced knowledge of nursing, related sciences and humanities, and methods of inquiry.
- Develop organizational and system/management skills to enhance quality of care.
- Apply analytic methods in evaluating practice and relating evidence to practice situations.
- Develop and implement an evidence-based practice.
- Interface with government agencies to effect change in the health care system.
- Use advanced information technology in improving health care and health care systems.
- Collaborate with multiple disciplines to improve the health care outcomes of individuals, families, and communities.

Curriculum Requirements
In meeting these objectives, students develop the skill set to implement outcomes research necessary for evidence-
based practice. The AACN's seven core competencies have been incorporated into the 4-year (full time) DNP curriculum (Table 1) that includes cognates, or courses in fields outside nursing, that allow for various interdisciplinary scholarly emphases within the DNP program.

Scientific underpinnings of practice include courses in nursing research, a research project, nursing theory, environmental epidemiology, biostatistics for outcome evaluation, advanced physiological concepts, and sociocultural influences on health. Advanced nursing practice is reflected in an advanced pharmacology course, health promotion courses, advanced health assessment, leadership role and transition, and acute and chronic illness offerings. Courses in organization and systems include health care organization and policy; economic and financial aspects of clinical and population-based health care delivery systems; and history, ethics, and innovations of health care delivery systems. Courses that focus on analytic methods for advancing evidence-based practice include a course on evidence-based practice in health care, nursing research, biostatistics, and the DNP clinical project.

New partnerships with schools such as engineering are critical to the optimal development of DNP programs. Information technology is reflected in a course by that name, as well as in clinical projects with the Regenstrief Center for Healthcare Engineering. Health policy didactic and residency courses support cognate courses and interdisciplinary residencies.

Cognate courses (Table 2) involve work in certain focal areas in which students can tailor their specialized interests. A cognate is chosen from two proposed areas: direct practice/
management and leadership roles in community systems. For students who choose the direct practice/management option, cognate foci may include child development, pharmacology, or gerontology. Students interested in leadership roles in community systems may take cognates in the areas of organizational behavior, population-based health care delivery systems, including informatics; public health systems; or homeland security. Consistent with the AACN and NONPF (2002) recommendations, there is no dissertation requirement. The program does include 6 credit hours for an evidence-based practice project.

INTERDISCIPLINARY COLLABORATION

The interdisciplinary focus (AACN, 1999, 2004) is one of the major distinctions of a DNP program. The Institute of Medicine (2000) report, *To Err is Human: Building a Safer Health System*, recommended interdisciplinary collaboration to improve the safety and efficiency of practice. The DNP curriculum supports interdisciplinary work at a variety of levels. Due to the strong collaborative relationship between nursing and pharmacy and the advanced pharmacology coursework, some DNP students may choose a cognate in this area or a medication adherence issue or cost analysis as a component of their evidence-based practice project. A student from a public health nursing background who completes cognate coursework and residencies in homeland security could work with nursing and interdisciplinary faculty to enhance first-responder models within the county, state, and nation.

This DNP program is well situated to provide expert leadership in solving complex clinical problems through its connection with the Regenstrief Center for Healthcare Engineering, a partnership between Purdue University and the Regenstrief Foundation with its multimillion dollar investment. This Center brings together policymakers, clinicians, faculty from multiple disciplines, hospital administrators, leaders in the insurance industry and the American Hospital Association, and members of the general public to focus on applying engineering, management, science, and information technology principles to the improvement of the health care delivery system. This involves large-scale interdisciplinary collaboration in research and practice to effect change at the local, national, and international levels. Several PUSON faculty have been involved as researchers and as members of the Center's launch team. Joseph F. Pekny, Interim Director of the Regenstrief Center, believes that "the DNP program will provide a great advantage to the Regenstrief Center, especially in combining DNP candidates with engineering and science PhD students on projects" (personal communication, February 2, 2005).

The possibilities for innovative endeavors are great. Pekny notes that Ascension Health, the largest nonprofit health care network in the United States, is collaborating with the Center in "looking at how to fill a severe nursing shortage, what are the right roles for the nurse, and how to obtain access to nurses with higher educational degrees" (personal communication, February 2, 2005). A DNP student who is interested in the integration of technology or the design of new technologies for health care delivery systems can develop an interdisciplinary project with Regenstrief Center partners. Other projects currently underway include future demand and supply projections and likely changes due to technology and medical advances; chronic care deployment models, including requirements for the underlying information technology infrastructure; analysis of best practices of optimal physical layout and staffing models; and using nursing, technology, and engineering expertise in identifying solutions to increase time in direct patient care.

As with the cognate courses, the residencies involve practice with individuals, families, and communities within health care systems (e.g., nurse-managed clinics and hospitals) and practice within community systems (e.g., public health, homeland security). Students are prepared to develop, implement, and evaluate clinical sites, interface with government agencies, and develop and facilitate strategic organizational plans. In addition to the Regenstrief Center, students may choose to work with agencies such as Purdue University's Center on Aging and the Life Course, Center for Families, and Homeland Security Institute to design programs for rural areas.

The interdisciplinary emphasis also extends to different practice settings. At PUSON, for example, this includes a

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>Sample Cognates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Area</td>
<td>Semester Hours</td>
</tr>
<tr>
<td>Direct Practice/Management</td>
<td>6</td>
</tr>
<tr>
<td>Child Development</td>
<td>3</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>Residency: Direct Practice/Management</td>
<td>—</td>
</tr>
<tr>
<td>OR</td>
<td>—</td>
</tr>
<tr>
<td>Community Systems</td>
<td>—</td>
</tr>
<tr>
<td>Organizational Behavior OR Organizational Theory</td>
<td>3</td>
</tr>
<tr>
<td>Population-Based Health Care Delivery Systems</td>
<td>3</td>
</tr>
<tr>
<td>Public Health Systems/Risk Management</td>
<td>3</td>
</tr>
<tr>
<td>Residency: Public Health/Homeland Security Practice</td>
<td>6</td>
</tr>
</tbody>
</table>

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DNP PROGRAM DEVELOPMENT

rural focus and a global perspective. Clinical preceptorships are available with multidisciplinary teams caring for underserved populations in rural, culturally diverse, and underserved settings. These include PUSON's own nurse-managed Family Health Clinic of Carroll County, with a 27% Hispanic population; optional experiences with the Navajo Nation in Kayenta, Arizona, an ongoing project with a 10-year history of collaboration; and an international collaboration through the World Health Organization Collaborating Center.

Education is a thread across the PUSON program, so the DNP program can develop the next generation of expert clinicians who choose to teach in the practice discipline of nursing. Some students may wish to take additional coursework and practice to prepare themselves as nurse educators. The practice doctorate allows graduates to enter into clinical track positions and tenure-track positions where the practice doctorate model exists in institutions (e.g., veterinary medicine, pharmacology, audiology, medicine).

The global nursing shortage is well documented. An effective response to this crisis is hampered by the extreme shortage of doctorally prepared nursing faculty. Graduates of the DNP program who choose academia as a career will also include successful achievement of the mission and goals established for the program. The DNP graduates are eligible to sit for the Adult Nurse Practitioner certification examination offered by the American Nurses Credentialing Center (ANCC) or the American Academy of Nurse Practitioners. Pediatric Nurse Practitioners can sit for the certification examination offered by the ANCC or the Pediatric Nursing Certification Board. Representatives of these certifying bodies have indicated that movement toward certification for a DNP is still in the early phases, but as programs evolve, regulatory changes will follow suit (AACN, 2004). The work of preparing the Essentials of DNP Programs document has already begun.

Other evaluation criteria include:

• Program quality and efficiency, as judged by the ability of students to pass formative and summative evaluations of their knowledge and demonstrate practice skills expected at each yearly stage of the program.

• Graduates' ability to adequately function in a professional environment, as judged by their employers, and the students' ability to pass the national nurse practitioner certification examination.

• The ongoing market demand for graduates, successful placement of all graduates, and positive employer evaluations.

Data collected for program evaluation focus on evaluating both the program and faculty and determining whether the program's goals are being met for students. Most of the data are quantitative, as obtained from standardized forms, which rate instructors, courses, clinical sites, preceptors, and students' academic and clinical skills. Graduates also receive a standardized evaluation form to rate their student experience, including the value of their clinical experiences and courses in preparing them for their current positions. In the past, these validated, standardized forms have provided critical data for refining programs, and they can provide a means to establish a benchmark against which program performance can be evaluated. In addition, standardized forms help establish value by which to measure students. Qualitative data also are collected from open-ended questions concerning faculty and student satisfaction.

Benchmarking is used to evaluate the program in relation to other programs with similar missions, resources, and curricula (Bender & Schuh, 2002). Performance indicators of the university, School of Nursing, program of study, resources, faculty, and students are set, and will be tracked over time and compared to other universities, with the goal of improving the program and meeting accreditation standards.

An important part of evaluation is determining whether PUSON is recruiting a qualified and diverse group of students and whether these students are successfully progressing through their graduate program. Data are compiled on program applicants (e.g., grade point average; Graduate Record Examination [GRE] score, recognizing that the analytic score is most predictive for nursing students and the GRE is less predictive in underrepresented groups; prior work and life experiences; and recommendations), and these data will be compared across time to ensure the trend for student enrollment is consistently high. Some admission data will be compared across other graduate programs to help PUSON develop a way to measure admissions standards.

PROGRAM EVALUATION

Accreditation of new DNP programs will be a primary external measure of program quality. Measures of success will also include successful achievement of the mission and goals established for the program. The DNP graduates are eligible to sit for the Adult Nurse Practitioner certification examination offered by the American Nurses Credentialing Center (ANCC) or the American Academy of Nurse Practitioners. Pediatric Nurse Practitioners can sit for the certification examination offered by the ANCC or the Pediatric Nursing Certification Board. Representatives of these certifying bodies have indicated that movement toward certification for a DNP is still in the early phases, but as programs evolve, regulatory changes will follow suit (AACN, 2004). The work of preparing the Essentials of DNP Programs document has already begun.

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• Graduates' ability to adequately function in a professional environment, as judged by their employers, and the students' ability to pass the national nurse practitioner certification examination.

• The ongoing market demand for graduates, successful placement of all graduates, and positive employer evaluations.

CONCLUSION

Through interdisciplinary collaboration with many academic and service groups, the DNP program integrates advanced practice skills with an emphasis on systems design and knowledge that is needed for best practice. The program can accomplish this goal by focusing not only on systems design but also on practice management, health policy, information technology, evaluation and implementation of evidence for practice, and the development of innovative, interdisciplinary models. Added to that are strategies to cope with effects of terrorism on primary health care.

Future plans for the DNP program include expanded summer coursework offerings and enhanced use of online methods. A blend of the current advanced practice curricula, doctoral coursework, interdisciplinary collaboration, health care engineering systems approaches, and new
knowledge and skills result in uniquely qualified providers, for today and the future.

Each university setting will have unique opportunities for collaboration with multiple disciplines. Our experience encourages schools of nursing to take advantage of those prospective partnerships. It is imperative that the nursing profession consider arenas that have not yet been explored and provide leadership in the reengineering of health care.

REFERENCES