The Doctor of Nursing Practice Degree and Research: Are We Making an Epistemological Mistake?

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ABSTRACT
There has been much discussion in the literature about whether Doctor of Nursing Practice (DNP) curricula should prepare students to be principle investigators of research or whether this skill should be left to other doctorally prepared nurses. Currently, nurse practitioners have to rely on medical research to support their practice due to a lack of research and researchers. Consequently, these practitioners run the risk of adopting practice values of medicine rather than those unique to this specialty. Despite this risk, several national organizations have recommended that DNP programs not prepare graduates to be principle investigators. Epistemologically, this decision poses several levels of concern, including failure to analyze the adequacy of our current approach to research, the mixed messages presented in the position statements of these national organizations, and the effects of the looming doctoral faculty shortage. These issues, among others, are explored in this article.

In 2004, Nelson and Gordon indicated that nursing has a tendency to approach current issues as not having had a past, and by so doing, it ultimately repeats the past. This unfortunate tendency may be occurring again as the profession considers whether Doctor of Nursing Practice (DNP) curricula should prepare students to be principle investigators of research. In 2005, Wahl cautioned the profession not to view the DNP as a stand-alone doctorate, with a less scholarly focus than philosophic, theoretical, and research doctorates. Wahl wrote:

When nursing has not been clear concerning the role research and practice play in our epistemological development, the discipline has assumed the practice values of other disciplines resulting in a “rudderless ship,” greatly influenced by the winds of the day. (p. 1)

Currently, nurse practitioners (NPs) rely on medical research to support their practice because not enough advanced practice nursing research and researchers exist. As a consequence, these practitioners run the risk of adopting the practice values of medicine, rather than identifying and adopting knowledge, skills, values, meanings, and experiences unique to this nursing specialty. Despite this risk, several national organizations, including the American Association of Colleges of Nursing (AACN) (2004, 2006a), the National Organization of Nurse Practitioner Faculties (NONPF) (2005, 2006), and the National Research Council (NRC) (2005) of the National Academy of Sciences (NAS), have called for support of DNP programs, but clearly recommended that these programs not prepare graduates to be principle investigators of research.

Epistemologically, this decision poses several levels of concern. First, the decision appears to ignore lessons from nursing’s past research experience. Second, AACN documents (2004, 2006a) calling for non-research DNP programs send mixed messages about what research at the doctoral level is and is not. Third, the decision limits the creation of a broader, more inclusive research environment and thus perpetuates marginalization of research for many nursing faculty, students, and practicing nurses. Finally, the profession has never had sufficient numbers of nursing faculty with research-based degrees to meet the demand for research evidence. When combined with the emerging nursing faculty shortage, which is predicted to...
reach historic proportions, the decision to limit the number of doctorally prepared, advanced practice nurses capable of conducting research is, at a minimum, puzzling.

LESSONS OF THE PAST

Having DNPs conduct research is not a new idea. During the early conceptualization of the DNP program, Dr. Loretta Ford, considered by many as the mother of the NP movement, suggested that DNPs, along with the holders of the doctor of philosophy (PhD) and the doctor of nursing science (DNSc), should participate in the identification and exploration of unique clinical phenomena by conducting research (Pearson, 2005). In addition, the NONPF proposed that DNP programs prepare graduates to use research knowledge and methods to create, implement, and evaluate practice interventions, and to conduct collaborative clinical trials (Fulton & Lyon, 2005). At the time, both Ford and the NONPF appeared to be responding to the omnipresent need to increase evidence supporting advanced clinical practice, which would reduce reliance on medical research. However, in 2006, a revised NONPF position statement recommended compliance with a 2004 AACN position statement and the 2006 Essentials of Doctoral Education for Advanced Nursing Practice (2006a), which limit the DNP to a nonresearch-based degree, while at the same time calling for transformative change. In the 2006 Essentials, the AACN indicated that conducting research should remain within the domain of faculty with the PhD, DNSc, and other doctor of nursing science degrees, such as the DSN and the DNS. In addition, the AACN stated that DNP curricula should have less emphasis on theory, meta-theory, research methodology, and statistics (2006a). These recommendations clearly are not transformative in nature; instead, they support maintaining a status quo that has historically proven inadequate to meet the volume demand for research.

Another omission of historical significance is the lack of substantive discussion within the Essentials or the publications of the NONPF and the NAS regarding the origin of the DNS, DNSc, and DSN degrees as practice doctorates. Because of needs within society and the profession, these doctoral programs moved their curricula toward combined practice and research competencies. This pattern of merging research into practice doctorate curricula corresponds with the increasing demand for research and reflects the interest schools of nursing have in developing research programs. Considering this pattern, the AACN decision leaves DNP programs in an untenable situation. If they move forward with educating DNPs to conduct clinical research, they will have to do so without national leadership and related resources. Yet if a strong research focus is not implemented, programs will knowingly develop a practice specialty that, given the current and projected doctoral faculty shortage, will not have adequate means of providing its own unique body of evidence. As a result, these rudderless programs will have few options, except to follow medicine, which would constitute an epistemological mistake—one the profession has made before.

Taking all of this into consideration, one has to ask whether the historical pattern of excluding the research process from practice doctorate curricula has been successful enough to warrant modeling new, transformative DNP curricula after it, especially considering that the DNP will be the only practice doctorate in nursing that carries expanded practice and prescribing licensure.

NURSING’S SEVEN-DECADE DANCE WITH RESEARCH

How did the profession arrive at the position of trying to limit who conducts research? In the 1940s and 1950s, as nursing moved from 3-year, hospital-based education programs into 4-year academic settings, nursing faculty sought to establish research as a mechanism for building scholarship. These early efforts, successfully established research as a component of nursing curricula, and cultivated some of the profession’s most prominent research and theoretical scholars. Unfortunately, as with most young professions, nursing struggled with a number of issues, such as the kind of research to conduct (i.e., quantitative, qualitative, triangulated); where in the curriculum research should be taught; what the best ways to teach this kind of material were; and who should teach these courses, given that so few nursing faculty were competent in this area. By the early 1970s, most nursing programs had integrated research courses and projects into their baccalaureate-level, master’s-level, and doctoral-level programs. Although this new approach was designed to familiarize both students and faculty with the research process and research’s emerging role within the profession, it was not without problems. Some of the more significant problems included:

- Ill-prepared and inexperienced faculty, which resulted in ill-prepared, inexperienced, and skeptical students—ultimately leading to a lack of enthusiasm for research.
- Immature research curricular designs and unrealistic research expectations for baccalaureate and master’s-level programs, which led to variability in both the integration across curricula and in the quality of research being conducted.

Initially, the profession attempted to address some of these issues by recommending that implementation of actual research projects be moved to the master’s and, ultimately, the doctoral level. It was suggested that baccalaureate students be taught to become consumers of research. Historically, the doctoral degree in any profession is charged with the development of the knowledge base for that profession, so moving research to this level made sense. However, over time, this approach has been inadequate in two ways. First, conduction of epistemologically significant research appears to have become the domain of an elite group of faculty with PhD, DNS, DNSc, and DSN degrees, many of whom are lifetime researchers working at institutions with dedicated, highly funded research programs. Second, this upper-level research vacuum has allowed a preparatory void to form in many undergraduate-level and master’s-
level programs. This void has resulted in a lack of competence with the research language and processes in many nursing faculty, students, and practicing nurses. Perhaps, most importantly, this void has resulted in diminished interest in research. A recent study by Webber and Wanant (2007) revealed a lack of functional linguistic competence in the language and structure of research among nursing faculty in baccalaureate and higher degree programs.

As well-meaning as these decisions may have been, they failed to elevate research to a position in which it could meet profession's accelerating demand for knowledge. In addition, the decisions have not resulted in building widespread, ongoing interest, commitment, and dedication among the vast majority of students and graduates who will be the next generation of nurses and nursing faculty.

**MIXED MESSAGES**

The second area of concern is the possibility that language used in the 2006 *Essentials* has sent mixed messages. The 2004 AACN position paper on the DNP called for enhanced knowledge to improve nursing practice and patient outcomes. At the same time, it called for the provision of advanced educational credentials for those who require advanced practice knowledge but “do not need or want a strong research focus” (Need and Perceived Benefits section, ¶4). Many practicing NPs and nursing faculty in general were surprised by this statement. In an era of evidence-based everything, for a national nursing organization to imply that a strong research focus may not be needed or wanted is reflective of neither the realities of practice nor the needs of the profession, especially the DNP specialty. In addition, such a message is inconsistent with the AACN *Position Statement on Nursing Research* (2006c), which indicated that “Clinical research, based on biological, behavioral, and other types of investigations, provides the scientific basis for the care of individuals across the lifespan and occurs in any setting where nursing care is provided” (Scope section, ¶1). Nursing education is not now, nor has it ever been, about the desires of individual faculty, students, and practitioners. Instead, it is about what society and the profession need. If faculty had left curricula up to what individuals did and did not want, nursing education would have lost statistics, research, and theory a long time ago. Good NPs do not have a choice about having a strong research focus. Everyday practice involves daily interaction with an informed public, interpreting the most up-to-date research that is available with the click of a mouse, and identifying phenomena unique to their practice on a daily basis. The only missing piece is the advanced skill necessary to investigate these phenomena.

Even though the 2006 *Essentials* document clearly recommended that DNPs not conduct research, it includes specific language and activities that appear to contradict that position. The *Table* compares the functions of the DNP, as identified in the 2006 *Essentials*, with the steps of the research process according to Polit and Beck (2008) and the AACN *Position Statement on Nursing Research* (2006c).

**SO WHAT IS REALLY MISSING?**

Considering the parallels between the research process, as identified by Polit and Beck (2008), the AACN *Position Statement on Nursing Research* (2006c), and the expected research-related competencies of DNP graduates as identified in the 2006 AACN *Essentials* document, one has to ask what is really missing, and if anything is missing, is it important enough to warrant the recommendation that DNPs not lead clinically relevant research? The similarities among the three documents are striking, and instead of supporting exclusion of the DNP from conducting research, in concert they may actually provide evidence to support the initiative. The basis of excluding the DNP from leading clinical research may be one of semantics and, perhaps, resistance to the development of new research programs, which would stretch already thin resources.

Arguably, the number and diversity of research and statistics classes will most likely be less in most research-focused DNP programs, compared with those required for traditional research-based programs. However, as indicated in the *Table*, the level and quality of DNP research has the potential to be epistemologically significant, especially when the AACN’s expected competencies related to the research process are considered. This, combined with the day-to-day ability of DNPs to identify unique phenomena, manipulate and monitor the effects of independent variables, and access high-risk researchable populations, indicates that research should be encouraged in practice, not discouraged. This is especially true in light of the resources available, such as online access to literature, user-friendly statistical programs, and research guidelines designed specifically for clinical research.

Of note, a 2006 study by Loomis, Willard, and Cohen stated that 29% of DNP student respondents intended to be involved in clinical research after graduation. One could assume that if this much interest exists in conducting research without it being an educational focus, then an emphasis on conducting clinically relevant research along with the development of clinical expertise should generate even more.

A true transformative initiative in nursing would be to educate PhDs and other research-based doctorates to develop competence as mentors and consultants to practice-based research initiatives being led by those with practice doctorates. Also, successful DNP clinical research initiatives would most likely generate interest in postdoctoral research education, which, theoretically, has the potential to produce a higher quality of practice-based research.

**CREATING A BROADER RESEARCH ENVIRONMENT**

The third area of concern in the DNP and research discussion is the lack of receptivity to changing the current research environment. According to the AACN (2006c), research can: thrive only when certain prerequisites are in place. These prerequisites include a culture supportive of research and scholarship, strong mentoring in the intellectual work of the
discipline, educational programs to ensure an adequately sized and appropriately educated research workforce, and provision for necessary infrastructure and funding mechanisms to support coherent programs of research. (Creating a Culture and Workforce for Nursing Research section, ¶1)

These prerequisites are reasonable and essential to any sound research programs, including DNP programs; however, creating an inclusive and effective research environment involves more than merely listing prerequisites. It involves developing national, organizational, and individual faculty openness to the belief that conducting level-appropriate research is for all nurses, from the baccalaureate to the DNP and PhD, and is not just the exclusive property of elite research faculty and schools. Participating in the conduction of level-appropriate research should be encouraged in every school and in all faculty and nursing graduates at the baccalaureate, master’s, and doctoral levels. Does this mean that baccalaureate students should be conducting level-appropriate research projects? Of course it does. Under the current educational approach, faculty attempt to turn students into consumers or users of research without developing equal competence in the language and processes associated with research. They assume that this is the first step in understanding the research process, which is a mistaken assumption, similar to assuming that because someone uses a computer, the person knows how to build one. Students should conduct small, appropriate research projects at the baccalaureate level that emphasize use of the language, meanings, and steps of the research process. Such projects are highly effective in making the research process meaningful. This approach also establishes the foundation for students to further internalize the research process at the master’s level, and, ultimately, conduct epistemologically significant research at the doctoral level.

**CORRECTING THE PREPARATORY VOID**

Two major factors have contributed to the preparatory void in research pedagogy:

- The lack of widespread faculty competence in the language, meanings, and processes associated with research.
- Failure of faculty and organizations to view the research process as a skill, requiring progressive benchmarking across undergraduate and graduate curricula.

Many rank-and-file nursing faculty cannot speak the language of research, nor do they understand the progressive nature of meanings associated with the language. Ironside (2006) stated that preparation to teach and to conduct pedagogical research in nursing is confounded by a relatively low level of pedagogical literacy among faculty. In addition, Webber and Wanant (2007) found a lack of functional linguistic competence in the language and structure of research among nursing faculty in baccalaureate and higher degree programs, even among those who self-reported that they taught and conducted research. If faculty cannot speak the language, they are less able to identify phenomena, name and frame concepts and propositions within phenomena, operationalize variables, and identify assumptions and confounding variables. If more faculty cannot translate practice in terms of this basic research language, what hope do they and their students have of ever being able to integrate the research process into their practice in a meaningful and progressive way?

Lack of widespread linguistic competence partially explains the lack of enthusiasm toward conducting research exhibited by some faculty, students, and schools. It is uncomfortable to travel to places where one cannot speak the language; it is therefore reasonable to assume that a similar discomfort is present when one has to teach or learn something in a language he or she does not fully understand. It is a mistake to assume that students do not pick up on and then perpetuate this discomfort in practice.

Perhaps concern about lack of research competence among nursing faculty and schools was one of the many factors influencing decisions presented in the 2006 Essentials document. If true, one would wonder why a task force, position paper, or essentials document has not been produced that addresses competence in the language and processes of research—especially considering that this may be the single most significant barrier to creating a receptive environment for research at all levels of nursing education and practice.

**RESEARCH PROCESS AS A SKILL**

Implementing the research process is a skill that has a fundamental language with unique and progressive meanings and requires specific, logical steps. The nursing process has similar characteristics and steps, which are introduced in the first course taken by nursing students. Students then, over the next 4 years, advance this skill until it becomes rapid and seamless—a characteristic that Benner, Tanner, and Chesla (1996), refer to as nonconscious. The same approach is used with vital signs. In the Nursing Fundamentals course, students are taught the basics of assessing blood pressure, pulse, and ventilatory patterns. These skills are perfected and built upon until the senior year, by which time students are capable of monitoring and assessing multiple levels of hemodynamics in critically ill patients using complex equipment. By the time students reach the DNP level, they are capable of manipulating multiple levels of cardiac and peripheral vascular hemodynamics using four to five vasoactive drug classifications at a time and in the presence of multiple complicated comorbidities. The complexity of reasoning required for this level of care is the same or higher than the complexity needed to design and implement clinical research, especially in light of the expected research-based preparation and competencies identified in the Table.

The profession’s inability to develop a more effective system of building progressive research competence may be more an issue of teachers’ interest, competence, and teaching methods than of students’ ability to multitask practice and research.

The ability of DNPs, as well as other nursing doctorates, to produce epistemologically significant research, could potentially be stronger if teacher interest and competence were improved, and if a progressive, competence-
| Table: Comparison of Research Process Requirements, the AACN Position Statement, and DNP Research Competencies |
|---|---|---|
| **Phase 1: The conceptual phase** | “Nursing research focuses on the understanding and easement of the symptom of acute and chronic illness; prevention or delayed onset of disease or disability, or slowing the progression thereof; finding effective approaches to achieve and sustain optimal health; and improvement of the clinical settings in which care is provided.” (Nursing Research section, ¶1) | Essential III |
| • Formulate and delimit the problem | Practice-focused doctorates “focus on the evaluation and use of research.” (Scope, ¶4) | Essential I |
| • Review the literature | Essential II |
| **Phase 2: The design and planning phase** | Research-focused “graduates are expected to plan and launch an independent program of research, seek needed support for initial phases of the research program, and begin to involve others…” (Creating a Culture section, ¶4) | Essential II |
| • Formulate a hypothesis | Function 2.b. “Employ principles of business, finance, economics, and health policy to develop and implement plans…that will improve quality of care…” (p. 11) | Essential III |
| • Select a research design | Function 2.c. Develop and monitor budgets for practice initiatives | Essential III |
| • Identify the population to be studied | “The scope of clinical research ranges from acute to chronic care experiences across the entire lifespan; health promotion and preventive end of life care; and care for individuals, families, and communities in diverse settings.” (Scope section, ¶2) | Essential II |
| • Specify methods to measure research variables | “Particular attention is given to health disparities and vulnerable groups such as minorities, infants, and older adults.” (Scope section, ¶5) | Essential III |
| | Function 4. Design evidence-based interventions for specific populations | Function 5. Design and implement processes to evaluate outcomes |
| | Function 6. Inform and guide the design of databases that generate meaningful evidence for nursing practice | Function 7. Predict and analyze outcomes |
A WEBBER-based approach was used to develop this skill across all levels of nursing education.

THE ISSUE OF NURSING FACULTY

The shortage of nursing faculty is another issue with relevance to the DNP and research discussion. The AACN (1999, 2006b, 2007), among other authors (Berlin & Secrist, 2002; Corcoran, 2005, 2006; Tanner, 2005) and organizations such as the National League for Nursing (NLN) (2007) and the NAS (NRC, 2005), have indicated that the United States is facing a looming nursing faculty shortage of historic proportions. According to the AACN (2007), the shortage of doctoral-level faculty is expected to be particularly severe in light of the fact that currently 53.7% of all faculty vacancies require a doctoral degree. Therefore, recommending that a new nursing doctoral degree of any kind not have a research focus does not appear to be logical or practical.

Although the nursing shortage has generated a significant amount of discussion in the literature, few concrete initiatives have been offered that could potentially ease the need for doctorally prepared individuals capable of conducting epistemologically significant research. Given the repeated calls for action to increase doctorally prepared faculty capable of leading such research (AACN, 1999, 2006b, 2007; Berlin & Secrist, 2002; National League for Nursing, 2007), the AACN and others may be missing an opportunity to help schools of nursing develop quality DNP programs and create a new source of doctorally prepared clinical researchers at the same time.

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<td>Phase 3: The empirical phase</td>
<td>Essential III</td>
<td>Function 5. Use information technology and research methods to collect appropriate and accurate data to generate meaningful evidence for practice</td>
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<tr>
<td>• Collect data</td>
<td>“...DNP graduates generate evidence through their practice to guide improvement in practice and outcomes of care.” (p. 12)</td>
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<td>Phase 4: The analytic phase</td>
<td>Essential III</td>
<td>Function 3. Use information technology and appropriate research methods to:</td>
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<td>• Analyze the data</td>
<td>• Analyze data from practice</td>
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<td>• Interpret the results</td>
<td>• Predict and analyze outcomes</td>
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<td>Practice-focused graduates “…are prepared to focus on the evaluation and use of research.” (Scope section, ¶4)</td>
<td>• Examine patterns of behavior and outcomes</td>
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<td>Phase 5: The dissemination phase</td>
<td>Essential III</td>
<td>“This application involves the translation of research into practice.” (p. 11)</td>
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<td>• Communicate findings</td>
<td>Function 7. Disseminate findings from evidence-based practice and research to improve health care outcomes.</td>
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<td>Essential II</td>
<td>Function 5.a. Use advanced communication skills/processes to lead quality improvement and patient safety initiatives in health care systems.</td>
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Note. AACN = American Association of Colleges of Nursing; DNP = Doctor of Nursing Practice.
THE DNP AND RESEARCH

NEOMODERNISTIC OPPORTUNITY

Professions seldom have an opportunity to reconceptualize from whom, when, how, and where their knowledge comes. Discourse associated with the DNP and research may be the impetus needed to force analysis of the profession’s marginal success in generating adequate numbers of nurse researchers and in promoting a more active and inclusive research environment. When discussing the role of reformed doctoral curricula in producing nurse researchers, Ironside (2006) indicated that the profession will simply be repackaging and reproducing its own past limitations unless it develops new multiparadigmatic, multipedagogical approaches to research. In 2004, Reed and Shearer asserted that neomodernistic attitudes dislodge existing beliefs about dichotomies, such as research and practice, and that 21st century approaches to knowledge development need to move past these dichotomies and the traditional teaching methods to be successful. To change the current ethos of research in nursing requires that the DNP-research decision be revisited and that faculty competence in both the language and processes associated with research be improved. It also requires that the implementation of the research process be viewed and taught as an essential nursing skill, requiring progressive benchmarking from the baccalaureate to doctoral degree. Finally, it requires the assumption that all doctorates carry epistemological responsibility.

CONCLUSION

The decision to recommend that DNPs not conduct clinical research is an epistemological mistake that needs to be revisited by the AACN, the NONPF, and others in light of our research history, our escalating need for clinical evidence, and the diminishing pool of nursing researchers. However, regardless of whether the decision is revisited, innovative nursing programs willing to develop and implement DNP programs with combined research and practice competencies may provide the needed leadership and evidence for this initiative.

At the first national DNP Conference sponsored by Drexel University (Philadelphia, Pennsylvania), which was held in Annapolis, Maryland, in March 2007, speakers representing existing and planned DNP programs indicated that they are moving forward with integrating research into their clinical doctorate curricula regardless of the AACN recommendation—a move that is both visionary and challenging. These programs carry the burden of developing evidence of their epistemological efficacy. However, if successful, they have the potential to lead the profession into a new, more effective research paradigm. It is hoped that during this process, the vision and intent of these innovative programs will be supported and nurtured until their outcomes have an opportunity to speak for themselves.

REFERENCES
