



EDUCATION NEWS

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IMPACT OF THE CLINICAL DOCTORATE FROM AN ALLIED HEALTH PERSPECTIVE

Doctoral education is intended to prepare individuals with advanced theory and knowledge of the discipline in which the degree is earned. It is intended that doctoral students develop skills that demonstrate competence in scholarly and professional work in their respective fields. A research doctorate additionally requires that the individual develop advanced scholarship skills that enable the generation of research and extend the knowledge of the profession.

This paper differentiates research and clinical or practice-oriented doctoral education, thus distinguishing graduate from professional degrees. It identifies the need for doctoral prepared faculty in university programs, particularly from an allied health perspective. An interdisciplinary doctor of phi-

losophy program is viewed with the vantage of incorporating a specialty track in nurse anesthesia. A second example demonstrates the transition of a professional master of science in physical therapy program to a doctorate in physical therapy degree program. To stimulate discussion, an example of what a similar transition of a master of science in nurse anesthesia to a clinical doctorate would entail is presented. The rationale for such a change and the implementation challenges are discussed with implications for nurse anesthesia programs in schools of allied health professions.

Key words: Allied health, clinical doctorate, curriculum change, practice doctorate.

The consideration of moving an educational program from master's to doctoral level is a significant topic that engenders much debate. It is threatening to those whose educational level may be insufficient to move to the next level and to those who may assume that the new program may not be going in the right direction. This analysis is not intended to advocate one direction or the other. It is intended to discuss the pros and cons of a doctoral level program. As educators you are asked to set aside your biases and as objectively as possible consider: Why should a program consider a change to the practice or clinical doctorate? And, why shouldn't a program consider such a change? Thus, this paper will illuminate issues associated with change but not advocate one direction or the other.

Differentiation of doctoral education

- *Research doctorate.* The high-

est academic degree conferred by a university is the doctor of philosophy (PhD). Students seeking the PhD must demonstrate competency in a given area in which their expertise will be acknowledged. After taking requisite coursework the student is usually required to successfully complete comprehensive examinations to become a PhD candidate. A substantial, original research investigation is then undertaken with the guidance of a research advisor and under the review of a committee. A dissertation is prepared reporting the results of the research and analyzing its significance in relation to extant scientific knowledge. An oral defense of the research is often the final degree requirement for the PhD.

The option of other research doctorates has blurred the differentiation between the PhD and other practice-oriented doctorates. The doctor of nursing science (DNSc)

is an example where the requirements of knowledge mastery, scholarly research, and the development and defense of a dissertation are considered equivalent to a PhD. These doctoral degrees are accepted as graduate school equivalent doctoral preparation for the roles and responsibilities of faculty appointed to serve as research advisors. Further, there is an expectation of continued research and for publication and dissemination of research results for those with research doctorates.

- *Clinical or practice-oriented doctorate.* The clinical or practice-oriented doctorate is a first professional degree. It involves skills beyond the baccalaureate degree (without an intermediary master's degree). The doctor of medicine (MD), doctor of dental science (DDS), and doctor of pharmacy (Dpharm, PharmD, DP, or PD) are examples of first professional doctoral degrees. These degrees are

intended as entry to practice into a profession. Often there is additional training and specialization beyond the degree certification and licensure requirements.

The differentiating factor between the research and clinical doctorate is the lesser extent of the research requirement involved in the practice-oriented degree. There is exposure to and an understanding of research, but the dissertation is not a requirement of the degree. There may be a research project done as part of the curriculum, although it is not as extensive and without the committee oversight of the dissertation.

Issues regarding doctoral faculty

During the past 20 years, schools of allied health professions have been increasing the number of doctoral faculty due to internal and external pressure. For those in universities, programs of scholarship for promotion and tenure tend to prefer the research doctorate. Faculty must have a publication record and often need external support by garnering grants, contracts, and other awards to support an organized research agenda. The research doctorate expectations are aligned with publishing and garnering grant support of research. Schools of allied health professions are under increased pressure to increase the level of research funding.

Regional and specialty accreditation requirements are stipulating doctoral preparation of faculty. Some still permit master's preparation with considerable experience in a specialty area; however, this is more the exception than the rule. Indeed, some reviews of faculty qualifications must justify those without doctoral preparation.

Assessment of faculty development and quality improvement in a school is measured by trending

the increasing numbers of doctoral prepared faculty over time. Faculty should be encouraged as part of their individual training and development to pursue doctoral education.

If a program considers a move to the clinical doctorate, there is an impact on the faculty. It is expected that faculty be at or above the level they are teaching. This has implications for schools that still have master's level faculty who may not be able to continue in the same capacity in a doctoral program. A move toward the clinical or practice-oriented doctorate also will have an impact on entry to practice. This is a determination the profession needs to make.

There will be an argument against a move to the professional doctorate concerning "degree creep" or the inflation of a degree. Degree creep refers to the gradually increasing academic requirements needed to enter a profession, moving from a baccalaureate degree (perhaps with further certification), to a master's degree, then to a doctoral degree over time. Any move will have to be justified with the knowledge and skill content that would be encompassed in such a change. Nonetheless, there will be an ongoing need for doctoral faculty in schools of allied health professions.

Because of the critical need for faculty with a research doctorate in many of the allied health professions, Virginia Commonwealth University, Richmond, Va, began an interdisciplinary PhD in health related sciences. By creating an interdisciplinary core curriculum, faculty in the various departments of the school are used to teach in the freestanding program and serve on dissertation committees. Disciplines across allied health are facing current or near future pressures

due to the aging of faculty in certain areas. The program allows for development in specialty areas coinciding with departmental expertise in our school. It is a model that could be replicated and adapted elsewhere.

Admission requirements for the PhD in health related sciences include a master's degree in the field of specialty, a combined 1,100 on the verbal and quantitative sections of the Graduate Record Examination, a 3.3 grade point average in master's work, and a statement of research interest. Applicants should align research interests with faculty in their area. Once admitted, students are required to take 24 semester hours of core courses, 12 semester hours of methods courses, 9 semester hours in the specialty track, and 12 semester hours of dissertation. Nurse anesthesia has a specialty track in this program that leads to study of theory and research in the profession. The dissertation is lead by doctoral faculty in nurse anesthesia, and their dissertation is in the field as opposed to earning a PhD in a different area or discipline.

Allied health examples: Transition to clinical doctorate

What would it take to transition a master's program to a clinical doctorate in a school of allied health professions? First, an example will be given of the transition of a master of science (MS) in physical therapy to a doctorate in physical therapy (DPT) as a first professional degree. Using this example, suggestions will be presented on how an MS program in nurse anesthesia might be transitioned to a clinical doctorate. Before doing so, it is important to mention a few caveats. Resources are needed to make the transition. Enough doctoral prepared faculty are needed to

teach requisite courses and to teach concurrent degrees during the transitional period. In addition, a strong rationale is needed to preempt opposition and the potential argument of degree creep.

- *Background and rationale of DPT.* Changes in physical therapy began in the mid-1990s. Nationally there are 192 accredited educational programs. By 2001, 15 accredited programs offered the DPT, and 18 other programs were transitioning to offer the degree. At Virginia Commonwealth University, the change began in 2001. Applications had declined to a point where there were less than a third of the applications received 5 years previously. Although the pool was still more than sufficient to fill the entering class, it had declined considerably from prior years. One program in Virginia had already transitioned to the DPT and the other was in process. The rationale that the department put forth for the change in the curriculum and the degree included: (1) increased competition for students, (2) declining applications to the program, (3) student demand (a survey of current students was done), (4) increasing knowledge base of the profession, and (5) changing environment and reimbursement issues.

- *Design and approval process.* The process for programmatic and curricular changes is similar to that in other publicly supported universities, beginning with a proposal initiated by the department that follows state guidelines. The departmental curriculum committee reviews it and sends it to the school level graduate curriculum level for approval. Once reviewed and approved, this committee forwarded the proposal to the School of Graduate Studies for its programmatic review. The Graduate Council raised a question of

process of oversight of professional programs, so, in this case, it did the review. Subsequently a professional programs council has been created that parallels that of Graduate Studies for review of changes to professional programs. However, since the change did affect a graduate program that would eventually be phased out, the MS to DPT review was completed by the Graduate Council. It was then reviewed and approved by the University Council, President's Council, and the Board of Visitors before being sent to the state. The State Council of Higher Education for Virginia also reviewed and approved the program. The accrediting agency, Commission on Accreditation in Physical Therapy Education, was informed that the program would undergo this transition.

- *Curricular changes for the DPT.* In 2001, the master's program in physical therapy was 3 years in length, consisting of 8 semesters that included 2 summers of full-time study. It was a "3+3" structure, meaning juniors could enter and complete the 3 years for their MS in physical therapy. However, most students entered with a baccalaureate degree. The entire curricula consisted of 100 semester credit hours, which was more than double the requirement of most other master's degrees. The program was under the purview of the School of Graduate Studies for degree requirements.

The DPT degree is a 3-year program consisting of 9 semesters including 3 summers. Thus, 1 semester was added to the length of the program. Applicants must have completed their baccalaureate degree including all science prerequisites for admission to the program. The DPT program curriculum consists of 122 semester hours. The program is under professional studies purview. The

Commission on Accreditation in Physical Therapy Education continues accreditation; however, the program will be site visited in 2006 after the first class has completed the full curriculum.

Changes to implement the new program gave opportunities for re-sequencing courses in the curriculum. For example:

- Gross Anatomy was moved from second semester to summer before year 1.
- Pathology was moved from second year to the first fall semester.
- Kinesiology was moved from spring to the first fall semester.

A number of courses in the curriculum needed to be revised to reflect additional content and depth of skill development. Examples include:

- Scientific Inquiry was increased 1 credit hour to include more statistics.
- Orthotics and Prosthetics included more on amputation.
- Topics in Healthcare Services and Delivery added physical therapy cases.
- Clinical Integration added integrative cases
- Professional Issues added new topics.
- Clinical Education was lengthened with supervision skills

Only 3 new courses were developed for the curriculum: Professional Aspects of Physical Therapy, Applied Exercise Physiology, and Administration and Management.

- *Clinical doctorate in nurse anesthesia: Example of generic change.* The Council on Accreditation of Nurse Anesthesia Educational Programs (COA) has established additional criteria for the standards regarding practice-oriented doctorate degrees that are followed for this example. It is a generic example that can be adapted, as variations exist across programs. There

must be resources available to pursue this path, and the profession must determine the direction. The profession must make the determination that this is the direction in which to move for entry and education of nurse anesthetists.

A strong rationale for a transition from the master's to a clinical doctorate is needed in order to garner the support necessary to sustain the change. The American Association of Colleges of Nursing's vision of doctoral degree as entry into practice as a nurse practitioner is of certain consideration in this respect. It should reflect that there are sufficient resources, including doctoral faculty needed to teach in the program. The rationale could reflect the changing environment and the push for more autonomy for the profession—autonomy of the profession as opposed to independence since we are all part of a team providing care to the patient. The level of training should also reflect parity with other professions.

- *Approval process for a practice-oriented doctorate in nurse anesthesia.* The process for programmatic and curricular changes would be similar to that described for the DPT transition, beginning with a proposal initiated by the department that follows state guidelines. Prior to pursuing this change, coordination and agreement with other affected schools, such as nursing and medicine, would have to be assured. The departmental curriculum committee would review it and send it to the school level graduate and professional curriculum level for approval. Once reviewed and approved, this committee would forward the proposal to Graduate Studies and the Professional Studies Committee for their programmatic review. Since the change would affect a graduate program that may eventually be

phased out and a new professional program, the proposal would have to undergo dual review. It would then be reviewed and approved by University Council, President's Council, and the Board of Visitors before being sent to the state. The State Council of Higher Education for Virginia also would review and approve the program. In addition, the COA would need to review and approve the proposed program prior to transition. The COA's policy requires an established, accredited program that desires transition to a doctoral program, performs a self-study, and undergoes an onsite review while maintaining accreditation through the review process.

- *Curricular changes for a practice-oriented doctorate in nurse anesthesia.* In 2004, the master's program in nurse anesthesia at Virginia Commonwealth University is 28 months in length and consists of 7 semesters that includes 2 summers of full-time study. It requires a baccalaureate in science degree, with a BS in nursing preferred. Nurses entering the program must have a minimum of acute care experience. The entire curricula is 72 semester credit hours, which is still more than the requirement of most other master's degrees. The program is under the purview of the School of Graduate Studies for degree requirements.

A practice-oriented doctoral program in nurse anesthesia needs to be a 3-year program that might consist of 8 semesters including 2 summers. Thus, 1 semester would be added to increase the length of the program. Nursing applicants must have completed their baccalaureate degrees in science for admission to the program. Applicants must still have at least 1 year of acute care experience. A professional doctoral program in nurse anesthesia might consist of approximately 100 semester hours. The program would be under profes-

sional studies purview, and the COA would have done the review and approval prior to a transition.

Implementing a practice-oriented doctoral program provides opportunities for re-sequencing courses in the curriculum. For example:

- Pathophysiology and other advanced basic science courses could be "front-loaded" in the curriculum, that is, being taught in the first or second semester of the program.

- Content from Clinical Practica could be evaluated and re-sequenced for the new curriculum.

As with the DPT transition, a number of courses in the curriculum might need to be revised to reflect additional content and depth of skill development. Examples include:

- Directed Research might include more statistics and increase with evidence-based research.

- Clinical Practica might need to be lengthened.

- Special Topics in Nurse Anesthesia may benefit with additional cases.

- Professional Aspects of Nurse Anesthesia could add content and lengthen sequence.

Other new courses might be developed for a practice-oriented doctoral curriculum. These are generic examples: (1) Patient Safety; (2) Adult Education and Supervision; (3) Simulation; (4) Leadership, Policy and Practice; and (5) Advanced Clinical Practicum. Individual programs might consider other courses depending on the current content and structure of their respective curriculum.

- *Implementation hurdles.* The timing of change is always critical to its success. If the profession is poised for this transition, implementation will be less problematic. Time will be needed to make the transition.

Changing from a graduate to a professional degree entails other procedural transitions. A program must undertake its own application and admission process that may no longer be done by Graduate Studies. Staff will be needed for this function.

The change would affect current students. How will the new courses be phased in and old courses phased out? Will there be overlap? Will students be able or eligible to choose whether they complete the master's program or transition to the doctoral program? All of these questions must be considered as part of the approval and implementation process.

Changes will affect clinical affiliations. Additional placements may

be needed, and current rotations may need to be lengthened.

Faculty also will be affected. To what extent will they carry an additional load during the change? Will there be a "transitional program" for those with a completed master's degree? How will this affect faculty load? Will master's prepared faculty be able to take it? Separate employment arrangements may have to be considered if or while faculty participate in a transitional program.

Conclusion

This article is intended to stimulate thought and discussion concerning raising the level of entry to specialty nursing practice in nurse anesthesia by analyzing the potential impact

on educational programs in allied health. The procedural dilemmas of moving educational programs from a master's to a doctoral level can be resolved if the profession determines that this is the direction to take. This analysis illuminated the issues associated with how educational programs might address such a change and show that it is possible to accomplish if the will to initiate the change is directed by the profession.

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ACKNOWLEDGMENT

This paper was presented at the American Association of Nurse Anesthetists' Assembly of School Faculty in Scottsdale, Ariz., on February 27, 2004.