#### **RESEARCH ARTICLE**

# The Doctoral Pipeline in Physician Assistant Education

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Purpose: This study examined the intentions and motivations of PA faculty regarding the pursuit of doctoral education in 2003. Variables assessed included the characteristics of faculty and the educational programs they were pursuing, including type of program and degree awarded, delivery methods, and presence or absence of institutional support. Projections were made based on the anticipated dates of graduation. Methods: A 15-item Web-based survey was sent to PA faculty identified via the Association of Physician Assistant Programs (now the Physician Assistant Education Association) faculty directory. Results: The response rate was 66.8%, with 20% of these enrolled in doctoral study. Of those currently enrolled, 48% were pursuing a doctor of philosophy (PhD) degree, 80% had 10 years or less as PA faculty, 48% attended on campus, 80% expected project completion by 2006, and 21% reported no institutional support. Of the faculty not enrolled, 41% were investigating programs, 5% planned to submit applications in the next 6 months, and 3% anticipated enrollment in the next 6 months. Conclusions: The population of doctorally prepared PA faculty will nearly double by the year 2010, with the majority completing PhD degrees via on campus delivery. While a significant number of faculty are investigating programs, few anticipate enrollment in the near future, which would result in minimal growth in the number of doctorally prepared faculty beyond 2010.

Journal of Physician Assistant Education 2006; 17(1):6-9

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#### **INTRODUCTION**

The significant and recent increase in the number of physician assistant (PA) programs, accompanied by the rise in the number of programs awarding a master's degree, has had a continued effect on the availability of appropriately prepared PA program faculty members. <sup>1,2</sup> The advent of master's degree curricula, requiring the completion of a master's degree project or thesis, established the need for student research supervision by faculty, who themselves often feel unprepared for the task.

Additionally, all academic institutions and most regional accrediting agencies require faculty members to be academically credentialed at the same or higher level than the attending student population. This requirement continues to pressure current faculty members to obtain higher degrees.<sup>2</sup> Experience in research and publication activities by PA faculty lags behind their experience with teaching and service, hampering their ability to meet the demands of the institution as well as

the curricular responsibilities in master's degree-awarding programs.<sup>3,4</sup>

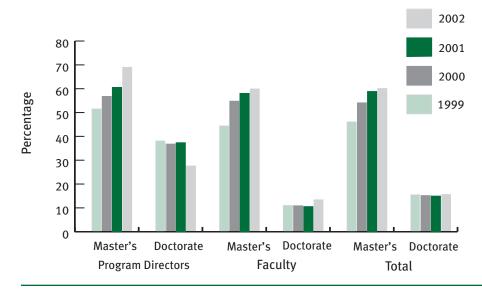
In a 1999 review of the outcomes of a 1986 Association of Physician Assistant Programs (APAP) project designed to develop a vision statement about the PA of the future, Blessing reiterated that project's recommendations for PA educational institutions in terms of faculty characteristics.5 Two of these recommendations suggested that programs "support and encourage the pursuit of higher degrees (master's and doctorate level) by their faculty" and that faculty should "upgrade ... academic preparedness in order to teach proposed new ... curriculum." No study to date has explored the extent to which programs support faculty in such pursuits, nor has the motivation of individual faculty members to upgrade been examined.<sup>5</sup> The Sixteenth Annual Report on Physician Assistant Educational Programs in the United States, 1999-2000 noted that of PA faculty serving in roles other than that of program director, 55% had master's

or higher degrees, with 11% being at the doctoral level. For program directors the report revealed 38.1% with doctorates, 51.5% with master's degrees, and 10.3% with baccalaureate degrees. 6 While significant progress has been made in the number of faculty, including program directors, holding master's degrees since this time, the number of faculty with doctorate degrees has remained static (Figure 1).6-9 Understanding the number of faculty, regardless of role, who are currently pursuing or even considering doctoral education would enhance our ability to project how well PA educational institutions will meet the call for upgraded academic preparedness and faculty demand. This study investigated the intentions and motivations of PA program faculty to pursue doctoral education, characteristics of the choice of doctoral program and its delivery methods, and their perceived support from their employing institutions. It also sought to project the number of doctoral-level PA faculty that will be prepared in the foreseeable future.

#### **METHODS**

A review of the literature revealed no studies describing characteristics of PA faculty considering or engaged in doctoral education. In light of the lack of information available, a 15item questionnaire was designed to elicit characteristics concerning current or future pursuit of doctoral education by PA faculty. For faculty who indicated current enrollment in doctoral education, a series of items focused on the faculty respondent and their employing institution in regard to rank, number of years in PA education, motivation for educational pursuit, and the types of institutional support provided to the faculty member for such an endeavor. A second series of items sought to obtain information about the doctor-

Figure 1. Highest Degree Held by Program Directors vs. Other Faculty, 1999-2002



al education experience, including the specific type of doctoral program pursued, what degree would be awarded, what method of delivery was involved (on-campus versus distance), and whether specific requirements for residency, dissertation, and dissertation defense were required for degree completion. Additionally, open-ended items elicited the name of the institution and the anticipated date of degree completion. For faculty who were not currently enrolled in doctoral education, the questions focused on their intent to pursuit a doctorate in the future. A pilot study of the questionnaire was conducted using a convenience sample of PA faculty (N=6). Following revisions, the questionnaire was converted for Web-based delivery via FormSite.com.

Project participants were identified utilizing the then-most current APAP faculty directory (2003). The single criterion for inclusion, PAdesignated faculty without doctoral degrees, resulted in the identification of 694 potential project participants. Each potential participant was sent an e-mail invitation to access and com-

plete the Web-based survey instrument. Following the initial invitation, several e-mail addresses were identified as incorrect, undeliverable, or representing faculty who were no longer employed in PA education. The final number of potential participants was 625. Two follow-up invitations were sent to nonresponders.

Descriptive statistical analysis of the data obtained from the questionnaires was performed with the Statistical Package for the Social Sciences (SPSS), version 11.0. The frequency distribution of anticipated date of degree completion was used for projections.

#### **RESULTS**

Of the 625 possible participants, 419 responded. Review of data revealed one unusable survey, resulting in a response rate of 66.8%. Three faculty who indicated being currently enrolled in doctoral programs failed to complete all sections of the survey and their records were not analyzed further. An additional 15 records of faculty not currently enrolled were found to be incomplete and were not included in all analyses.

## Currently Enrolled in Doctoral Program

Twenty percent of respondents (n=83) indicated current enrollment in doctoral education programs. Sixty-seven percent held the rank of assistant professor at the time of initial enrollment with 11% at the rank of associate professor. Of the remaining 22%, the majority (14%) held the rank of instructor with an even split (4%) between adjunct faculty or lecturer status. Eighty percent of the enrolled faculty have 10 years or less of employment in PA education, with a substantial number (30%) having less than 5 years. While 40% of respondents indicated that the requirement of a higher degree for advancement motivated their pursuit, most (59%) selected personal motivation to expand their education as the factor influencing their decision. Other motivations elicited in the open-ended section included the combination of personal motivation coupled with the availability of institutional financial support and opportunities beyond PA education. The majority of employing institutions do offer some type of support to the enrolled faculty member; however, 21% offer no support (Figure 2).

The largest cohort (50%) of enrolled faculty were pursuing doctor of philosophy degrees, followed by doctor of education (21%) and doctor of health sciences (11%) (Figure 3). Most were enrolled on a part-time basis or combination of part- and full-time (76%) and attended classes on campus (51%) rather than via distance education. The majority of the programs, though not all, required a dissertation (81%), with slightly fewer requiring a defense of the dissertation (77.2%). Faculty indicated a variety of institutions; only one enrolled greater than 20% of the respondents-Nova Southeastern University at 22% (n=18).

Figure 2. Institutional Support Provided to Faculty Enrolled in Doctorate Programs

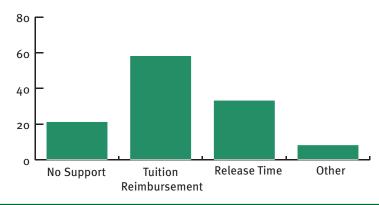


Figure 3. Type of Degree to Be Awarded

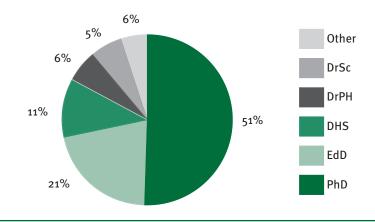


Figure 4. Number of Doctorate Holders by Year of Degree Acquisition (projected)

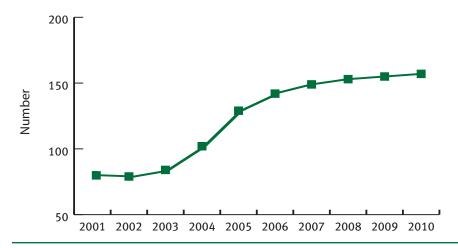
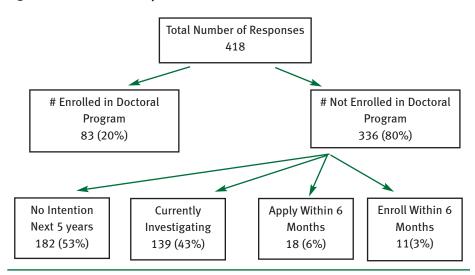


Figure 4 reflects the projected number of doctorally prepared PA faculty over the next decade, utilizing the most recent APAP annual report at the time of the study and based on the assumption that all currently

Figure 5. Overview of Respondents



enrolled faculty complete their degree as indicated and that all stay in PA education.<sup>8</sup> The results indicate a doubling of doctorally prepared PA faculty by 2010, with the number leveling off thereafter.

### Not Currently Enrolled in Doctoral Education

Eighty percent (N=336) of the respondents indicated that they are not currently enrolled in doctoral education. Of these, 53% indicated that they will not pursue doctoral studies "within the next five years," while 43% indicated that they were currently investigating programs. However, a smaller percentage of respondents (6%) indicated intent to submit an application to a doctoral program within the next 6 months, with only half of these (3%) intending to enroll within the same time frame (Figure 5).

#### **CONCLUSIONS**

If one estimates that at least 4 years is required to acquire a doctoral degree and considers all respondents who indicated intention to enroll in a doctoral program (apart from those indicating being close to enrollment), projections for the number of doctorally prepared PA faculty are initially increased then taper to a nongrowth projection. Additionally, these projections do not take into account aging or retirement plans of current doctorate holders or mobility out of PA education as doctorates are completed. Finally, while many respondents indicated intent to apply to and enroll in doctoral programs, it remains to be seen if these intentions become reality. Future research should include a reassessment of the pipeline to investigate these issues and the likelihood of adequate numbers of doctorally prepared PA educators into the future.

#### **REFERENCES**

- 1. Knott P. PAs and doctoral degrees. *Physician Assistant*. 2002;27(2):11.
- Miller AA, Allison L, Asprey D, et al. Association of Physician Assistant Programs Degree Task Force Final Paper: September 28, 2000. Perspective on Physician Assistant Education. 2000;11(3):169-177.
- 3. Jones PE. A descriptive study of doctorally prepared physician assistants [abstract]. *JAAPA*. 1994;7(5): 353.
- 4. Jones PE, Cawley JF, Capozzi LM. Gauging the publication productivity of PA faculty. *JAAPA*. 1997;10(1):51-57.
- 5. Blessing JD. Looking back at looking forward. Perspective on Physician Assistant Education. 1999;10(3):144-148.
- 6. Simon A, Link M, Miko A. Sixteenth Annual Report on Physician Assistant Educational Programs in the United States, 1999-2000. Alexandria, Va: Association of Physician Assistant Programs; 2000.
- 7. Simon A, Link M, Miko A.

  Seventeenth Annual Report on Physician

  Assistant Educational Programs in the United

  States, 2000-2001. Alexandria, Va:

  Association of Physician Assistant

  Programs; 2001.
- 8. Simon A, Link M, Miko A. Eighteenth Annual Report on Physician Assistant Educational Programs in the United States, 2001-2002. Alexandria, Va: Association of Physician Assistant Programs; 2002.
- 9. Simon A, Link M, Miko A. Nineteenth Annual Report on Physician Assistant Educational Programs in the United States, 2002-2003. Alexandria, Va: Association of Physician Assistant Programs; 2003.