

Perceptions of US Physician Assistants Regarding the Entry-Level Doctoral Degree in PA Education

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Introduction: Although many health care professions have implemented an entry-level clinical doctorate, the physician assistant (PA) profession has not done so to date. Furthermore, no research has been done on the PA profession to determine the appropriateness of entry-level doctoral education. **Methods:** This cross-sectional study was designed to determine the perceptions of practicing PAs regarding an entry-level doctor of physician assistant (DPA) degree. A randomized sample of 1,500 US PAs was surveyed and the results were analyzed using descriptive and chi-square statistics. **Results:** The response rate for this survey was 23% (n=352). The majority of the respondents (82.8%) did not perceive the DPA degree to be necessary for entry into the PA profession. Likewise, 55.8% were not interested in returning to school to obtain the DPA. Additionally, the majority of respondents believed that the master's degree was sufficient for PA practice, did not believe the DPA was necessary to deliver high standards of care, would not leave the field of PA if the DPA were required, and believed the DPA would not be needed to compete with nurse practitioners. **Conclusions:** The study results describe a group of PAs in the United States who do not favor the profession moving toward offering a DPA degree. These results are similar to those for other professions that have already moved toward doctoral education.

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INTRODUCTION

Entry-level doctoral education for physician assistants (PAs) is a relatively new and controversial topic. Many discussions continue regarding the appropriateness of the profession moving in this direction. Other non-physician health care professions have made the transition, including physical therapy (PT), occupational therapy (OT), podiatry, pharmacy, audiology, and nurse practitioner.¹⁻² As these programs moved to the entry-level doctoral degree, many issues were raised. In an attempt to further evaluate this topic, a literature review was conducted using MEDLINE, Cochrane Library, and Cambridge Scientific Abstracts. The *Journal of Physician Assistant Education* Web archives on the Physician Assistant Education Association Web site were also searched for relevant articles. The search terms were *physician assistant education*, *physician assistant doctoral programs*, *nurse practitioner doctoral programs*, *clinical professional doctorate*, and *physical therapy*

doctoral programs. Since the PA doctoral concept is fairly new, only limited information specific to the PA profession was found. However, useful information was found about the transitions of the audiology, OT, nursing, and PT professions to the professional doctorate.

Literature Review and Purpose

In an effort to understand the evolution of professional doctoral education, the Higher Learning Commission (HLC) of the North Central Association (NCA) of Colleges and Schools commissioned the *Report of the Task Force on the Professional Doctorate*, which was published in 2006.³ The members of the task force described the issues in regard to first professional doctoral degrees (degrees conferred on those who wanted to be licensed to practice a particular profession, eg, MD, doctor of dental surgery, doctor of veterinary medicine, or juris doctorate), which are simply referred to today as

professional doctorates. The report states:

With a few important exceptions, all of these programs typically are post-baccalaureate in nature and require approximately three years of study ... Professional doctorates are not new to U.S. higher education; they have served a specific role in preparation for a profession; and they have usually been located in schools within a university or freestanding, focused, professional institutions.

The report goes on to say that “several new degrees have been created, particularly in health care fields.” These new degrees, the report states, are

... called doctoral programs, but clearly are not in title or content the same as the research doctoral programs in the field. Nor do they always follow the model of the “1st Professional Degrees” ... Often referred to as the “clinical doctorate,” “professional doctorate” or “practicing doctorate,” most of these new programs do not yet serve as the professional degree required for licensure. ... And there is no consistency among colleges and universities that offer them ... While the various professions have defined the nature of each program, there seems to be no obvious consistency among the various degrees as to length of study, rigor, substance, or content of the program, or the ultimate utility of the degree to the person who earns it.³

The HLC-NCA report may be a useful resource for those interested in grappling with the concept of the professional doctorate in general and the DPA in particular.

One of the more controversial issues for the PA profession may be how physicians perceive the DPA degree. Jones and Cawley argue that the doctorate for the PA already exists

in the form of MD or DO degrees, especially since PA education is based on medical school curricula.¹

Problems of perception could arise with patients as well. If NPs, MDs, DOs, and PAs are all being called “doctor,” it may be difficult for patients to identify their primary care clinician.²

Another argument against moving to the doctoral degree may be that PAs with bachelor’s or master’s degrees would lose out on job opportunities to PAs with doctoral degrees.^{2,4} The PA profession was developed based on the concepts that PAs should be flexible, the education should be condensed, and PAs should be extensions of physicians within practice settings. Doctoral-level education may be in direct conflict with the PA concept.

Health workforce researchers predict that there will soon be a physician shortage and medicine will be in great need of skilled nonphysician health care workers.⁵⁻⁶ Nursing researchers propose that a clinical nursing doctoral degree would offer the nonphysician health care professional a better understanding and appreciation of research and clinical practice and that practitioners will be more prepared and more skillful in the health care that they provide.^{5,7} However, anecdotally there is concern that additional education required for the doctorate would limit the number of people who could qualify for training, especially minorities, as well as limit the number who could afford the additional education. Some also believe that the additional education would exacerbate the shortage of health care professionals due to the longer period of time needed to graduate.⁸ Another argument against an entry-level PA doctoral degree is that it is an extension of the master’s degree and with no real difference in the level of education.⁷

METHODOLOGY

Design and Research Questions

This study was based on a cross-sectional, random sampling of PAs from the United States. The research questions were as follows:

- Question 1: What are the perceived benefits of the DPA among US PAs?
- Question 2: What are the perceptions of US PAs regarding the DPA?

To answer question one, the respondents were asked to rank in order from the most important perceived benefit of the DPA to the least important out of six possible choices, including a section that allowed respondents to write in the most important perceived benefit. To answer question two, the respondents were asked a series of 10 Likert scale questions regarding their perceptions of the DPA.

Participants

The American Academy of Physician Assistants (AAPA) database was queried to obtain a randomized sample of PAs in the United States. To ensure an adequate sample size for generalization purposes, a calculation of the sample size needed was conducted and determined to be 382 with a 5% margin of error, at a 95% confidence level, based on a population size of 65,000. A 25-30% response rate was expected. Therefore, 1,500 PAs were surveyed to ensure a pool of respondents of approximately 382.

Measurement

The survey was mailed via the United States Postal Service, and assessed the current practice settings, ages, and highest PA degrees held of the subjects. A series of Likert questions was

asked to determine perceptions of the DPA degree. The subjects were asked if they would be interested in a degree completion program to obtain the DPA, if available. Finally, the subjects were asked to rank in order of importance the perceived benefits of the DPA.

Data Analysis

Frequency counts were conducted to determine practice setting, highest degree, perceptions of the DPA, and mean age of the respondents. Chi-square analyses were performed to determine whether there were any significant relationships in regard to perceptions of the DPA, whether or not the respondents were interested in the DPA, their terminal degrees, practice settings, and ages. Surveys were collected from April 23, 2007, to June 19, 2007, with a 23% (n=352) response rate. The data were entered manually into an Excel spreadsheet and then imported into Statistical Package for the Social Sciences software, version 15.0, for analysis. The alpha level was set at .05.

RESULTS

Demographic Profile and Rank Order Data

The survey return rate was slightly less than expected (23%, n=352). The mean age of the respondents was 40.39 years. Most of the respondents held a PA master’s degree (49.4%) or a PA bachelor’s degree (32.6%). Family practice was the most common practice setting (21.9%) and 14.5% were not in clinical practice. When asked whether or not they would be interested in pursuing a DPA degree completion program, the majority (55.8%) indicated that they were not interested. A summary of these demographics is found in Table 1.

The benefit of the DPA perceived as most important by respondents was professional recognition

Table 1. Characteristics of Respondents (N=352)

	Percentage
Degree	
Certificate without degree	9.7
Associate degree	8.0
Bachelor’s degree	32.6
Master’s degree	49.4
Informally trained PA	0.3
Specialty	
Family practice	21.9
Internal medicine	6.5
Internal medicine subspecialty	8.2
OB/GYN	1.1
Pediatrics	2.6
Emergency medicine	11.6
General surgery	2.0
Surgery subspecialty	15.1
PA educator	1.4
Other	15.1
Not in clinical practice	14.5
Interested in DPA degree	
Yes	44.2
No	55.8

Note: Due to rounding, percentages for some sections may not add up to 100.

(33.2%), followed closely by improved competency (28.1%). Table 2 summarizes the importance of each perceived benefit based on the respondents’ rankings.

Nonparametric Data

To determine the perceptions of the DPA, the respondents were asked questions based on a 5-point Likert scale with options ranging from “strongly agree” to “strongly disagree” (Table 3). Overall, the majority (79.1%) agreed that the master’s degree was sufficient for PA practice. Also, a large percentage (83.1%) disagreed with the statement that the DPA was necessary to deliver high standards of care. Furthermore, a large percentage (45.6%) disagreed that they would leave the field of PA if the DPA were required. Most respondents (56.7%) also indicated that the DPA would not be needed to compete with NPs. Respondents were

divided on the question of whether the DPA would affect minority application, with approximately one third (31.1%) agreeing with the statement “DPA will not affect minority application,” one third (37.5) disagreeing, and one third neutral. In addition, nearly half of respondents (46%) either strongly agreed or agreed that educationally disadvantaged students would not be able to compete.

To further analyze the perceptions of the DPA, a comparison was completed between those who were interested in pursuing a DPA degree and those who were not (Table 4). Those who would pursue a DPA tended to agree more with statements supporting the DPA, such as that it is necessary for higher standards of care or to increase income. Those interested in the DPA appeared less concerned about the impact the DPA would have on educationally and financially disadvantaged applicants and minorities.

Table 2. Physician Assistants’ Perceived Benefits of the DPA Ranked in Order of Importance (N=352)

	Number	Percentage
First Choice		
Professional recognition	72	33.2
Earning power	28	12.9
Improved competency	61	28.1
Self-esteem	14	6.5
Professional identity	36	16.6
Other	6	2.8
Second Choice		
Professional recognition	65	30.1
Earning power	41	19.0
Improved competency	26	12.0
Self-esteem	22	10.2
Professional identity	62	28.7
Third Choice		
Professional recognition	40	18.5
Earning power	64	29.6
Improved competency	34	15.7
Self-esteem	31	14.4
Professional identity	47	21.8
Fourth Choice		
Professional recognition	22	10.2
Earning power	56	25.9
Improved competency	56	25.9
Self-esteem	34	15.7
Professional identity	48	22.2
Fifth Choice		
Professional recognition	16	7.4
Earning power	26	12.0
Improved competency	38	17.6
Self-esteem	115	53.2
Professional identity	21	9.7
Sixth Choice		
Professional recognition	2	50.0
Earning power	0	0.0
Improved competency	1	25.0
Self-esteem	0	0.0
Professional identity	0	0.0
Other	1	25.0

Note: Due to rounding, percentages for some sections may not add up to 100.

Another comparison was completed to determine whether the perceptions of the DPA would change based on the subject’s current highest PA degree (Table 5).

Overall, perceptions were fairly congruent across different categories

of degree holders. However, there were three statistically significant relationships found with this comparison. Relationships were found between highest PA degree and level of agreement with the statements “Bachelor’s degree is sufficient” and

“Master’s degree is sufficient,” and whether the respondent would leave the PA field if the DPA were required for practice. Regarding whether the respondent would leave the field of PA if the DPA were required, the respondents with a lower degree tended to agree with the statement while those with higher degrees tended to disagree. Comparisons were made between the respondents’ self-identified practice setting and responses to the DPA perception questions. No significant relationships were found in these analyses.

A final comparison was made between age and perceptions of the DPA. Based on the age of 38 being at the midpoint of frequency counts, respondents were divided into two groups; those 38 and younger and those over 38. Seven significant relationships were found based on this division (Table 6). Those who were older were more likely to perceive the bachelor’s degree as sufficient for PA preparation and not to support the DPA as the entry-level degree for PA practice. Likewise, older PAs would be more likely to leave the PA field if the DPA were required. Older PAs also believed financially disadvantaged students would not be competitive for admission to a DPA program. Younger PAs more likely to agree that a DPA was necessary to improve the economic status of PAs, but more likely to disagree that minorities applying to DPA programs would not be affected. The two age groups were split in their perception of whether the DPA was necessary to ensure higher standards of care (Table 6).

DISCUSSION

Summary of Results as Compared to the Literature

The PA respondents seemed to agree with those in a study of audiologists. Only 44% of the respondents were interested in the DPA degree as com-

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Table 3. Perceptions of Physician Assistants regarding the DPA Degree, by Percentage Responding (N=352)

Perception	Strongly Agree			Strongly Disagree	
	1	2	3	4	5
Bachelor's degree is sufficient	16.0	46.3	11.4	21.1	5.1
Master's degree is sufficient	31.3	47.8	13.3	5.5	2.0
DPA should be entry level	2.3	5.2	9.7	39.0	43.8
Will leave field of PA if DPA required	17.4	22.4	14.7	34.1	11.5
DPA necessary for highest standards of care	4.0	7.7	5.2	48.1	35.0
DPA necessary to increase income	4.3	15.8	10.3	46.4	23.2
Educationally disadvantaged students will not be able to compete	7.5	38.5	27.3	22.7	4.0
DPA will not affect minority application	4.0	27.1	31.4	26.9	10.6
Financially disadvantaged will not be able to afford DPA	12.6	44.1	17.2	22.9	3.2
DPA needed to compete with nurse practitioners	8.1	20.5	14.7	37.9	18.8

Note: Due to rounding, percentages for some sections may not add up to 100.

Table 4. Perceptions of Respondents Regarding DPA Degree by Interest in DPA Option, by Percentage Responding (N=352)

	Strongly Agree			Strongly Disagree		χ^2
	1	2	3	4	5	
Bachelor's degree is sufficient						17.696†
Interested	10.0	40.7	15.3	27.3	6.7	
Not interested	21.1	50.3	8.5	16.4	3.7	
Master's degree is sufficient						5.818
Interested	27.5	53.0	11.4	6.7	1.3	
Not interested	35.1	42.7	15.1	4.3	2.7	
DPA should be entry level						58.336‡
Interested	5.3	9.3	16.7	45.3	23.3	
Not interested	0.0	2.1	4.8	33.2	59.9	
Will leave PA field if DPA required						98.572‡
Interested	2.0	10.9	15.6	48.3	23.1	
Not interested	29.3	32.6	13.3	22.7	2.2	
DPA necessary for highest standards of care						54.702‡
Interested	8.0	12.7	9.3	54.0	16.0	
Not interested	1.1	3.7	2.1	43.9	49.2	
DPA required to increase income						69.538‡
Interested	8.8	26.4	13.5	46.6	4.7	
Not interested	0.5	8.5	7.9	46.6	36.5	
Educationally disadvantaged students not able to compete						18.518†
Interested	4.0	36.2	22.8	32.9	4.0	
Not interested	10.6	39.9	30.3	14.9	4.3	
DPA will not affect minority application						17.432†
Interested	6.0	35.3	28.7	24.0	6.0	
Not interested	2.1	20.2	34.0	29.3	14.4	
Financially disadvantaged will not be able to afford DPA						26.455‡
Interested	7.3	39.3	16.0	31.3	6.0	
Not interested	16.5	49.5	18.6	14.9	0.5	
DPA needed to compete with nurse practitioners						87.916‡
Interested	17.1	34.2	15.1	31.5	2.1	
Not interested	1.1	11.1	14.8	41.3	31.7	

†df = 4, p < 0.05 ‡df = 4, p < 0.001

Note: Due to rounding, percentages for some sections may not add up to 100.

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Table 5. Perceptions of Physician Assistants Regarding DPA Degree by Highest PA Degree, by Percentage Responding (N=352)

	Agree† (1 and 2 collapsed)	Neutral 3	Disagree# (4 and 5 collapsed)	χ ²
Bachelor's degree is sufficient				51.353‡
Certificate without degree	69.70	9.09	21.21	
Associate degree	85.19	3.70	11.11	
Bachelor's degree	82.46	5.26	12.28	
Master's degree	43.93	16.76	39.31	
Master's degree is sufficient				46.201‡
Certificate without degree	70.97	19.35	9.68	
Associate degree	57.69	15.38	26.93	
Bachelor's degree	67.86	25.89	6.25	
Master's degree	90.75	4.05	5.20	
DPA should be entry level				7.251
Certificate without degree	0.00	6.06	93.94	
Associate degree	0.00	7.41	92.59	
Bachelor's degree	8.77	10.53	80.70	
Master's degree	9.30	10.47	80.23	
Leave PA field if DPA required				25.308‡
Certificate without degree	63.33	13.33	23.34	
Associate degree	66.66	11.11	22.23	
Bachelor's degree	42.20	17.43	40.37	
Master's degree	30.41	13.45	56.14	
DPA necessary for highest standards of care				6.299
Certificate without degree	6.06	6.06	87.88	
Associate degree	0.00	7.41	92.59	
Bachelor's degree	14.16	3.54	82.30	
Master's degree	12.72	5.78	81.50	
DPA required to increase income				10.917
Certificate without degree	5.88	8.82	85.30	
Associate degree	18.52	7.41	74.07	
Bachelor's degree	18.42	7.02	74.56	
Master's degree	23.98	13.45	62.57	
Educationally disadvantaged not able to compete				6.817
Certificate without degree	54.55	27.27	18.18	
Associate degree	62.96	22.22	14.82	
Bachelor's degree	41.07	31.25	27.68	
Master's degree	45.09	25.43	29.48	
DPA will not affect minority application				10.819
Certificate without degree	11.76	35.29	52.95	
Associate degree	33.33	18.52	48.15	
Bachelor's degree	31.58	35.96	32.46	
Master's degree	33.72	29.65	36.63	
Financially disadvantaged will not be able to afford DPA				6.531
Certificate without degree	70.59	11.76	17.65	
Associate degree	61.54	19.23	19.23	
Bachelor's degree	54.39	21.93	23.68	
Master's degree	54.97	15.20	29.83	
DPA needed to compete with nurse practitioners				5.894
Certificate without degree	19.35	9.68	70.97	
Associate degree	18.52	11.11	70.37	
Bachelor's degree	31.86	15.93	52.21	
Master's degree	29.65	15.70	54.65	

‡df= 6, p < 0.001

† Strongly agree and agree responses were collapsed to increase the number of responses in each chi-square cell.

Strongly disagree and disagree responses were collapsed to increase the number of responses in each chi-square cell.

Note: Responses from informally trained PAs were removed due to few responses (n=3). Due to rounding, percentages for some sections may not add up to 100.

Table 6. Perceptions of Physician Assistants Regarding DPA Degree by Age, by Percentage Responding (N=352)

	Strongly Agree			Strongly Disagree		χ^2
	1	2	3	4	5	
Bachelor's degree is sufficient						35.625†
38 years old and younger	8.9	40.2	20.1	23.1	7.7	
Over 38	22.2	51.2	3.1	20.4	3.1	
Master's degree is sufficient						7.020
38 years old and younger	37.3	47.3	10.1	4.1	1.2	
Over 38	26.6	48.1	15.8	7.0	2.5	
DPA should be entry level						13.940‡
38 years old and younger	3.6	8.3	11.8	40.2	36.1	
Over 38	1.2	1.9	7.5	39.1	50.3	
Will leave PA field if DPA required						35.132†
38 years old and younger	8.4	15.6	18.0	41.9	16.2	
Over 38	26.0	29.2	10.4	27.3	7.1	
DPA necessary for highest standards of care						12.063‡
38 years old and younger	4.1	8.3	5.3	56.2	26.0	
Over 38	3.7	6.8	4.3	41.0	44.1	
DPA required to increase income						12.247‡
38 years old and younger	5.4	16.7	13.7	47.6	16.7	
Over 38	3.7	15.3	5.5	46.0	29.4	
Educationally disadvantaged students not able to compete						12.442‡
38 years old and younger	4.2	32.7	29.8	29.2	4.2	
Over 38	10.6	42.9	24.8	17.4	4.3	
DPA will not affect minority application						16.802‡
38 years old and younger	5.9	32.5	33.1	23.7	4.7	
Over 38	2.5	22.8	28.4	30.9	15.4	
Financially disadvantaged will not be able to afford DPA						4.958
38 years old and younger	8.9	42.9	19.0	25.0	4.2	
Over 38	15.5	45.3	14.9	21.7	2.5	
DPA needed to compete with nurse practitioners						3.547
38 years old and younger	10.1	23.2	13.7	36.9	16.1	
Over 38	6.3	18.9	14.5	39.0	21.4	

†df = 4, p < 0.05 ‡df = 4, p < 0.001

Note: Due to rounding, percentages for some sections may not add up to 100.

pared to 33% of audiologists who were supportive of the doctoral degree.⁹ In a similar study of occupational therapists, only 22% of the surveyed occupational therapists favored the doctorate for their profession.¹⁰

Anecdotally, many feel that the DPA will be needed if PAs are to compete with NPs as they become doctorally prepared. However, the majority of respondents in this survey (56.7%) disagreed with this as a rationale for the DPA. Those who were interested in the DPA tended to agree more with this statement (51.3% agreed or strongly agreed) than those who were not interested in

the DPA (12.2%). The PA respondents tended to agree with Bollag's statement that professional doctorates are for professional pride.⁸ The highest percentage chose professional recognition (33.2%) when asked about the most important perceived benefit of the DPA. This attitude was also consistent with those who believe that the doctorate would give recognition to those who spend many years perfecting their skills as practitioners.^{2,4-5,7}

When the respondents were asked if they felt the master's degree was sufficient for today's health care standards, the majority (79.1%) agreed. Likewise, the majority of the respon-

dents disagreed (82.8%) that the DPA should be the entry level degree for clinical practice.

Overall Significance of the Study Findings and Opportunities for Further Research

This survey was limited by a slightly smaller study sample than expected; therefore, generalizations should be considered with caution. Furthermore, gender data were not collected; therefore, conclusions about gender cannot be made. In either case, the purpose of the study was to get a general perception of the PA population. The results of this study demonstrate

that most PAs surveyed do not wish to pursue a DPA or feel that it is necessary. Since decisions regarding the movement of the PA profession to the doctoral level will be influenced by many, it would be helpful to determine PA faculty and physician employer perceptions. Information from as many groups as possible will be necessary for those who may contemplate initiating a DPA program.

CONCLUSION

The clinical doctorate concept has already been initiated in other non-physician health care professions. The PA profession must make informed decisions about its future direction. Those who would consider starting an entry-level clinical DPA program may benefit from the perceptions of PAs in this study.

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