Medical Professional Opinions on PAs Transitioning to a Doctorate Level Degree.

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Introduction

The Physician Assistant (PA) profession was first developed in 1967 to address the shortage of medical providers in primary care[1,2]. The first school to graduate students from a PA program was Duke University, which utilized hospital corpsman and army medics returning from foreign wars[1,2]. Returning veterans did not have civilian accreditation but received extensive medical training by the United States Armed Forces. The hope was that returning veterans could obtain accreditation in the civilian world to practice medicine and help fill the need for primary care providers[1,2]. The accreditation process would allow PAs, while under the supervision of a physician, to conduct physical exams, assist in surgery, diagnose and treat illness, interrupt laboratory results, prescribe medications and counsel patients on preventative healthcare measures[2]. As the field evolved, many entities in the medical community realized PAs were an asset and the profession grew. Now, PAs practice in all 50 states, with some states even allowing limited association with collaborating physicians. Since their inception, many publications have denoted that PAs can deliver safe, cost-effective health care to the ever growing and aging population[3], which has caught the attention of developed countries as a solution to their physician shortage[2,3]. Other nations are now emulating the United States PA profession to help address their own health care disparities[2]. With the expansion of the PA

profession, not only in the United States but worldwide, it raises many questions on how the profession will evolve and play a role in the ever-evolving medical community.

The PA profession first conferred a Bachelor of Science degree and slowly transitioned to offer a Master of Science.[1]. As of 2005 there were 137 PA programs and 80% were transitioning to offer a master level program by 2008[1]. As of January 1, 2021, all 277 accredited PA programs must offer a master level degree by the accrediting body Accreditation Review Committee – Physician Assistant (ARC-PA), which now recognizes a *master level degree as the terminal degree* in the PA profession. Most PA programs are 24-28 months long which includes both a didactic and clinical course in the curriculum.

However, the profession is faced with controversy due to the current terminal degree awarded[5]. Today, the profession is faced with the decision of whether to keep the level of terminal degree the same or offering a Doctorate in Physician Assistant Studies (DPAS). This topic was debated in the 2023 AAPA House of Delegates at length in May of 2023. The Physician Assistant Education Association (PAEA) held a Doctoral Summit in March of 2023 to discuss the matter as well. This controversy originates from multiple aspects which include, pace-keeping with other medical professions, the direction the medical field is headed, independent practice for PAs, public opinion, and educational opportunities[6,7]. Currently, in the United States doctoral degrees are awarded to the following medical professionals: certified registered nurse anesthetists (CRNA), Audiologist, Occupational Therapists, Pharmacist, Nurse Practitioners (NP) and Physical Therapists[5]. Professional individuals in the PA community voice that a clinical doctorate is needed to keep pace with other medical specialties and build patients' confidence in PAs as well as the medical community. However, opponents of the change in terminal degree say that it is “degree hiking” and unnecessary because PAs have proven capable

in multiple publications of offering high quality, cost effective medical care with excellent patient satisfaction, regardless of their degree level[5].

Regardless of the terminal degree, as of now, PAs still have to practice under the supervision of a physician in some capacity. Advocates for the change in degree say that with the ever-growing medical knowledge more education is needed to keep pace and that a doctorate is needed to practice independently, similarly to how many NPs practice.

Professionals for the change in terminal degree say that it will help with the public opinion of PAs in their ability to practice medicine. Most patients do not understand the PAs role in medicine along with their training requirements[8]. PAs will always need further medical education and a doctorate degree is more applicable as well as familiar to patients to show the highest level of training and education. PAs against the change in terminal degree say it will only confuse patients since patients already do not understand the role PAs play in medicine. This may be an opportunity for certificates of added certification (CAQ) or PA residencies in that PAs can obtain more education without extending their time in school. Further certification demonstrates training in a specialty which could help with patients' and the medical community's perception of PAs. On average only one faculty member at each accredited entity is doctorly trained. However, regardless of their degree status, for decades PA professors have turned out high quality medical professionals ready to practice in medicine.

Currently, only one publication has investigated the proposed switch in terminal degree for Pas[9]. A publication by Kulo in May 2021 asked practicing Pas and PA students along with 2 physicians if the switch to an entry level doctorate should be required and the majority said they disagreed with these decisions with 79% of PA and 88% of students saying they disagreed with

the choice to switch to a doctorate degree[9]. Interestingly, the paper showed about half (54%) of the participants said that a doctorate should be offered but should not be mandatory to practice[9]. Most PAs that choose this option were already practicing PAs. Another question that the publication addressed is would the switch to a doctoral degree do more harm than good[9]. The majority 60% of participants said that the switch would do more harm than good, half (50%) said that it would negatively affect the Physician/PA relationship[9]. Another interesting response is that 44% of participants said that it would help with the perception of PA and benefit billing purposes if the profession transitioned to a doctoral program[9]. In our survey we will re-answer some of those questions along with answering how other medical professionals will view the change to a doctoral degree. The survey will also address the knowledge and the likelihood of participating in other training opportunities such CAQ and residencies that are available to a PA after graduation from an accredited program. It is unforeseen in what direction the PA field will move to expand their education, rather it is a focus on residency, CAQ, a doctoral degree or a combination of the three.

Methods

A 13-question survey was distributed to Alumni of Missouri State University and preceptors for the Physician Assistant department. The questionnaire consisted of 12 questions and one comment section addressing if the PA profession should switch from a master level degree to a doctoral level degree. The survey also addresses other training opportunities for PAs and how much the participant knows about the opportunities along with if the participant is willing to partake in such training. Other questions in the survey address compensation, coursework, peacekeeping with other profession and confidence in PA associated with a change in terminal degree. The demographic of the participants was not tabulated during the

questionnaire to protect participants privacy and the demographic of each participant was not needed for this survey. The survey was distributed to 707 possible respondents and 117 responded to the survey. The data for each question was tabulated using Qualtrics software so that trends could be seen. The questionnaire can be found in the supplemental section of this paper. The survey was approved by the IRB committee at Missouri State University.

Results

707 alumni and preceptors of Missouri State University's PA Program received a survey via email, with one hundred and seventeen answering the survey for a 16.54% participation rate. The first question in the survey asked the profession of each of the participants, 11 (9.40%)

answered MD/DO, 107 (91.45%) answered PA, 1 (0.85%) answered NP. This showed that most of the participants were practicing PA and the results can be seen in figure 1.

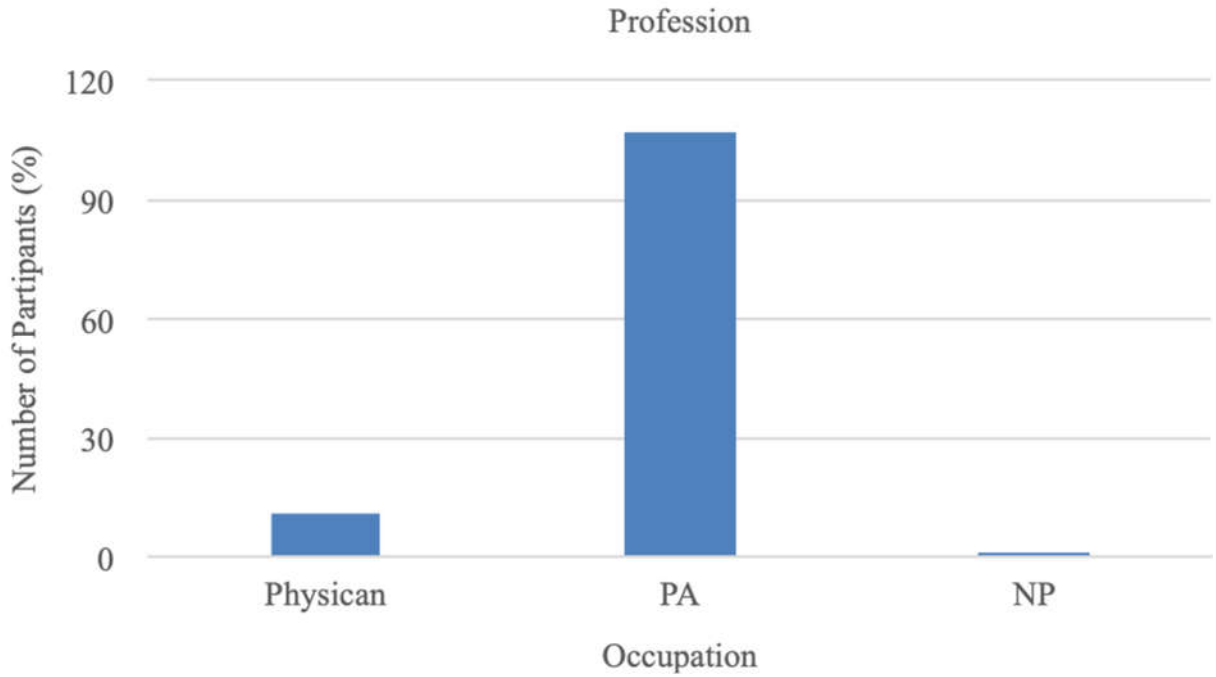

Figure 1. **Profession of Participants**. The bar graph shows the occupation of the participants in the survey. The graph shows that 11 (9.40%) answered MD/DO, 107 (91.45%) answered PA, 1 (0.85%) answered NP, there were 0 (0.0%) for other responses, not shown, as their profession. The data showed that most of the participants in the survey were practicing PA.

The second question of the survey asked the participants if a DPAS should be offered in the PA profession, 61 (52.15%) answered yes and 56 (47.86%) answered no. This showed that most of

the participants are in favor of DPAS being offered in the profession and the results can be seen in figure 2.

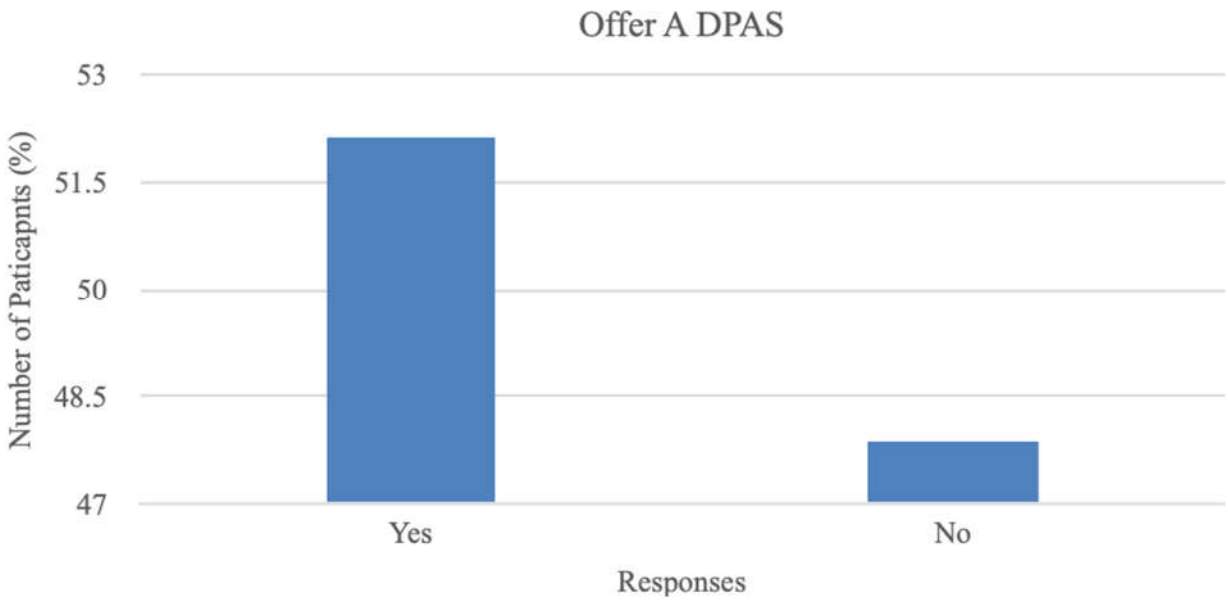

Figure 2. DPAS in PA Profession. The bar graph shows the response to the question should the PA profession offer a DPAS. The survey showed that 61 (52.15%) answered yes and 56 (47.86%) answered no. This showed that many of the participants want a doctoral degree in the profession.

The third question of the survey asked if the PA profession should keep pace with other medical professionals with regards to medical knowledge. The survey showed that 76 (64.96%) answered yes in that PA should keep pace and 41 (35.04%) answered no indicating that PA

should not keep pace with other medical professionals. This showed that most of the participants favor keeping pace with other profession. The results of this question can be found in figure 3.

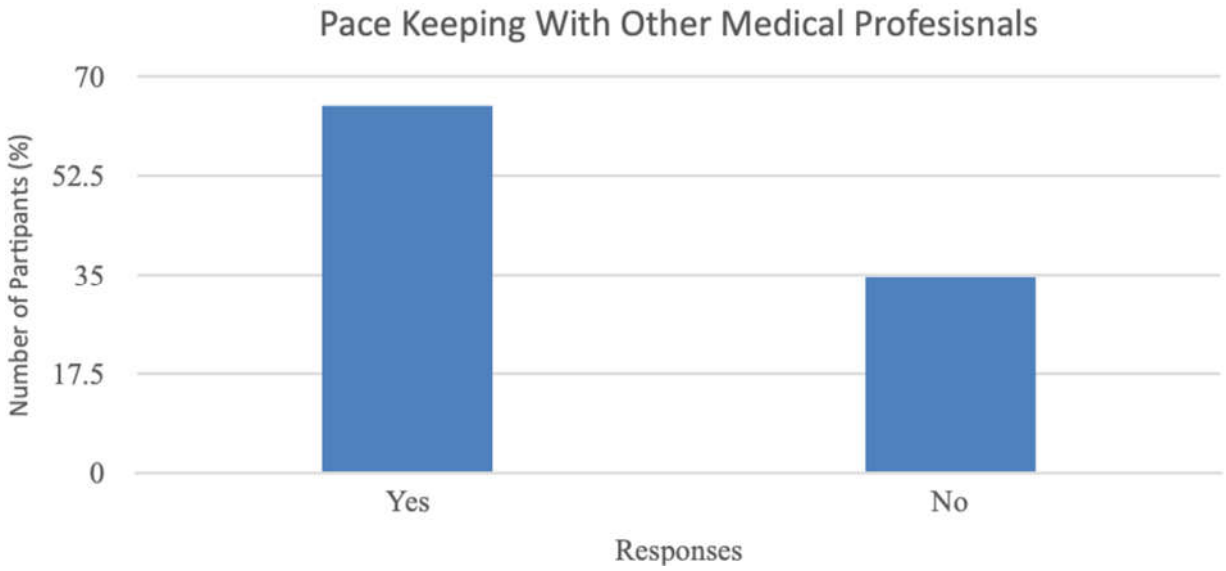

Figure 3. Pace Keeping with Other Professions. The bar graph shows the response to the 3rd question in the survey. The survey asked if PA should keep pace with medical professionals with medical knowledge. It showed that 76 (64.96%) answered yes in that PA should keep pace and 41 (35.04%) answered no indicating that PA should not keep pace with other medical professionals. Most participants indicated that PA should keep pace with other medical professions.

The fourth question in the survey asked the participants what course work should be taught if a DPAS is offered to the profession. The responses are as follows; 7 (1.90%) writing, 51 (13.82%) research, 72 (19.51%) leadership, 85 (23.04%) medicine, 63 (17.07%) medical procedures, 33 (8.94%) ethical, 24 (6.50%) diversity/inclusion, 19 (5.15%) culture, 15 (4.07%) other. This showed that the course work that respondents felt should be offered in a DPAS

should focus on medicine, procedure, and leadership. The results of this question can be found in figure 4.

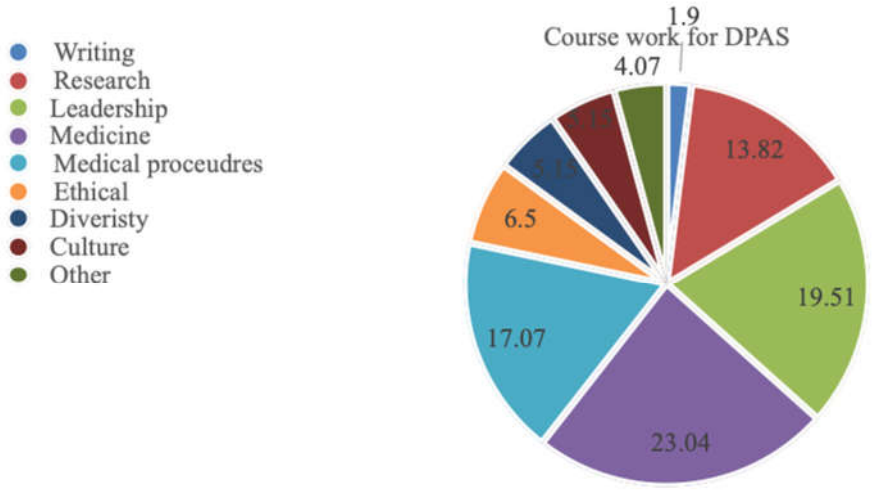

Figure 4. Coursework in DPAS. The pie chart shows the course that should be taught if a DPAS is offered. The participants denoted the following coursework: 7 (1.90%) writing, 51 (13.82%) research, 72 (19.51%) leadership, 85 (23.04%) medicine, 63 (17.07%) medical procedures, 33 (8.94%) ethical, 24 (6.50%) diversity/inclusion, 19 (5.15%) culture, 15 (4.07%) other. This shows that most of the participant want medicine, procedural and leadership course work taught in a DPAS.

The fifth question in the survey was a comment section related to other course work the participants think should be offered in a DPAS, the comments showed that billing/coding and health administration courses should be offered in a DPAS.

The sixth question in the survey asked the participants if PAs were required to obtain or if a DPAS is offered should the profession have more authority/less restriction of practice. The participants answered 69 (59.48%) yes and 47 (40.52%) answered no. This showed that most

participants think PA should have more authority if increased education if required. The data for the 6th question can be found in figure 5.

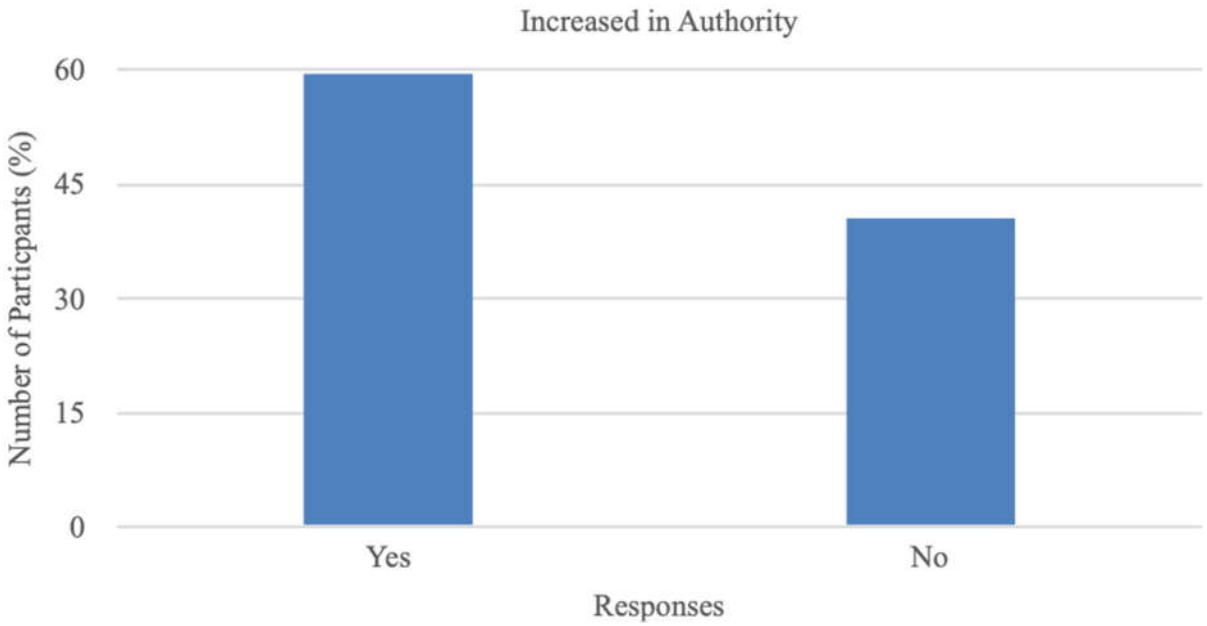

Figure 5. **Increase in Authority**. The graph shows the responses to the 6th question of the survey. The data showed that 69 (59.48%) of the participants answered yes in that PA should have more authority/less restriction of practice and 47 (40.52%) answered no in that PA should not have an increase in authority/less restriction on practice. This showed that the majority want less restriction of practice for PA if a doctorate is required.

The seventh question addressed what type of increased authority PAs should be offered if a doctorate is required. The participants denoted the following responses: 20 (28.99%) Independent Practice/Optimal team practice (OTP), 27 (31.93%) less restriction of practice, 7 (10.14%) increased leadership, 15 (21.74%) increased proficiency. This shows that most of the participants want independent practice and less restriction of practice if a Doctoral degree is required of the profession. The data for the 7th question can be found in Figure 6.

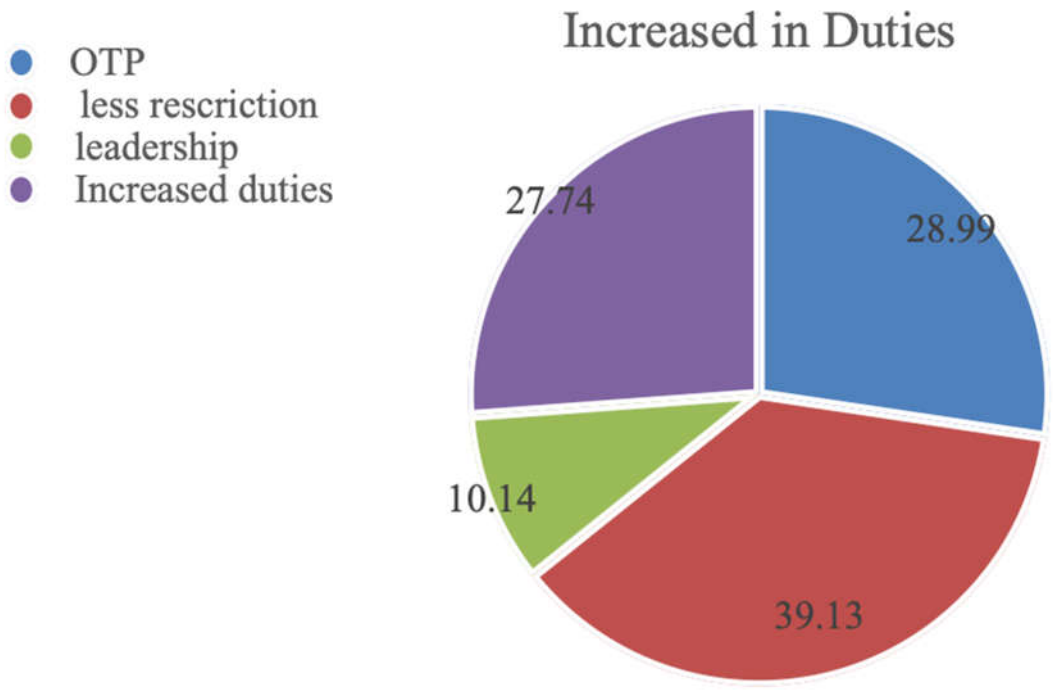

Figure 6. Increase in Duties. This chart shows the data for the 7th question of the survey in what increase in duties should PA be allowed if a doctorate was adapted. The data showed that independent Practice/Optimal team practice (OTP) 20 (28.99%), 27 (31.93%) less restriction of practice, 7 (10.14%) increased leadership, 15 (21.74%) increased proficiency. Most of the participants favor independent practice or less restriction of practice.

The eighth question of the survey addressed the respondent's perception of the knowledge level regarding other postgraduate opportunities in the PA profession. Seven (6.03%) participants in the survey stated that they knew nothing at all, 37 (31.90%) knew a little, 39 (33.62%) knew a moderate amount, 18 (15.52%) knew a lot, 15 (12.93%) knew a great deal about postgraduate opportunities. The results showed that many of the participants know little to

moderate amount about the postgraduate opportunities. The results from this question can be seen in Figure 7.

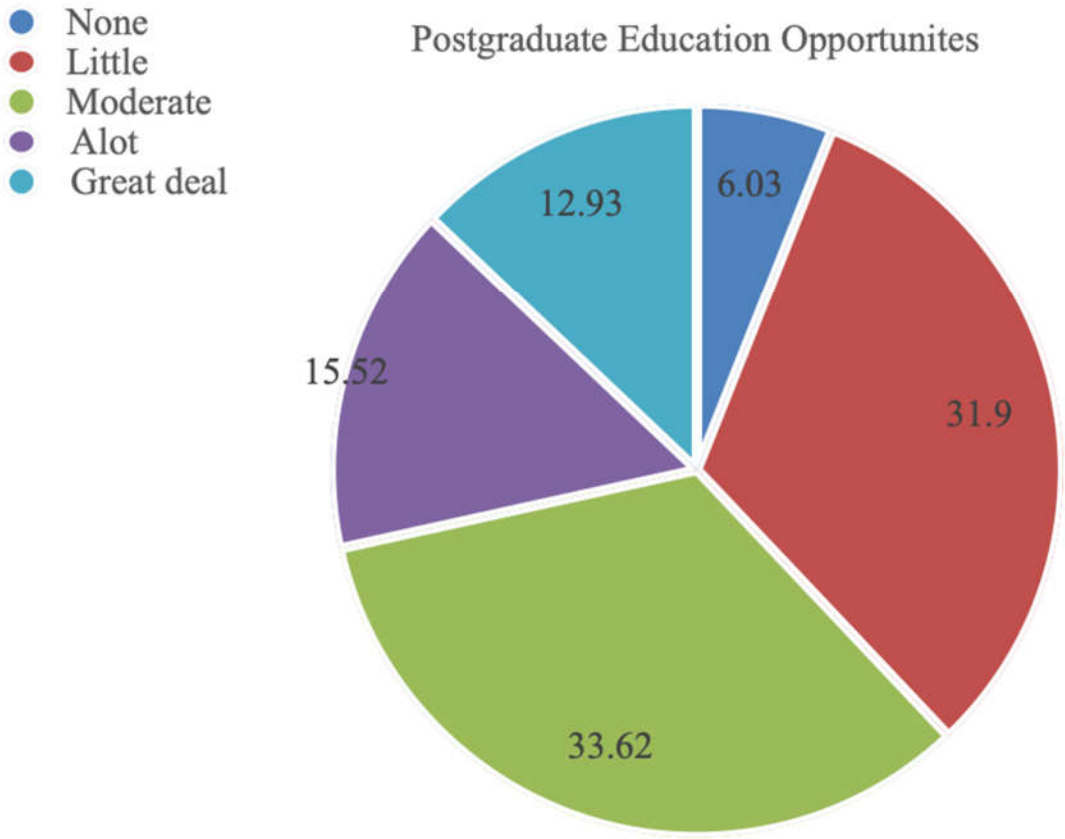

Figure 7. Postgraduate Opportunity Knowledge. The graph shows the knowledge level of postgraduate opportunities in the PA profession. The results of the survey are as follows; 7 (6.03%) stated that they knew nothing at all, 37 (31.90%) knew a little, 39 (33.62%) knew a moderate amount, 18 (15.52%) knew a lot, 15 (12.93%) knew a great deal about these opportunities. The results showed that majority of the participants only know a little to moderate amount about the postgraduate opportunities.

The 9th question of the survey asked if PAs were required to obtain further education what the participants would choose; 46 (40.00%) would choose a DPAS, 12 (10.43%) would choose a doctorate in Health Science, 23 (20.00%) would choose a residency, and 34 (29.57%) would choose a CAQ. This showed that most participants (49.57%) would choose postgraduate education opportunities, either a residency or CAQ, over a DPAS or other doctoral degree. The results of this question can be found in figure 8.

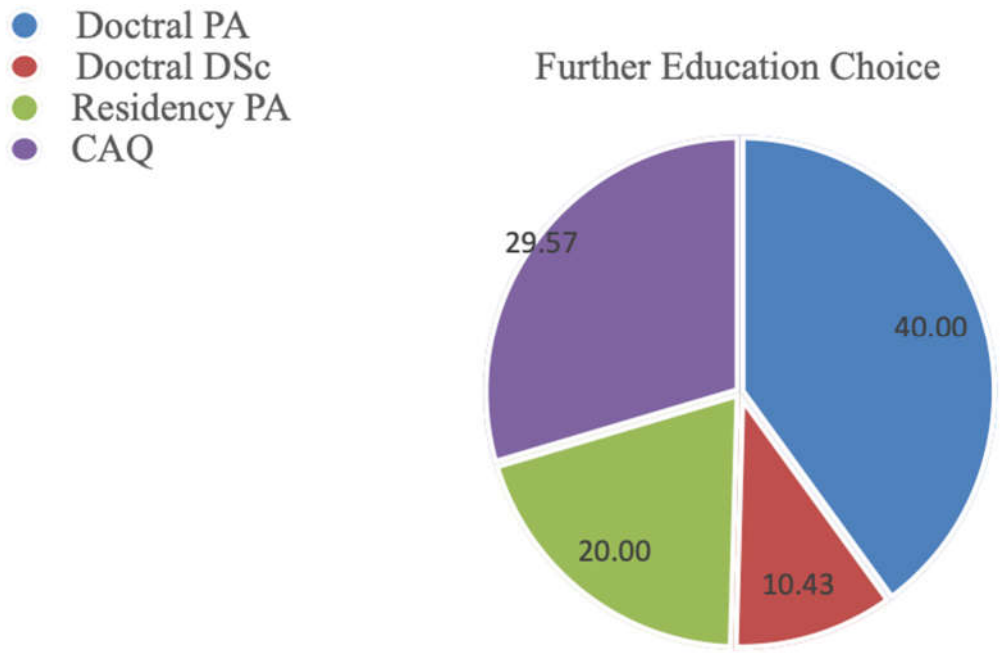

Figure 8. Further Education. The pie graph shows the education choice the participants would choose if more education is required of the PA profession. The choice the participants would partake in are as follows; 46 (40.00%) would choose a DPAS, 12 (10.43%) would choose a doctorate in Health Science, 23 (20.00%) would choose a residency, and 34 (29.57%) would choose a Certification of additional qualification (CAQ). This shows that the majority of the participants would choose a postgraduate opportunity over a DPAS or other doctoral degree.

The 10th question asked the participants if the PA profession were to change the terminal degree should PAs make more money. The survey showed that most of the participants 98 (84.48%) stated yes and 18 (15.52%) stated no. The data showed that most of the participants

support increased compensation if PA were to adopt a doctoral degree. The results for this question can be seen in figure 9.

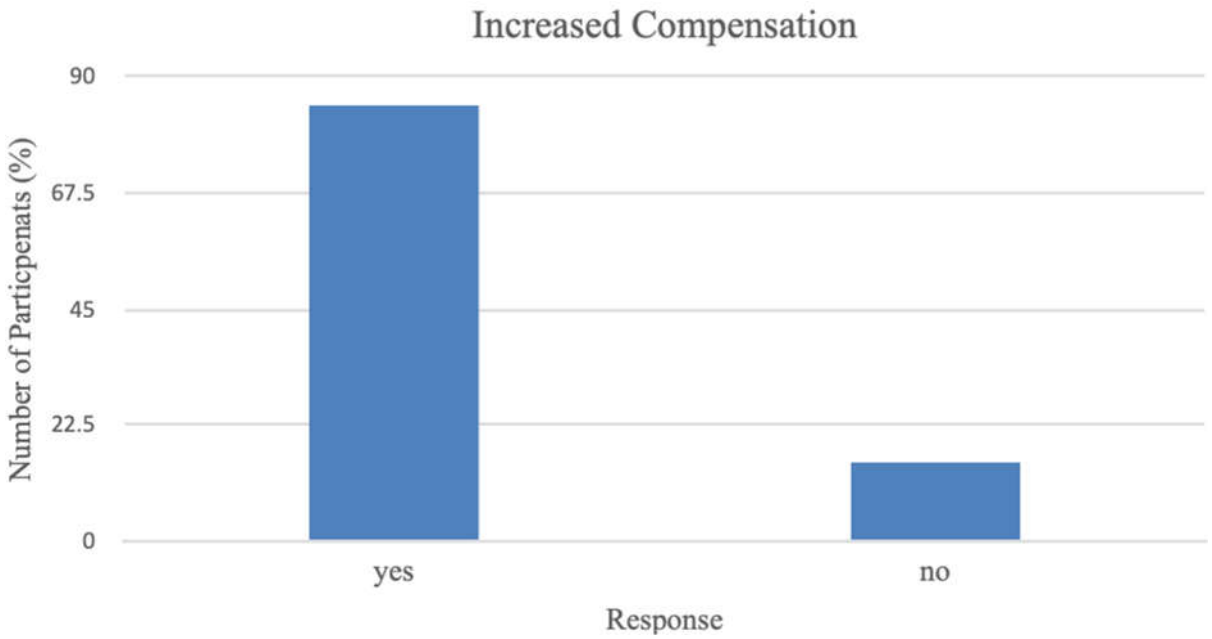

Figure 9. PA Compensation. The bar graph shows the compensation associated with more education in the PA profession. The data showed 98 (84.48%) participants stated that PA should make more money and 18 (15.52%) stated no in that PAs should not make more money if the degree were to change. The data showed that most of the participants support increased compensation if PA were to adapt a doctoral degree.

The11th question asked if a DPAS was offered or required would it improve confidence in a PA. 56 (48.28%) of respondents said yes while 60 (51.72%) participants responded no.

These results showed that most of the participants think that a doctoral degree would not increase confidence in PAs. The results for this question can been seen in figure 10.

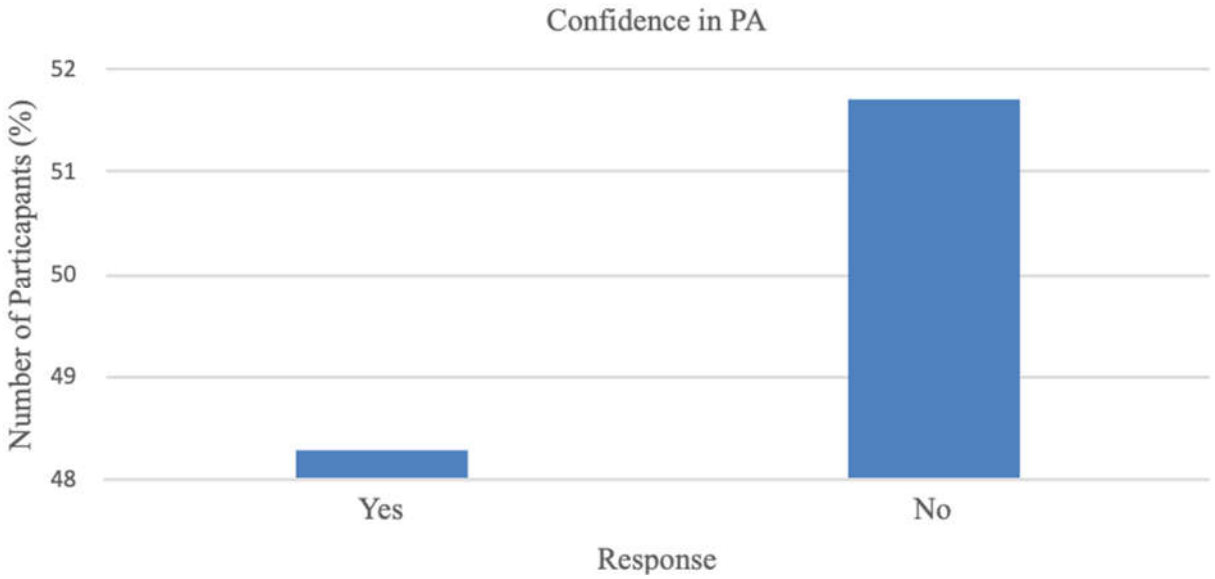

Figure 10. PA Confidence. The bar graph shows if a DPAS was offered would it increase the confidence in PA. The participants responses are as follows 3 (2.59%) said definitely not, 16 (13.79%) stated probably not, 25 (21.55%) are unsure, 42 (36.21%) said yes, and 30 (25.82%) said definitely yes that a doctorate would confuse patients. This shows most participants think a DPAS would confuse patients.

The 12th question in the survey focused on patients and the question stated if the PA profession were to adapt a doctorate would it confuse patients. 3 (2.59%) said definitely not, 16 (13.79%) answered probably not, 25 (21.55%) are unsure, 42 (36.21%) answered yes, and 30 (25.82%)

answered definitely yes that a doctorate would confuse patients. This shows most participants think a DPAS would confuse patients. The results of this question can be seen in figure 11.

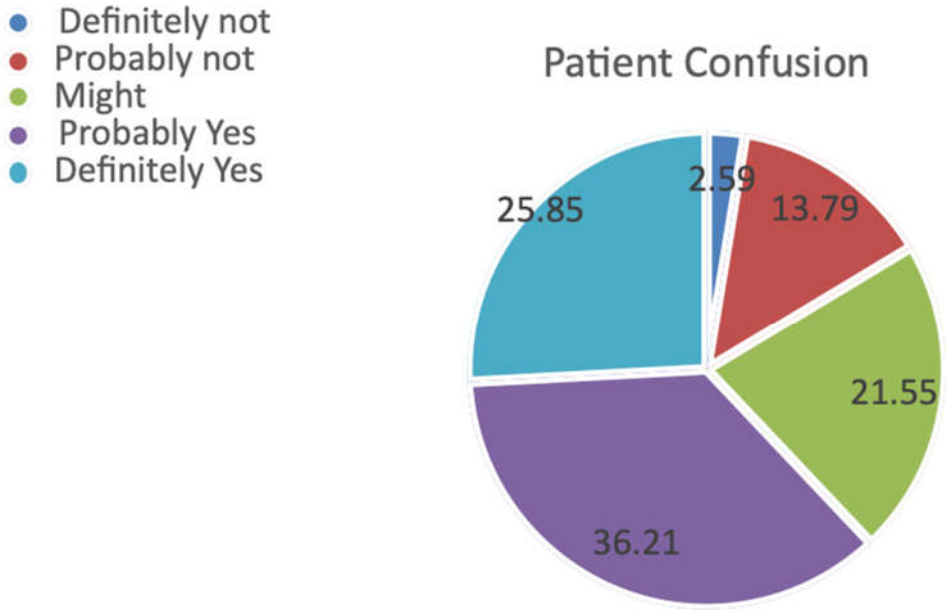

Figure 11. Patient Confusion. The pie graph shows level of confusion of patients that a DPAS might cause if the PA profession adapts the change. The participants responses are as follows; 3 (2.59%) said not, 16 (13.79%) stated probably not, 25 (21.55%) are unsure, 42 (36.21%) said yes, and 30 (25.82%) said definitely yes that a doctorate would confuse patients. This shows most participants think a DPAS would confuse patients.

The final question was a comment section for any other response about a DPAS, patient care, or education that the participants wish to express. Three themes were identified from the qualitative responses. These themes are; it should be offered but should not be a requirement to practice and left for academia, concerns about how it will affect patients and future participation of students wanting to go into the field, there is also a concern about increase cost to student and compensation from employers.

Discussion

This original survey, with respondents that were primarily practicing PAs (89.92%) and alumni from Missouri State University (52.14%), demonstrated that majority of the survey participants feel that the profession should offer a doctoral degree to keep pace with other medical professionals (64.92%). PAs suggest that if a doctoral degree is offered the curriculum should center center around medicine (23.04%), leadership (19.51%) and procedures (17.07%). The survey showed that if a higher degree is required PAs should have increased in authority 69 (59.48%) and independent practice. The survey showed the participants knew little to moderate amount of information about post graduate education 37 (31.90%) knew a little, 39 (33.62%) knew a moderate amount. The participants noted that most would choose a post graduate training over a doctorate if more education was needed; 46 (40.00%) would choose a DPAS, 23 (20.00%) would choose residency, and 34 (29.57%) would choose CAQ. It is not surprising that if more education is needed then PA will want additional compensation for pay, which was demonstrated in the survey results with 98 (84.48%) of respondents stating that PAs should make more money if additional education is required. One interesting finding from the survey results is that most of the participants stated that a DPAS will not increase confidence in the PA profession by the fact that 60 (51.72%) participants said that it would not help confidence in PA. Another response that is of note is that study participants felt that a DPAS will most likely increase confusion with patients, 25 (21.55%) are unsure, 42 (36.21%) said yes, and 30 (25.82%) said definite yes that a doctorate would confuse patients.

Our survey is in line with others conducted on the topic of the PA profession transitioning to doctoral level degree in that respondents felt that a DPAS is not a good option for Pas for the reasons outlined above. Kulo and colleges showed that the majority of practicing PAs

and PA students agreed that it should be offered but disagreed in that an entry level doctorate should be required[9]. This correlates with our results in that the participants said that it should be offered but the qualitative responses elaborated further by stating that a DPAS should not be a requirement to practice and but instead reserved for those pursuing academia. Similar still Kulo and colleagues survey showed that the majority of respondents think that an entry level doctorate will cause more harm than good[9]. Once again this is consistent with our results in that the participants noted it would most likely confuse patients and would not increase the confidence in PAs. Where the surveys differed is Kulo focused on the effects a change in terminal degree would have on the Physician/PA relationship with the results showing that PAs think it would have a negative impact. Our survey focused on other education options which most PAs reported they are unsure about. Both surveys showed that the change in terminal degree is unwanted but conversely both surveys showed that a degree should be offered because there is need to keep pace with other medical professions.

Future Direction

Before the change in terminal degree for the PA profession is made further research is needed. There was a low response rate for the survey and which will need to be distributed to more PAs throughout the United Stated to get a better understanding of how more PAs feel about the change. Other areas of investigation are question need to be asked if this would affect the physician/PA relationship, what course work would be included in a doctoral program, how this change might affect future students, and how the change would affect practice habits, and the most importantly how patient feel about the change. To address all the concerns multiple surveys will need to be sent to practicing PAs in the United States, patients, and perspective students.

After the survey have been conducted more data will be available and can be analyzed to see if the switch in degree the right choice for the PA profession.

Conclusion

The choice to change the terminal degree to a DPAS remains uncertain. There is a need to continue education and keep pace with other medical professional, but a DPAS may not be the ideal choice. This is due a potential for patient confusion, increase cost to students, unknown compensation from employers, lack of interest, and possible adverse changes in the physician/PA relationship. A better choice may be to focus on PA residencies and CAQ. This would help to negate patient confusion and would not increase cost to students. Survey results demonstrate that there is more interest in postgraduate education and this would not affect the physician/PA relationship. The choice for the PA profession to switch terminal degrees needs to focus on the most concerning topic; how this change would affect patient care. Before any switch is made every aspect will need to be further investigated to make sure this is the right choice for the PA profession.

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