

# Perceived efficacy and utility of postgraduate physician assistant training programs

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## ABSTRACT

**Objective:** The purpose of this study was to explore graduates' perceptions of the efficacy and perceived utility of postgraduate physician assistant (PA) programs.

**Methods:** Using an online tool, a survey was sent to postgraduate PA program graduates that contained demographic questions and descriptive questions examining the perceived utility of completing a postgraduate PA program.

**Results:** Surveys were e-mailed to 149 graduates of postgraduate PA programs; 113 responded (75% response rate). After completing postgraduate training, 97% of graduates felt their training made them more competitive in the job market; 74% believed time from orientation to full productivity was reduced; and 95% would recommend completion of a postgraduate training program.

**Conclusions:** Completion of a postgraduate PA program is an alternative to on-the-job training. Graduates perceived that the benefits from these programs include increased competitiveness in the job market, decreased onboarding time, and overall enhancement of their professional careers.

**Keywords:** physician assistant, postgraduate, fellowship, training, survey, education

Physician assistants (PAs) are trained in the medical model with a primary care focus. Many PAs choose to practice in specialties after graduation and receive on-the-job training.<sup>1</sup> For those who desire more formalized training in their specialty, postgraduate PA programs (also called fellowships) provide an alternative to on-the-job training. Postgraduate PA programs have been available

since 1971, and the number is growing.<sup>2,3</sup> The Association of Postgraduate Physician Assistant Programs (APPAP) identifies 49 programs. Typically, these programs are 12 months long and are available in 20 different specialties.<sup>3</sup> Although the curriculum for postgraduate PA programs varies based on specialty and clinical setting, most programs offer a structured format for both didactic and clinical instruction.<sup>4</sup> Voluntary accreditation through the Accreditation Review Commission on the Education for the Physician Assistant (ARC-PA) began in 2007; 8 programs have been accredited.<sup>5</sup> The accreditation process is in abeyance and ARC-PA is reexamining this process.

The value of completing a postgraduate PA program has long been controversial. Proponents of postgraduate PA programs say that graduates are more competitive in the job market and are able to negotiate higher salaries compared with PAs with the same years of experience who did not complete a program.<sup>6,7</sup> According to the 2013 Annual Census by the American Academy of Physician Assistants (AAPA), more PAs practice in medicine and surgical subspecialties than primary care, a trend similar to physicians.<sup>8</sup> The higher demand for PAs in subspecialties has driven PAs to seek postgraduate training, as many of the employers offering these positions prefer PAs with experience in the specialty. Those who question the value of postgraduate PA training argue that it promotes specialization, decreases professional flexibility, and limits graduates' scope of practice. Also, during their training, PAs in postgraduate programs earn 40% to 50% less than their counterparts (the average annual stipend for APPAP programs is \$50,000).<sup>3,7</sup>

Previous studies have examined postgraduate PA training both from the postgraduate program director's and PA's perspective.<sup>4,7</sup> These studies have looked at the value postgraduate training had on participants' skill levels and medical knowledge. One study examined the reasons why PAs choose postgraduate PA training.<sup>9</sup> Individual program studies also have examined graduates' perceptions of whether completing a postgraduate surgical residency helped their careers.<sup>9-11</sup> To date, no large-scale multispecialty investigations have evaluated the collective effect postgraduate training programs have had on individual careers.

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## PURPOSE

We aimed to survey graduates of postgraduate PA programs systematically from across the country to explore their perceptions of the efficacy and utility of postgraduate PA education.

## METHODS

Approval for the study was obtained through APPAP. The study was deemed exempt from institutional review board approval by the Mayo Clinic institutional review board.

In August 2014, a consent letter was sent via e-mail to all program directors of APPAP-affiliated postgraduate PA programs. The online survey tool was developed in collaboration with APPAP board members. The 18-question survey contained questions about demographics and questions examining the perceived utility of completing a postgraduate PA program. The descriptive content questions were formatted using a weighted Likert scale (Table 1). Results were processed using spreadsheet and standard statistics programs. Following completion of the consent form, program directors were provided a link to the online survey tool; the link was sent to PAs who had been graduated from the program between 2008 and 2013. Program directors were required to report the number of graduates to whom the survey was sent.

## RESULTS

Ten of 48 program directors responded to the initial survey (response rate of 20%) stating that they had forwarded the survey to a combined total of 149 graduates. One hundred thirteen surveys were completed online, for a 75% response rate.

**Demographics** The mean age of the respondents was 32 years (range, 25-64; SD=6.78). Most respondents were female (68%) and participants represented a wide range of postgraduate programs specialties (Table 2), the largest being surgical subspecialties (69%). These subspecialties were general surgery, orthopedic surgery, cardiothoracic surgery, urology, trauma surgery, neurosurgery, and otolaryngology/head and neck surgery. Medicine subspecialties (29%) varied as well with representation from emergency medicine, hospital internal medicine, critical care medicine, psychiatry, and neonatology. Most graduates held a master's degree (95%), followed by bachelor's degree (4%) and associate's degree (1%). Program directors were instructed to send surveys only to graduates of the last 6 years. However, participants' postgraduate training program graduation year ranged from 1987 to 2014 (111 respondents from 2008-2014; and one response each from 1987 and 1994). Except for four respondents (two each who were graduated in 1985 and 1987), most study participants were graduated from their entry-level PA program within the past 10 years. Most respondents (95%) matriculated into a postgraduate PA program within 3 years of

**TABLE 1. Graduates' perceptions of the utility and efficacy of postgraduate PA programs**

Responses to the survey questions used a five-point Likert scale in which 1=disagree, 2=somewhat disagree, 3=uncertain or neutral, 4=somewhat agree, and 5=agree.		
Completing a postgraduate PA program ...	Weighted average	Percentage
... made me more competitive in the job market	4.76	97
... helped me negotiate a higher salary	4.15	75
...reduced the orientation time I needed as a new hire	4.23	75
...is something I would recommend to other PAs	4.48	95
... increased my confidence in my current job	4.8	97
... provided me with more tools for leadership roles in my current position or specialty	4.55	90
... was valuable to my career	4.91	100

graduation from their entry-level programs. All study participants responded they had postresidency employment (100%) and 90% practiced in the same specialty as their postgraduate PA program.

**Program evaluation** After completing postgraduate training, 97% of graduates felt their training made them more competitive in the job market (Table 1). Most graduates felt they were able to negotiate a higher starting salary and were pleased with their job opportunities following their postgraduate training. Additionally, 75% stated that as a direct result of completing a postgraduate program, their orientation time was reduced at their job after postgraduate training. Pertaining to leadership and confidence building, 97% felt that their postgraduate program contributed to increased confidence in their current job and 90% felt that postgraduate program provided them with the skills necessary to become a leader within their organization or specialty. All felt that their postgraduate program was a valuable experience for their professional career and 95% would recommend formal postgraduate clinical training to other PAs.

## DISCUSSION

The benefits of completing a postgraduate PA program have been debated since the inception of formal postgraduate clinical training. Though previous studies have examined the efficacy of individual postgraduate PA programs, this study represents the first investigation of the collective effect these programs have on perceived career advancement of the individual graduates. Although this study does not represent a direct comparison of

**TABLE 2. Postgraduate PA program subspecialties of study participants**

Totals may not equal 100% because of rounding.

**Surgical subspecialties**

- General surgery, 34%
- Orthopedic surgery, 11%
- Trauma surgery, 10%
- Otolaryngology/head and neck surgery, 5%
- Cardiothoracic surgery, 4%
- Neurosurgery, 3%
- Urology, 3%

**Medicine subspecialties**

- Emergency medicine, 13%
- Hospital internal medicine, 7%
- Psychiatry, 5%
- Critical care, 4%
- Neonatology, 0.01%

outcomes for PAs trained in postgraduate PA programs versus those who receive on-the-job training in a specific specialty, it does provide some insight into the perceived benefit of program completion and overall satisfaction with the choice to pursue postgraduate education. Most compelling is the perception from graduates that completion of a postgraduate PA training program decreased onboarding time for jobs obtained directly after completion of the program. This is valuable information for employers who wish to hire PAs trained in a postgraduate program, as on-the-job training time may be reduced.

All participants in this study responded that completion of a postgraduate PA program not only made them more competitive in the job market, but helped them negotiate higher starting salaries. This had long been speculated by supporters of postgraduate PA programs and is again reiterated in this study. Furthermore, less tangible benefits such as increased confidence in one's specialty and evidence of greater participation in leadership roles suggest that postgraduate programs help bridge the frequently intimidating transition from undergraduate observational roles to practice. Despite the compelling results of this study, the authors acknowledge that further investigations are needed to compare PAs trained in postgraduate programs to those with on-the-job training in regard to workforce performance and compensation. We found it interesting that 10% of graduates practiced in a specialty different from the one in which they completed their postgraduate PA program. One of the arguments historically raised against postgraduate PA programs is that participation promotes specialization and limits PAs' flexibility to move between different specialties. This finding demonstrates that flexibility still exists and that skill sets acquired through training may have ubiquitous application.

**LIMITATIONS**

Although this study had a high response rate (75%), only graduates of 10 programs (20% response rate) were sent the survey. However, as demonstrated by our population demographics, we believe our 20% sample size was adequately heterogeneous and reflected a diverse array of PA trainees and subspecialties. We additionally recognize that all Likert questions reflected the participant's perceptions of the training program and these results were not validated against objective evidence such as actual financial compensation. Subjectively reported influences were not compared with actual outcomes of PAs who did not complete a postgraduate program. Despite these limitations, the results of this exploratory survey provide evidence that participants find value in completing a postgraduate program and that skills acquired may offer a competitive advantage over PAs who enter the workforce immediately after graduation.

**CONCLUSIONS**

Completion of a postgraduate PA program is an alternative to traditional on-the-job training. Graduates of these programs perceive the programs' benefits as increased competitiveness in the job market and reimbursement, decreased onboarding time, and overall enhancement of their careers. Additional research surveying the perceptions of employers and supervisors who hire PAs trained in postgraduate PA programs is under way and will provide additional insight into the benefit of postgraduate PA training. **JAAPA**

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