One Size Does Not Fit All- Relevant Comparisons of Orthopaedic Physical Therapy Residency Programs

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INTRODUCTION

Residency programs in physical therapy are post-professional programs that have been growing in popularity. The American Physical Therapy Association's Best Practices for Physical Therapists Clinical Education Task Force recently recommended the future requirement of a post-professional residency.[1] Programs combine opportunities for ongoing mentorship and course work for advanced practice. Standards are set for programs by the American Board of Physical Therapy Residency and Fellowship Education (ABPTRFE) that are required to be met for accreditation and re-accreditation; however, despite these standards there is a tremendous amount of leeway that exists for programs on the delivery of these standards.[2]

Presently, there are 102 credentialed orthopaedic physical therapy residency programs accredited by ABPTRFE, representing the largest amount of residencies in a given physical therapy discipline. These programs have varied backgrounds and practice settings, with most being able to be classified as occurring in hospital-based programs, hybrid online programs, university-based programs, and private practice-based settings. Categorizing programs as this does allow for a loss of nuance as some programs serve as partnerships between these classifications, for instance a university and private practice partnering.

For prospective residency applicants many factors go into the evaluation of which programs they will apply to. This includes geographic location, program reputation, and board certification pass rate to name a few.[2] One aspect that may be under considered is practice setting due to the implications it may have on several dimensions of the residency experience. The purpose of this paper is to explore and describe relevant differences that exist between orthopaedic physical therapy residencies based upon primary residency setting.

METHODS

The Orthopaedic Section's Residency and Fellowship Special Interest Group commissioned the development and execution of a 30-item survey to the program directors of existing credentialed orthopaedic residency programs in the fall of 2015 for the purpose of conference programming. Items were determined by an expert panel of residency stake holders in the areas of program design, teaching methods, special opportunities, and salary/tuition. The survey was sent to the 89 existing program directors of orthopaedic residencies in September 2015. The survey was open for data collection for a period of 30 days. After closure of the survey results were analyzed for differences in variables.

RESULTS

Survey Responses

Of the 89 surveys sent, there were 54 responses, representing a 61% response rate. All responses were sent by the residency director of the respective programs.

Program Classification

Programs were asked to classify themselves by program type, selecting one of the following choice, hospital, hybrid, private practice, or university. Twenty-four of the responders classified themselves as hospital-based, representing 44% of the sample. Hybrid accounted for 7 (13%) of the responses, private practice accounted for 9 (17%), and 14 (26%) programs classified themselves as university-based.

MAIN FINDINGS

Size and duration

Please see Table 1 for descriptive statistics for the 4 program types. No significant findings were noted due to the large variations in both hybrid and private practice program designs. This finding lends itself to the identification of generally small cohort sizes in hospital and university programs, and wider variability in hybrid and private-based programs. There were no identified differences for the length of programs, with means ranging between 12.0 and 14.2 months.

Summary of hours

Residencies across classifications scheduled 47 to 50 hours per week. Significant differences did exist in the number of independent clinical hours with hospital-based (31.54 ± 4.89) and university (29.64 ± 7.63) demonstrating fewer clinical hours than hybrid (37.14 ± 3.65) and private (35.22 ± 5.12). That difference in time seemed to be due to differences in didactic hours per week, which were more numerous in university-based programs (6.64 ± 3.65) compared to all others ranging between 4.20 and 4.89, although this difference did not appear to meet significance (Table 2).

Mentorship experience

There was a no differences in hours of mentorship per week across program types with means ranging between 3.67 and 3.96 hours per week. Trends existed for hybrid programs (1.43 ± 0.79) to have fewer number of clinic sites a resident rotates through (range of others 2.22-2.5). Mentoring in hybrid programs tended to occur less frequently and in longer blocks, leaning toward whole day mentoring every other week or monthly as opposed to approximately 4 hours per week associated with the other program types. There was no difference in the number of different mentors a resident had in a program per program classification, however, there was a trend toward significance with hospital- (3.96 ± 1.57) and university-based (3.71 ± 1.49) programs potentially having more mentors than hybrid (2.57 ± 1.13) or private (2.78 ± 1.72).

Table 1. Program Size and Duration

	Hospital	Hybrid	Private	University
Mean (SD)	2.63(1.44)	11.29(21.26)	9(12.20)	3.14(1.61)
Median	2	4	4	3
Range	1-6	2-60	2-40	1-7
Abbreviation: SD, standard deviation				

Table 2. Description of Weekly Hours

		Hospital	Hybrid	Private	University
Total Hours per Week	Mean (SD)	47.01(6.23)	49.29(3.55)	49.22(5.19)	50.00(4.95)
	Median	49	50	50	50
	Range	40-60	46-55	41-60	42-60
Hours Clinical Care per Week	Mean (SD)*	31.54(4.89)	37.14(3.08)	35.22(5.12)	29.64(7.63)
	Median	31	37	36	30
	Range	29-40	32-40	25-40	20-40
Hours Didactic per Week	Mean (SD)	4.65(2.79)	4.20(1.05)	4.89(2.67)	6.64(3.65)
	Median	4.5	3.5	4	6
	Range	0.5-12	3-10	2-10	2-12
Hours Mentoring per Week	Mean (SD)	3.95(1.16)	3.67(3.62)	3.67(0.87)	3.96(1.39)
	Median	4	2	4	4
	Range	3-8	1-10	2-5	2-6

Abbreviation: SD, standard deviation

Modes of didactic learning

Several modes of instruction were consistent among practice settings including onsite lab instruction, onsite didactic presentations, and onsite case presentation. Hospital- (67%) and university-based (79%) settings used journal club formats more commonly than hybrid (43%) or private (44%) settings. As expected, hybrid/distance programs used online didactic (85%) and online case presentations (85%) more commonly than other program types; with ranges of 13% to 44% for online didactic presentations and 13% to 29% for online case presentations.

Teaching opportunities

Most residencies had opportunities for teaching within their curriculums with consistent responses for continuing education (12-29%), in-house instructing to clinical staff (22-46%), and community teaching opportunities (29-44%). University-based programs uniquely presented to opportunity to teach in entry-level DPT programs, with a mean of 93% of programs having that capability with no other program type having greater than a 30% opportunity for this.

Scholarly activity

There was no detectable difference in research requirements for completion between program types, however, on average more time was committed to research activities in hospital- and university-based settings. Programs had varied strategies for fulfillment of this requirement (Figure 1).

Salary and tuition

In examining the salary and tuition factors of programs, 3 patterns emerged. Programs generally fit a classification of reduced salary with no tuition, full salary with no tuition, and full salary with tuition (Figure 2). Trends emerged hybrid and private practice settings tended to pay more with significant reductions for hospital and university. This was however, offset in that the higher salaried settings often had tuition. In all, when combining salary and tuition, hourly wages were not different in programs that had tuition, ranging from $19.89 to $23.08, however in programs that did not have tuition there was wide variance with university based programs tending to pay significantly lower hourly wages ($15.00 ± 3.27) compared to hospital ($20.34 ± 4.73) and private ($22.34 ± 4.24). In all, fewer than anticipated programs had a post-completion commitment (Table 3), with a range of 1 to 2 years with the exception of university-based programs, which did not have commitments, likely accounting for some of the observed decreases in salary.

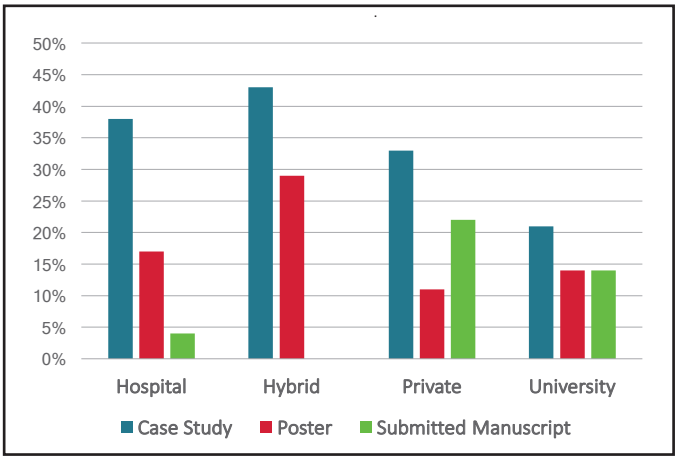

Figure 1. Description of scholarly activities for completion.

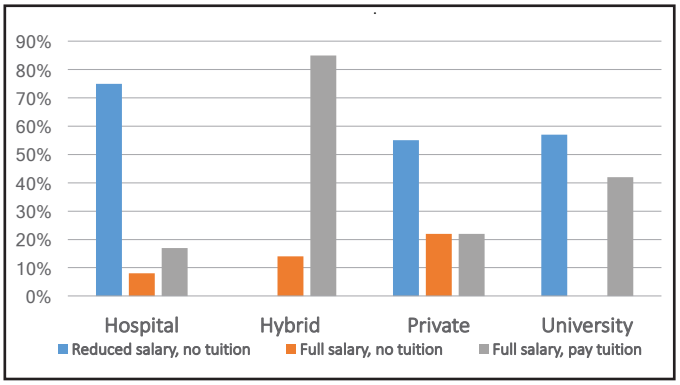

Figure 2. Description of financial factors by program type.

Table 3. Summary of Financial Factors Across Program Types

	Hospital	Hybrid	Private	University
Average salary of those with tuition (SD)	$51,250 (6,291.53)	NA	$60,000 (0)	$49,000 (4.183.30)
Average salary of those without tuition (SD)	$45,750 (10,166.37)	NA	$55,000 (9,574.27)	$38,125 (7039.43)
Hourly wage of those with tuition (SD)	$19.89(2.20)	$23.08(0)	$21.15(2.72)	$19.39(3.00)
Hourly wage of those without tuition (SD)	$20.34(4.73)	$29.26(0)	$22.34(4.24)	$15.00(3.27)
Average cost of tuition if applicable (SD)	$5,000(2,886.75)	$10,416.67 (3322.90)	$10,000 (3,535.53)	$8,571.43 (4,045.87)
Post residency commitment required	8% (2/24)	28% (2/7)	22% (2/9)	0%
Duration of commitment if applicable	1.5 years (0.71) Range= 1-2	1.5 years (0.71) Range= 1-2	2 years (0)	NA

Abbreviation: SD, standard deviation

CONCLUSION

Residency education continues to be an expanding option for entry level graduates. The APTA has recently taken the position of exploring the future of a required post-professional residency. This call has been offset by concerns of escalating student debt and time in professional education. Despite this, undeniably the number of orthopaedic residency programs is expanding, as is the pool of residency applicants. The exact outcome associated with programs in terms of patient outcomes and professional trajectory is still uncertain, making vital differences in experience centered factors for programs all the more important.[3]

The findings of this article support the idea that there is variability in programs depending on their practice settings. University- and hospital-based programs appear to have lower hours of independent clinical care that is offset with some increase in didactic activities, including DPT instruction uniquely for university-based programs. Program size and durations are comparable with some variability existing in a handful of larger private practice or hybrid programs. Programs on a whole use similar didactic methods with a logical skew toward online methods for hybrid programs. Mentorship on a whole appears similar in structure throughout program types, with hybrid programs trending for less frequent longer duration mentoring sessions.

To our knowledge, this is the first attempt to describe differences in orthopaedic residency programs based on practice type. The APTA and ABPTRFE conducts yearly data collection of programs but as of yet has not released descriptive statistics in categorizing programs.

There are several limitations to this paper. First, data collection occurred in 2015 and several programs have become accredited since that time. Also, ABPTRFE has released new residency guidelines that may substantially change how programs are meeting requirements. For a survey, there was an acceptable response rate, however, fewer responses in the private and hybrid program designs may have impacted results.

REFERENCES

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