

Internet Journal of Allied Health Sciences and Practice

Volume 20 | Number 1

Article 13

January 2022

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Recommended Citation

Ramiscal L, Truelove C, Heboyan V, De Leo G. Attitudes and Beliefs of Physical Therapist and Physical Therapist Assistant Program Directors in the United States Towards Interprofessional Education. The Internet Journal of Allied Health Sciences and Practice. 2022 Jan 03;20(1), Article 13.

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Abstract

Purpose: To investigate the attitudes and beliefs of physical therapy (PT) and physical therapist assistant (PTA) program directors towards interprofessional education (IPE). We hypothesized that Communication and Ethics would be the most important competencies among program directors. **Methods:** A cross-sectional survey based on previously utilized instruments modified for the profession of PT was sent to PT and PTA program directors. One hundred sixteen responses were analyzed using frequency analysis for demographic data and non-parametric Mann-Whitney U t-test for group differences. **Results:** While the majority of program directors agree that IPE is important, with Communication as the most important IPE competency, most PTA program directors do not support the importance of accreditation in implementing IPE (pConclusion:Program directors agree that IPE is vital to student learning, with Communication as the most important IPE competency. However, specific differences between PT and PTA program directors emerged primarily on IPE implementation, the role of accreditation, resource support, and resource utilization.

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The Internet Journal of Allied Health Sciences and Practice Dedicated to allied health professional practice and education Vol. 20 No. 1 ISSN 1540-580X

Attitudes and Beliefs of Physical Therapist and Physical Therapist Assistant Program Directors in the United States Towards Interprofessional Education

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ABSTRACT

Purpose: To investigate the attitudes and beliefs of physical therapy (PT) and physical therapist assistant (PTA) program directors towards interprofessional education (IPE). We hypothesized that Communication and Ethics would be the most important competencies among program directors. **Methods:** A cross-sectional survey based on previously utilized instruments modified for the profession of PT was sent to PT and PTA program directors. One hundred sixteen responses were analyzed using frequency analysis for demographic data and non-parametric Mann-Whitney U t-test for group differences. **Results:** While the majority of program directors agree that IPE is important, with Communication as the most important IPE competency, most PTA program directors do not support the importance of accreditation in implementing IPE (p<0.05), unable to accommodate it in their current curricula (p<0.05) and believe lack of support from Administration (p<0.05). Although the majority of PT program directors believe they have the resources to implement IPE (p<0.05), they disagree that IPE better utilizes resources (p<0.05). **Conclusion:** Program directors agree that IPE is vital to student learning, with Communication as the most important IPE competency. However, specific differences between PT and PTA program directors emerged primarily on IPE implementation, the role of accreditation, resource support, and resource utilization.

Keywords: competencies, interprofessional education, physical therapy, survey

INTRODUCTION

Widespread patient error in U.S. healthcare has revealed the inadequacies of costly care delivery systems.¹ It shows that how care is delivered is as important as what care is delivered.² Optimal healthcare delivery to patients extends beyond what was provided by a single health profession and requires collaboration by multiple healthcare providers.³ The recent increase of interdisciplinary teams in healthcare settings has made clear that interprofessional education (IPE) effort is required to prepare future healthcare students to function more effectively in this continuously evolving environment. There is growing evidence showing that IPE implementation across healthcare curricula can positively impact students' attitudes, beliefs, knowledge, skills, and collaborative competencies on IPE. Ultimately, IPE can improve professional practice and clinical outcomes.⁴

The World Health Organization defines IPE as "occasions in which two or more professions learn, with, from and about each other to improve collaboration and quality of care."³ In 2009, dentistry, medicine, nursing, pharmacy, and public health formed the Interprofessional Education Collaborative (IPEC) to help advance IPE and promote team-based care. The IPEC expert panel defined four core competency domains: 1) Values/Ethics for Interprofessional Practice; 2) Roles/Responsibilities; 3) Interprofessional Communication; and 4) Teamwork.³ The purpose was to help guide the development of health professions curricula and prepare students to practice teamwork and team-based health care effectively. Since then, several health professions have adopted the core competencies in their IPE curriculum, including physical therapy (PT) education.^{5, 6}

Over a decade later, many health professions have evaluated IPE in their respective educational programs, particularly the attitudes and beliefs towards IPE, including the IPEC core competencies, based on characteristics unique to their respective programs.⁷⁻⁹ According to these studies, IPE is recognized as an essential component of education across the board despite faculty's varying attitudes and beliefs regarding IPE amongst these professions. However, to the best of our knowledge, such evaluation has yet to be investigated in PT education. Therefore, the purpose of this study was to investigate the current attitudes and beliefs of PT and physical therapist assistant (PTA) program directors towards IPE. We hypothesized that IPE would be important, with Communication and Ethics as the most important competencies among program directors. We also hypothesized differences between PT and PTA program directors based on resources, implementation, and accreditation despite an intraprofessional (within the profession) relationship.

METHODS

Study Design

We utilized a cross-sectional survey design using a single-stage anonymous questionnaire. This study was approved by the Institutional Review Board of Augusta University, IRB# 1313607-1, and all participants provided electronic consent.

Subjects

The target population for this survey was PT and PTA program directors. We obtained a list of accredited PT and PTA programs within the United States and US territories from the American Physical Therapy Association (APTA) website in October 2018, which contained the e-mail addresses of program directors.¹⁰ A total of 457 email addresses were identified.

Materials

We designed a 73-item survey based on previously utilized instruments and modified for the profession of Physical Therapy.^{8,9,11} We organized the survey into six sections: (I) program information; (II) respondent information; (III) IPEC Competencies; (IV) attitudes toward IPE; (V) attitudes and beliefs about interprofessional learning in the academic setting; and (VI) attitude toward interprofessional health care teams.

In section I, we asked about what type of program is being offered in their institution. Section II focused on respondent information such as highest academic degree, current academic rank, and years in academia. Section III asked respondents to rank the four IPEC competencies (Values/Ethics, Role/Responsibilities, Interprofessional Communication, and Teams and Teamwork) in the order of importance. Finally, we adapted sections IV, V, and VI on a 5-point Likert-scale survey created by Curran for Interprofessional Education's study utilized in other previous studies.⁹ The Curran survey response options were "strongly disagree" (1), "disagree" (2), "neither agree nor disagree" (3), "agree" (4) and "strongly agree" (5).

We utilized Qualtrics¹² to develop and distribute the survey. We distributed the survey via email to all PT and PTA program directors (457 email addresses) of APTA accredited programs in the United States and Puerto Rico from January to February of 2019. We sent a pilot survey to 49 random PT/PTA program directors to help identify the invitation or survey problems. One week later, we distributed the survey to the remaining 408 PT/PTA program directors. Five emails were undeliverable. In all, 452 program directors received an invitation to complete our survey. Every two weeks, we sent a reminder for the six weeks the survey was open to increase the response rate.

Only 124 (27.4%) of the 452 program directors submitted responses. We omitted three responses for duplicate selection of program type (121 remaining). There were 14 incomplete responses. However, incomplete responses were included if the respondent answered through the first question of section III (ranking the IPEC competencies). Five incomplete responses were excluded from the analysis. In all, we analyzed 116 (25.7%) program director responses (116 responses through section III; 110 responses through the Curran sections IV, V, VI).

Data Analysis

At the end of the survey period, we extracted the response data from Qualtrics and exported it to IBM SPSS¹³ for analysis. We performed frequency analysis on all demographic questions. We gathered survey data using a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." We calculated the mean and used the non-parametric Mann-Whitney U t-test to determine differences in responses between the groups (PT vs. PTA). The significance level was set to 0.05 for all analyses.

Although the survey we used to gather data had a 5-point scale from the Curran survey (sections IV, V, VI), we decided to collapse the data to a 3-point scale during the analysis. The 5-point scale yielded very few statistical differences. We visually inspected the data and noticed that most group differences were between the scales of 1 and 2 or 4 and 5. To capture meaningful differences between overall agreement, disagreement, and indifference among the respondents, we combined responses 1 and 2 and 4 and 5. The new 3-point scale options were (1) "disagree," (2) "neither agree nor disagree," and (3) "agree." Collapsing the data to dichotomous or trichotomous scales have shown to perform well when compared to the data collected using the original 5-point scale during analysis, suggesting that collapsed data could replace the original scale at least in the analysis phase.^{14, 15}

RESULTS

Respondent and Program Demographics

Table 1 displays the demographic data for all respondents. Table 2 displays the program demographics.

			Program Type						
Characteristic	Total	Total (n = 116)		A	PT				
	(n = ′			63)	(n = 53)				
Highest degree achieved									
Associate's	3	(2.6)	3	(100.0)	0	(0.0)			
Bachelor's	1	(0.9)	1	(100.0)	0	(0.0)			
Master's	30	(25.9)	29	(96.7)	1	(3.3)			
Doctorate	82	(70.7)	30	(36.6)	52	(63.4)			
Prefer not to answer	0	(0.0)	0	(0.0)	0	(0.0)			
Academic rank									
Instructor	5	(4.3)	5	(100.0)	0	(0.0)			
Lecturer	1	(0.9)	1	(100.0)	0	(0.0)			
Assistant Clinical	5	(4.3)	2	(40.0)	3	(60.0)			
Associate Clinical Professor	8	(6.9)	0	(0.0)	8	(100.0)			
Clinical Professor	2	(1.7)	0	(0.0)	2	(100.0)			
Assistant Professor	7	(6.0)	5	(71.4)	2	(28.6)			
Associate Professor	29	(25.0)	14	(48.3)	15	(51.7)			
Professor	42	(36.2)	19	(45.2)	23	(54.8)			
Other	15	(12.9)	15	(100.0)	0	(0.0)			
Prefer not to answer	2	(1.7)	2	(100.0)	0	(0.0)			
Years in academia									
< 5 years	13	(11.2)	11	(84.6)	2	(15.4)			
6 -10 years	19	(16.4)	16	(84.2)	3	(15.8)			
11 -15 years	26	(22.4)	14	(53.8)	12	(46.2)			
16-20 years	18	(15.5)	9	(50.0)	9	(50.0)			
>20 years	40	(34.5)	13	(32.5)	27	(67.5)			
Prefer not to answer	0	(0.0)	0	(0.0)	0	(0.0)			
Agreement with WHO's definition of	of IPE								
Yes	112	(96.6)	60	(53.6)	52	(46.4)			

 Table 1. Respondent Demographics

	_			/ .		
No	3	(2.6)	2	(66.7)	1	(33.3)
Prefer not to answer	1	(0.9)	1	(100.0)	0	(0.0)
Opinion on necessary credit hou	irs to tea	ch IPE				
Zero	16	(13.8)	12	(75.0)	4	(25.0)
One	9	(7.8)	7	(77.8)	2	(22.2)
Two	18	(15.5)	10	(55.6)	8	(44.4)
Three	8	(6.9)	3	(37.5)	5	(62.5)
Four or more	16	(13.8)	5	(31.3)	11	(68.8)
Do not know	41	(35.3)	24	(58.5)	17	(41.5)
Prefer not to answer	8	(6.9)	2	(25.0)	6	(75.0)

Note. Results are n (%); PT = physical therapy; PTA = physical therapist assistant; IPE = interprofessional education; WHO = World Health Organization

Table 2. Program Demographics

	acteristic Total		Program Type					
Characteristic			PTA	۱	PT			
	(n = ′	116)	(n =	63)	(n =	53)		
Private v. Public								
Private	46	(39.7)	14	(30.4)	32	(69.6)		
Public	70	(60.3)	49	(70.0)	21	(30.0)		
Traditional vs Hybrid								
Traditional	105	(90.5)	60	(57.1)	45	(42.9)		
Hybrid	11	(9.5)	3	(27.3)	8	(72.7)		
Number of Students								
< 50	58	(50.0)	49	(84.5)	9	(15.5)		
51-100	23	(19.8)	13	(56.5)	10	(43.5)		
101-150	16	(13.8)	1	(6.3)	15	(93.8)		
151-200	11	(9.5)	0	(0.0)	11	(100.0)		
201-250	4	(3.4)	0	(0.0)	4	(100.0)		
>250	3	(2.6)	0	(0.0)	3	(100.0)		
Prefer not to answer	1	(0.9)	0	(0.0)	1	(100.0)		
Program age								
< 5 years	13	(11.2)	7	(53.8)	6	(46.2)		
6 -10 years	12	(10.3)	10	(83.3)	2	(16.7)		
11-15 years	5	(4.3)	4	(80.0)	1	(20.0)		
16-20 years	1	(0.9)	1	(100.0)	0	(0.0)		
>20 years	84	(72.4)	41	(48.8)	43	(51.2)		
Prefer not to answer	1	(0.9)	0	(0.0)	1	(100.0)		

Note. Results are n (%); PT = physical therapy; PTA = physical therapist assistant

IPEC Ranking

Table 3 presents the respondent's ranking of the four IPEC competencies from least to most important. Based on the frequency count, the Figure shows that Communication was considered the most important competency amongst the respondents while Values/Ethics is the least important IPEC competency reported. A Mann-Whitney U non-parametric t-test showed no significant differences between the groups.

Competencies	Mos Imp	st ortant	Mo Imp	re ortant	Some	ewhat Important	Lea Imp	st ortant	p
Communication									
Total (n = 116)	42	(36.2)	45	(38.8)	21	(18.1)	8	(6.9)	
PTA (n = 63)	22	(34.9)	20	(31.7)	13	(20.6)	8	(12.7)	0 1 2 4
PT (n = 53)	20	(37.7)	25	(47.2)	8	(15.1)	0	(0.0)	0.124
Roles and Responsibilities									
Total (n = 116)	33	(28.4)	36	(31.0)	19	(16.4)	28	(24.1)	
PTA (n = 63)	21	(33.3)	20	(31.7)	12	(19.0)	10	(15.9)	0.061
PT (n = 53)	12	(22.6)	16	(30.2)	7	(13.2)	18	(34.0)	0.001
Values and Ethics									
Total (n = 116)	27	(23.3)	11	(9.5)	30	(25.9)	48	(41.4)	
PTA (n = 63)	14	(22.2)	7	(11.1)	15	(23.8)	27	(42.9)	0 000
PT (n = 53)	13	(24.5)	4	(7.5)	15	(28.3)	21	(39.6)	0.000
Teams and Teamwork									
Total (n = 116)	14	(12.1)	24	(20.7)	46	(39.7)	32	(27.6)	
PTA (n = 63)	6	(9.5)	16	(25.4)	23	(36.5)	18	(28.6)	0.067
PT (n = 53)	8	(15.1)	8	(15.1)	23	(43.4)	14	(26.4)	0.907

Table 3. Comparison of the Interprofessional Education Collaborative Competencies Ranking Between the Groups (programs)

Note. Results are n (%); p = 0.05; PT = physical therapy; PTA = physical therapist assistant



Figure. Ranking of the Importance of the Interprofessional Education Collaborative Competencies by all Program Directors

Attitudes and Beliefs toward IPE

Table 4 summarizes the results of the survey on attitudes toward IPE (Curran survey: sections IV, V, VI) and corresponding items that showed significant differences between the groups of interest using the Mann-Whitney U non-parametric t-test.

	Program	Response								
Questions	Total (n=110) PT (n=50) PTA (n=60)	Disagree (1) Neith Disagree (1) Agree		Neithe Agree Disagr	Neither Agree nor Disagree (2)		Agree (3) Mean ± SD		p	
Attitudes toward interprofessional educa	tion									
Interprofessional learning will help students think positively about	PT	0	(0)	6	(12)	44	(88)	2.88 ± 0.33	0.184	
other health care professionals.	PIA	0	(0)	3	(5)	57	(95)	2.95 ± 0.22		
Clinical problem solving can only be learned effectively when	PT	44	(88)	3	(6)	3	(6)	1.18 ± 0.52	0.300	
students are taught within their individual department/school.	PTA	48	(80)	9	(15)	3	(5)	1.25 ± 0.54		
Patients would ultimately benefit if health care students worked	PT	0	(0)	0	(0)	50	(100)	3.00 ± 0.00	0 064	
together to solve patient problems.	PTA	0	(0)	4	(7)	56	(93)	2.93 ± 0.25		
Students in physical therapy would benefit from working on small-	PT	1	(2)	2	(4)	47	(94)	2.92 ± 0.34	0 665	
group projects with other health care students.	PTA	0	(0)	5	(8)	55	(92)	2.92 ± 0.30	0.000	
Communication skills should be learned with integrated classes of	PT	1	(2)	13	(26)	36	(72)	2.70 ± 0.51	0 240	
health care students.	PTA	6	(10)	16	(27)	38	(63)	2.53 ± 0.68	0.240	
Learning with students in other health professional schools helps	PT	0	(0)	4	(8)	46	(92)	2.92 ± 0.27	0 700	
students to become more effective members of a health care team.	PTA	0	(0)	4	(7)	56	(93)	2.93 ± 0.25	0.790	
Interprofessional learning among health care students will increase	PT	2	(4)	7	(14)	41	(82)	2.78 ± 0.51	0 600	
their ability to understand clinical problems.	PTA	1	(2)	12	(20)	47	(78)	2.77 ± 0.46	0.000	
Interprofessional learning will help students to understand their own	PT	4	(8)	3	(6)	43	(86)	2.78 ± 0.58	0 310	
professional limitations.	PTA	1	(2)	13	(22)	46	(77)	2.75 ± 0.47	0.010	
For small-group learning to work, students need to trust and respect	PT	0	(0)	3	(6)	47	(94)	2.94 ± 0.24	0 870	
each other.	PTA	1	(2)	3	(5)	56	(93)	2.92 ± 0.33	0.070	
Attitudes and beliefs about interprofession	onal learning in th	e acaden	nic setti	ng						
There are current curriculum requirements that could be	PT	18	(36)	12	(24)	20	(40)	2.04 ± 0.88	0.000	
removed to make room for additional IPE education	PTA	41	(69)	10	(17)	8	(14)	1.44 ± 0.73	73	
CAPTE should mandate IPE in the	PT	10	(20)	5	(10)	35	(70)	2.50 ± 0.81	0.000	
PT/PTA curriculum	PTA	23	(39)	19	(32)	17	(29)	1.90 ± 0.82		
My program has the resources and		4	(8) (51)	12 10	(24)	34 17	(bg)	2.60 ± 0.64	0.000	
My institution has the recourses to	PTA PT	30 8	(31) (16)	12 10	(∠0) (20)	17 20	(29) (61)	1.10 ± 0.01 2.48 ± 0.76		
implement IPE	PTA	0 16	(27)	9	(20) (15)	34	(0+) (57)	2.40 ± 0.70 2 31 + 0.88	0.336	
r · · ·	PT	13	(26)	21	(42)	16	(32)	2.06 ± 0.77	0.042	

Table 4. Attitudes Towards IPE (Curran) Likert Scale Questions, Responses, and Differences Between Groups (programs)

	Interprofessional learning better utilizes resources	PTA	6	(10)	26	(44)	27	(46)	2.36 ± 0.66	
	Faculty should be encouraged to	PT	0	(0)	12	(24)	38	(76)	2.76 ± 0.43	
	participate in interprofessional courses	PTA	3	(5)	16	(27)	40	(68)	2.63 ± 0.58	0.282
	Faculty like teaching with faculty	PT	5	(10)	19	(38)	26	(52)	2.42 ± 0.67	0 621
	from other academic departments	PTA	7	(12)	24	(41)	28	(47)	2.36 ± 0.69	0.021
	Interprofessional efforts weaken	PT	44	(88)	6	(12)	0	(0)	1.12 ± 0.33	0 203
	program content	PTA	47	(80)	8	(13)	4	(7)	1.27 ± 0.58	0.200
	Interprofessional efforts require	PT	1	(2)	1	(2)	48	(96)	2.94 ± 0.31	0 1 1 1
	administration	PTA	3	(5)	4	(7)	52	(88)	2.83 ± 0.50	0.141
	Interprofessional courses are	PT	2	(4)	3	(6)	45	(90)	2.86 ± 0.45	0.321
	logistically difficult	PTA	2	(3)	8	(14)	49	(83)	2.80 ± 0.48	0.021
	Accreditation requirements limit	PT	31	(62)	14	(28)	5	(10)	1.48 ± 0.68	0.000
	interprofessional efforts	PTA	16	(27)	22	(37)	21	(36)	2.08 ± 0.79	01000
	It is important for academic health center campuses to provide	PT	0	(0)	10	(20)	40	(80)	2.80 ± 0.40	0 196
	interprofessional learning opportunities	PTA	2	(3)	16	(27)	41	(70)	2.66 ± 0.55	0.100
Atti	udes toward interprofessionalism in h	ealth care teams								
	Patients/clients receiving interprofessional care are more	PT	4	(8)	11	(22)	35	(70)	2.62 ± 0.64	0 767
	likely than others to be treated as whole persons	PTA	8	(14)	10	(17)	40	(53)	2.22 ± 0.73	0.707
	The give and take among team	PT	3	(2)	6	(12)	41	(82)	2.76 ± 0.56	0 9/1
	patient/client decisions	PTA	1	(2)	9	(15)	48	(83)	2.81 ± 0.44	0.041
	The interprofessional approach	PT	2	(4)	19	(38)	29	(58)	2.54 ± 0.58	
	makes the delivery of care more efficient	PTA	2	(3)	9	(16)	47	(81)	2.78 ± 0.50	0.012
	Working in an interprofessional environment keeps most health	PT	0	(0)	25	(50)	25	(50)	2.55 ± 0.51	0.070
	professionals enthusiastic and interested in their jobs	PTA	4	(7)	18	(31)	36	(62)	2.31 ± 0.63	0.376
	The interprofessional approach	PT	0	(0.0)	7	(14)	43	(86)	2.86 ± 0.35	0.500
	patient/clients	PTA	0	(0.0)	6	(10)	52	(90)	2.90 ± 0.31	0.962
	Having to report observations to a team helps team members to	PT	1	(2)	3	(6)	46	(92)	2.90 ± 0.36	
	better understand the work of other health professionals	PTA	0	(0.0)	5	(8)	53	(92)	2.91 ± 0.28	0.933
	Team meetings foster communication among members	PT	0	(0.0)	1	(2)	49	(98)	2.98 ± 0.14	0 404
	from different professional or disciplines	PTA	1	(2)	4	(7)	53	(91)	2.90 ± 0.36	0.134
	Working in an interprofessional	PT	36	(72)	10	(20)	4	(8)	1.36 ± 0.63	0 260
	things most of the time	PTA	46	(79)	9	(16)	3	(5)	1.26 ± 0.55	0.000

Note. Results are n (%); SD = standard deviation; significant results are in bold; ρ = 0.05; PT = physical therapy; PTA = physical therapist assistant; IPE = interprofessional education; CAPTE = Commission on Accreditation in Physical Therapy Education

DISCUSSION

We found that the majority of program directors identified that the most important IPE competency is Communication. Other health disciplines like Occupational Therapy (OT), Respiratory Therapy (RT), and Nutrition that investigated the importance of the IPEC competencies in their respective professional curriculum also found that Communication is the most important competency.^{7.9} Since Communication relates to effective interactions to support a team approach, according to these studies, this reflects how valuable it is for program directors that students learn to connect to the entire healthcare team, including choosing effective communication tools, expressing own knowledge and opinions, actively listening, providing feedback, and practicing respectful conversations with team members.^{3,7-9} Although Values and Ethics were ranked last, each IPE competency is presumed important.

When it came to IPE specific to the academic setting, PTA program directors strongly feel that everything in their current curriculum is essential. Therefore, although the PTA program directors feel IPE is important, nothing else can be removed to give way to IPE activities. In the investigation among RT program directors, a similar response was observed.⁹ This response may be in part due to the length of the programs. Like most RT programs, PTA programs are only taught in two years as an associate degree, compared to the Doctor of Physical Therapy degree awarded by PT programs that can go to as long as seven years (including a four-year undergraduate Bachelor's degree). Currently, there is an ongoing debate regarding changing the PTA program from an Associate's to a Bachelor's degree.¹⁶ If the PTA program is lengthened, it may encourage its directors to include more IPE activities in their curriculum.

Most PT program directors support IPE being a requirement for accreditation, while the majority of the PTA program directors are not. Therefore, it was no surprise that those who disagreed on the follow-up item that accreditation requirements limit interprofessional efforts were mostly PT program directors. This response may imply that PT program directors believe mandating IPE for accreditation will help encourage developing more IPE activities into the PT education since IPE is mandatory in both didactic and clinical curriculum for PT accreditation, as opposed to PTA's requirements only for clinical education.^{5, 6} PT program directors also felt that their administration supports their program's IPE effort by providing resources to implement it, while PTA directors did not. This response may also be partly due to PT programs' length and accreditation requirements requiring the administration to support IPE activities. This corroborates the findings of Wise and colleagues with institutional support as one of the highest voted reasons for IPE success along with faculty buy-in in physical therapy programs.¹¹

Most PT program directors disagreed that IPE better utilizes resources even though they state that they have the resources to implement IPE. It is possible that although support is already present through the availability of resources, it may not mean PT programs are utilizing these resources efficiently when implementing IPE activities. Although the study by Wise and colleagues surveyed PT programs four years earlier, our findings remain similar to theirs. They identified that poor organization and lack of schedule coordination were the biggest challenge to IPE implementation.¹¹ The Guidance on Developing Quality Interprofessional Education for the Health Professions (Guidance) was recently published.¹⁷ Here, program-specific leaders, particularly Department Chairs and Program Directors, were identified as the primary stake-holder in creating and implementing IPE plans. The Guidance should be used by program directors, especially in PT, to improve its efficiency in utilizing resources for the development and effective implementation of quality IPE activities.

The majority of the program directors agreed with the importance of belonging to academic health center campuses to provide interprofessional learning opportunities. This seems consistent with the findings in other health disciplines like OT and RT as programs affiliated with healthcare systems have extensive access to additional shared institutional resources, thus enabling more access to IPE implementation opportunities.^{8,9}

On attitudes towards interprofessionalism in health care teams, there was widespread agreement that the interprofessional approach makes care delivery efficient. The majority of those who agreed were PTA program directors. In contrast, more than one-third of PT program directors were still unsure. This may be explained as PTAs remain to function only under the supervision of PTs. Therefore, they must work alongside PTs all the time, while PTs may work independently due to direct access laws. This arrangement (PTAs are working under PTs) is technically labeled as intraprofessional (within the profession) versus interprofessional (with other professions).¹⁸

Limitations

There are a few limitations we identified in our study, starting with the response rate. Despite our best efforts to encourage responses, our rate was just under 28%. This could be because of the overall length of the survey. However, a return rate of about 30%-60% is deemed realistic, therefore acceptable.¹⁹ Another limitation was the implementation timing in relation to the release of the Guidance. It is possible that program directors, after reading the Guidance, may provide a different response to the survey.

Recommendations for Future Studies

Future studies could assess the opinion of PT students on the importance of IPE education and their experience with IPE learning opportunities like it has been investigated among medical students.²⁰ Other disciplines that rely on intraprofessional relationships (physicians and physician assistants, occupational therapists and certified occupational therapy assistants) may similarly explore IPE education to provide insight within their profession.

CONCLUSION

Program directors of PT and PTA programs agree that IPE is an important and integral part of student learning to produce successful healthcare practitioners and team members. This study suggests that the most important IPE competency their students need to achieve is Communication for most PT and PTA programs directors. However, specific differences between PT and PTA program directors emerged. Because PTA programs only offer an associate's degree, PTA program directors are generally hesitant in implementing IPE in their curricula. With IPE being limited as a requirement in PTA clinical curriculum only, most PTA program directors disagree with the importance of accreditation in implementing IPE in the entire curricula. Although PT programs directors believe they have more resources in implementing IPE due to accreditation requirements and relatively longer program length, they also believe that having IPE may not necessarily utilize these available resources efficiently. The recent Guidance may help programs become efficient in using resources, therefore effectively implementing IPE activities.

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