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ORIGINAL RESEARCH ARTICLE

SPT and SPTA tandem learning in a pro bono environment: a model for intraprofessional learning

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Abstract

***Objective*:** Clinical education and collaboration are critical components of developing student physical therapists (SPTs) into safe and competent clinicians. While students may find themselves in various settings upon entering the workforce, working alongside a physical therapist assistant (PTA) is highly likely. With the rise in demand for therapy services, realistic and comprehensive training in SPT-SPTA (student PTA) collaboration is needed to support quality health care.
***Model*:** A student-run pro bono clinic hosted within a Midwestern DPT Program uses a peer-to-peer model that provides the space for collaborative learning between SPTs and SPTAs. Serving as a clinical rotation site for 4 weeks, the pro bono clinic schedules an SPTA alongside a pair of SPTs.
***Discussion*:** SPTs gain early experience in decision-making related to delegating tasks to SPTAs with various skill levels, engaging in intraprofessional communication and reporting improvements in confidence levels. Qualitative reporting from the SPTAs and their host institution's faculty indicate that the team approach to learning has become a preference among their students. Furthermore, students feel more comfortable learning and working with fellow young professionals, showing more significant interactions with clients and more opportunities for clinical growth.
***Clinical relevance*:** This model combines two previously described beneficial approaches to learning: a program attached pro bono clinic and a PT/PTA team learning environment. Integrating these concepts may catalyze intraprofessional education of SPTs and SPTAs.

Keywords: *education*; *physical therapy*; *intraprofessional*; *pro bono*; *student physical therapists*

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In 1978, the World Health Organization (WHO) announced interprofessional collaboration (IPC) as an area in need of improvement, resulting in an increased focus on interprofessional learning (IPL) and associated models.[1] In the broader scheme of health care, IPC for physical therapists (PTs) means working to support and inform physicians, nurses, occupational therapists, and other professionals. To facilitate the implementation of IPL, the WHO provided significant structure and guidance. A 1988 technical report from a WHO study group contains examples, analysis, and strategies for improving the collaboration and competency of healthcare workers to meet countries' needs and improve global health care.[2] A large section of the report is devoted to analyzing IPC in health professionals' education. For example, it states the importance of 'typical priority health problems' during the education of students as this promotes teamwork and team solutions that health professionals need to develop for post-licensure application.[2] The significance of the authenticity is further echoed by Hammick et al.[3] in their systematic review of IPL models and their outcomes.

While the 1978 WHO report addressed *interprofessional* collaboration,[1] the same dynamics, needs, and benefits can

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be said to exist within the PT–physical therapist assistant (PTA) relationship, a form of *intraprofessional* collaboration (IaPC). In the time IPL has been investigated, much less research on the relationship and learning between PTs and PTAs occurred. The model below proposes the implementation of intraprofessional education in a pro bono environment that simulates health problems of real-world need and collaboration between PTs and PTAs.

In 1971, Nancy Watts started to clarify the roles and responsibilities of PTs and PTAs.[4] While her work uses supply and demand principles related to that period's state of rehabilitation to demonstrate a need for increased specialization and division of labor, she also discusses the potential dangers of simply classifying a treatment to one specific worker domain. Indeed, a degree of specialization can be achieved with adequate experience to divide labor to maximize patient care effectively. In addition, Watts' work highlights that each rehabilitation professional has a unique knowledge base. Even among division of labor, communication between the two professionals must be maintained to achieve common rehabilitation goals for the patient.[4] Within the field of physical therapy, IaPC involves a decisive decision to delegate treatment to a PTA.

The movement started by recommendations from the WHO has encouraged attention by the American Physical Therapy Association (APTA) to devote resources to improving the collaborative relationship between PTs and PTAs.[5–7] Supervision/instruction of assistants is written in the Code of Ethics for the PT and Core Values for the PT and the PTA.[8,9]

A more directly influential organization for intraprofessional learning (IaPL) in pre-licensed health professionals is The Commission on Accreditation in Physical Therapy Education (CAPTE), which sets standards and oversees the accreditation of PT and PTA programs in the United States. In the most recent updates in November 2020, which went into effect January 1st 2021, elements 6L4, 7D25, and 7D29 all require collaboration with physical therapist assistants in the curriculum of accredited PT education programs in the United States.[10] Likewise, the CAPTE standards for physical therapist assistant programs, precisely elements 6J3, 6J4, 7D7, 7D11, 7D17, 7D18, 7D20, 7D22, and 7D28, require the inclusion of aspects of IPL in their curriculum.[10] With less specificity in IPC and IaPC used in CAPTE languages, the elements of 6F, 6L3, 7D7, 7D24, 7D28, 7D37, and 7D39 all regard *interprofessional* language, but in situations that are often involving collaboration with PTAs aside from other health providers. These provisions elaborate the need to advance ideas, ethics, communication, and professional roles with other health professionals and appropriate stakeholders. While the PTA elements are slightly more specific on the education and interaction of the PT-PTA team, both have several requirements and suggestions in the area of IaPL.

The patient experience benefits from a productive PT-PTA team providing comprehensive patient treatment. While there is growing attention on a large scale to enhance IPL between rehabilitation and other health professionals, the PT-PTA dynamic appears overlooked in its potential for improved education. Patricia Solomon stated, '…it will be important that educators continue to innovate, evaluate, and share their strategies'.[11] Therefore, the purpose of this paper is to share a model being implemented at a university-based student-run pro bono clinic that can assist with the IaPE of PTs and PTAs.

Educational model

Pro bono clinics are designed to provide free or reduced-cost physical therapy care to underinsured or uninsured individuals. While they provide an outlet for active clinicians to give back to their community, they also offer an excellent environment for early experience for pre-licensed individuals by enhancing clinical skills, clinical management, and leadership.[12] Pro bono clinics can stand alone or attach to another clinic or program as a form of outreach. Most recently, pro bono clinics are being incorporated into PT education programs, in either a student or faculty-run model.[13]

The model utilized at this Midwestern university is a student-run pro bono clinic, adapted from a model used by Widener University at the Chester Community Physical Therapy Clinic.[14] While the clinic is entirely student-run, faculty members advise and supervise the operations. Reports within the clinical education field support student-run and mixed-professional clinics that positively impact the surrounding community,[15] specifically demonstrating learning,[16] communication,[17] and patient outcome[18,19] benefits from IaPC in a PT-PTA treatment team at the prelicensure level. Communication, respect, and collaborative treatment plans are fundamental aspects of mixed care environments that benefit young professionals.[2]

This model describes student physical therapist-student PTA (SPT-SPTA) teams in a pro bono clinic attached to a physical therapist education program. Patients are scheduled in the evenings twice a week when the DPT students are in class. In addition, through a partnership with a local PTA education program, PTA students utilize the pro bono clinic as part of their 4-week clinical rotation. Eight patient appointments are scheduled per evening, with one of the four treatment teams (see Fig. 1). The treatment team consists of an SPTA working alongside a team of two SPTs. While learning clinical skills, a first-year SPT is paired with a second-year SPT to create a hybridized team. This allows second-year SPTs to gain experience delegating tasks while allowing first-year SPTs and SPTAs to gain experience with hands-on and documentation skills. The pro bono clinic is

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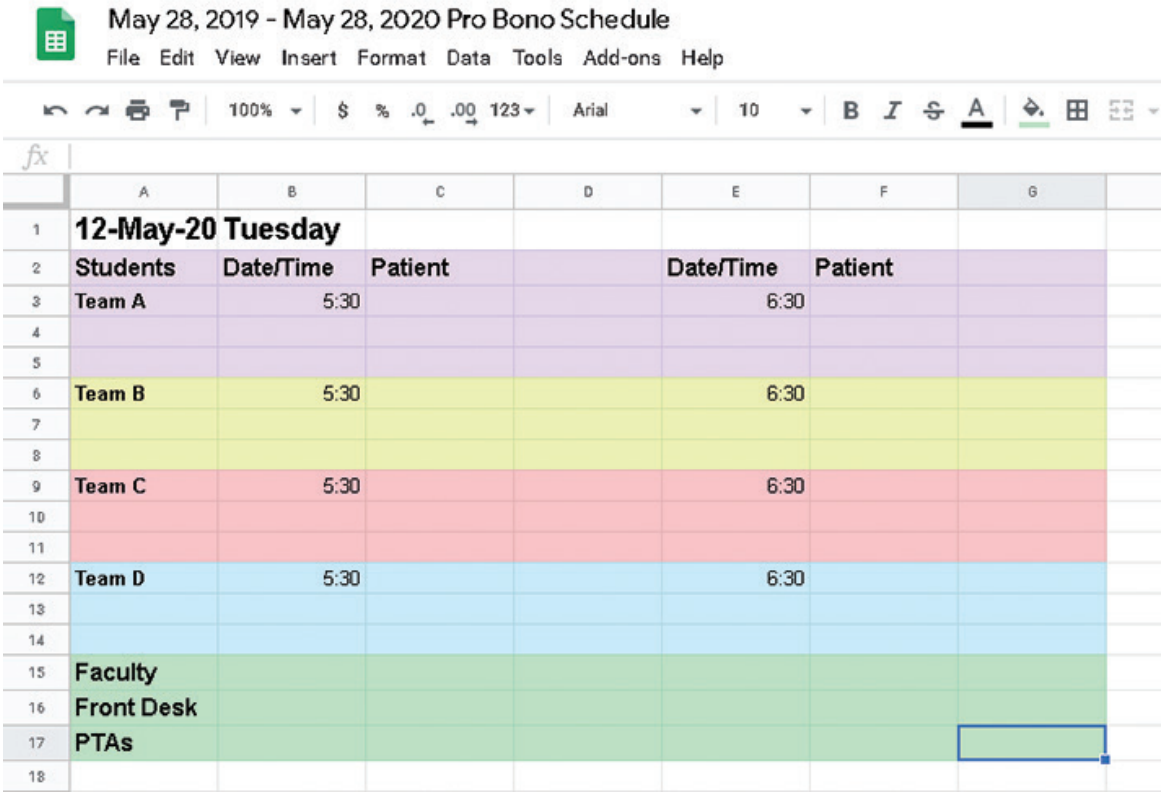

Fig. 1. Schedule example. Two times/week, 1–2 SPTs see two patients. Within the scheduling system, the student schedulers list the SPTAs that will be attending for the night as part of their rotation.

organized and run by second-year SPTs and transitioned over to the first-year SPTs before the initiation of 9 months of long-term clinicals (see Fig. 2).

Discussion

Beyond the societal impact, a beneficial aspect of the clinic is the opportunity for SPTs and SPTAs to gain exposure and experience treating patients of various ages and conditions, including musculoskeletal injuries and neurological disorders. Equally beneficial is the IaPL that comes from the necessary collaboration between SPTs and SPTAs. Student PTs gain early experience in decision-making related to delegating tasks to SPTAs with various skill levels. Examples of SPTA utilization in this tandem-learning model include taking vital signs, performing tests and measures, such as range of motion and manual muscle testing, interventions including modality application, and instruction of therapeutic exercises.

Surveys given to SPTs at the pro bono clinic reveal improvements in confidence, specifically in delegating to a student PTA. This survey (see Fig. 3) is provided before each semester engaging in the pro bono clinic and demonstrates a significant increase in overall confidence (see Fig. 4). Student confidence questions are delivered via a computer-based survey with a sliding scale between 0 and 100. Results showed improved student confidence in all categories. The most significant gains in confidence were delegating to an SPTA, charting on Web PT, feeling prepared for long-term clinicals, and referring patients to another healthcare provider.

Student comments regarding pro bono clinic experiences were collected during a reflective writing assignment (see Fig. 5). Opportunities for interaction and collaboration help promote healthy professional relationships. The PTA program faculty members have frequently reported that their SPTAs preferred the university's pro bono clinic as a clinical education site, often citing the increased comfort in the peer-to-peer model.

An unexpected benefit from this model also emerged as first-year SPTs were learning similar clinical skills at the same time in their program as the SPTAs. This has allowed for team-based psychomotor skill development and an appreciation for the knowledge and skill-set of both parties. Furthermore, SPTs have also learned skills related to teaching peers, helping to prepare them as future clinical instructors. The elements 7B, 7D12, and 7D15 within CAPTE require PT programs to prepare students for proper teaching and clinical instructor skills.[10] The hybridized teams in this model of both first-year and

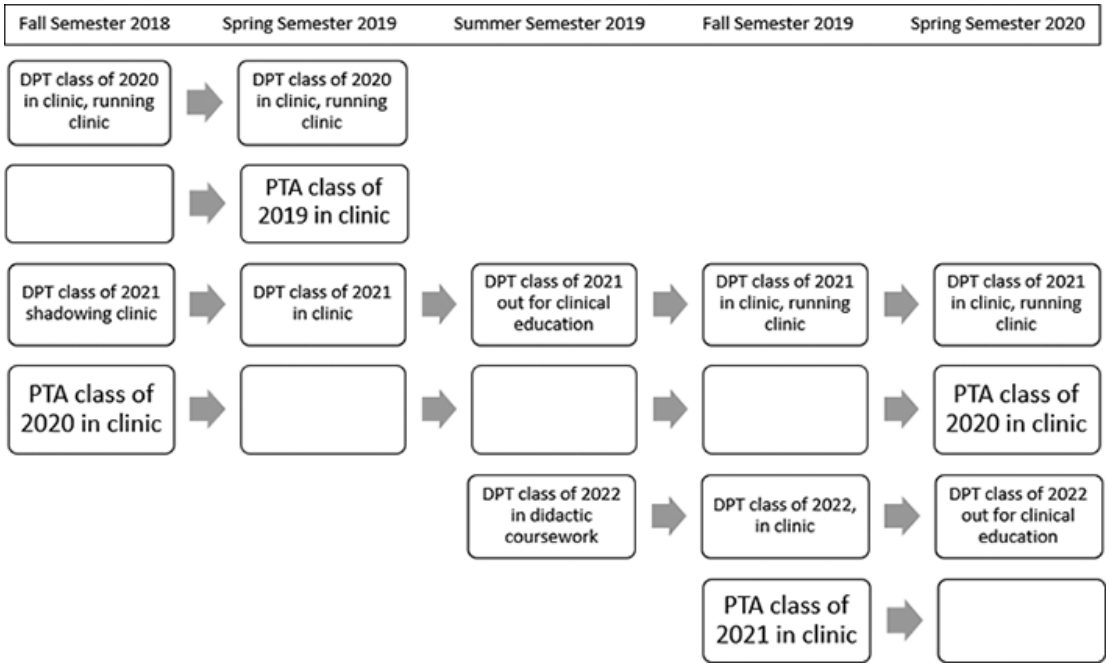

Fig. 2. With three cohorts attending the DPT program and two cohorts attending the PTA program, the pro bono requires a gradient of leadership change and shadowing to facilitate a smooth leadership transition and confidence in clinical care. DPT, Doctor of Physical Therapy; PTA, physical therapist assistant.

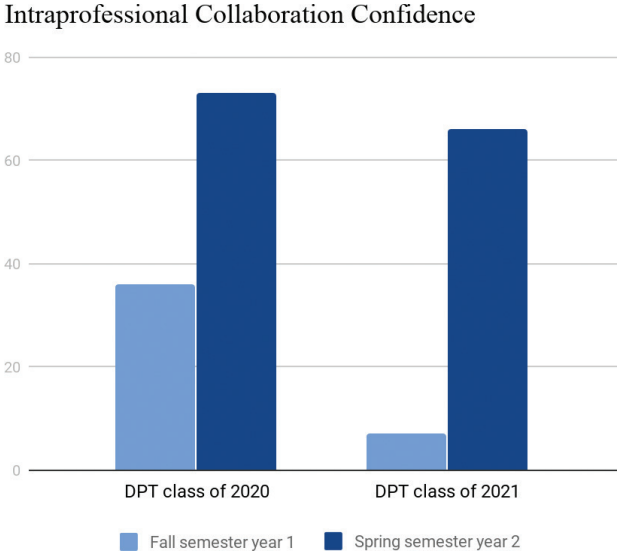

Fig. 3. The faculty at the host university, specifically the pro bono advisor, conducts a survey of confidence and knowledge in various clinical skills during each semester. Among the topics is confidence delegating to student physical therapist assistants. DPT, Doctor of Physical Therapy.

second-year SPTs and the SPT-SPTA allow various opportunities to instruct clinical skills and practice.

This model builds on previously reported findings in clinical education of the benefits of a collaborative model for clinical sites,[20] benefits of peer-to-peer

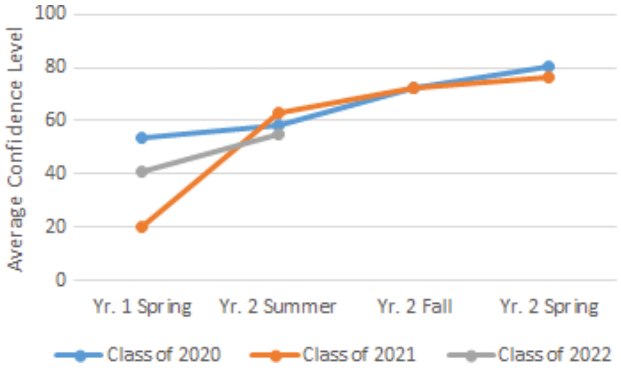

Fig. 4. A pro bono clinic questionnaire reported overall confidence improvements within each PT cohort each semester. (1) Performing a chart review on Web PT, (2) Introducing yourself to a patient, (3) Communicating with a family member / caregiver, (4) Communicating with a patient whose primary language is not English, (5) Performing a Subjective examination, (6) Examining a patient whose primary language is not English, (7) Choosing a functional outcome measure, (8) Performing Objective measures based on subjective findings, (9) Assessing the patient's need for physical therapy, (10) Writing goals, (11) Developing a plan of care including number of recommended visits, (12) Choosing an appropriate ICD-10 code, (13) Performing interventions, (14) Billing for services performed, (15) Teaching the patient a home exercise program, (16) Discussing with patient expected progression, (17) Documenting on Web-PT, (18) Delegating to a PTA, (19) Teaching other students about patient care in the pro bono clinic, (20) Feeling prepared for your long-term clinicals, (21) Referring a patient to another provider.

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SPT Comments	SPTA Comments
'The addition of SPTAs into our clinic has helped me learn that delegating tasks isn't simply passing the buck but rather is actively participating on a care team'.	'The SPT did a really good job of getting me involved with the exercises and did a great job answering my questions'.
'I am exceptionally grateful that we were given the opportunity to work with the PTA students to give me a feel for delegating to a PTA in the future'.	'She explained a lot with all of the exercises she was doing with the patients that we saw. I really got to interact with the patients as well which I enjoyed'.
'The clinic taught me that two hands isn't always enough, and it is extremely beneficial to have a second SPT or an SPTA to help measure or transfer or even guard when needed'.	'I performed shoulder flexion, ext, abd, IR, and ER. I felt pretty good about it and measured the pt's shoulder correctly. During IR, I forgot to stabilize his shoulder, so I completed ROM again the correct way. The SPT was helpful and also noticed the first time and mentioned it. After the session I had asked for feedback'.

Fig. 5. SPT and SPTA comments about working together in a pro bono clinic.

education,[21] and IPL/IaPL in a clinic environment compared to strictly didactic learning of the concepts of IPC/IaPC.[22] Although IaPL gained by SPTs during these clinical experiences can vary significantly regarding outcomes,[23] this tandem-learning model provides more control from the host institutions in their oversight of IaPL. Furthermore, this model can allow for variety in patients seen while still working within the consistent standards of a physical therapy education program.[24]

Clinical relevance

Mixed professional models in clinical education have begun laying the foundation and collecting data on non-traditional and potentially more effective learning models.[20] Collaborative models that encourage increased communication in situations other than traditional 1:1 frameworks and settings, such as the above, may result in improved competence of clinical material and ease of meeting accreditation standards.[20] This model is proposed to collaborate between PTA and PT programs in close geographic proximity to improve student confidence with SPTA delegation, client management through active learning, intraprofessional communication, and creating servant leaders by helping those in need.

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Ethics statement

IRB/ethical board approval not applicable.

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