APTA Academy of Pediatric Physical Therapy

FACT SHEET

Experiential Learning in Pediatric Physical Therapy Professional Education

WHAT WE KNOW AND WHAT IS YET TO BE DISCOVERED

Over the past decade, we have learned that pediatric experiential learning (EL) creates opportunities for physical therapy students to interact with children and families in a more personalized and direct way. While EL does not replace full-time clinical experiences, these learning opportunities associated with pediatric physical therapy courses and content can enhance the teaching and learning experience beyond what can occur in a classroom or be ascertained from a textbook. This fact sheet shares recent findings on the use of EL in pediatric physical therapy education and provides suggestions for educators who are looking to improve implementation of pediatric physical therapy EL opportunities in their course(s) with physical therapist students.

INCLUSION OF EXPERIENTIAL LEARNING IN PROFESSIONAL PHYSICAL THERAPIST EDUCATION PROGRAMS

Rationale

Models of excellence in professional physical therapist education highlight the importance of using practice-based learning to create adaptive learners.[1,2] Jensen et al[1] clearly articulate multiple benefits of practice-based learning that is structured, sequenced, and occurs often. In addition, these authors note that practice-based learning brings together educators and learners to engage in authentic situated learning experiences centered around patients.[1] Finally, Jensen et al[1] recognized the value of placing students in "situations where they can safely struggle with the complexity and uncertainty of practice."[3]

Definition

One type of practice-based learning is experiential learning (EL). EL in pediatric physical therapy (PT) education has been defined by Schreiber and colleagues[4] as "activities in which students design and implement an experience that engages a child in meaningful activities, including examination, evaluation, intervention, and/or client/caregiver interaction and instruction." EL with children, including those with participation restrictions, is widely supported by expert consensus[5].

Supporting Evidence

EL supports students' achievement of the essential competencies of pediatric PT education.[5,6] In a recent survey of 106 pediatric PT educators from the Commission on the Accreditation in Physical Therapy Education (CAPTE) accredited programs, all of the participants "agreed that experiential learning with children has a positive impact on DPT students' learning."[7] EL with children has been found to significantly increase physical therapist students' perceptions of their communication skills, their skill with family-centered practice, their ability to build rapport and maintain child engagement, their pediatric psychomotor skills, and their confidence and comfort with pediatric examinations and use of standardized tests.[6,8-10] In a scoping review of pediatric PT educational practices, Anderson et al[11] found that "Following experiential learning, students demonstrated improved application and manipulation of knowledge, improved clinical reasoning skills, as well as improved child/family interactions and management of the therapeutic environment."

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CONSIDERATIONS IN DEVELOPING AND IMPLEMENTING PEDIATRIC EXPERIENTIAL LEARNING ACTIVITIES

As PT educators develop and implement pediatric EL activities in the classroom they will want to consider the benefits, barriers, and facilitators of these activities which are described in Tables 1 and 2 below. Additionally, educators will want to consider how EL activities can be assessed with examples provided in Table 3. Finally, educators will want to consider utilizing a planning guide as they develop and implement their EL activities. One model with an example is provided in Table 4.

TABLE 1: Benefits of Pediatric Physical Therapy Experiential Learning

Students	• Essential core competencies[6,7,9,10] • Communication[3,6,7,9,10,12,13] • Family-Centered Care principles[9,13-15] • Rapport and engagement with children[7,10] • Psychomotor skills[6,7,10,12,13] • Tests & measures[6,8,10] • Clinical reasoning[6,7,9,10,14]
Faculty	• Impactful active learning for students through multiple modalities (real time problem solving, direct clinical application, and reflection)[3,7,13,14] • Accreditation standards and learning expectations for all students[3] • Relationships with clinical partners and families & children[3,16]
Mentoring / Community Therapists	• Students and new graduates who are better prepared for pediatric practice[3] • Opportunities to contribute to learning for all students[3]
Children and Families	• Additional opportunities for interaction and support from physical therapy including information about the child's skills[3,16] • Opportunity to contribute to learning for future physical therapists and to help future children and families receiving services[3,14] • Opportunity to "show off their child's unique skills and abilities"[3]

TABLE 2: Facilitators and Barriers to the Use of EL with Children[9,19]

CATEGORY	FACILITATORS	BARRIERS
Partnerships	• Pediatric clinics/clinicians (including pediatric faculty) • Pro bono clinic • Alumni • Specialized schools • Service learning • Partners that share a similar mission • Faculty serving as clinicians (CIs) • Adaptive sports programs (ie, iCanShine™) • Daycares (including University run) • Community groups (ie, parent support groups, The Arc – an organization with a mission to promote and protect the human rights of people with intellectual and developmental disabilities)	• Lack of partnering pediatric clinics or clinicians • Clinics oversaturated with students on clinical rotations and observation hours

Children and families	• Invested in teaching students • Available for multiple sessions	• Limited availability
Logistics	• Creativity • Planning • Organization • Use of group work	• Complexity • Scheduling • Space • University and community regulations • Rural setting of university
Resources	• Established pediatric faculty • Financial support • Student investment and initiative	• New or part-time pediatric faculty • Lack of department-wide buy-in • Lack of student interest
Curricular considerations	• Threaded pediatric content • Interprofessional education • Scaffolding of EL activities • Intensive blocks of time	• Limited time dedicated to pediatric content • Timing of pediatric content • Large cohort size • Difficulty structuring or scaffolding EL activities • Previous mediocre EL experiences

**Modified Version of Table 3 in* Fiss et al. Experiential learning in pediatric physical therapist education: faculty and student perceptions. *Pediatric Phys Ther.* 2021;33(3):171-179

TABLE 3: Examples of Assessment of Experiential Learning Activities

OUTCOME TO BE ASSESSED	ASSESSMENT TOOL
Assessment of Student Self Efficacy	• *Pediatric Communication and Handling Self-Efficacy Scale*[17]
Comprehensive Faculty Assessment of Learning in a Case/Practical Situation (content knowledge, psychomotor skill, and conceptual reasoning)	• *Pediatric Physical Therapy Grading Rubric*[18]
Traditional Assessment (specific to course learning objectives)	• Exam/Quiz questions • Short answer scenario-based questions • Psychomotor skill checks • Reflections

PLANNING FOR EXPERIENITAL LEARNING ACTIVITIES

One model (see TABLE 4) presented by Anderson et al[19] to organize the development and implementation of pediatric physical therapy EL opportunities in professional physical therapist education includes four considerations: (1) Essential Core Competency/Outcome to be achieved, (2) Partner, (3) Environment, and (4) Assessment. The four considerations are all integral, and can be initiated in any order based on current needs and resources.

TABLE 4: Experiential Learning Experience Planning Worksheet

ESSENTIAL CORE COMPETENCY	PARTNER	ENVIRONMENT	ASSESSMENT	OUTCOME TO BE ACHIEVED
Questions to Consider in Each Category of the Worksheet				
• Which core competency needs to be addressed? • Which core competency could potentially be addressed with this partner or experience?	• Who are potential partners (community, medical, national & international groups)? • What is the partner in need of? How is this mutually beneficial? • Who are potential partner connections outside of the pediatric faculty (ie, other PT or university faculty, broad university partnerships)	• What environments are available in and outside of my university? • What restrictions does my university have regarding environments (ie, liability concerns with off-site experiences, contracts with partners, parking for patients/families etc.)	• What evidence-based assessments are available that address the learning outcomes? • Is the goal of the assessment formative or summative? • Is the intent to be a faculty assessment or a student self-assessment • How can the EL activity itself be assessed?	• Is the intent of the EL activity to meet a learning outcome or is the intent to also meet the need of a partner or both?
Example: Integrated Clinical Experience (ICE), Torticollis & Plagiocephaly Clinic[19]				
ESSENTIAL CORE COMPETENCY	**PARTNER**	**ENVIRONMENT**	**ASSESSMENT**	**OUTCOME TO BE ACHIEVED**
• Human Development • Age-Appropriate Patient/Client Management • Family-Centered Care	• Healthcare system/ Hospital based pediatric outpatient clinic • New program developed at pediatric clinic staffed by 2 pediatric faculty to allow clinicians' schedules to be freed up and to decrease wait time for families for evaluations	• Pediatric outpatient clinic: Torticollis/ plagiocephaly clinic ***Experience Details:*** 3-hour clinic one morning per week dedicated to the examination and treatment of infants with torticollis/ plagiocephaly One semester the clinic becomes an EL activity for PT students, faculty who work in the clinic serve as the ICE instructors	• Documentation (eg, SOAP note) • Individual skill performance log and self-reflection	• Pediatric course outcomes • New program for healthcare system (partner) to increase efficiency of workflow and decrease time for patients waiting for new evals

CONCLUDING NOTES: EXPERIENTIAL LEARNING IN PEDIATRIC PHYSICAL THERAPY EDUCATION

In conclusion, experiential learning (EL) in pediatric physical therapy has been shown to yield many benefits and is supported through curriculum and course-related activities in many DPT programs. While we still have much to learn about how to best implement these experiences for maximum student learning, we know that:

- EL takes time and effort to plan prior to implementation.
- Intended outcomes of the EL activity should be established prior to establishing plans for the activity.
- EL requires collaboration with families and clinicians in the community, and coordination with other centers or locations when the EL is occurring outside of the campus or lab setting.
- EL can involve children who are typically developing and/or children with impairments. The intended outcome may dictate which group of children should be involved in the learning experience with DPT students.
- There is no one way or one right way to use and EL as part of pediatric PT education. Course intructors need to consider use of EL within the context of their program's curriculum, clinical education requirements, and time for student engagement in these activities in and out of the classroom and lab.

The extent to whether use of EL is applicable or appropriate in Physical Therapist Assistant (PTA) education has not been explored, therefore, this content pertains exclusively to DPT education. All students can benefit from experiential learning activities, as such, PTA educators may want to consider whether the use of this information might be applicable in their programs.

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ADDITIONAL RESOURCES

- Comprehensive comparison of varied pediatric EL at 6 unique professional physical therapist education programs (Table 2)[4]
- Experiential Learning: Where to start? A guide to develop EL experiences in pediatric physical therapy education (Figure 1)[3]
- Examples of EL on campus, in the clinic, and in the community (Figure 2)[3]
- Pediatric Physical Therapy Grading Rubric (Appendix A)[18]
- Pediatric Communication and Patient Handling Self-Efficacy Scale (Appendix)[10]

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