



Characteristics of School-Based Physical Therapy for Children with Disabilities in the United States

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PT COUNTS: Practice-Based Evidence (PBE) Research Design (Horn et al., 2012)

Student Characteristics:

- Age
- Medical diagnosis
- Severity of disability
- Educational placement
- Geographical location
- Engagement in therapy


Physical Therapy Intervention:

- Service delivery approaches
- Activities
- Procedural interventions
- Dosage
- Consultation/collaboration
- Documentation

Student Outcomes:

- School participation
- Recreation & Fitness
- Posture & Mobility
- Self-care at school
- Academics

Background



- Since 1975 students with disabilities to receive a free & appropriate education in US
- Students to be educated in least restrictive environment with students without disabilities
- Each student has Individualized Education Program (IEP) which includes developmental, functional, & educational goals
- Physical therapists (PTs) to provide services to assist in meeting these goals
- Minimal evidence supporting school-based physical therapy (Majnemer et al. 2014)

Methods & Procedures

Study Start

- PTs completed required training
- PTs completed student assessments

During Study

- PTs completed weekly student intervention data collection for 6 months

Study End

- PT rescored student assessments
- Conducted data analyses

Purpose

- Prospective, multi-site observational study, *PT related Child Outcomes in the Schools (PT COUNTS)*, undertaken to describe the characteristics of school-based PT services and student outcomes.

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Assessments

- Individualized measure:
 - **Goal Attainment Scaling (GAS)** (King et al., 1999)
 - Student goals converted into GAS format
- Standardized measure:
 - **School Function Assessment (SFA)** (Coster et al., 1998)

School-Physical Therapy Interventions for Pediatrics (S-PTIP) Data Collection

(Hashimoto & McCoy 2009; McCoy & Linn 2011)

- S-PTIP Form & Manual
 - PT COUNTS website, University of Kentucky
 - <http://www.mc.uky.edu/healthsciences/grants/ptcounts>
- S-PTIP Intra-rater Reliability (Effgen et al., 2014)

Participants: 109 PTs

Attributes	Participating PTs (N=109)
Female Gender, n (%)	105 (95.5%)
Age in years, Mean/SD	46 years (SD 4.2)
Average years working in school, Mean/SD	13 years (SD 9.1)

School-Physical Therapy Interventions for Pediatrics (S-PTIP) Data Collection

- Includes record of:
 - Services to the Student
 - Activities, including time in activity in 5 minute increments
 - Types of Interventions used
 - How & where services provided
 - Student's engagement in therapy sessions
 - Services on behalf of the Student
 - Consultation/collaboration
 - Documentation

Participants: 296 Students

	Students (N=296)
Male Gender, N (%)	166 (56%)
Age, Mean (SD)	7.3 (SD 2.02) Range 5-12 years
Diagnoses	CP (35%) Genetic (30%) Other (35%)

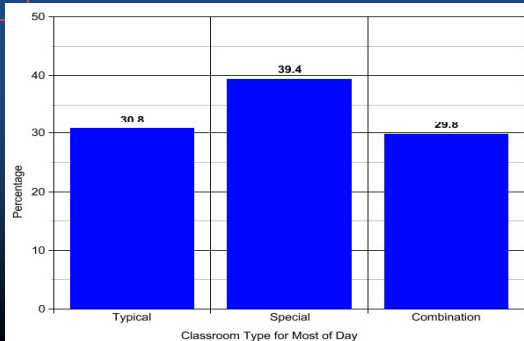
The image shows a detailed data form for recording school physical therapy interventions. It includes sections for:

- Intervention Codes:** A list of 36 codes for different activities such as Motor Learning, Fine Motor, Gross Motor, and Classroom Mobility.
- Service Delivery:** Fields for entering the duration of each activity in 5-minute increments.
- Notes:** A section for recording additional information about the service.
- Service Delivery Duration:** A section for recording the duration of each service in 5-minute increments.
- Services on behalf of the Student:** A section for recording services provided on behalf of the student, such as consultation or documentation.

Students' Gross Motor Function Classification

Gross Motor Function Classification System (GMFCS) Level	Total (N=296) N (%)
I	113 (38.2%)
II/III	117 (39.4%)
IV/V	66 (22.3%)

Students' Classrooms



Results: Most Common of 13 Intervention Categories

Intervention N=296	Times intervention indicated	Times indicated/student
Neuromuscular	10,729	36.2
Mobility	5,114	17.3
Musculoskeletal	4,749	16.0
Mobility assistive	1,711	5.8
Educational	1,640	5.5
Integumentary	361	1.2

Results: Most Common of 14 Activities

Type of Activity N=296	Times indicated	Times/student
School Mobility Indoors	2234	7.5
Recreation	1932	6.5
Pre-Functional	1929	6.5
Standing	1600	5.4
Transitions/Transfers	1529	5.2
Physical Education Activity	1446	4.9
Sitting	797	2.7

Results: Most Common of 79 Specific Interventions

Intervention N=296	Times indicated	Times/student
Motor learning	3,503	11.8
Balance	3,406	11.5
Functional strength	3,175	10.7
Postural awareness	2,429	8.2
Hall training	1,688	5.7
Hands-on facilitation	1,294	4.4
Stairs training	1,251	4.2
Ongoing assessment	1,033	3.5
LE plastic orthosis	1,018	3.4
Walker	810	2.7
Doors training	698	2.4
PROM/brief stretch	662	2.2

Results: Activities with Most Time

- Physical education: 5.7 min/week, SD 6.2
- Recreation: 5.6 min/week, SD 6.1
- School mobility: 5.6 min/week, SD 6.2
- Standing: 3.9 min/week, SD 4.0
- Transitions/transfers: 3.4 min/week, SD 3.9

Results: Services to the Student

Type	N	Min/week Mean (SD)	Min/Max
Individual	289	23.3 (16.3)	.5/105.9
Group	167	7.6 (9.0)	.2/ 39.5
With no other students	283	17.1 (12.0)	.5/ 63.2
Within school activity	220	9.5 (12.9)	.2/ 87
Separate from school activity	288	19.6 (11.4)	.2/ 62.7
Co-treatment	122	6.8 (7.6)	.2/ 44.1

Results: Service on Behalf of Student

Type	N	Min/week Mean (SD)	Min/Max
Consultation/ Collaboration	289	6.0 (4.9)	.2/32.3
In service	9	1.8 (2.0)	.2/ 6.5
Curriculum development	53	2.0 (2.3)	.2/11.4
Documentation	296	7.1 (3.8)	.2/21.1
TOTAL Time:	296	13.2 (7.5)	1.7/51.1

Contact Information Questions?

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PT COUNTS Web site:
<http://www.mc.uky.edu/healthsciences/grants/ptcounts/index.html>

Summary of Results

- Services *directly* with the student
 - 23 minutes/week
- Services *on behalf* of the student
 - 13 minutes/week
- Services were *limited* in intensity usually provided *individually* to students *separate* from school activities
- Activities primarily involved mobility, transitions, & recreational movement *using* motor learning, balance, & functional strengthening interventions

References

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- See poster abstracts for:
 - Outcomes of school-based physical therapy for children with disabilities in the United States PO-38-Sat
 - Relationship of school-based physical therapy to outcomes for children with disabilities in the USA PO-17-10-Sat