IMPACT OF POST-PROFESSIONAL DOCTOR OF PHYSICAL THERAPY EDUCATION ON THE ROLE OF A SCHOOL BASED PHYSICAL THERAPIST: A CASE REPORT

SUSAN MORIARTY

Private contractor to several school districts in Connecticut

SUZANNE ROBBEN BROWN

Touro University Nevada

Author Note

Susan Moriarty, Private contractor to several to several school districts in Connecticut; Suzanne Robben Brown, School of Physical Therapy, Touro University Nevada.

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Correspondence concerning this article should be addressed to Susan Moriarty, 45 Doe Run Tolland, CT 06084. Email: suemoriarty@concast.net

ABSTRACT

This case report describes the impact of the post-professional doctor of physical therapy curriculum on the role of one physical therapist employed as a special education related service provider. Physical therapists working in the public school setting play an important role in promoting success for students with physical disabilities as providers of direct care and less frequently as consultants to families and other members of the education team. The post-professional doctor of physical therapy curriculum provides therapists in this setting an opportunity to expand their knowledge base to work more effectively and efficiently as a consultant by suggesting innovative, evidence-based ways to utilize resources within the school setting to maximize student function. Student needs must be defined considering the emotional and physical

challenges as well as resources to promote student success in the educational environment. This case report discusses a student on the verge of transition from an intermediate school to a middle school. A change in service delivery from direct physical therapy to consultation as needed was made with an outcome of increased student participation, increased physical activity, and improved academic performance.

Since the passage of Public Law 94-142 in 1975, known as the Education for All Handicapped Children Act, physical therapy has been considered a special education related service in public schools (McEwen, 2009a). The most recent reauthorization in 2004 of the law, the Individuals with Disabilities Education Act (IDEA), emphasizes the role of the physical therapist contributing to students reaching their maximum level of independence for living skills, employment, and further education. Academic achievement and functional performance are main themes for goals to promote student abilities throughout IDEA (David, 2005). According to IDEA, "special education and related services in the IEP must be based on peer-reviewed research to the extent practical and refer to scientifically based instructional practices" (David, 2005, p.1).

Three publications available through the American Physical Therapy Association (APTA), *Providing Physical Therapy Services Under Parts B&C of IDEA* by McEwen (2009a), "Updated Competencies for PT's Working in Schools" by Effgen, Chiarello, and Milbourne (2007), and *The Preferred Curricular Model for the Transition Clinical Doctoral (t-DPT)Program and Learner* by the APTA (2006), all emphasize not only the use of evidence-based practice to guide clinical decision-making, but also knowledge of policy and legislation to understand the role of the physical therapist in the school setting, concepts of wellness and prevention to promote health, and interpersonal skills to help build consensus and team work and understand administrative issues.

Physical therapy services are provided to students with physical disabilities in several models of service delivery that impact educational function including direct services, adaptive/assistive equipment, and consultation (Effgen et al., 2007). Direct service, or hands on physical therapy, may take place in a therapy room or classroom as deemed appropriate (McEwen, 2009a). Direct service involves a physical therapist providing a student treatment in a face-to-face setting to improve or acquire a functional skill that is needed to benefit from special education under IDEA, or to remedy inclusion and accessibility challenges under section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (McEwen, 2009a). This model of service is often used with younger students whose educational curriculum involves a gross motor component. As a student moves toward a more academic program of instruction, direct

services may interfere with academic schedules. In middle and high school when the class format requires the student presence in the classroom and scheduling of core and elective courses is tight, this delivery model presents many challenges for the academically focused student.

A second service delivery model is helping a student with selection of adaptive equipment and assistive technology to accommodate a physical limitation, rather than motor skill acquisition (McEwen, 2009a). This model of service may result in higher one-time expenditures, but the student remains in academic activities with less interruption. The lack of direct services may concern some families, so it is essential that close monitoring of the student's academic performance be implemented to assure that the adaptive/assistive equipment is meeting the student's needs for education.

The third option for service delivery is the consultant model. This model involves the physical therapist working with and supervising school staff to implement educational activities to help meet functional mobility needs (McEwen, 2009a). As a consultant, the physical therapist is responsible for training appropriate staff in how to meet student needs (McEwen, 2009a). In effect this model extends the related-services effect so the student receives therapeutic benefits when the therapist is present, as well as throughout the school day with specific educational functional activities incorporated into the school day and routine. According to Effgen et al., (2007), therapists should attempt to "imbed therapy interventions into the context of student activities and routines" (p. 271-272).

The decision to implement any individual model of service delivery needs to be supported by evidence (David, 2005) as well as take into consideration the expectations and experiences of the student, family, and educational staff (Kaminker, Chiarello, O'Neil, &Dichter, 2004; McEwen, 2009a). Ethical and fiduciary dilemmas may add conflict and confusion to the clinical decision making process in determining which service delivery model will best meet the student's unique needs; therefore, a physical therapist working in the school setting must possess advanced clinical decision-making skills and a broad-based knowledge of the resources and options available to a local educational agency (Effgen et al., 2007).

The need for this type of physical therapist is not exclusive to educational settings (Rapport, Stelzner, & Rodriquez, 2007). Advances in healthcare and the increasing complexity of service delivery have stimulated the physical therapy profession to recommend the pre-service professional education for a physical therapist be at the professional doctorate level (Rapport et al., 2007). Practitioners with this three-year graduate school doctor of physical therapy (DPT) degree should be better qualified to deliver each model of care required

in the school system (Rapport et al., 2007). In addition to adopting a new pre-service education level, existing physical therapists have been encouraged by APTA's Vision 2020 (http://www.apta.org) to seek formal education to acquire equivalent competencies to the professional doctorate. The APTA recommended fast-track post-professional doctor of physical therapy degree, also frequently referred to as a transitional doctor of physical therapy degree (t-DPT), is designed to offer practicing physical therapists an opportunity to demonstrate equivalent competency in the doctoral outcomes through awarding of graduate-level credit in recognition of prior academic knowledge and work experience as well as requiring additional formal coursework (http://www.apta.org). According to the transition doctor of physical therapy (t-DPT) degree frequently asked questions section of the APTA website, the t-DPT "reflects an augmentation in the physical therapist professional body of knowledge and practice over the last 5-10 years" (http://www.apta.org). The modules of study recommended by the APTA (2006) for the post-professional doctor of physical therapy curriculum closely match the competencies for physical therapists working in the public school setting as defined by Effgen et al. (2007). (See Table 1)

The following case report demonstrates the application of the enhanced knowledge gained by one physical therapist that was acquired through the post-professional doctor of physical therapy curriculum of the University of New England. The aim of this case report is to describe the impact of this knowledge on one physical therapist as a special education related service provider, and thus on one student.

STUDENT BACKGROUND

The student was a fifth grade male with grade level academic ability and uncompromised verbal ability attending an intermediate school during the last quarter of the school year. His academic performance was at or above grade level expectations in all core academic subjects at the beginning of the school year. He had a medical diagnosis of spastic quadriplegia cerebral palsy. The student's Gross Motor Function Classification, Expanded and Revised 2007 version, was Level III indicating that he was ambulatory with a posterior walker, but would use a self-propelled manual wheelchair for long distances or when fatigued. Transfers were performed independently utilizing upper extremity support. The family reported the student primarily used a posterior walker for community mobility and the student was independent in all transfers and personal care needs at home with the exception of donning bilateral

Table 1.

Effgen et al.'s (2007) Updated Competencies for PT's Working in Schools	**APTA's (2006)** ***The Preferred Curricular Model for the Transition Clinical Doctoral Program and Learner*** **Related Modules**
1. Context of Therapy Practice in Educational Settings	#14 & 33 Role, Responsibility and Accountability #15 Role of an Educator #28 Delivery Systems Legislation & Regulation #30 Corporate/Legal & Regulatory Factors
2. Wellness and Prevention	#11 Theories on Wellness & Prevention
3. Team Collaboration	#13 Communication & Cultural Competencies
4. Evaluation	#17 Examination: Health Systems Screening for Pathophysiology #18 Systems review #19 Tests & Measures #26 Use & Interpretation of Outcome Measures
5. Planning	#20 Evidenced-Based Prognosis, Prevention, and Plan of Care #21–25 Coordination and Provision of Evidenced-Based (EB) Interventions Across the Lifespan #27 Risk Reduction
6. Intervention	#21–25 Coordination and Provision of EB Interventions Across The Lifespan
7. Documentation	#8 Research Methods/Design #13 Communication & Cultural Competencies #19 Tests and Measures #26 Use & Interpretation of Outcome Measures
8. Administration	#13 Communication and Cultural Competencies #30 Corporate/Legal & Regulatory Factors
9. Research	#8 Research Methods/Design #9 Evidence-Based Clinical Decision Making #16 Clinical Reasoning and Diagnostic Decision-Making #20 Evidenced-Based Prognosis, Prevention, and Plan of Care #21–25 Coordination & Provision of EB Interventions Across the Lifespan

lower leg braces, described as floor reaction ankle-foot orthoses (AFO's), and shoes. The student had an established gross motor goal and objectives included in his individualized educational plan (IEP) as illustrated by Table 2.

The existing physical therapy service delivery model being implemented was direct service for two weekly 45 minute sessions consisting of gait training, balance activities, wheelchair mobility, stretching/range of motion, transfer training, and neurodevelopmental and manual therapy techniques. Direct physical therapy was performed in a room designated for physical and occupational therapy or in the hallways of the school. Treatment focused on acquisition of higher level functional skills to meet the gross motor goal and objectives. This service model required the student be pulled out of his science class.

A one to one female paraprofessional had been assigned to the student for assistance at school. Her duties included providing physical assistance for mobility such as opening doors and transporting the student inside and outside the school. Academic support such as loading educational materials onto the student's laptop was also provided. The paraprofessional was always near the student to provide assistance as needed. The paraprofessional expressed concern for the student's safety in school, but reported no incidents of falls or injury.

Earlier in the school year an outside physical therapy consultant evaluated this student to address questions the educational team had related to safety and function in the school environment. The consultant recommended the student independently use the bathroom with a wheelchair, but not a walker, based on the expressed concerns of staff regarding slipping on a wet floor.

Table 2.

Student IEP Goal and Objectives

Goal: The student will improve independence in mobility throughout the school to access all areas and activities.

Objectives:

1. The student will manage all transfers safely and independently.
2. When standing, the student will balance in a safe and upright posture.
3. The student will move in his walker and wheel chair with appropriate speed and control.
4. When traveling in a walker or wheelchair, the student will follow the "rules of the road" (i.e. granting the right of way, looking around corners or in/out of doorways before proceeding, keeping to the right side of the hallway, etc.).
5. The student will move throughout the classroom, taking responsibility to "look" before he "moves."

Rubber floor mats for the handicapped accessible bathrooms were recommended and installed to further reduce the risk of falls. The consultant also determined that sitting on a bench at the cafeteria table was not safe for the student based on concerns of cafeteria staff and the height of the bench and table not being ideal. Since the path to go outside for recess was bumpy, and staff members expressed concerns for the student's safety, the consultant recommended that the student use a wheelchair pushed by staff for this activity. For physical education class the consultant recommended the student use a wheelchair for all activities that require use of upper extremities. The consultant provided the student with some lower extremity strengthening and stretching exercises for home in order to help with mobility, despite restricting his mobility in the school setting.

NEED FOR A CHANGE

The family of this student had high expectations for their child's future. They expected their child to continue to get A's and B's for all academic subjects, be present in the classroom, participate fully in his education, and complete coursework as independently as possible. The family felt that this student's strengths were his cognitive abilities and had plans for this student to attend college after completion of high school. The family also expected him to have opportunities for independent mobility in the school in order to open up opportunities for social interaction with peers. The family saw technology as their child's best option for maximizing his academic strengths to increase their child's options for future higher learning.

The educational team also had goals for this student; however, each member of the team had separate goals based on area of responsibility. According to McEwen (2009a), annual goals should be determined by all members of the planning and placement team and focused on the student's desires. Goals should not be the goals of the various disciplines, but the goals of the student and should be addressed by all team members (McEwen, 2009a). This educational team had designated the gross motor mobility goal and objectives as the responsibility of the physical therapist. Staff were concerned with safety and uncomfortable with the student walking in school with a posterior walker during times of high traffic in the hallways. Responding to the prior consultant's recommendations, staff repeatedly expressed concerns about the student falling at school despite only one non-injury fall at school in 6 years. The conflict of expectations between the student's parents and educational staff resulted in planning and placement team meetings for the student lasting 3 to 4 hours. The lack of consensus between school staff, and the parents and the student

had prevented collaboration on setting realistic goals. Although a comprehensive physical therapy evaluation had been performed within the scope of the APTA's practice guidelines (APTA, 2003), staff's fears predominated over objective clinical data and evidence regarding the student's actual functional abilities. Overwhelming educational staff fear created a distraction from adopting student-first thinking in which meeting the student's needs is the educational team's priority. As a result, the quelling of staff's fears was the primary objective of the previous physical therapists' strategy and intervention.

At the beginning of the school year the student's letter grades in all of his academic subjects were A's and B's. As the school year progressed, the student's test scores in science fell to a D as his class attendance continued to be interrupted by the physical therapy direct services. Concerns about the student missing core academic subjects motivated the parents to request physical therapy be rescheduled during the student's physical education class time. The therapist that was currently employed by the school was unable to accommodate this request due to multiple site commitments.

The negative impact on the student was evident. The student verbalized feeling annoyed by hovering adults, which was collaborated by staff reports of the student acting rude or demanding at times. The student also reported feeling that no one would listen to him or believe him when he said he was able do something. He was very discouraged by his poor grades in science and felt he was in a no win situation. He wanted to do well in school but felt that missing so much class time for physical therapy made keeping up in science impossible for him. In addition to this student's frustration with the situation, when the mandated statewide standardized testing results were released, this student reached the state goal for all subjects except science, thus not meeting the objectives of No Child Left Behind (Subcommittee on Education Reform of the Committee on Education and the Workforce, 2005).

THE CHANGE

A new physical therapist was hired to meet the student's parents' request to have their child's physical therapy sessions take place during physical education class in order to prevent further disruption of their child's attendance in science class. The new therapist was near completion of a post-professional doctor of physical therapy program through the University of New England. As requested, direct physical therapy services were provided during physical education classes to meet the requirements of the IEP.

Using observation and a stop watch to record the time needed for the student to independently ambulate between classes, the therapist noted that the

student was within safe and adequate performance parameters for ambulating with his walker between classrooms, and that he could demonstrate cognitive assessment necessary to change his actions based on environmental conditions. The therapist observed that the student was independent in ambulation with his posterior walker and followed the "rules of the road" in the same manner as his peers, and could demonstrate appropriate speed and control thus meeting most of the student's IEP gross motor objectives. Since the student's ability to access the school's bathroom facilities with his walker had not been evaluated since the installation of the rubber floor mats, the therapist observed the student's functional mobility in the bathroom using a walker and noted that the student moved safely and independently with the exception of opening the heavy spring-closing door to exit the room. The remaining objectives of looking before moving in the classroom and the ability to stand balanced in a safe and upright posture were also noted to be met.

The University of New England's post-professional doctor of physical therapy curriculum includes competencies in using standardized norms, advocacy, patient-centered care, health and wellness promotion, evidence-based practice, healthcare management, clinical decision-making, and pharmacology. By applying this enhanced knowledge to this case, a new list of the student's needs was generated. (See Table 3)

Using information gained from this curriculum regarding federal and state legislation and policy the therapist determined that this student was being denied opportunities to build and practice functional mobility skills crucial to independent living skills (Damiano, 2006; David, 2005). The reauthorization of IDEA in 2004 emphasizes these skills (David, 2005). By limit-

Table 3.

Approach and Needs List Identified Prior to Application of Enhanced Knowledge	Approach and Needs List Identified by Application of Enhanced Knowledge
1. Prevent falls 2. Prevent bumping into people and objects in hallways and classroom 3. Keep staff comfortable 4. Limit participation to promote safety 5. Ask staff about student needs 6. Education staff work individually on setting and achieving goals for student	1. Physical Activity 2. Educate staff to relieve fears and reveal students abilities 3. Full participation in educational program 4. Independent unsupervised mobility to allow for socialization with peers 5. Consult student in decision making 6. Foster team approach in meeting student's needs

ing this student's opportunities for functional mobility within the school, IDEA was being violated. Since the student was not permitted to participate in physical fitness testing in his physical education class, state standards for physical fitness testing were also being violated (Connecticut Physical Fitness Committee, 2009) as well as Title II of the Americans with Disabilities Act (U.S. Department of Justice, 2005).

A need for student-centered rather than organizational-centered care was demonstrated in the conflicting scheduling and health beliefs of those involved in the education of this student. Similar to misconceptions regarding individuals with disabilities identified by Thompson (2007), the staff 's beliefs that this student was frail, weak, and needed protection were the largest barriers to functional mobility at school. The educational staff had health beliefs regarding persons with disabilities that made them uncomfortable allowing the student use his walker at school. The other students in the school were allowed to engage in play and physical education class activities which could potentially result in a fall or minor injury, but this student was not. Health and wellness promotion course work from the post-professional curriculum was used to help staff understand that although this student had a different way of doing things, he was safe and independent (Thompson, 2007). Helping staff to understand that the student was not injured, weak, or frail helped them to view him as capable. Evidence-based practice principles were applied to educate staff utilizing the Physical Activity Guidelines Committee Report by the U. S. Department of Health and Human Services (2008) and information from the National Center on Physical Activity and Disability (2009) to emphasize the need for activity for persons with disabilities. The team was encouraged to view the student as a fifth grader first and a student with a disability second (Henderson, 2006). Circulation of *Assistance to Pupils with Physical Disabilities in Regular Schools: Promoting Inclusion or Creating Dependency* written by Egilson and Traustadottir (2009) to the educational team helped them to see similarities between this student and his peers. Understanding that this student wanted to do the same things his peers were doing, and that other students did not have staff hovering and scrutinizing their every move, helped staff to understand the motive behind this student's desire and need to be more physically active and independent during the school day (Egilson & Traustadottir, 2009). What educational staff previously considered at times not following the "rules of the road" was then considered typical fifth grade behavior. When staff were asked if they would pull the coat off any other fifth grader without asking if they would like help, they realized how intrusive and degrading their actions were and that they were stripping the student of the opportunity to do it himself and benefit from the practice. Staff were reminded of steps they could take to create an environment that

promoted dignity and independence (Egilson & Traustadottir, 2009; Henderson, 2006; Shields, Murdoch, Loy, Dodd, & Taylor, 2006). As discussed by Rosenbaum and Stewart (2004) not only physical but also social environment must be included in the assessment of a student in order to develop appropriate intervention because the beliefs and attitudes of those around the child can affect the student's level of participation.

The therapist also applied knowledge from coursework on evidenced-based practice to modify the warm-up activities for this student's physical education class. Based on studies performed by Damiano and Abel, (1998), Eek, Tranberg, Zügner, Alkema, and Beckung (2008), and Unger, Faure, and Frieg (2006), the physical education teacher was asked to incorporate standing squats and lunges into the existing class warm-up activities to help increase lower extremity strength of this student to further enhance functional mobility. The physical education teacher was provided with The Brockport Fitness Test, an evidence-based alternative fitness test for persons with disabilities, which included specific instructions for administration for students with various conditions (Winnick & Short, 1999). Findings by Damiano (2006) provided evidence-based information to educate staff on the benefits of practice of functional skills for children with cerebral palsy.

Information gleaned from coursework in healthcare management and fostering teamwork (Liebler & McConnell, 2008) was instrumental in assisting the therapist in building teamwork in meeting this student's mobility needs. Developing an understanding among team members that the student's mobility needs were the responsibility of the entire team and not just the physical therapist (McEwen, 2009a) was beneficial in motivating the team to encourage use of functional mobility skills outside of therapy time (Damiano, 2006). Opening up opportunities to utilize functional mobility skills within the natural context of the school day provided the student with the increased activity he needed (Damiano, 2006; Effgen et al., 2007; McEwen, 2009a). Explaining to the staff that the student has worked very hard to achieve his mobility skills and that if not practiced, the student may lose them (Bottos M, Feliciangeli A, Sciuto L, et al., 2001; Dan, 2007; National Center on Physical Activity and Disability, 2009), provided the staff with strong encouragement and confidence to allow the student to apply mobility skills that he had been using in the community at school as well.

Since socialization with peers was of high importance for this student, his parents decided to try a medication to help decrease this student's drooling. Applying knowledge from pharmacology coursework gave the therapist an understanding that the medication may make the student tired and prone to constipation (Roach, 2005), thus making walking even more important to contributing to his overall health, comfort, and adding to the list of reasons

the educational staff should encourage this student's ambulation at school (Park, Park, Cho, Na, & Cho, 2004).

By applying skills acquired in clinical decision-making coursework, the therapist established an objective step by step method that was applied to identify student desires and needs (McEwen, 2009a; Schenkman, Deutsch, & Gill-Body, 2006), not staff needs or fears, and select an appropriate physical therapy service delivery model. After observation of the student, discussion with the educational staff, and discussion with the student and his parents, the primary identified student need was for physical activity, which did not require skilled direct physical therapy. With little modification, the need for physical activity could be met through daily functional activity and full participation in physical education class (Damiano, 2006; Eek et al., 2008; Unger et al., 2006). Among limited evidence regarding selection of service delivery, Kaminker et al. (2004) found two researchers that compared direct services with consultation with no difference in motor outcomes and that teachers prefer the consultation model of physical therapy service delivery. Kaminker et al. (2004) also found extensive research to support integrative service delivery which incorporates opportunities for practice over isolated service delivery.

Large changes were made to the student's IEP for the next school year incorporating all of the previously stated recommendations. The student was ending his time in an intermediate school and would be attending a middle school the next year. A tour of the middle school building with the student revealed bathroom doors that were not automatically closing and an environment which would serve this student's need for physical activity well. The end of the year planning and placement team meeting which also included transitioning to the middle school took only one and a half hours with all team members in agreement with the new IEP.

OUTCOME OF CHANGES

Other than a greatly reduced planning and placement team meeting time, the outcomes from the changes to the student's IEP included meeting the student's needs for increased daily activity, increased ambulation distances, full participation in physical education, participation in fitness testing, independent bathroom use, independent mobility throughout the school, more opportunities for socialization with peers, student directed decision making, self reported improved student self esteem, improved academic grades, and decreased expense to the school district for less direct physical therapy services. Cost reduction to the school included the elimination of one and a half hours

of direct physical therapy time per week and a reduction in the hours the student required assistance from a paraprofessional aide.

DISCUSSION/IMPLICATIONS FOR THE FIELD

According to Today in PT's website (http://www.todayinpt.com) thirty-nine states in the United States require physical therapists to attend between 10 and 20 hours per year of continuing education to maintain licensure. Practicing physical therapists are faced with many choices in meeting these requirements as well as various avenues to enhance their skills and maintain their competency. With the recent shift in the education of physical therapists from an entry level master's level program to an entry level clinical doctorate program (Rapport et al., 2007), the transitional doctor of physical therapy (t-DPT) program offered by many schools provides the opportunity for currently practicing physical therapists to utilize these t-DPT programs to enhance their skills.

There are several names used to describe post-professional DPT programs, such as transitional DPT, transitional clinical DPT, post-professional transitional DPT, and post-professional clinical DPT (http://www.apta.org). As of October 2008 there were 71 post-professional DPT programs in the United States with another four programs in the development stage (APTA, 2008, p. 1). The DPT is considered a clinical doctorate and similar to the level of education that is now seen in the fields of audiology and pharmacy (Rapport et al., 2007). It is not a PhD, doctor of philosophy, but a three year graduate degree which goes beyond a master's level education (http://www.apta.org).

In the APTA's *2008 Report on Transition DPT Programs* 59 out of 71 programs responded to a survey (p. 1). In that survey 70.7% of respondents stated they used their current DPT curriculum to develop their t-DPT curriculum (APTA, 2008, p. 4). Respondents to the survey often used the APTA's *Normative Model for Physical Therapist Professional Education* and Descriptions of Specialty Practice (51.7%) to develop t-DPT curriculum as well as APTA's *Transition DPT Competencies* (50.0%), review of other t-DPT program curricula (50.0%), and surveys of alumni and their needs (50.0%)(APTA, 2008, p. 4). The APTA's *Preferred Curricular Model* was used by 43.1% of respondents in t-DPT curriculum development (APTA, 2008, p.4). Although the APTA provides *The Preferred Curricular Model for the Transition Clinical Doctoral (t-DPT) Program and Learner* colleges and universities are not required to use this model. "The majority of programs indicated the DPT program content is consistent with the philosophy of a t-DPT program to address the knowledge gap between when a learner graduated and entered

practice and where the current professional DPT graduate enters practice, and that t-DPT program content is congruent with professional DPT content" (APTA, 2008, p. 5).

Due to the recent and changing availability of post-professional DPT programs (APTA, 2008), clinicians with this new degree are still emerging into the field. Rapport et al. stated that "it is likely that a physical therapist with a DPT will bring their own expanded knowledge base to the school based team" (2007, p. 73). This case study clearly demonstrates the value of the expanded knowledge base of the post-professional doctor of physical therapy curriculum to the consultant physical therapist in this study. Without the enhanced knowledge from a post-professional doctor of physical therapy degree, the two previous physical therapists in this study were challenged in seeing past the overwhelming staff concerns and fears to the big picture for this student's future. Possessing a more student/patient-centered philosophy as promoted in post-professional DPT programs, may have aided the previous therapists in focusing more objectively on the student's needs rather than the staff's fears. The impact of their recommendations and the selection of service delivery may have resulted in a better outcome for the student. McEwen reiterates the need for education beyond the general physical therapist education program "to work appropriately and effectively with children with disabilities under IDEA" (2009a, p. 15). Effgen et al. emphasize the need for physical therapists to dedicate themselves to "life long learning to remain competent practitioners" (2007, p. 273).

Several authors emphasize the IDEA legislation position that special education and related services must be based on peer-reviewed research to the extent practical (David, 2005; Effgen, et al., 2007; McEwen, 2009a). *The Preferred Curricular Model for the Transition Clinical Doctoral (t-DPT) Program and Learner* (APTA, 2006) contains 10 out of 33 modules related to understanding, interpreting and applying evidence in physical therapy practice. Not only does the APTA recommended post-professional doctor of physical therapy curriculum enhance the skill of the school based therapist in use of evidence in practice, but it is also a skill mandated by IDEA (David, 2005). In this case the student benefited from the use of evidence-based practice to not only demonstrate competence and need for ambulation throughout the school day, but also to enhance his physical education class warm-up to better serve his needs. The use of evidence was also instrumental in demonstrating to the staff that by incorporating activity and exercise into the student's school day, utilizing a physical therapy consultation model of service delivery was the best choice to meet this student's needs.

By applying enhanced skills in advocacy, wellness, and prevention, the post-professional educated physical therapist was able to remove one of the

largest barriers to the student's mobility, the staff's fear. The new therapist initially assigned to this case to merely accommodate a schedule conflict applied enhanced knowledge to significantly modify the student's education plan and achieve the desired outcomes expressed by the student and family.

When delivery of related services inhibits academic success in a college bound student, change is a must to avoid violating IDEA's goals of promoting academic and functional living skills. By utilizing skills obtained through the post-professional doctor of physical therapy studies, this student's true needs were identified and evidence-based practices were put in place to create an educational program in alignment with IDEA. Although clinical skills may be enhanced through various avenues such as continuing education seminars, clinical specialist designations, and acquisition of specific advanced therapeutic techniques, this therapist concluded that the post-professional DPT program provided a complete package of enhanced knowledge to effectively manage all aspects of this case. Also, the coursework on technical writing that is included in the post-professional doctor of physical therapy curriculum (McEwen, 2009b) has provided the author with the inspiration and skills to share this case report.

According to McEwen (2009b), "case reports can't prove effectiveness, but they can lead researchers to do the kinds of studies that will." This case report is limited to the individuals involved in this case and can only serve as a description of practice (McEwen, 2009b). By sharing one example of how this particular graduate degree can translate directly into enhancement of day to day practice, other school based physical therapists may wish to further investigate post-professional doctor of physical therapy degree programs to explore the potential to enhance their own practice. The expense and time required to complete a post-professional doctor of physical therapy degree may be large barriers for many school based physical therapists who may find similar outcomes from other educational opportunities. Many school based pediatric therapists acknowledge the need to incorporate evidence based practices into their clinical decision making, but lack the confidence and ability to do so (Schreiber, Stern, Marchetti, Provident, & Turocy, 2008). This case report provides one example of skills gained by one physical therapist to directly incorporate evidence based practices into the school setting, which may encourage others to consult and apply research evidence more often in their practice with or without completion of a post-professional doctor of physical therapy program. Further study is needed to compare other opportunities for enhancing the knowledge of school based physical therapists to determine if the post-professional doctor of physical therapy degree produces similar outcomes against other avenues of physical therapist education.

CONCLUSION

Physical therapists working in a school setting may benefit from pursuing a post-professional doctor of physical therapy degree to enhance their skills. The APTA recommended post-professional doctor of physical therapy curriculum is valuable in increasing the knowledge of the school based physical therapist. Direct application of enhanced knowledge is demonstrated by this case. The previous therapist's attempt to "fix" the student by adding more therapy and removal from the classroom was detrimental to this student's overall life goals and counterproductive to parental expectations. The solution in this case was found by applying objective clinical decision-making, evidence-based medicine/educational practices combined with principles of health promotion while fulfilling the intent of IDEA legislation. Collaborating and working with the educational team allowed for development of a service delivery model which resulted in effectively and efficiently meeting the student's needs utilizing resources already available within the school setting.

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