

Report

# Positioning Occupational Therapy to Better Support Students with Neurodevelopmental Disorders: A Position Paper on Addressing Policy and Practice Gaps

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## Abstract

The Individuals with Disabilities Education Act mandates that students with disabilities, including neurodevelopmental disorders, have access to a free and appropriate education in the least restrictive environment. Occupational therapy is vital in supporting the educational and developmental needs of these students by fostering engagement in both academic and non-academic settings. However, despite federal guidelines, occupational therapy service implementation remains inconsistent across schools, often reflecting varying degrees of awareness among school personnel regarding occupational therapy's scope and objectives, particularly for students with neurodevelopmental disorders. This paper examines the delivery of school-based occupational therapy services for students with neurodevelopmental disorders and addresses challenges in achieving consistency and effectiveness in meeting these students' unique needs. The misconceptions about occupational therapy's role, variability in state policies, and gaps in interprofessional collaboration contribute to these challenges. The importance of interprofessional collaboration defined roles, and the alignment of legislative frameworks with the practical application is highlighted to maximize occupational therapy's impact on supporting students with neurodevelopmental and other disabilities. This paper advocates for the enhancement of occupational therapy service delivery through the improvement of the integration and enhancement of multidisciplinary teams and a clearer legislative guideline that will ensure students receive the services they need. Occupational therapy practitioners are fully equipped to address the needs of students. Improvement of training and awareness with all school professionals and the understanding of occupational therapy services are discussed to maximize the impact of supporting our students.

## Keywords

Occupational Therapy, Neurodevelopmental Disorders, Interprofessional Collaboration, Legislative Guidelines, School-based Settings

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## 1. Introduction

The Individuals with Disabilities Education Act (IDEA), originally established in 1990 to replace the Education for All Handicapped Children Act, has been a cornerstone of supporting the educational rights of students with disabilities. Updated in 1997, and revised in 2004 through the IDEA Improvement Act, it ensures that all students, regardless of disability status, receive a free and appropriate public education in the least restrictive environment [1]. The 2004 amendments introduced provisions to streamline processes, enhance accountability, and promote early intervention services, including occupational therapy (OT) as a related service for students. Additionally, the Every Student Succeeds Act (ESSA), 20 U. S. C. § 6301 [2], identifies occupational therapists as “specialized instructional support personnel” (SISP), highlighting their role in supporting teachers through school-wide initiatives and training [3]. While these federal laws establish a framework for OT services, their implementation varies across public school systems due to differences in state OT practice acts, local education agency policies, and interpretations of guidelines. This variability can influence how school-based OT practitioners participate in multi-tiered systems of support (MTSS), which emphasizes a multidisciplinary approach to addressing students' unique educational needs.

As mandated by IDEA, OT practitioners play a critical role in early intervention and educational settings, supporting individual students, families, multidisciplinary teams, and entire school communities to foster inclusive and accessible learning environments. Within schools, the role of OT focuses on enhancing students' participation in both academic and non-academic activities by addressing barriers, fostering skill development, and creating supportive environments (American Occupational Therapy Association, 2020) [4].

### 1.1. The Role of Occupational Therapy in School-Based Settings

Occupational therapists and occupational therapy assistants provide vital and unique support for students within school-based settings by addressing needs that enable students to engage in school-related activities [5]. OT focuses on a distinct area service—therapeutic use of occupations. Therapeutic occupations are the everyday activities that individuals engage in to promote health and well-being [4]. Related to the context of school, occupations often addressed include tasks such as; reading, writing, classroom participation, social interactions, self-care, play, feeding/eating, attention to task, and sensory needs [6]. These occupations serve as foundational skills essential for success in the classroom, school, and beyond, supporting both academic performance in schools and the social performance and development of the child.

OT supports children by evaluating their functional performance in motor, sensory, and social skills, helping to

identify specific barriers that may hinder their success in school. Based on these evaluations, occupational therapists develop individualized intervention plans tailored to each student's unique needs. These plans are reviewed and updated annually, or more frequently, if necessary, to address the student's evolving needs and goals. In addition to conducting comprehensive evaluations, and developing and implementing individualized plans, school-based OT practitioners utilize activity- and occupation-based interventions guided by evidence to promote participation and enhance performance in the school settings [6]. Collaborating with other school professionals and SISP, occupational therapists ensure that interventions align with broader educational objectives. This collaborative, multidisciplinary approach ensures that services are holistic and seamlessly integrated into the student's overall school experience. The ultimate goal is functional independence for each child, supporting the IDEA vision of providing all students with “access to the same learning opportunities as their non-disabled peers” [1].

Furthermore, school-based practitioners are well-equipped to support teachers and students within the MTSS framework, building capacity in areas such as “social-emotional learning, sensory processing, handwriting, positive behaviors, motor skills, self-care, engagement, and participation” [7]. This is especially crucial for students with neurodevelopmental disorders, who require support and interventions to address various client factors and performance skills essential for academic achievement.

### 1.2. Services for Neurodevelopment Disorders

Neurodevelopmental disorders (NDDs) refer to a group of conditions characterized by deficits involving impairments in cognition, communication, behavior or motor skills associated with brain development [8] which lead to challenges in personal, academic, social, or occupational functioning (American Psychiatric Association, 2013) [9]. These disorders include conditions such as autism spectrum disorder (ASD), attention-deficit/hyperactivity disorder (ADHD), and intellectual disability (American Psychiatric Association, 2013) [9]. According to the Centers for Disease Control and Prevention, 1 in 36 children is diagnosed with ASD, and 11.4% of children are diagnosed with ADHD (Centers for Disease Control and Prevention, 2024a; Centers for Disease Control and Prevention, 2024b) [10, 11]. Children with NDDs have an elevated risk of reduced psychological, social, and physical well-being [12] and often need to be seen by a variety of licensed practitioners and medical specialists. Evaluations for individuals with NDDs often encompass cognitive, social-emotional, behavioral, physical, sensory and speech assessments [13] to address their unique challenges comprehensively, support their developmental milestones, and enhance their ability to participate fully in daily life activities.

Occupational, physical, and speech therapy are among the most common services provided to children with NDDs often starting from early childhood or even at birth. Children receive a range of services from healthcare providers, including early intervention and school-based services, which come at a significant cost to families, schools, and communities (Hall et al., 2023) [14]. The interdisciplinary team plays a critical role in supporting children with motor, processing, and social interaction skills (American Occupational Therapy Association, 2020) [4]. Collaboration fosters a shared understanding of student needs and leads to interprofessional interventions tailored to each individual. In the school system, this approach often involves other SISPs such as physical therapists, speech-language pathologists, social workers, counselors, psychologists, special education teachers, and other school administrators. Together, these professionals with the collaboration with family can develop and implement strategies that address motor, sensory, cognitive, behavioral, and social domains critical for success in school. Furthermore, this team-based approach helps reduce misconceptions about OT's role by establishing direct communication between therapists, school personnel and the community.

## 2. Challenges in OT Service Delivery in School-Based Settings

Despite legislative and professional guidelines for services, there are significant gaps in the understanding and implementation of OT's role in school systems. The role of OT is often not fully understood or clearly defined, and expectations for interventions and outcomes vary greatly across schools. As highlighted by the American Occupational Therapy Association (2023) [15], confusion persists regarding the role of occupational therapists as SISP. Misunderstandings among teachers and other educational staff about the role of OT in schools can hinder service delivery and limit the effectiveness of interventions for students. For instance, common misconceptions include the belief that only special education students can receive services, that school-based practitioners are restricted to evaluating only the area of concern for which the student was referred, and that services must be limited to those deemed educationally relevant to students in special education (American Occupational Therapy Association, 2023) [15]. These misconceptions can restrict referrals for OT services and reduce their overall impact in schools.

An unpublished study conducted by graduate students exploring OT services in schools revealed key inconsistencies in service delivery and understanding of OT's role [16]. The study survey, which collected responses from educators, school administrators, and OT practitioners, found that many respondents were unclear about the full scope of OT's contributions to students with disabilities,

particularly those with neurodevelopmental disorders [16]. School personnel reported underutilizing OT services or misinterpreting their purpose, with some believing that OT was only for students in special education or that its focus was too narrowly defined. The survey also highlighted that in many cases, OT services were not fully integrated into the MTSS, leading to missed opportunities for students to benefit from OT's potential contributions across academic, behavioral, and social domains [16]. These findings support a broader concern in the field—OT services in schools are often inconsistent and insufficiently recognized, limiting their potential impact.

In addition, state-level guidance often lacks specificity in defining the role of OT within school-based settings. For example, Virginia's *Handbook for Occupational and Physical Therapy in Public Schools* outlines general roles for occupational therapists, but lacks detailed, actionable guidelines for daily practice and has not been updated since 2010 (Virginia Department of Education, 2010) [17]. Additionally, the Virginia Department of Education website provides vague information regarding OT service provisions [18]. This lack of clear, uniform guidelines can hinder the consistent and effective integration of OT into school systems, ultimately impacting service delivery for students.

## 3. Improving Collaboration and Addressing Misconceptions

Given these challenges, there is a need to enhance understanding and collaboration between OT practitioners and school personnel. Collaborative practices that include teachers, paraprofessionals, administrators and related service providers in the OT process can foster a more holistic approach to supporting students, particularly through consultation and MTSS delivery models. A scoping review of 40 studies from 14 occupational therapy journals, focusing on school-based OT in elementary schools, consistently emphasized the importance of collaboration to leverage the unique expertise of all stakeholders involved [19]. By improving awareness of the broad scope of OT's role, particularly in supporting neurodevelopmental, cognitive, and behavioral needs, school teams can more effectively leverage OT services to support students' success (Saffer, 2024) [5].

Furthermore, the implementation of IDEA needs to be more consistent across schools. Issues arise when school personnel, including occupational therapists, do not follow the established guidelines set by IDEA and instead focus their intervention services on only a limited range of areas. By shifting the focus from individual deficits to contextual factors, educationally relevant tiered interventions can be implemented [19]. This inconsistency leads to discrepancies in service delivery, limiting the potential benefits of occupational therapy OT for students with neurodevelopmental dis-

orders.

#### 4. Improving the Role of Play in Promoting Development and Well-Being

The attainment of health and well-being for children with NDDs can be significantly improved through everyday occupations, particularly through the childhood occupation of play. The role of play in promoting development and well-being is central to the foundation of health and occupational therapy, as it allows children to engage in health-promoting activities that support physical, social, and cognitive growth. As Wilcock and Hocking (2015) [20] highlight, the "doing" of these everyday occupations fosters the crucial connection between health and occupation, demonstrating how occupation-based interventions—such as structured play—are essential for addressing the specific needs of children with NDDs. A study by Peng et al. [21] found that physical activity helped improve symptoms of ASD in children and adolescents, which can be incorporated into structured play to enhance both physical and mental health outcomes. Integrating these occupations into daily routines not only supports individual health outcomes, but also promotes a broader public health approach that enhances the overall quality of life for children within their communities. Occupational therapists are uniquely positioned to lead these efforts by understanding and implementing strategies that address students' diverse needs, fostering collaboration within school teams, and advocating for inclusive, evidence-based practices that promote student achievement.

#### 5. Recommendations for Enhancing Occupational Therapy in Schools

To maximize the impact of OT in schools, it is essential to enhance interprofessional collaboration, improve training and awareness among school staff, and ensure that OT practitioners are fully integrated into MTSS. By aligning OT services with the broader goals of IDEA and addressing both policy and practice inconsistencies, we can ensure that students with NDDs receive the comprehensive support they need to thrive academically and socially.

To enhance collaboration and clarify OT's role within schools, it is essential to advocate for professional development opportunities tailored for school personnel. Much of the work surrounding interprofessional education occurs in healthcare settings, leaving a gap in school environments during students' professional training. A potential solution is to develop a framework for integrating OT into school-based team approaches, such as implementing targeted training modules or conducting joint workshops. These initiatives can foster a shared understanding of OT's contributions and promote effective, team-based strategies that support student

success.

#### 6. Conclusion

Occupational therapy is vital in supporting students with NDDs, particularly in educational settings. Despite the mandates of the IDEA, significant gaps in policy and practice hinder the full implementation of OT services across schools. These gaps arise from a lack of clear, consistent guidelines and misunderstandings among school personnel about the scope and role of OT in supporting students with disabilities. Through collaboration, education, and continued advocacy, OT can play a critical role in fostering inclusive and accessible learning environments, ultimately helping students with NDDs reach their full potential. The recommendations outlined in this paper aim to strengthen OT's role in schools and ensure that all students, regardless of disability, have equal access to opportunities for learning, development and achievement.

#### Abbreviations

|      |   |
|------|---|
| IDEA | Individuals with Disabilities Education Act |
| OT   | Occupational Therapy                        |
| ESSA | Every Student Succeeds Act                  |
| SISP | Specialized Instructional Support Personnel |
| MTSS | Multi-Tiered Systems of Support             |
| NDDs | Neurodevelopmental Disorders                |
| ASD  | Autism Spectrum Disorder                    |
| ADHD | Attention-Deficit/Hyperactivity Disorder    |

#### Author Contributions

**Cathy Felmlee Shanholtz:** Conceptualization, Writing – original draft

**Callie Victor:** Writing – original draft

**Michelle Gamber:** Writing – review & editing

#### Conflicts of Interest

The authors declare no conflicts of interest.

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