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# What Influences School-Based Occupational Therapists' Decision-making? a Qualitative Study

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WHAT INFLUENCES SCHOOL-BASED OCCUPATIONAL THERAPISTS'  
DECISION-MAKING? A QUALITATIVE STUDY

by

Cynthia H. Clough

A Dissertation Submitted in  
Partial Fulfillment of the  
Requirements for the Degree of

Doctor of Philosophy  
in Urban Education

at

The University of Wisconsin-Milwaukee

August 2017

## ABSTRACT

### WHAT INFLUENCES SCHOOL-BASED OCCUPATIONAL THERAPISTS' DECISION-MAKING? A QUALITATIVE STUDY

by

Cynthia H. Clough

The University of Wisconsin-Milwaukee, 2017  
Under the Supervision of Professor Rajeswari Swaminathan

**Background:** Occupational therapists in school-based practice make daily service delivery decisions about when, where, and how to provide interventions to children with disabilities. The services provided by these occupational therapists have the potential to support or limit a child's access to general education curriculum and environments which, in turn, impacts vocational, financial, social, and community life outcomes. Service delivery decisions about pulling children out of classrooms, pushing services into classrooms, and / or providing consultation are made based on the ways therapists define and differentiate their role from that of other school personnel, how they interpret Individual Education Plans for children, and conceptual ideas they hold about the needs of children with disabilities.

**Purpose:** To uncover the layers of interacting factors that therapists navigate in making service delivery decisions. **Methods:** Data were collected using qualitative semi-structured interviews with fourteen therapists in metropolitan areas in a Midwestern state.

*Keywords:* Occupational therapy, best-practice, school-based, special education, inclusion, collaborative consultation

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## LIST OF ABBREVIATIONS

IDEA	Individuals with Disabilities Education Act
IEP	Individual Education Program
IRB	Internal Review Board
MRSD	Mighty Rivers School District
MU	University of Missouri
OT	Occupational therapy or occupational therapist
SSC	School Services Cooperative

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# **What Influences School-Based Occupational Therapists' Decision-Making?**

## **Chapter I: Introduction**

With an estimated workforce of 145,000 occupational therapy professionals in 2012 (Bureau of Labor Statistics, 2014-2015) and nearly 20% of occupational therapists and 15% of occupational therapy assistants being employed in school settings (AOTA, 2015), this translates to roughly 29,000 occupational therapy professionals across the country working in school environments. These therapists support the educational needs of children identified as having disabilities. The services provided by these occupational therapists have the potential to support or limit a child's access to general education curriculum and environments which, in turn, impacts vocational, financial, social, and community life outcomes (Frattura & Capper, 2007).

### **Problem Statement**

There is a robust body of literature from both occupation therapy and special education that indicates that despite having multiple options available to them for where, when, and how they deliver services, most school-based occupational therapists primarily choose to use a one-to-one direct model of service delivery in their day to day practice (Bazyk & Cahill, 2015; Giangreco, et al., 2008; Hanft & Shepherd 2008). This service delivery is typically characterized by therapists pulling children out of their classrooms (pull-out) to work directly on skill development to perform everyday school tasks. Interestingly, the contemporary literature on "best-practice" for school-based occupational therapy surmises that one-to-one, direct service delivery using pull-out intervention strategies is the least effective model of school-based occupational therapy practice (Giangreco, 1995; McWilliam, 1996).

The literature is consistent in indicating the ways in which therapists feel challenged when attempting to use more contemporary models of service delivery such as push-in services

(one-to-one in classrooms during instructional time), collaborative consultation, coaching, and modeling. While the literature provides valuable descriptions of problems therapists encounter in school-based practice settings (Beck-Erickson, 2010; Benson, 2013, Bose & Hinojosa, 2008; Case-Smith & Holland, 2009; Giangreco, 1995, 2008; McWilliam, 1996; Spencer, et al., 2006), these descriptions often sound as if they were stand-alone problems that can be easily fixed. They do not consider the complexity of contexts and conditions within which these factors might operate to impact the day-to-day decision making of therapists. In other words, the literature does not offer the perspectives therapists have on the complexity of interrelated contextual factors and how these factors impact their day-to-day decisions about why they choose the service delivery models they do at any given time and for particular students.

### **Study Purpose and Research Questions**

Understanding how therapists negotiate factors such as classroom routines, teacher preferences, legal and logistical considerations, their ideas about their unique role as school-based occupational therapists, and their beliefs about what is best for children with disabilities is important if we are to gain a broader perspective of school-based occupational therapy practice. The quest to learn about the nuances of every day school-based practice led to the following research questions upon which this study was based.

- a. How do occupational therapists discuss and narrate the process by which they make in-the-moment decisions about service delivery in public elementary schools?
- b. According to occupational therapists, what factors influence the service delivery decisions they make?
- c. Specifically, what are therapist's perspectives regarding why and how they make service delivery decisions?

## **Relationship to the Study**

Having worked as a school-based occupational therapist and director of occupational and physical therapy services for public school districts, I have had the unique opportunity to provide services across a multitude of schools in more than ten districts. Throughout this time and across these experiences I realized that occupational therapists constantly navigate service delivery decisions that are unique to the schools in which they work, the teachers they encounter, and any given moment in a school day. In my own experiences, when making service delivery decisions, I had to take into consideration the preferences and expectations of teachers, the activities of the classroom, the events and activities occurring in the school, the policies and common practices of the school district, the preferences of the parents of the children being served, the individualized education program (IEP), and responsiveness of the child to occupational therapy services.

Additionally, my personal value system, which is heavily influenced by disability studies and social justice, provided the underpinnings of my overall approach to practice in school settings. This led me to favor services provided in general education environments and to pursue coaching, modeling, and indirect services as often as feasible and practical for each individual student. For me, a myriad of factors would come into consideration at the moment that I would arrive at the door of a general or special education classroom to provide services to a particular child within a previously scheduled time frame. I came to recognize that my “in-the-moment” decision-making was an essential daily job function that carried highly consequential results for students.

With so many factors affecting my decision-making as a school-based occupational therapist and the impact those decisions have on the outcomes associated with children’s special education experiences; I began to see the importance of developing a deeper understanding of the

factors that impact the service delivery decisions of school-based occupational therapists. To date, descriptions of barriers to best-practice and conjectures of therapist perceptions and belief systems has not provided school-based occupational therapists with enough information about what transpires on a day-to-day basis that leads them to provide services that often depart from what is regarded as “best-practice”. In this study, I presented open ended questions about service delivery decision-making. This resulted in narrative descriptions and personal therapist perspectives that contribute to the current body of literature and build greater understanding of the factors that interact to impact the service delivery decision-making of school-based occupational therapists.

In the introduction sections that follow, I will define best-practice and introduce what the literature reveals regarding best-practice in school-based occupational therapy, then I will discuss the important aspects of the decision-making process associated with occupational therapy service provision in school-based practice. I will explain the overarching paradigm through which I situate this study. I will conclude the introduction chapter with a list of key terms and their definitions that will be used throughout the findings and discussion chapters.

### **Best-Practice in School-Based Occupational Therapy**

Because of the prevalence of occupational therapists in schools, it is imperative that occupational therapy services are provided according to contemporary occupational therapy standards of practice. Therapists need to use models of service delivery that support positive student outcomes as well as comply with federal regulations calling for students with disabilities to be educated in the least restrictive educational setting (Bazyk & Cahill, 2015). Contemporary practices and models of service delivery are considered “best-practice” (Spencer, et al., 2006).

Best-practices are grounded in research evidence that supports efficacy and are also frequently

referred to as “evidence-based” practices (Case-Smith, 2015, An overview. p. 8). For the purpose of this study the term “best-practice” will be used to refer to models of practice and intervention strategies that are based on the best available evidence.

Occupational therapy employs therapeutic use of everyday life activities to enhance participation in occupations across a range of contexts. The concept of occupation in the field of occupational therapy is used in reference to the “everyday life activities” (AOTA, 2014, p.S1) of individuals or groups of people (AOTA, 2014). In the school setting occupational therapists work as members of special education teams as ‘related service providers’ according to PL 94-142 (Huefner, 2006). Occupations in the school setting can include academic, social, extracurricular and self-care tasks (Swinth, 2007). An occupational therapist may provide direct services to a child using a hands-on approach or may support occupational engagement indirectly by collaborating and consulting with school staff and offering suggestions and strategies that improve a child’s task performance or participation in daily activities (Causton & Tracy-Bronson, 2014). Some examples of occupational therapy services include modifications to a desk and writing tools for a child with upper extremity impairments, directly working with a child to develop the ability to use a scissors for classroom projects, and helping a teacher find ways to engage a child who has an Autism diagnoses with her or his classroom peers.

Currently, school-based occupational therapists provide interventions using a myriad of strategies and a range of service delivery models (Causton & Tracy-Bronson, 2014). Both the special education and occupational therapy literature provide practitioners with current models and standards of best-practice (Spencer et al., 2006). Best-practice in special education refers to the arrangement and delivery of special education and related services that offers the most promising outcomes for children with disabilities (Laverdure & Rose, 2012; Mu & Royeen,

2004; Spencer et al., 2006). Best-practice standards derive in part from outcomes based research and educational performance data associated with inclusive models of special education (Jackson et al., 2010).

Inclusive education for the purpose of this study is defined as the education of students with disabilities predominantly in general education classrooms and school environments and assures access to age appropriate curriculum (Frattura & Capper, 2007; Jackson, et al., 2010; Lipsky & Gartner, 1997). The body of special education and occupational therapy literature promote the utilization of strategies of collaboration and consultation in inclusive educational environments (Causton & Tracy-Bronson, 2014; Hanft & Shepherd, 2008). Collaboration and consultation are intervention styles that are promoted as best-practice when used together as “collaborative consultation” (Idol, Nevin, & Paolucci-Whitcomb, 1986).

According to Idol, Nevin, and Paolucci-Whitcomb (2000), collaboration implies that there is parity of knowledge and skills between professionals. The essence of collaboration is working together through sharing of information and ideas for the purpose of joint problem solving. Mutual respect among team members for the knowledge, skills, ideas, and needs of each member of the collaborative team is imperative for finding solutions to problems, monitoring outcomes, and adjusting interventions and strategies when necessary. When all members of a team have equal voice in the problem-solving process, the likelihood of learning from each other is increased and group cohesiveness is enhanced (Idol, et al., 2000).

Consultation, on the other hand, is more often associated with an expert ideology (Idol, et al., 2000). According to Morris (2013) a consultant shares his or her knowledge with others in a “hierarchical, unidirectional flow as an expert” (p.1) to make recommendations to a “less-expert consultee” (p.1) for the purpose of solving problems. The consultant uses their presumed



expertise on a topic or issue of concern to “persuade others to adapt” (p.1) to their own ideas. In this scenario, the expert consultant often puts the onus of responsibility for outcomes of prescribed interventions on the consultee. Failure to achieve outcomes is often labeled by the consultant as a failure of the consultee to follow through or carry-out recommendations as expected.

An example of expert ideology leading the practice of consultation with school-based practice is that of an occupational therapist who places expectations on a teacher or para-professional to carry out a daily upper extremity exercise program for a child who the therapist believes will perform fine-motor skills better in the classroom if she or he had increased shoulder strength. The expertise of the therapist is delivered ipso facto along with demands for activities that may not have practicality for the teacher and para professional or may be contrary to the beliefs of the teacher. The decision of the teacher and para-professional to not carry out the recommendations is considered, by the therapist, to be a failure of cooperation and a barrier to performance improvements for the child.

Consultation does not include direct services with a child. It is rather an interaction that occurs between professionals on behalf of a child (Hanft & Place, 1996). For example, a therapist might recommend a spring-loaded scissors for a classroom project to support a child who has weakness in her or his hands. The therapist does not interact directly with the child but provides a suggested strategy based on knowledge of fine-motor skills and adaptive tools that could be used to support participation. In both this and the previous example, the consultation is a transfer of knowledge from one person to another and is not characterized by mutual and joint problem-solving. The knowledge transfer in situations like these imply that one professional has expertise that is of value to the other professional. Studies have found dissatisfaction between

both teachers and therapists when therapists rely too heavily on an expert model of consultation (Bose & Hinojosa, 2008; Giangreco, 1995; Idol, et al., 2000).

Collaborative consultation as defined by Idol, et al. (1986) as “. . . is an interactive process that enables teams of people with diverse expertise to generate creative solutions to mutually defined problems. The outcome is enhanced and altered from the original solutions that any team member would produce independently” (p. i.x.). A teacher and therapist using trial-and-error strategies to find a positioning device that will work in a classroom setting for a child with cerebral palsy would be an example of collaborative consultation. The therapist respects the teacher’s needs and ideas for what will and will not be feasible in the classroom and the teacher accesses the therapist knowledge of specialty equipment and safe positioning of children with cerebral palsy. Both parties evaluate, re-evaluate, problem-solve, and strategize seating options until they find the optimal solution for the child that supports participation in the classroom environment.

While collaborative consultation in inclusive educational settings is regarded as best-practice among both educators and occupational therapists as noted by a large supportive body of literature in both professions (Giangreco, 1995; Hanft & Shepherd, 2008; Idol, et al., 1986; Kemmis & Dunn, 1996); it is important to recognize that therapists report barriers to implementing service delivery based on best-practice models. Across several interview and survey based studies, school-based occupational therapists identified barriers to providing services in inclusive environments and using collaborative consultation as a primary intervention style (Spencer, et al, 2006; U.S. Dept. of Health and Human Services, 2015; Villeneuve & Hutchinson, 2012; Villeneuve & Shulha, 2012). Among the challenges therapists reported were lack of time during work routines to have formal meetings with teachers, large caseloads which

created scheduling challenges, limited service delivery flexibility due to Individual Education Plan (IEP) documents, role confusion among school staff in schools with inclusive educational philosophies, lack of administrator support for providing inclusive services, and teacher preference for therapy services to be provided outside of general education environments (Giangreco, 1995; Villeneuve & Hutchinson, 2012; Weintraub & Kovshi, 2004). These barriers and challenges will be examined in further detail in the literature review.

### **Decision-Making**

As explained previously, there are multiple interacting factors that contribute to the decision-making process in the delivery of occupational therapy services. Occupational therapists are expected to use current and sound evidence to guide their practice based decisions. It is clearly articulated in *The Occupational Therapy Practice Framework: Domain & Process – 3d Edition* (OTA 2014) that therapists are expected to plan interventions based on the “best available evidence” (p. S15). The expectation for use of evidence in guiding all aspects of practice is mentioned more than ten times throughout the practice framework document and is connected to all phases of practice from initial assessment through intervention and discontinuation of services.

However, the scholarly literature on decision making reveals that several different influences are brought to bear on how therapists provide services. They include knowledge based decisions, decisions based on values, or decisions based on informal conversations with peers. Lee and Miller (2003) discuss the importance of evidence in the decision-making process to be multi-faceted and include empirical evidence alongside “values, beliefs, knowledge, and experiences of the clinician and client” (p. 473). In a study by Rassafiani, Ziviani, Rodger, and Dagleish (2009), factors that influenced the quality of clinical decision-making of occupational

therapists was impacted by the therapists' practical knowledge, theoretical knowledge, personality, and ability to draw from multiple sources of information. This aligns well with the views of Evans, Heller Levitt, and Henning (2012) when discussing ethical decision-making among education counselors. These authors describe ethical decision-making as including factors such as the decision maker's world view as well as their professional and personal judgment. The authors discuss the culture and context of the environment, social political influences, and the professional system in which the decision maker works as collectively influencing ethical decisions.

A closer qualitative case-study examination by Copley, Turpin, and King (2010) of the factors that impact in-the-moment decision-making of one *expert* [emphasis mine] pediatric occupational therapist revealed that the therapist drew upon professional clinical knowledge from textbooks and journals, professional development activities, and past professional and personal experience. The therapist also used contextual knowledge to influence intervention choices. This included information collected from the child, the child's family, other professionals who had knowledge of the child, and information gathered from administration of standardized assessments and observations (Copley, Turpin, & King, 2010).

Silverman, Kramer, and Ravitch (2011) found that informal conversations among school staff had a significant impact on the provision of occupational therapy services. The study revealed the imbalance of individual team member's voices in the decision-making process. Many of the conversations that occurred prior to team meetings resulted in administrative coaching, channeling, and management of conversations among school staff prior to meeting with parents. Parents who sensed that occupational therapy service delivery decisions were made prior to the team meeting were more likely to engage external resources at team meetings to

advocate for and support their views and ideas about services they deemed necessary for their child (Silverman, Kramer, & Ravitch, 2011). Therefore, therapists' decisions could likely be subject to change with the additional influence of parental and external pressure or advocacy.

Some of the literature has pointed to value systems of special education teams as the primary driver of decision making. Within the value systems, scholars have evaluated some values to be more important than others for service delivery. Special education teams, including related service providers, have been described as making decisions about related services based on three primary value systems. These value systems were defined by Giangreco (1996) as “more is better”, “return on investment”, and “only-as-specialized-as-necessary” (p.35). When a special education team or individual therapist adopts these value systems, there is an impact on decisions about service delivery including how often children are provided services, the nature of how those services will be delivered, and the specific types of interventions provided. The first two approaches often result in excess service provision and can have detrimental social, academic, and psychological effects on the child being served as well as a disruptive impact on the general education classroom. Giangreco (1996) advocates the only-as-specialized-as-necessary value as optimal in driving the decision-making of special education teams when considering related services such as occupational therapy.

As the literature reveals, decision-making is a complex, multi-faceted process for school-based occupational therapists (Copley, Turpin, & King, 2010). As I looked to uncover the many factors therapists consider in their decision-making process through this qualitative study, I found that some of the personal, professional, and contextual factors discussed in the literature and presented here also surfaced in the findings of this study. This study deepens our understanding of the multiple and overlapping influences on the decision-making practices of

therapists. It also provides special education teams, and particularly occupational therapists, an understanding of the complexity of inherently entangled factors that impact decision-making about service delivery. This understanding can help teams build a pathway to addressing service delivery options that create opportunities for therapists to align their services more closely with best-practice standards.

### **Guiding Paradigm**

As an occupational therapist who has worked in school-based practice both as a member of special education teams and as an administrator for therapists contracted to school districts; I came to this study with lived experiences that resemble those of the school-based occupational therapists in this study. Having served numerous school districts and schools in both capacities previously mentioned, I have found that differences in the philosophical and ideological perspectives of school administrators and school staff can impact the decisions therapists make about how best to deliver occupational therapy services.

I also understand that therapists' ideologies and beliefs about the nature and purported benefits of therapy services plays a primal role in when, where, and how the therapy services are provided (Bose & Hinojosa, 2008). I recognize that real and perceived constraints of time, caseload size, policies, and school culture can impact service delivery as well (Giangreco, 1995; Villeneuve & Hutchinson, 2012; Weintraub & Kovshi, 2004). While there is currently a body of literature that includes several survey and interview based studies that support the constraints just mentioned, there is insufficient evidence that focuses on how therapists make decisions about service delivery when faced with a myriad of contextual affordances and constraints. This study probed for the specific types of situations and influences that factor into and underlie occupational therapists school-based service-delivery decision-making.

Having been introduced to professional occupational therapy knowledge and specialization through the traditions of the medical and social sciences in the 1980's, my perceptions and understandings of disability were once situated in a positivist framework (Skrtic, 1995). With my immersion in academia as a Master's degree seeking student and collegiate instructor of occupational therapy course work, I experienced a gradual paradigmatic shift to understanding disability, education, and the professions through a post positivist framework and critical theory lens (Byrom, 2001; Skrtic, 1995). I approached this work with historical and socio-political understandings of the construction of disability and the system of education. My efforts toward understanding service delivery from occupational therapists toward children with disabilities originate in a much broader emancipatory perspective that seeks to normalize the presence of disability in general education settings (Frattura & Capper, 2007; Lipsky & Gartner, 1997; Skrtic, 1995).

Contextual factors associated with disability and special education are imbued with varied and evolving paradigms about the nature of disability (Skrtic, 1995), ever shifting states of political and policy endorsements toward and away from services for individuals with disabilities (Huefner, 2006), and the existence of wide scale socio-cultural dissimilarities within and across school settings (DeMatthews & Mawhiney, 2014). Therefore, this study was conducted from the perspective that school-based therapists make decisions based on their experiences with the macro and micro contexts in which they provide services (Dunn, Brown, & McGuigan, 1994). The day-to-day realities of constraints and affordances that school-based occupational therapists experience in the work environment cannot be fully understood through empirical studies such as those based on survey results (Yin, 2014). This qualitative semi-structured interview based design was an effort to illuminate the context of service delivery decision-making.

## **Definition of Terms**

*Best-practice:* Refers to the arrangement and delivery of services that is widely regarded in the respective field or profession as offering the most promising outcomes (Laverdure & Rose, 2012; Mu & Royeen, 2004; Spencer, et al., 2006). Best-practice standards derive in part from outcomes based research (Jackson, et al., 2010).

*Collaborative consultation:* “Collaborative consultation is an interactive process that enables teams of people with diverse expertise to generate creative solutions to mutually defined problems. The outcome is enhanced and altered from the original solutions that any team member would produce independently” (Idol, et al., 1986, p. i.x.).

*Direct services:* This refers to the provision of services from a credentialed or otherwise qualified person directly to a student (Giangreco, 2001).

*Inclusion and inclusive education:* The education of students with disabilities that occurs predominantly in general education classrooms and school environments. Inclusive education assures that students with disabilities have access to age appropriate general education curriculum, materials, and instruction. In inclusive education children with disabilities are assigned to general education classrooms in natural proportion (or ratio) to non-disabled students and specialized services are provided to them mostly in general education environments (Frattura & Capper, 2007; Jackson, et al., 2010; Lipsky & Gartner, 1997).

*Indirect services:* This refers to services being delivered to a student by a person who is under the supervision or direction of another credentialed or qualified person (Giangreco, 2001).

*Occupation:* Occupation is the term occupational therapists use when discussing meaningful daily life activities. Occupations in the profession of occupational therapy include the following:



1. Activities of daily living (self-care tasks), 2. Instrumental activities of daily living (care of others and ancillary tasks of independent living such as money management, maintain the home, laundry, cooking, etc.), 3. Rest and sleep, 4. Education, 5. Work, 6. Play, 7. Leisure, and 8. Social participation. (AOTA, 2014).

*Occupational therapy*: “The therapeutic use of everyday life activities (occupations) with individuals or groups for the purpose of enhancing or enabling participation in roles, habits, routines in home, school, workplace, community, and other settings” (AOTA, 2014, p.S1).

*Pull-out*: This refers to the removal of children from the classroom setting (Benson, 2013).

*Push-in*: This refers to interventions being provided in the context of the classroom setting during academic instruction (Benson, 2013).

*Related services*: “*Related services* means transportation and such developmental, corrective, and other supportive services as are required to assist a child with a disability to benefit from special education” (Federal Register, 2006, p.46760, §300.34). In addition to a number of specialty service providers, related services also includes occupational therapy (Federal Register, 2006, p.46760, §300.34).

*Special education*: “*Special education* means specially designed instruction, at no cost to the parents, to meet the unique needs of a child with a disability (Federal Register, 2006, p. 46761, §300.39). “*Specially designed instruction* means adapting, as appropriate to the needs of an eligible child under this part, the content, methodology, or delivery of instruction -

(i) To address the unique needs of the child that result from the child’s disability; and

(ii) To ensure access of the child to the general curriculum, so that the child can meet the educational standards within the jurisdiction of the public agency that apply to all children” (Federal Register, 2006, p. 46762, §300.39).

*Traditional service delivery:* Services that are provided for the intent and purpose of impacting the perceived impairments or deficits of an individual child. Traditional models represent the type of services that are based on a medical model of disability and have historically formed the underpinnings of special education law as well as having had an enduring influence on the practices of occupational therapists (Bose & Hinojosa, 2008; Giangreco, 1995 & 2008).

## Chapter II: Literature Review

### Literature Search Methods

There is an extensive body of literature available in both special education and occupational therapy that addresses service delivery options available to special education teams (Giangreco, 2008; Hanft & Shepherd, 2008; Idol, et al, 2000; Kemmis & Dunn, 1996). To answer the research questions of this study which are listed in chapter I, I conducted my literature search using the tools available to me from the libraries of the University of Wisconsin – Milwaukee and the University of Missouri. I also used publicly available online search tools to find relevant literature. Using a variety of search strategies and terms, I systematically extracted journal articles and books as primary sources of information for this research. For information on occupational therapy history, current practice, and theory; I used occupational therapy textbooks and journal publications. Most of the textbooks selected were listed in the National Board for Certification of Occupational Therapists (2103) *Curriculum Text and Peer-Reviewed Journal Report* as the most commonly used books in occupational therapy programs.

**Search terms.** First, I listed search terms in four columns and combined them in various patterns using Boolean operators, as described by Booth, Papaioannou, & Sutton (2013), to both expand and narrow the results of my searches. Table 1 depicts the columns and terms that I focused on for the search. It is arranged with a macro to micro logic with the left most column including terms that include the larger context of the study and the farthest right column being expected to narrow the search when combined with terms from the other columns. Some of the publications cited in this review emerged repeatedly from varying combinations of search terms. Other publications emerged in very specific use of the search terms or from strategies outside of the use of the terms in table 1.

Table 1. Search Terms

School based Elementary Early childhood Special education	Occupational therapy Related services	Service delivery Collaborative Consultation Best-practice Direct service Decision-making	Natural environments Classroom based Context Inclusion Pull-out
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For example, when combining special education AND related services, my search yielded over 4000 publications. When combining special education AND occupational therapy, the search narrowed to just over 1000 publications. When searching using occupational AND therapy AND school AND based AND practice the literature narrowed to less than 400 publications. These variations helped me find overlapping literature while also creating smaller listings that were easier to navigate. Adding terms such as: best-practice, decision-making, inclusion, service delivery, collaboration, or consultation to the searches typically narrowed the results and offered literature very specific to the research questions.

Having scanned the literature and the results of searches from which to choose information, I created inclusion and exclusion criteria. The criteria are listed in Table 2. The additional strategies I used for finding relevant literature was to use combinations of the search terms directly in the online access afforded to me through membership in the American Occupational Therapy Association (AOTA) to the *American Journal of Occupational Therapy (AJOT)*. I also searched the AOTA website for information pertaining to school-based employment of occupational therapists, professional position statements, and other guiding documents for occupational therapy practice. Some of the publications were searched for on *Google Scholar* when citations and reference lists included work that appeared relevant but did

not surface in my online library searches using databases such as *ERIC* and *EBSCO*. When coming upon authors of relevance and prominence in the literature I also searched their respective university websites to gain a full listing of their published work.

Table 2. Inclusion and Exclusion Criteria

**Inclusion criteria:**

- Articles that specifically address occupational therapy in school-based practice
- Articles that discuss service delivery model
- best-practice in special education
- best-practice in school-based occupational therapy
- pull-out services
- traditional service delivery models
- inclusive education
- natural contexts / environments
- comparisons of service delivery models
- outcomes of service delivery models
- early childhood education
- elementary school special education

**Exclusion criteria:**

**Occupational therapy:**

- Articles older than 1995
- High school
- Transition services
- Middle school
- Articles pertaining to specific school-based occupational therapy interventions such as handwriting strategies, sensory integration services, use of therapy specific intervention tools or protocols, etc.

**Inclusion and exclusion criteria.** The year of 1995 was chosen in the exclusion criteria to limit the search to practices over the past two decades. Many of the journal articles prior to 1995 held little relevance in explaining the nature of service delivery decision-making in contemporary school-based occupational therapy practice. Models of special education and occupational service delivery have evolved significantly from the onset of services in 1975 to the present date (Howe & Briggs, 1982; Rourke, 1996; Swinth, et al., 2007). For example, between 1975 and 1995 occupational therapy literature revealed only emerging ideas about inclusion, consultation, and collaboration as considerations for service delivery (Rourke, 1996). Much of the literature I found prior to 1995 maintained a position of therapy services as being provided

directly to students for the sake of impairment identification and reduction of student deficiencies to increase participation in school related activities (Howe & Briggs, 1982). While these practices are still present in service delivery today, the shift to social perspectives of disability are more relevant in understanding current practices in service delivery (Causton & Tracy-Bronson, 2014).

I allowed for three exceptions to the publication year of 1995 as the cut-off for inclusion in this review. When seeking a historical perspective of the emergence of theoretical positions, I included an occupational therapy publication by Howe and Briggs (1982) that presented an ecological systems model as a viable perspective for all occupational therapists to consider in service delivery. Another publication employing an environmental perspective from 1994 was included because the authors advanced the concept of ecological systems with a specific theoretical model; the *Ecology of Human Performance* (Dunn, Brown, & McGuigan, 1994).

The other pre-1995 publication that I included for historical reference was an oft cited publication in the literature that met my inclusion criteria. The first and third editions of *Collaborative Consultation* by Idol, Paolucci-Whitcomb, and Nevin (1986 & 2000) were included because of the relevance of the emergence of collaboration and consultation as an efficacious practice among school personnel who are charged with meeting the needs of children with disabilities. The authors claim that the collaborative consultation model for special education service delivery was originally conceptualized in their 1986 edition of this book (Idol, et al., 2000). From a historical perspective, the inclusion of the development and changes in collaborative consultation as a service delivery model over time makes sense to include in this review.

**Saturation of the literature.** Saturation of the literature was established with a combination of more than 80 books and journal articles from both education and occupational therapy literature as well as outlying statistical and other data from government sources. What emerged in the occupational therapy literature was common language about best-practice being associated with collaborative consultation (Hanft & Shepherd, 2008). Discussion of the myriad of service delivery methods used in schools was described in many of the articles. The authors predominantly argued for services to shift from direct pull-out interventions aimed at skill development toward interventions that include close collaboration with school personnel and are provided to improve a student's overall participation at school (Hanft & Shepherd, 2008; Kemmis & Dunn, 1996). Special education literature that addressed the provision of occupational therapy services presented a need for integration of therapy services in regular education environments with close and frequent collaboration regarding student needs occurring between therapists and teachers (Giangreco, 2008; Idol, et al. 2000; Jackson, Ryndak, & Wehmeyer, 2010; McWilliam, 1996).

Using the body of literature that met my criteria for relevance to this study, I will begin the next section of this review by providing the historical and theoretical foundations of occupational therapy, school-based practice, and the system of special education. I will discuss contemporary knowledge and evidence that defines the difference between traditional direct models of intervention and “best-practices” that promote inclusion of children with disabilities in general education environments and curriculum. I will provide a review of studies that shed light on how therapists typically provide services and share the espoused barriers and challenges the various authors believe impact service delivery in school-based practice. I will conclude by discussing the need for gaining a deeper contextual based understanding of therapists every day

experiences and how those impact the service delivery decisions therapists make in school settings.

## **Occupational Therapy**

The profession of occupational therapy is governed by the American Occupational Therapy Association (AOTA). The AOTA (2014) document that guides professional occupational therapy practice is the *Occupational Therapy Practice Framework: Domain and Process, 3d Edition* (OTPF). The AOTA (2014) OTPF provides practitioners with a distinctive definition of occupational therapy and builds “common understandings of the basic tenets and vision of the profession” (p.S3). The OTPF uses the following definition of occupational therapy:

The therapeutic use of everyday life activities (occupations) with individuals or groups for the purpose of enhancing or enabling participation in roles, habits, and routines in home, school, workplace, community, and other settings. Occupational therapy practitioners use their knowledge of the transactional relationship among the person, his or her engagement in valuable occupations, and the context to design occupation-based intervention plans that facilitate change or growth in client factors (body functions, body structures, values, beliefs, and spirituality) and skills (motor, process, and social interaction) needed for successful participation. Occupational therapy practitioners are concerned with the end result of participation and thus enable engagement through adaptations and modifications to the environment or objects within the environment when needed (p.S1).



The OTPF (AOTA, 2014) underscores the core concept of humans as occupational beings who achieve “health, well-being, and participation in life” (p. S4) through engagement in meaningful daily life activities which are referred to by the profession as “occupations” (p.S5). The OTPF (AOTA, 2014) emphasizes the interplay of a multitude of factors that can impact occupational engagement. Some of these factors include those that are unique and inherent to individuals such as bodily structures and functions and spiritual values and beliefs. Other factors include the skills a person learns or acquires to perform a variety of tasks, a person’s life roles, and their habits and routines.

### **Historical perspectives of occupational therapy**

Occupational therapy is a profession that was formally established in 1917 with the formation of the National Association for the Promotion of Occupational Therapy (Kielhofner, 2009). The concept of occupational therapy had been growing before 1917 through the work of therapists in a variety of hospital and institutional type settings as well as through the publication of books and articles that addressed the importance of rehabilitation for individuals who were recovering from illness, injury, and disease. Occupational therapists promoted recovery and wellness through the use of meaningful and productive activities (Kielhofner, 2009). The term “occupation” was used to discuss all the routine, habitual, and meaningful tasks and activities in which people engaged (Schwartz, 2003). Some examples of therapy interventions during this time include self-help tasks such as dressing and brushing teeth, vocational and work related tasks including relevant tool use, leisure skills such as knitting or wood working, and tasks associated with gardening and farming (Kielhofner, 2009). In individual or group treatment sessions, occupational therapists employed occupations as both “a means as well as an end” (Hinojosa, Kramer, Royeen, & Luebben, 2003, p.1) of the therapeutic process.

The therapeutic process included graded adjustment to the demands of occupations as presented to patients during treatment for the purpose of improving the moral, mental, and physical conditions of the patient (Kielhofner, 2009). For example, if a patient was working to increase upper extremity strength while engaging in an occupation related to wood working, the therapist could place a piece of wood needing sanding on an inclined surface and add weight to the sanding device; thereby increase the demand for upper extremity strength while the patient was engaging in a meaningful therapeutic occupation. This type of grading of an occupation to improve patient outcomes became formalized by Herbert James Hall in his seminal work in the early 1900's (Kielhofner, 2009). The process became known as activity analysis and quickly became a hallmark of occupational therapy practice (Kielhofner, 2009). Activity analysis continues to be used in occupational therapy practice today and has been expanded upon to include contemporary technology, activities, and occupations (Thomas, 2012).

The seven individuals who are cited as being the founders of the profession of occupational therapy came from varied professional backgrounds. Their backgrounds included nursing, physician assistant, architecture, social services, arts and crafts education, and psychiatry (Schwartz, 2003). Their choice of the defining term occupation to name the emerging profession they envisioned was selected because it was considered broad in scope, and hence, captured the wide range of tasks and activities that could be employed to treat the effects of disease, illness, and injury (Schwartz, 2003). Each founder envisioned occupational therapy in a specific context and promoted the profession as a way to provide training and instruction in vocational and work related tasks, in development of diversional skills for recreation and leisure, in habit training for basic self-care and personal hygiene, in development of daily life skills such

as cooking and cleaning, and in recovering physical capacities such as strength, joint range, flexibility, and endurance (Schwartz, 2003).

In the early years of the profession, occupational therapists were typically employed in institutional settings to engage mentally ill patients in meaningful occupations for the purpose of reintegration into homes and communities and for chronically institutionalized patients to improve quality of life. Other areas of employment included hospitals where occupational therapists worked to hasten the physical and vocational rehabilitation of soldiers as well as to assist in restoring functional abilities to individuals recovering from injury or illness (Kielhofner, 2009).

The early conceptual framework of occupational therapy was guided by humanistic perspectives in which individuals were recognized as complex beings who engage in a wide range of occupations (Schwartz, 2003). The early twentieth century philosophies about the moral treatment of patients in asylums and other institutions was adopted by occupational therapists as a core tenant of the profession. Moral treatment of institutionalized patients was focused on the obligation of society to help individuals with mental illness return to satisfying and productive lives. Engagement in meaningful activities was seen as the key to managing mental illness and restoring individuals to home, community, and vocational occupations (Kielhofner, 2009; Schwartz, 2003). It was during this time that the leaders of occupational therapy promoted the work of the profession by establishing occupational therapy centers and spaces within institutions that focused on providing patients with activities that were interesting, useful, and productive (Schwartz, 2003). Occupational therapists were very interested in the influence of the environment on the manifestation of disease and illness and interventions were geared toward

providing opportunities for activity that would lead to improvements in a patient's life satisfaction and productivity (Kielhofner, 2009).

By the 1930's the profession of occupational therapy was recognized as a valuable service in "mental health facilities, tuberculosis sanatoriums, orthopedic units of general hospitals, convalescent homes, and crippled children's hospitals as well as prevocational treatment in curative workshops" (Schwartz, 2003, p. 26). By the 1940's the philosophical focus of institutions shifted from moral treatment to custodial and medical care. During this time, the profession of occupational therapy had become less prevalent in institutions as engagement of patients in meaningful occupations was no longer valued or supported by states in the overcrowded and understaffed conditions common in institutions (Kielhofner, 2009). Occupational therapy as a profession had also evolved and became increasingly influenced by the practices and frameworks of modern medicine (Kielhofner, 2009).

Under scrutiny of physicians for not having robust theory and research to support their practices, occupational therapists downplayed the importance of the moral and occupational engagement philosophies on which they were founded and instead embraced a mechanistic approach to treatment promoted by proponents of medicine (Kielhofner, 2009). In the medical view, individuals seeking treatment were seen as possessing impairments that limited their independence and functionality and these impairments became the subject and focus of remediation from medical experts (Foucault, 1973). This approach, often referred to as the medical model, emphasized the need for intervention to improve underlying neurological, biomechanical (body structures), and psychiatric impairments of individuals (Linton, 1998).

During the paradigm shift from moral treatment to medical treatment, the core constructs of occupational therapy, as stated by Kielhofner (2009) were as follows:

- All ability to perform is directly determined by the degree of integrity of the neuromotor, musculoskeletal, and intrapsychic functions.
- Dysfunction or impairment can be traced to damage or abnormal development in the neuromotor, musculoskeletal, or intrapsychic functions.
- Performance can be improved by addressing neuromotor, musculoskeletal, or intrapsychic impairments. (pp. 32-33)

These core constructs impacted the nature of interventions provided by occupational therapists. Service delivery changed from engaging patients in meaningful occupations to efforts aimed at reducing or minimizing individual impairments that were deemed to be limiting functional capacity. During this time, occupational therapists' knowledge base expanded to be more inclusive of the underlying biological, neurological, musculoskeletal, psychological, and developmental systems that were believed to support or hinder human performance and behavior (Kielhofner, 2009). Examples of interventions included splinting limbs for positioning, manually stretching muscles and limbs to improve joint range of motion, engaging a patient in strength building exercises, and preventing a patient with a neurological dysfunction from moving in ways deemed abnormal while simultaneously attempting to promote normal movement patterns. Because of this medical perspective, occupational therapy interventions became mechanistic and in many cases, void of meaning to the clients being served (Kielhofner, 2009). As stated by Kielhofner (2009), "The mechanistic paradigm had diverted the field from its original mission and eclipsed the field's most seminal idea, the importance of occupation as a health-restoring measure" (p.42).

By the late 1960's occupational therapy leaders recognized the drift from occupation that had occurred in the profession. At conferences and in their publications, these leaders challenged professionals to return to the founding principles of occupational therapy. They reclaimed the concept of occupation as being central to the means and ends of therapy services (Schwartz, 2003). During this time, the professional literature expanded to include new theoretical positions that emphasized the impact of the social, political, and physical environments on the development of occupations. Incorporating post-modern perspectives from disability and systems theories into occupational therapy theory, occupational therapy professionals were now charged with addressing barriers to occupational performance in new ways (Kielhofner, 2009).

### **Ecological theories in occupational therapy**

The philosophical return of the profession of occupational therapy to the underlying principles that emphasized the importance of engagement in meaningful occupations was accompanied by theories from related fields that focused on the influence of interacting systems affecting human development and behavior. Systems theories suggest that individuals are impacted by multiple factors that include not only their biological, physical, and psychological characteristics but also by the environmental context in which they function (Baum & Christensen, 1997). Systems and transactional theories recognize a dynamic reciprocal relationship between a person and his or her context wherein the context shapes the individual response and the individual response shapes the context (AOTA, 2014).

In addition to systems and transactional perspectives, occupational therapists were heavily influenced by ecological theories of human development and behavior (Law, et al., 1996). Theoretical models, such as Bronfenbrenner's (1992) bioecological theory, provided occupational therapy theorists with a foundation upon which greater attention was paid to the

impact of social, political, economic, community, and other institutional structures on the development of human occupation (Baum & Christiansen, 1997). Brofenbrenner's (1992) model of human development depicts a set of five nested, concentric circles. Each circle represents an environmental context that impacts a child who is situated at the center. The central circle representing the child includes his or her biological factors such as genetic predisposition, physical structures, and inherent social-emotional and regulatory abilities. As the circles move away from the child they represent a larger context that impacts the child's development. For example, the inner circles represent the child's immediate family, the school the child attends, and the community in which the child resides. This is referred to as the microsystem. The outer circles represent parental employers, school boards, lawmakers, and other institutional structures that the child may never directly encounter but, nonetheless, have an impact on the child's well-being and life outcomes. The outer circles form the macro system (Brofenbrenner, 1992).

Even though Brofenbrenner's (1992) work was primarily concerned with child development, his writings and bioecological model challenged the medical paradigm that maintained the premise that individual deficiencies and deviations from the normative group were the cause of adverse developmental outcomes. By laying bare the multitude of interacting factors external to individuals that significantly impact human development and behavior, Brofenbrenner (1988) proposed that interventions be directed at physical, political, economic, and social factors impacting behavior and outcomes rather than on individual attributes or deficiencies as purported by medicine.

With this broad focus on systems in the bio-ecological model, occupational therapists recognized the need to develop ecologically based frameworks that also incorporated concepts more specifically related to daily tasks and occupations. While ecological and systems theories

extended evaluation and intervention beyond person factors, therapists were still seeking to develop models that provided guidance for occupation and client centered interventions. Brofenbrenner's ecological systems perspective was one, among others, that was incorporated into emerging occupational therapy theories to conceptualize engagement in human occupation across the lifespan as affected by multiple layers of interacting factors (Law, et al., 1996).

During the decades of reclamation of occupation as central to occupational therapy, professional theoretical literature grew significantly and included emphasis on the importance of contexts, as proposed by Brofenbrenner and others, in impacting human occupations (Law, et al., 1996). Law, et.al (1996) presented ten theoretical models from related disciplines that influenced occupational therapy literature and frames-of-reference from the 1960's to the present. The four common threads recognized among these ten models are: 1. The conceptualizations of the self-efficacy of individuals, 2. The centrality of environmental factors in understanding human behavior, 3. The transactional relationship of people to their environments, and 4. The adaptive responses that are the outcomes of relationships and environmental transactions. These four threads are woven through much of the contemporary occupational therapy literature and serve as foundational to current occupational therapy theoretical models (Law, et al., 1996).

In addition to the influence of ecological perspectives, disability theory was also woven into the emerging occupational therapy theories and practice models (Kielhofner, 2009). Disability theory came to prominence in the 1970's and was used to agitate for the civil rights of people with disabilities (Linton, 2006). Disability theorists called for a redefinition of disability that defined disability as "a product of social injustice" (Siebers, 2011, p. 3). Disability theorists put forth their claim that disability was not a biological or physical condition of an individual that necessitated treatment or cures. Disability, rather, was purported to be the result of social



stigma attached to people who presented as physically, socially, psychologically, or mentally different than the normative population. Oppressive social stigmas resulted in overt discrimination and exclusion of those individuals labeled as disabled (Siebers, 2011). This perspective of disability is very compatible with the original humanistic and occupational paradigms upon which the profession of occupational therapy was founded as well as with the ecological models of more contemporary occupational therapy practice models.

Despite the connections to early occupational therapy practice, disability scholarship provides conflicting perspectives and differing valuation of occupational therapy as related to the concept of rehabilitation. Abberly (1995), for example, conducted a qualitative study of occupational therapists and found that despite their best intentions toward their clients, occupational therapists perpetuated disablement by reducing disabled individuals to impaired bodies in need of expert interventions. Abberly (1995) described occupational therapy as operating in a “bipolarized system” (p. 224) in which the recipient of services is the problem and the therapist is the solution. Abberly (1995) argues that this type of system offers no place for a social model of disability. A social perspective would “see the professional, at least in part, in the role of agent and perpetuator of structural inequality and oppression” (p.224). Linton (1998) also critiqued the role of rehabilitation professionals stating the following.

Practices exist that infantilize people with disabilities, force dependency, create and perpetuate stereotypes through the use of tools such as testing and diagnosis, constrict pleasure, and limit communication and political activism among disabled people (p. 82).

Kielhofner (2005) offered a reflective examination of disability scholar’s critiques of rehabilitation and occupational therapy. His reflective publication emphasized the varying

perspectives and stated needs of individuals with disabilities and their families when pursuing rehabilitation services. There are many individuals who seek therapy services for the purpose of reducing impairment in hopes of recovering or developing improved occupational performance. According to Kielhofner (2005), the profession of occupational therapy has not reconciled the demands of clients and medical personnel to reduce or minimize impairment and disability with the call for ending the medicalization of disability that perpetuates social stigma and increases marginalization.

Consistent with the perspectives of Kielhofner (2005), Shakespeare (2006) argued that rehabilitation services can be a critical aspect of care for a disabled person when experiencing acute impairments or changes in their medical status. Shakespeare (2006) relates his own experiences of achondroplasia and acquired spinal cord injury to his need for interventions to reduce pain and impairment and increase occupational performance. Shakespeare (2006) also affirms the relevance of the social model of disability and offers a balanced perspective of how both medical and social perspectives are important in addressing the needs of people with disabilities. While disability scholarship reshapes the way occupational therapy professionals conceptualize their interventions and practices, the disability model alone does not offer a conciliatory framework between client-centered practice and scholarly perspectives of disability (Kielhofner, 2005).

Among the occupational therapy theories and practice models that were developed with the influence of ecological and disability theories, one of the widely-recognized models is the Ecology of Human Performance (EHP) (Dunn, Brown, & McGuigan, 1994). While there are other influential models, most of them share similar themes and concepts as EHP. EHP will be

discussed further to show how school-based occupational therapy best-practice standards align with ecological systems models.

### **Ecology of Human Performance**

The Ecology of Human Performance (Dunn, Brown, & McGuigan, 1994) was developed as a model of practice by occupational therapy faculty at the University of Kansas. In this model, EHP constructs are built around person, context, task, and performance (Dunn, Brown, and Youngstrom, 2003). Similar to Bronfenbrenner's Bioecological Model, person factors are part of the EHP and include personal values and interests as well as physiological, biological, and genetic factors intrinsic and unique to each individual. Context in the EHP model includes the social, cultural, and physical demands of the environment as well as the internal context of the individual which includes age, developmental stage, health status, and life circumstances (Dunn, Brown, & McGuigan, 1994).

In EHP, the term *task* is used instead of the term occupation to discuss every day activities in which people engage. Because occupational therapists have a unique use of the term occupation; the authors believed the EHP model would be more accessible and understandable to a variety of disciplines and professions outside of occupational therapy if occupations were described as tasks. When tasks cluster together they form roles (Dunn, Brown, & McGuigan, 1994). For example, when the tasks of feeding and dressing a child, taking a child to school, and helping a child with homework are clustered together, they form the role of parenting. Tasks such as helping a child with homework may overlap roles such as parenting, volunteer work, babysitting, teaching, etc. (Dunn, Brown, & McGuigan, 1994).

Tasks are discussed in the EHP model as being unlimited in number but access to them by any individual is either expanded or constrained by person factors and characteristics of the context at any given time. In the EHP model, task and performance are inextricably linked to context and person factors (Dunn, Brown, & McGuigan, 1994). For example, a person who experiences a spinal cord injury may not be able to engage in all of the tasks that previously were clustered in their role as a parent. While therapy interventions may be able to restore some of their previous physical capacities that were lost due to the injury, interventions also need to be directed at altering the environment and creating access to equipment, tools, and technology to maximize the potential for the individual to fully engage in the tasks that fulfilled their role as a parent.

Using the EHP as a guiding framework, occupational therapists provide interventions that can be categorized into five types and are aimed at addressing any combination of the four constructs of person, task, context, and performance. According to Dunn, Brown, and Youngstrom (2003) these intervention approaches are:

1. Establish / restore: Interventions relate to person constructs. This is most consistent with medical perspectives in which individuals are provided intervention to learn skills or to restore skills or functions lost from injury or illness
2. Alter: Interventions are primarily aimed at changing or altering the contextual and environmental factors to create a better match between the skills and abilities of the person and the contextual demands. An example would be providing an accessible entrance to a home for an individual who uses a wheelchair for mobility.

3. Adapt / Modify: Adapting or modifying task demands are the focus of intervention with this approach. Modifying tie shoes with Velcro closures would be an example of this intervention for an individual who loses the use of one of their hands.
4. Prevent: Addressing any of the four constructs in intervention for the purpose of preventing loss or detrimental change to occupational performance is the focus of this approach. An example of this approach is teaching a family to position a child with cerebral palsy in ways and devices that prevent joint contracture or spinal misalignment.
5. Create: Creating environments and conditions which optimize performance for everyone is the focus of this approach. For example, an occupational therapist can assist in the universal design of a bathroom in public place. The design benefits everyone and is not exclusive to people with disabilities. (pp. 231-232)

With some modifications from the original publication by Dunn, et al. (1994) these five intervention approaches have been adopted by the American Occupational Therapy Association as part of the third edition of the OTPF (AOTA, 2014).

The adoption of ecological systems and disability perspectives by occupational therapists as shown in the EHP models as well as in the OTPF is a process that has been occurring over the past few decades. Despite the shifting professional paradigm which emphasizes environmental and contextual factors as important considerations for intervention, the medical model continues

to be a primary influence on the practices of occupational therapists in many settings (Gray & Hahn, 1997). Balancing services aimed at improving impairments and minimizing deficiencies with interventions aimed at altering the environment to fit the needs of an individual with a disability is an ongoing source of tension in the profession of occupational therapy. The continued influence of the medical model is important to recognize in occupational therapy because of the impact it has on service delivery models (Gray & Hahn, 1997). I will now turn specifically to how the historical and theoretical perspectives of the profession of occupational therapy have influenced school-based practice and continue to factor in to the decisions therapists make about service delivery.

### **Occupational therapy in public schools**

The 1975 enactment of the Federal Education of All Handicapped Children Act (EAHCA) led to an expansion of occupational therapy services into public schools when children with disabilities were, for the first time, given access to a free and appropriate public education (Lipsky & Gartner, 1997). The term *related services* was used in the writing of the EAHCA to describe an array of support services that may be accessed, when required, to assist a child with a disability in benefitting from their special education program (Federal Register, 2006, p.46760, §300.34). Specialists, such as occupational therapists, were listed as related service providers and were expected to bring knowledge of disability and accessibility to the school environment to support the inclusion of children with disabilities in the least restrictive educational environment (Lipsky & Gartner, 1997). In 1990, the EAHCA was revised and renamed as the Individuals with Disabilities Education Act (IDEA). With revisions again in 2004, the IDEA continues to include occupational therapy as a related service for children with disabilities (IDEA, 2004).

Occupational therapy service providers who work as members of school special education teams are guided by the same professional standards of practice and theoretical positions as are occupational therapy providers in any other setting. Based on the contemporary professional literature, occupational therapy services in schools should be provided from an ecological perspective with occupational performance and participation being the sought-after outcome of services (Case-Smith, Overview, 2015). According to Case-Smith (Foundations, 2015) occupation centered therapy services that emphasize interactions between person, environment, and occupations are strongly supported by evidence for producing positive outcomes.

Recognizing that the profession has historically had a strong focus on reductionist perspectives influenced by the medical profession, Case-Smith (Overview, 2015) also promotes a strengths based approach for developing goals and interventions. She states:

The strength based model contrasts with the traditional medical model, in which the focus of intervention is on identifying the health or performance problem and resolving that problem. . . Focusing on a child's performance problem does not always lead to optimal participation and improved quality of life. Because occupational therapists are concerned with a child's full participation in life activities, focusing solely on impairment narrows the vision of what the child can become and do. (p.3)

Case-Smith (Foundations, 2015) states that "therapy goals that focus on the child's deficits and missing skills miss the opportunity to use the child's strengths to promote function and participation" (p.35).

Bazyk and Cahill (2015) outline the different ways in which school-based occupational therapists can provide services. Traditionally, service delivery in schools was based on a clinical model in which one therapist provided direct services to one child in an isolated setting (Bazyk, et al. 2009). While this one-to-one model is still used by school occupational therapists; direct services in contemporary school-based practice also include co-teaching with regular and special education teachers, embedding occupational therapy services in natural classroom and school routines, and providing small integrated group services to children with disabilities and their non-disabled peers (Bazyk & Cahill, 2015). Therapists also provide services to children indirectly. Indirect services are provided on behalf of a child and can include time the therapist spends providing education to school staff, consultation and planning time with teachers, and time spent modifying or adapting tools, equipment and other aspects of the environment to increase a child's access to educational activities (Bazyk & Cahill, 2015).

Given the range of options for service delivery, Bazyk and Cahill (2015) make the case for integration of occupational therapy services in general education environments and classrooms and emphasize the importance of non-intrusive interventions. The authors state that “pull-out services in isolated therapy rooms filled with contrived activities and equipment are no longer considered best-practice in schools” (p. 686). Bazyk and Cahill (2015) caution against reliance on traditional service delivery models and enunciate the benefits of inclusive and collaborative service delivery models to all members of the school community. The position of these authors is supported by an extensive body of literature from both special education and occupational therapy scholarship which will be further elaborated upon in the following sections.



## History of Special Education

The existing system of special education was built upon a medical perspective of disability which presumed that those individuals who present with differences in intellectual, physical, social, or emotional capacities embody pathologies that prevent them from participation in mainstream society (Lipsky & Gartner, 1997; Skrtic, 1995). This notion of disability can be traced back to the scientific growth and professionalization of Western medicine (Foucault, 1973). As the practice of medicine was being established in the early nineteenth century, the study of physical, emotional, social, intellectual, and aesthetic variations of humans became dominated by binary thinking that categorized individuals as either normal or abnormal. Those individuals classified as abnormal were presumed to have pathological conditions that made them unfit for public life (Foucault, 1973). Seen as pariah's who were regarded as economic and social liabilities to productive and capitalist driven societies (Linton, 1998), individuals with disabilities increasingly became the subject of medical practices aimed at curing, correcting, or fixing their inherently disordered bodies and minds (Byrom, 2001; Stiker, 1999).

As the medical focus on disability became the predominant paradigm through which individuals with disability were perceived and dealt with in Western cultures, wide scale institutionalization for the purpose of education, vocational training and custodial care became the normative placement for children and adults deemed abnormal by medical experts (Byrom, 2001). The eventual overcrowding of institutions, lack of humane treatment of residents, and paucity of meaningful education and/or training led parents to advocate for children with disabilities to access public education in the same schools and classrooms as non-disabled children (Lipsky & Gartner, 1997).

In 1972, two U.S. District Courts; one in Pennsylvania and the other in the District of Columbia, *Pennsylvania Association for Retarded Citizens v. Pennsylvania* and *Mills v. District of Columbia Board of Education*, settled cases in favor of parents by ruling that children with disabilities could not be denied access to public education (Huefner, 2006). The court rulings also stated that education of children with disabilities had to be tailored to each child's individual needs. Because of these case outcomes and the continued advocacy of parent groups, Congress passed the Education of All Handicapped Children Act (EAHCA) in 1975 (Huefner, 2006). This act and the revised version of it under the name Individuals with Disabilities Education Act (IDEA) guaranteed that all children, regardless of disability, would have access to "free and appropriate public education" in the "least restrictive environment" "to the maximum extent appropriate to the needs of the child" (Federal Register, 2006, p.46541, §300.116).

The least restrictive environment clause requires public schools to educate children with disabilities alongside their non-disabled peers in regular classrooms with "supplementary aides and services" (Federal Register, 2006, p.46541, §300.107). This clause does not set a standard that a child who is receiving services must meet any academic, intellectual, social, psychological, or physical set of prerequisite skills to receive education with non-disabled peers. Contrarily, this clause implies that supplemental aides and services meet the child receiving services in the general classroom and educational settings. The least restrictive clause has been interpreted and upheld in several court cases as supporting the inclusion of children with disabilities in general education regardless of the nature of their disability or functional capacities (Lipsky & Gartner, 1997).

Despite the progressive positions taken by Congress in authorizing both the EAHCA and later the IDEA, both mandates were founded upon a deficit oriented medical perspective of

disability (Lipsky & Gartner, 1997; Skrtic, 1995). Medical perspectives and interventions have been adopted widely by schools and special education teams since the enactment of EAHCA (Bose & Hinojosa, 2008; Carroll, et al, 2011; Giangreco, 1995, 2008).

The process of identifying children with disabilities under IDEA requires extensive evaluation and documentation of child specific deficits and performance problems. Goals for the child's education are then established by members of an Individualized Education Plan (IEP) team (Huefner, 2006). The goals are typically focused around changing the performance skills and behavior patterns of the child who is receiving services. While IEP teams also identify assistive technologies and modifications for the purpose of accessibility, IEP goals highlight the efforts of the education team to improve the capacity of the child by minimizing impairments and promoting normalcy.

In school settings, the least restrictive clause inadvertently made room for more restrictive placements by providing IEP teams with latitude to determine that deficit reduction and skill development could be prerequisites to general education curriculum and environments (Lipsky & Gartner, 1997). The use of the phrase "maximum extent appropriate" (Federal Register, 2006, p. 46585, §300.117) left room for IEP teams to define what they considered appropriate for individual children. Because the interventions typically provided by special education and related service providers address an individual child's physical, intellectual, social, or developmental differences or purported deficiencies, they depart from what other children in a general classroom would receive for instructional or developmental purposes. Therefore, the interventions provided from a medical perspective are generally not conducive to inclusion of children with disabilities in general education settings (Giangreco 1995, 2008; McWilliam, 1996).

## **Traditional models of service delivery**

For this study and to be consistent with the literature in both special education and occupational therapy, I will refer to services provided through a medical perspective as “traditional”. I use the word traditional because these interventions represent the earliest and most common practices of special educators and related service providers (Bazyk, et al., 2009). This is also the term used in much of the special education and occupational therapy literature to refer service delivery models that are based upon the goals associated with reduction of impairments to improve function and segregation of children with disabilities from their non-disabled peers (Bose & Hinojosa, 2008; Giangreco, 1995, 2008).

In traditional service delivery model’s children receive their special education and related services in designated special education spaces with other children with disabilities. Access to general classrooms is available to children with disabilities only as their physical, cognitive, social, and emotional characteristics allow for them to keep pace with general education peers. If a child’s impairment(s) can be accommodated without significant alteration or disruption to the general classroom curriculum or routines, the child is allowed conditional access within the limited time frames in which the accommodations can be provided (Frattura & Capper, 2007; Lipsky & Gartner, 1997, McWilliam, 1996).

Also in traditional service delivery models, when children with disabilities are given access to general education classrooms, they are frequently removed by special educators and related service providers so they can receive interventions in special education classrooms or other available spaces in the school. This is a service delivery practice frequently referred to in the literature as “pull-out” services (Bazyk, et al., 2009; McWilliam, 1996). When children receive pull-out services, they are provided one-to-one or small group interventions with other

children who also have disabilities. Outcomes in this type of service delivery typically focus on development of specific skills, remediation of deficiencies, and / or correction of behaviors (Frattura & Capper, 2007; Lipsky & Gartner, 1997). In some cases, the goal is to simply placate children throughout their time at school (Carroll et al, 2011).

### **The problem with traditional service delivery models**

Along with the growing collaborative consultation and inclusion literature in special education, several critical perspectives of traditional roles of related service providers were published by educators in the 1990's. Wolery & McWilliam (1998), McWilliam (1996); and Giangreco (1995) found traditional models of related service delivery to be problematic and in contrast to the inclusive movements being promoted within the broader context of the special education (Skrtic, 1995). Wolery and McWilliam (1996) described three types of segregated service delivery typically provided by related service personnel in preschool settings. They classified these models as “*one-on-one pull-out, small-group pull-out, and one-on-one in classroom services*” (p.100). In all three models the child is the subject of the therapists' direct intervention efforts and little to no transfer of knowledge or skills occurs between the teacher and therapist. The authors conclude that these models of service delivery are “unduly restrictive” (p.100) and not exemplary models of best-practice (Wolery & McWilliam, 1996).

Additionally, McWilliam (1996) and Giangreco (1995) posited that traditional service delivery models, like those described by Wolery and McWilliam (1996), are typically designed around the providers' need to protect their professional identity and expertise from encroachment by other professions. By providing services considered to be within the purview of only their profession, therapists have shown reluctance to share strategies and specific knowledge with other professionals (Giangreco, 1995; McWilliam, 1996). When protecting their domain of

expertise, therapists typically predetermine IEP goals, therapy frequency and duration, and the nature of the services to be delivered. This occurs without the therapist having received the input of the entire IEP team. Interventions protecting the expertise of the provider are mostly delivered in specialized rooms and often require special equipment and supplies (Giangreco, 1995; McWilliam, 1996). Giangreco (1995) argues that services provided in this manner result in overall lack of communication and shared strategies between teachers and related service providers and leads to services that are disjointed, fragmented, and ambiguous.

Along with these criticisms from special educators regarding traditional related service provider delivery models, several occupational therapy publications emerged that offered similar critiques (Benson, 2013; Bose & Hinojosa, 2008; Case-Smith & Holland, 2009; Villeneuve & Hutchinson, 2012). Because of the overwhelming acceptance of inclusion as the best model of special education and related service interventions, the occupational therapy literature that critiques traditional service delivery is mostly presented as arguments for the integration of therapy services in inclusive classrooms using collaborative consultation as a primary intervention strategy (Hanft & Shepherd, 2008; Villeneuve & Hutchinson, 2012).

### **The shift to inclusive education**

Changing perspectives in general and special education since the enactment of EAHCA have promoted increased inclusion of children with disabilities in general classrooms (Lipsky & Gartner, 1997). Inclusive practices are often promoted by parents of children with disabilities and disability advocacy groups who reject the pervasive medical perspective of disability. These groups promote a social perspective of disability which posits that disability is not the result of individual deficit or pathology. Disability instead is regarded as the consequence of social and structural barriers that limit a person's access to public services and spaces (Linton, 1998). In

this social perspective of disability, the focus of educational interventions shifts from efforts directed toward changing individual children to meet a standard of “normal”, reducing their impairments, or improving their skill development to altering educational structures, teaching strategies, and social and built environments to accommodate the range of capacities and abilities represented by all children in the schools (Frattura & Capper, 2007; Lipsky & Gartner, 1997).

Despite the interest in changing focus of interventions to institutional structures versus individual children, traditional interventions and models of service delivery have been supplemented, rather than replaced, by additional service delivery strategies and options that promote the inclusion of children with disabilities in general education (Jackson, et al., 2010). Co-existing with traditional special education and related services practices are inclusive strategies aimed at building the capacity of general education teachers to reach a more diverse range of student abilities. These strategies, which are overwhelmingly supported as best-practices in the literature, include teaming, co-teaching, coaching, collaboration, consultation, and differentiated instruction (Frattura & Capper, 2007). They are, however, less often used than traditional interventions and therapists report contextual challenges when trying to incorporate them among their traditional practices.

As related service providers on special education teams, occupational therapists have also experienced the expansion of intervention strategies and service delivery models promoted by ecological frameworks and inclusive initiatives (Hanft & Shepherd, 2008). The school-based occupational therapy literature pertaining to service delivery models references traditional and inclusive interventions in much the same way as the special education literature (Weintraub & Kovshi, 2004; Wolery & McWilliam, 1998). Given the broad range of service delivery options available to school-based occupational therapists, the scope of this review is to examine what the

professional literature supports as best-practice and juxtapose that with what the literature tells us about the service delivery models therapists use in every day practice.

### **Collaborative Consultation as Special Education Best-Practice**

Literature in special education began to emerge in the mid 1980's to guide educators in selecting the most efficacious practices to produce outcomes that had a higher likelihood of increasing opportunities for students with disabilities to engage in post-secondary education, meaningful and gainful employment, independent community living, and access to mainstream social and leisure activities (Idol, et al., 1986). A departure from traditional models of service delivery, these practices included a significant focus on the development of collaborative and consultative strategies between special educators, related service providers, and general educators. Using the practice of collaborative consultation, educators found they could more fully support the inclusion of children with disabilities in general education classrooms (Idol, et al, 1986).

Idol, et al. (1986) provide one of the earliest and most comprehensive sources of information on collaborative consultation as a strategy for the integration of special and general education. In their seminal work, *Collaborative Consultation*, the authors provided a definition and working model of collaboration and consultation for educators. The model was specifically intended to stimulate special and general educator's joint responsibility for increasing the achievement of all learners and operationalize the core principles of collaborative consultation (Idol, et al., 1986). Their triadic and linear representation placed the increasing capacity of general education teachers directly between the student and special education teachers. In collaborative consultation, the special education teacher is expected to work collaboratively with



general education teachers to impact the way the general teacher approaches the learning needs of special education students (Idol, et al, 1986).

The conceptual framework offered between the first and most current edition of *Collaborative Consultation* has evolved from the simple triadic and linear representation of the model to a Venn diagram with representation of related service providers included and overlapping with special and general educators (Idol, et al., 2000). The overlapping of the circles represents the effort to reach the learner who is in the center of the overlap. In this representation of collaborative consultation, additional context is provided that accounts for the personal attributes and knowledge of the providers who are depicted in each of the overlapping circles (Idol, et al., 2000). This Venn diagram also includes additional providers of specialized services who are often part of special education teams. Occupational therapists fall into the category of related service providers who were included in the collaborative consultation model represented in the Venn diagram. By including related service providers, the authors are indicating the importance of extending the model of collaborative consultation to all members of special education teams.

### **Collaborative Consultation as Occupational Therapy Best-Practice**

Among the early literature promoting the shift of occupational therapy services from traditional intervention models such as one-to-one, pull-out, and deficit remediation to ecological and occupation based models is the work of Rourk (1996), Kemmis & Dunn (1996) and Hanft & Place (1996). These authors called for a change in school-based occupational therapy practice from interventions focused on changing children and children's capabilities (medical focus of disability) to interventions focused on changing the nature and delivery of regular education to accommodate children with disabilities. They also made a direct call to therapists to support

efforts to build the capacity of general educators to meet the unique needs of children with a range of disabilities.

Rourk (1996) suggested a new role for occupational therapists by examining the history of traditional practices. She identified the roots of school-based occupational therapy as being situated in medical perspectives of disability. Having transferred therapy approaches from hospitals and rehabilitation units into public schools, therapists focused on “curing or fixing the student’s deficit” (p.698). Recognizing the inclusion movement prevalent in the mid 1990’s, therapists began to discover that the medical based one-to-one interventions provided in segregated spaces were more of an interference than a support to achieving educational outcomes with children with disabilities (Hanft & Place, 1996).

Rourk (1996) argued that “there is not a direct relationship between improvement in performance components and better functional performance” (p. 700). She emphasized the need for therapists to “help with adapting curriculum, instruction, and school environments to meet the needs of students with disabilities” (p.700). Rourk (1996) stated that the challenge facing school-based therapists in future years would be to break from traditional practices and adopt the integration of therapy services into general education environments. She specifically discussed the importance of consultation as a valuable school-based occupational therapy practice and suggested that when used as part of the continuum of service delivery from direct to indirect interventions, consultation would create opportunities for other school personnel to support therapeutic interventions outside of scheduled therapy time (Rourk, 1996).

When studying the effectiveness of ten therapist-teacher dyads who committed to using principles of collaboration and consultation for one academic year, Kemmis and Dunn (1996) reported positive outcomes toward IEP goal attainment as well as strong teacher preferences for

therapist interventions using a collaborative approach. The teachers and therapists jointly targeted student goals and engaged in weekly problem-solving. Together, the therapist and teacher dyads agreed upon strategies that the teacher would implement in the classroom. Sometimes the identified problem or goal required therapist observation in the classroom or school setting of interest and other times the intervention strategies were developed just through weekly discussions (Kemmis & Dunn, 1996).

There wasn't a control group or pre-existing data in the study by Kemmis and Dunn (1996) to compare goal attainment outcomes; of greater importance is the preferences of the teachers. Teachers utilized the collaborative sessions with the occupational therapists to promote student's academic performance and improvement in social skills. Regardless of whether interventions in this study were remedial (fixing a problem) or compensatory (accommodating a problem), the teacher-therapist dyads reported a preference for collaborative consultation as a model of service delivery (Kemmis & Dunn, 1996). The authors concluded that their findings supported the efficacy of collaborative consultation as an intervention strategy that teachers found beneficial.

Hanft and Place (1996) published *The Consulting Therapist: A Guide for OT's and PT's in Schools*. This book references special education literature as well as early occupational therapy studies that framed collaborative consultation as best-practice. This was one of the first comprehensive guide to school-based occupational therapy practice that focused specifically on the role of occupational therapists as consultants to special and general education teachers. The authors defined occupational therapy consultation as "the process of providing therapy services to enhance student performance primarily by working with classroom teachers, families, and other team members" (Hanft & Place, 1996, p.10). This publication provided an important

starting point from which occupational therapists could broaden their service delivery models to extend beyond the traditional practices that had defined school-based occupational therapy practice until that time.

In 2008, Hanft and Shepherd took the concept of collaboration and consultation further in an updated version of the Hanft and Place (1996) guide. The updated version is titled *Collaborating for Student Success: A Guide for School-Based Occupational Therapy*. This book is founded upon a strong base of evidence in both special education and occupational therapy literature from 1989 – 2006 that supports collaborative consultation as a best-practice in school-based occupational therapy. This publication clearly lays out how inclusive initiatives and collaborative practices among professionals align with IDEA mandates and produce positive outcomes for students. In providing the importance of collaboration and consultation, the authors clearly state that “the traditional service model of providing only pull-out therapy to students with disabilities in therapy spaces and places is no longer considered effective practice” (Hanft & Shepherd, 2008, p.26).

### **Factors that Impact School-Based Occupational Therapy Service Delivery**

A number of studies provide various descriptions of personal, professional, and structural problems that impact the way therapists provide services (Benson, 2013; Bose & Hinojosa, 2008; Giangreco, 1995; Spencer, et al., 2006; Teeters Myers, 2008). These studies shed light on the nature of interventions therapists provide, the values therapists hold about their services, and therapists’ ideas about their role as members of IEP teams. While some studies offered suggestions for creating changes in service delivery patterns, others identified the need for further research to understand the reasons therapists provide services as they do.

Hanft and Shepherd (2008) discuss interpersonal, personal, and system level challenges that can create barriers to using service delivery strategies outside of traditional models. In interpersonal challenges therapists may confront unwillingness of others in the school setting to work from a collaborative model, may not have the interpersonal skills to interact in a manner that promotes teamwork among colleagues, and may not have the confidence or ability to share their own knowledge and skills with others. When discussing personal barriers, Hanft and Shepherd (2008) recognize that therapists who have been using traditional models of service delivery and intervention practices may have belief systems about their role in schools that prevent them from adopting new practices. If they hold to the belief that contact time with students and direct intervention is the most important and efficacious use of their time, then changing to indirect services will be perceived as unproductive or lead others to believe they are incompetent. System level challenges to collaborative consultation generally include long standing school practices, school policies, and knowledge and beliefs of all stakeholders in the school regarding the value and benefit of indirect and non-traditional service delivery models. System level problems also include large caseloads, lack of planning time, and inflexible scheduling options (Hanft & Shepherd, 2008).

Spencer, et al. (2006) surveyed over 100 therapists in Colorado schools to examine their most commonly used practices. Therapists reported that most services were provided outside of general education and that interventions focused on goals established exclusively by the occupational therapist. In this study, more than 60% of interventions were directed at specific skill development and /or remediation of identified performance deficits. These findings are consistent with Case-Smith & Holland (2009) who conducted a literature review on delivery of related services in early childhood programs. Based on survey studies, they found that

occupational therapists provided approximately 50% of school-based services using an indirect consultative model. Factors associated with how therapists made decisions about where to deliver services were not explored in-depth in these studies.

Spencer, et. al (2006) were not able identify a conclusive reason for the use of traditional models of service delivery therapists reported in their survey. They emphasized the need for further research to understand why, in light of professionally accepted standards of best-practice that contradict traditional medical based interventions, therapists continue to provide the majority of services that are not inclusive and do not include inter professional collaboration and consultation. Case-Smith and Holland (2009) did not seek to answer why services are delivered as they are but do suggest that scheduling challenges and large student caseloads may act as barriers to optimal service delivery. They suggest that therapists should opt for more flexible scheduling practices and offer suggestions and scheduling models to consider. Unfortunately, Case-Smith and Holland (2009) do not provide much discussion of how therapists might operationalize their scheduling recommendations considering restrictions associated with IEP documents and structural school barriers as pointed out by Hanft and Shepherd (2008).

Attempting to understand therapists' perceived barriers to best-practice, Bose and Hinojosa (2008) conducted a qualitative study using grounded theory and semi-structured interviews with six school-based occupational therapists. The interviews allowed therapists to share their values around service delivery and their personal experiences as occupational therapists in pre-school settings. The therapists indicated that they valued the process of collaboration but didn't discuss the outcomes of collaboration as being significant or important to their service delivery decision-making. Among barriers they identified to collaboration were lack of time to formally meet with teachers, lack of administrative support to allow for teacher-

therapist collaboration time, teachers who they perceived as unreceptive to their collaborative efforts, and poor communication between team members (Bose & Hinojosa, 2008).

In addition to these findings Bose and Hinojosa (2008) found the therapists' perceptions of themselves as "experts" (p. 293) was highly problematic. What therapists described in the interviews as being consultative and collaborative was not consistent with basic principles of a collaborative consultation model of service delivery. Therapists expected teachers to implement interventions they recommended but they did not engage in a back-and-forth exchange with the teachers to discuss and jointly strategize the nature and type of interventions that they were recommending. Participants described themselves as advice givers more than as collaborators (Bose & Hinojosa, 2008). These findings are consistent with the criticisms of Giangreco (1995), McWilliam (1996) and Wolery and McWilliam (1998) who problematized therapist's protection of their perceived expert status.

The Bose & Hinojosa (2008) study is of particular interest because it sheds some light on the personal and professional attributes of therapists that act as a potential barrier to best-practice. As mentioned by Hanft & Shepherd (2008), Giangreco (1995) and McWilliam (1996), therapist's beliefs about themselves and their role in the school setting can be contradictory to providing services that align with best-practice. In the Bose & Hinojosa (2008) study the therapists did not seem to have much insight into how their behavior during collaborative efforts was contradictory to the core principles of effective collaboration. The authors' recommendations were for therapists to be more reflective about their role as the "expert" when engaging in the consultation process with other school personnel.

Reflecting on a four year initiative to promote inclusive practices in a large school district comprised of a team of 85 occupational therapists, Beck Ericksen (2010) reported that

therapists felt that their professional identity was threatened when expected to change their intervention focus from a child's reduction of impairments and development of skills to collaboration with educators on classroom interventions for the purpose of including children with disabilities in classroom instruction and routines. This reflection by Beck-Ericksen (2010) suggests that therapist's protective ideas about their practice may put them at risk for constraining movement toward more effective and contemporary models of service delivery.

Additionally, Beck-Erickson (2010) stated that teachers and parents expected therapists to "fix" children and "therapy was therefore provided 'to' children instead of 'with' children" (p.67). When this was the case, it was expectations from other members of the special education team that made collaborative consultation difficult for therapists to embrace and implement. The Beck-Ericksen (2010) article provides some insight into what therapist's experience in practice when attempting to change their service delivery patterns. What this article doesn't offer, however, is an understanding of how various factors interact to impact therapist's decision making about service delivery. This article is also not a formal study and as a reflection of an individual's experiences has limitations in generalizability.

Similar to Beck-Ericksen (2010), in a qualitative study of 16 occupational therapists, Benson (2013) found that role confusion was present as therapists attempted to shift service delivery from traditional interventions to inclusive and collaborative interventions. Therapists reported that general education teachers at times expected pull-out services from therapists and specifically indicated what they wanted therapists to work on during removal time from the general classroom. Overall the therapists reported that the general education teacher determined where the therapy interventions would be provided by acting as a sort of gate-keeper to the classroom and curriculum (Benson, 2013).



Despite over 90% of therapy participants in the Benson (2013) study having reported a preference for providing interventions in general classrooms, they found themselves frustrated by their experiences with general education teachers. Role confusion became problematic when therapists felt they were treated as a visitor or outsider to the general classroom. In Benson (2013) therapists also discussed lack of administrative understanding of the role of the occupational therapist and an overall lack of value of the services and interventions the therapists provide as members of IEP teams. These types of relationships with teachers and school administrators have implications for the decision-making autonomy of therapists.

This summation of literature gives some insights into how therapists provide services and how various factors impact their service delivery patterns. It also serves as a starting point from which to build a broader understanding of the complexity of factors that impact decision-making among occupational therapists in school-based practice. To develop a deeper understanding of what drives therapists to make service delivery decisions, this dissertation study undertook to explore the processes of decision-making adopted by therapists and their explanations for the same.

### **Why Context Matters**

The overwhelming consensus of the studies and publications in both special education and occupational therapy is that inclusion of children with disabilities into regular classrooms and curriculum is the best means of producing positive outcomes for everyone. To effectively provide inclusive education for all children, special education team members will be most effective when working collaboratively to ensure the education environment meets the needs of all children (Idol, et al., 2000). Traditional models of service delivery which isolate and segregate children with disabilities from their peers and focus on deficit and impairment

reduction are well known to be less effective than inclusive service delivery options (Frattura & Capper, 2007; McWilliam, 1996; Mu & Royeen, 2004).

There are a number of reasons cited in the current literature for therapist's use of traditional practices. Conclusions about what "should" be happening are stated in the available literature as well as recommendations for how therapists can operationalize more varied service delivery models. While these conclusions and recommendations are valuable, they tend to simplify service delivery into changing what therapists do without fully understanding the complexity of the systems in which they work.

What is missing across these studies is a deeper look at the contextual factors that therapists are expected to negotiate on a day-to-day basis when deciding how to deliver occupational therapy services. These studies raise several questions that need exploration. For example, although it seems unlikely, is it at all possible that therapists are making conscious decisions to ignore or defy practice recommendations from the fields of special education and occupational therapy? Or are there other reasons as to why they do what they do? It is perhaps more plausible to argue that they have retained or fallen back on traditional practices because of the entanglement of factors associated with the structural aspects of the special education system, the common practices of the school district and schools in which they work. The literature examines the varieties of reasons and barriers in therapist's work including their own beliefs and interpersonal relations. However, there is little in the literature that examines how therapists make day-to-day decisions regarding service delivery. What are the multiple and overlapping influences on therapists that bring them to the point of making service delivery decisions? What considerations go into their decision-making?

This study sought to explore decision-making of school based occupational therapists to gain a deeper understanding of contextual factors they consider when making decisions about the best means of service delivery for individual students. By asking therapists directly about their perspectives of school-based practice, having them describe how they make service delivery decisions, and asking them to share stories that animate their experiences, I have been able to affirm and expand findings of previous studies. By illuminating the complexity of school-based practice, this study can serve to steer the conversation from suggestions and recommendations for individual therapists to consideration of the broader context of special education service delivery. This study provides a reminder that occupational therapy services are deeply embedded in a historical system of special education service provision that while having changed over time, also changes as a unit with all moving parts impacting movement of the others.

### **Chapter III: Methods**

Creswell (2007) states that qualitative study designs are selected when “a problem or issue needs to be explored” (p.39), when we “need a complex, detailed understanding of the issue” (p.40), and because “we want to understand the contexts or settings in which participants in a study address a problem or issue” (p.40). Through my personal experiences as a school-based occupational therapist and my review of scholarly literature, I have realized a need to explore the ways in which therapists describe their daily decision-making process regarding delivery of school-based occupational therapy services. I found qualitative methods using semi-structured interviews of school-based occupational therapists to be an effective and credible means of learning about the complexity of contextual factors that impact the experiences of individual therapists.

In this chapter I will present my research questions along with the rationale and justification of my chosen methods. I will then discuss my process of recruitment and provide detailed descriptions of my participants and study sites. I will conclude this chapter by discussing my data collection and analysis process.

#### **Research Questions**

This study sought to explore therapist’s perceptions of the complexity of factors that impact their day-to-day decision-making. This study was designed using qualitative methods in response to the following research questions:

1. How do occupational therapists discuss and narrate the process by which they make in-the-moment decisions about service delivery in public elementary schools?

2. According to school-based occupational therapists, what factors influence the service delivery decisions they make?
3. Specifically, what are school-based occupational therapist's perspectives regarding why and how they make service delivery decisions?

### **Use of Qualitative Methods**

The research questions of this study were best explored through qualitative methods which are described by Trainor and Graue (2014) as being well suited to respond to “how” and “why” questions in complex contexts. The interview methods used in this study were also suitable as a means for social scientists to “explore, describe, or explain social phenomenon; unpack the meaning people ascribe to activities, situations, events, or artifacts; build a depth of understanding about some aspect of social life. . .” (Leavy, 2014, p.2). According to Savin-Baden and Major (2013), a hallmark of a quality study using qualitative methods is methodological coherence. Researchers need to ensure “congruence between the research question, methods, data and analytical processes” (p.477). The purpose of this study is to explore therapist's perceptions of the various factors that impact their decisions about where, when, and how they deliver occupational therapy services in school settings. Qualitative methods provided methodological coherence as the best means of learning about the social phenomena and contextual realities school-based occupational therapists encounter in practice.

Using qualitative research methods requires the development of trustworthiness of the researcher, the data, and the findings. Lincoln and Guba (1985) described trustworthiness in terms of credibility, transferability, dependability, and confirmability. I offer a summary of these

terms below to indicate how they will be used throughout this chapter to describe my research process.

### **Definition of terms: trustworthiness**

- **Credibility:** Confidence in the meaning of the findings and accurate, thorough representation of the data.
- **Transferability:** The extent that the findings are applicable to other contexts. Transferability is achieved through thick descriptions of the data and contexts.
- **Dependability:** The extent to which the study and findings can be replicated. Transparency of methods and analytical process provides dependability.
- **Confirmability:** The degree to which the study is based on neutrality of the researcher. Critical reflection of self and positionality provides a degree of confirmability. (Lincoln and Guba, 1985)

While discussing my research process, I will also talk about methods that I used to meet Lincoln and Guba's standards of trustworthiness (1985). For the purpose of discussion, I have included a definition of terms associated with methods. These include transparency, positionality, reflexivity, and triangulation.

### **Definition of terms: methods**

- **Transparency:** The extent to which the researcher discloses her/his methods, interpretive framework, and potential subjective biases that could influence the study (Trainor & Graue, 2014).
- **Positionality:** The extent to which the researcher reveals professional experiences and identity as related to the subject of study. The role and biases of the

researcher have the potential to overshadow the voices and contributions of the participants, therefore, exposing the researcher's position related to the participants and the study is a crucial aspect of transparency (Creswell, 2007).

- Reflexivity: In order to present substantiated and credible claims in the study findings, the researcher needs to be critically reflective about methods, theoretical and philosophical frameworks, and interpretation and use of data throughout the study process (Trainor & Graue, 2014). Reflexive note taking as well as memo and journal writing are a few examples of researcher reflexivity. According to Cho and Trent (2014) reflexivity is a way for researchers to hold themselves accountable for the data and findings they present.
- Triangulation: This is a strategy that is widely used to corroborate evidence across multiple sources of data (Creswell, 2007). Stake (2010) describes the act of triangulation as “look again and again, several times” (p.123). Triangulation serves as a means of cross examining the data for the purpose of finding confirmation of the researcher assertions. If the researcher's check and recheck method is not confirming of assertions, then the researcher needs find another way to unpack the data (Stake, 2010).

As I describe my methods in the remainder of this chapter, I will use the preceding terms to discuss how I sought to ensure trustworthiness of my research process. I will begin with disclosure and transparency regarding my positionality and relationship to the study participants. I will highlight the importance of finding school-based occupational therapists who were not familiar with me or my positions on issues pertaining to special education services or school-

based occupational therapy. Additionally, I will discuss how I used an audit trail to document my methods and describe my research process.

### **Positionality**

Having previously completed a pilot study in which I conducted interviews and observations with four school-based occupational therapists, I realized the importance of my positionality with the therapists who I intended to recruit to this study. In the pilot study, I recognized fairly quickly that the familiarity the participants had with my philosophies about special education, inclusive services, and the role of occupational therapy in public schools influenced how they interacted with me. In the pilot study, all the therapists had been to presentations that I had provided on topics associated with school-based occupational therapy. There were multiple times during my pilot study that participants made comments suggesting they were either trying to schedule observations that supported inclusive practices or felt compelled to explain to me why they were providing services outside of general classrooms. So, while I attempted to maintain the role of observer and interviewer, the therapist's background knowledge of my positions and perspectives seemed to have influenced the days and times they agreed to invite me to their schools as well as their verbal responses to my interview questions and informal discussions. Assumptions held by the participants during the pilot study helped remind me that I needed to find a participant pool that did not hold prior assumptions of me and who were trying to tell me what they thought I wanted to hear. In my study, I chose therefore to recruit therapists who were not known to me personally

In terms of positionality with participants in this study, none of the 14 therapists had any prior knowledge of me or my work as a school-based therapist. My e-mail contact and subsequent interviews were the first interactions I had with the school districts and with my



study participants. This positionality preserved credibility and confirmability of responses because it allowed me, as the interviewer, to maintain a neutral stance with individual participants. Therapist responses were more likely to be authentic and uninhibited because they were not influenced by what they believed I might be expecting or wanting them to say. I believe that for the purpose of this study, I was able to minimize tensions and unease of participants by selecting sites in which there was relative unfamiliarity between myself, as the researcher, and the study participants.

Like all positionalities in qualitative research, not knowing the participants also brought with it some challenges. I was especially careful when interpreting their words, and tried not to take what they said for granted. I asked questions for clarity and explanation so that I did not misinterpret what they conveyed. Being of the same professional background as the therapists I found that it was easy to assume mutual understanding of common terms and ideas. For example, when therapists used terms such as “inclusion” or discussed “pull-out” interventions, I envisioned these strategies being used relative to general education classrooms. As I probed for more explanation from the therapists, I learned that they were talking about how they used these strategies relative to self-contained special education classrooms. This was an important clarification because their use of these terms differed from the literature. A misunderstanding of their practices would have been consequential for my findings and implications for practice.

Throughout my reflective journaling and as a consumer of scholarship related to disability, occupational therapy, special education, and social justice, I recognize that even with my reserved responses to sharing personal perspectives with the therapists, I cannot fully eliminate my own influence on the data and findings (Miller and Glassner, 1998). While I share a professional knowledge base and common experiences in school-based practice with my

participants, it is my perspectives and experiences which led me to conduct this study in the first place. Therefore, it was not possible to erase my own ideas or perspectives when mining the data and pursuing meaning and themes. While the subjective I is considered important in qualitative research, I have used that subjective knowledge for reflection. My overt intention as the researcher in this study, is to contribute to a body of knowledge that school-based occupational therapists and special education teams can use to critically examine their own practices and use as a pivot point toward more emancipatory practices.

### **Audit trail**

The overall quality of a study and the degree to which it meets standards of credibility, transferability, dependability, and confirmation can be showcased through an audit trail. Throughout the research process, the investigator develops an audit trail by keeping detailed memos, journals, and notes about the entire process. Record keeping and journaling provide a mechanism for retracing the origin of data, tracking the analytical process, triangulating themes and findings, and creating dependability that the study can be reproduced (Savin-Baden & Major, 2013). I used personal journaling throughout the research process and created an audit trail that included notes about recruitment, scheduling, therapist contact, data collection, my personal reflections, descriptions of the areas in which I traveled for interviews, connections to theory and literature, and other reflexive thoughts that helped me process what I was learning. In the following sections of this chapter I relied on notes from my audit trail to present the sequence of steps I used throughout the research process. I first describe my process for school district and participant recruitment, including descriptions of my sites and participants. Then, I discuss data collection, and lastly, I provide a description of my data analysis process.

## Recruitment of Participants

The recruitment process began upon receiving approval for the study from the University of Missouri Internal Review Board (MU IRB). The MU IRB approval was provided with a contingency of written consent from one or more participating school districts. Occupational therapy colleagues at the University of Missouri then provided me with contact information for two different school district administrators who they believed would have interest in my study and could guide me through the process of seeking study approval in their respective districts. I reached out to the administrators with a descriptive e-mail requesting participation of their school-based occupational therapists. The e-mail triggered a full research review processes in both districts. Both districts provided written approval of the study procedures and methods. The study was then given final approval by the MU IRB committee.

Both districts provided me with e-mail and phone contact information for recruitment of individual therapists. Per administrative request and recommendation, I provided the primary contact person in each district with the MU IRB approval documentation and the approved recruitment text for the district therapists. Each district's primary contact person sent the e-mail text to the occupational therapy staff. Therapists in both districts began responding to the e-mail within a few hours expressing interest in participating in individual interviews. The interviews were scheduled based on therapist availability and ease of access to the participating districts. As much as possible, interviews were scheduled on days I had blocked on my calendar for the sole purpose of interviewing. This resulted in two consecutive days in which I conducted 7 of the 14 interviews. The remaining interviews were spread across my schedule and all interviews were completed within a two-month time frame.

### **Sampling: participants and sites**

Creswell (2007) describes purposeful sampling as the process of selecting sites and individuals who can purposefully inform understanding of a research problem. As stated in my recruitment section, I purposely selected sites where I had no prior relationship with potential participants. Convenience of access also impacted my selected sites and participants. The collection of extensive data about the sites is also discussed by Creswell (2007) as an important aspect of sampling that elucidates the particularities and specifics of the issue being studied. For the purpose of collecting detailed information, therapist demographic and information forms were completed at the end of each interview. This prevented an interruption to the flow of the conversation during the interview process. Participants self-reported information such as their age, years of practice as an occupational therapist, years working in their current school district, and terminal higher education degree. Caseload size and hours worked in respective schools was also collected. See Appendix A for the specific form therapists were asked to complete. See Table 1 for therapist demographic information extracted from those forms.

As can be seen in Table 1, twelve of the therapists in this study hold Master's degrees and two are practicing with Bachelor's degrees. As a group, the therapists in the study had extensive experience working in school settings. Five therapists reported having over 10 years of experience in schools, three reported more than 16 years, two reported having worked more than 20 years in school settings, and the other four each worked between 4 and 9 years in the schools. With the exception of two therapists, they all worked more than 30 hours per week and most served 3-4 schools per week in their respective districts. The therapist's backgrounds and time spent in school districts assured me that my data set would include a wealth of experiential knowledge across an extensive time period.

Table 3. Therapist Demographic Information

Therapist Name	District	Highest Degree	Years in OT	Years in Schools	Years with employer	Hours per week in schools	Number of schools per week	Number of schools per year	Average caseload size
Melody	MRSD	Bachelor's	16-20	10-15	10-15	30+	2	3	21-30
Natalie	MRSD	Bachelor's	21-29	10-15	4-9	30+	3	3	31-40
Susan	MRSD	Master's	21-29	10-15	4-9	21-30	3	3	41-50
Katherine	SSC	Master's	30+	30+	4-9	30+	3	3	41-50
Rachel	SSC	Master's	16-20	16-20	16-20	30+	4	4	41-50
Samantha	SSC	Master's	16-20	16-20	16-20	30+	4	4	41-50
Debbie	SSC	Master's	21-29	21-29	21-29	30+	3	3	41-50
Jessica	SSC	Master's	21-29	16-20	16-20	30+	2	2	31-40
Sandra	SSC	Master's	10-15	10-15	10-15	30+	3	3	41-50
Audrey	SSC	Master's	4-9	4-9	4-9	30+	5	5+	31-40
Carla	SSC	Master's	10-15	4-9	4-9	30+	3	4	41-50
Janet	SSC	Master's	16-20	10-15	10-15	>20	1	1	>20
Penny	SSC	Master's	21-29	4-9	4-9	30+	2	3	41-50
Kelly	MRSD	Bachelor's	16-20	10-15	>4	30+	3	3	31-40

\*Key: MRSD= Mighty Rivers School District, SSC=Special School Cooperative

In addition to therapist demographic information, I collected publicly available demographic information about the school districts and individual schools in which the therapists were working at the time of the study. This provided me with background information for understanding similarities and differences among districts and schools. Participants represented schools in a total of 7 municipalities. To conduct interviews, I traveled to 9 different schools across the municipalities. Upon visiting the schools and talking with the therapists it became evident that my data included a broad range of socio-economic conditions across municipalities.

Some of the schools and neighborhoods appeared generously resourced and were situated in communities with thriving businesses and retailers, while others appeared to be located in areas of lower socio-economic conditions surrounded by urban blight in nearby business and retail districts.

In Appendix B, I have detailed demographic information about the schools where I interviewed the participants as well as detailed demographic information about the municipalities in which the various schools were located. All of the names of the schools, districts, and municipalities are protected with pseudonyms and were entered into a spreadsheet which is stored in NVivo 11 and the university server. What can be ascertained from the data is the variation in representation of schools situated in communities with poverty levels ranging from 5% - 26% and Bachelor's degree or higher education levels of the communities ranging from 11% - 66%. In some communities, the populations for people who identify as White was as high as 87% and as low as 30%. The Black population of communities ranged from less than 3% to 64% and Asian identities ranged from 3% - 9%. Other racial categories fell under 4% in all the municipalities.

The demographic differences noted in schools was more dramatic than the differences in the communities which were represented in the study. In communities with a population of White people and Black people being at 47% each, some of the schools had populations in which 98% of the student body were Black students. Black student populations at the schools ranged from 9% to 98% and White student population ranged from less than 2% to 81% overall.

Using pseudonyms, the two participating school districts from which I recruited therapists are named Mighty Rivers School District (MRSD) and School Services Cooperative (SSC). Both districts are located within the same Midwestern state. The districts were selected

because of their size and location. The Mighty Rivers School District (MRSD) is located in the city of Riverside. Riverside has an approximate population of 119,000 according to the 2015 U.S. Census Bureau (U.S. Census, 2015). Riverside is home to a large land grant research University as well as two other colleges. Student population among the university and two colleges is in addition to the population previously stated. In 2010, the population of Riverside was estimated as 79% White, 11% Black, 5% Asian, and all other racial categories and designations were determined to be less than 5% of the total population. Just under 25% of the population falls under the federal poverty line and the median household income hovers near \$45,000 per year. Over 93% of the population are high school graduates and more than 55% of residents hold a Bachelor's degree or higher terminal degree.

The Mighty Rivers School District is comprised of 21 elementary schools, 6 middle schools, and 4 high schools. To serve children between the ages of three and five, the district offers programming in two elementary buildings and in two buildings that serve exclusively as early childhood learning centers. The student population in the district has risen by over 1000 students between 2001 and 2016 and in January of 2016 was just under 17,000. In 2016, 45% of students in the Mighty Rivers district accepted free and reduced lunch. This percentage represents a substantial increase from 27% of students in this category in 2001. The racial demographics of the district represent student proportions that are not consistent with the city of Riverside overall. White students comprise nearly 62% of the student body while Black students represent 20%. Asian students account for 5% of the population, Hispanic students 6%, and multiracial students 6%.

The School Services Cooperative (SSC) is a unique and more complicated district than Mighty Rivers. It was established in the 1950's in a large city and adjacent metropolitan area to

exclusively serve the needs of children with disabilities across multiple school districts. As federal and state legislation increasingly mandated placement of children with disabilities in least restrictive educational settings and in neighborhood schools; the nature of services provided by SSC evolved and expanded. The current SSC district provides special education and related services to nearly 23,000 children across 22 school districts that are located within Fairway County. For the purposes of this study and because of the nature of SSC, Fairway County demographics will be presented as a city with multiple school districts and municipalities. The range of socio-economic conditions within the county and between school districts is significant and will be presented further in the subsequent data collection section.

While 97% of the children with disabilities served by SSC receive services in their home school districts; some of the special education students attend one of SSC's six self-contained special education schools throughout Fairway County. These schools include long and short term special education programs. Therapists from SSC discussed these schools in the interviews and some of them served the schools as occupational therapists. It is also important to note that the Midwestern state used in this study maintains 34 self-contained schools across the state that are exclusively for children labeled as severely disabled. These schools coexist with SSC self-contained schools in Fairway County. Students placed in the state-run schools are not attending their home schools and therefore not being served by the therapists in this study. While SSC and Mighty Rivers therapists do not provide occupational therapy services at the state-run schools, in some interviews the therapists shared their thoughts about student placement at the schools.

### **Data Collection**

Data for this study includes journal entries, publicly available data that pertains to the study sites, therapist self-reported demographic information, audio files, and interview



transcripts. To maintain focus on the therapists' decision-making process and their perceptions of the factors which impact their practice, I excluded the voices of school personnel, parents, and children in my data. Perspectives of school personnel, administrative structures, parents, and students became relevant only in terms of the therapist perceptions of these entities and the extent to which they discussed them in the interviews. Also excluded were specific school policy handbooks and codified rules and procedures specific to school districts or schools. These exclusions allowed me to focus my analysis on therapist's negotiations of related service delivery within and across schools as discussed in the individual interviews.

### **Semi-structured interviews**

As previously stated, semi-structured interviews were my primary source of data. Therapist interviews created a tool by which meaning could be derived from every day events experienced by therapists and explained through storytelling and discussion. I employed face-to-face and one-on-one interviews with each participant. Miller and Glassner (1998), Holstein and Gubrium (1998), and Brinkman (2014) state that social worlds can be learned about through in-depth interviews. These authors posit that interview data serves as a rich source of meaning making between the interviewer and respondent because of the collaborative and interactional nature of the interview process. Two ways in which face-to-face and one-to-one interviews provide valuable data include the building of rapport and trust with participants and by providing the additional context of physical presence between the interviewer and the respondent (Brinkman, 2014). By constructing open ended questions and probing for details and examples that further illustrated the concepts or points the participants made in their individual interviews (Holstein & Gubrium, 1998), I was able maintain focus on questions that provided narrative responses directly related to the research questions (Brinkman, 2014).

I also employed elements of active interviewing as described by Holstein and Gubriem (1998) by intentionally provoking narrative responses and storytelling from the participants. I used this strategy during interviews when therapists talked about how a specific factor impacted a decision they made. I would follow their response by asking if they could give an example of a situation which would further illustrate their response. As stated by Bochner and Riggs (2014), “when people tell stories, they interpret and give meaning to the experiences depicted in their stories” (p. 202). This meaning making through story telling during the individual interviews created a rich source of data from which I was able to understand therapist decision-making in the context of their school-based practice experiences.

Additionally, to respect the interests and curiosities of several of the study participants, I allowed for flexibility at the end of the semi-structured interviews for mutual sharing of knowledge and occupational therapy perspectives. Miller and Glassner (1998) state the importance of the interviewer finding balance between presenting “him – or herself as someone who is neither firmly entrenched in the mainstream nor too far at any particular margin” (p.104). This balance between being closely entrenched or outside the margins of the participant group was important for me in building rapport with participants but being careful not to unduly influence their responses. So, while I engaged in conversations about my practice experiences, I withheld my own philosophical perspectives on best-practice and inclusion so as not to create potential sources of conflict between myself and the participants. I also answered personal questions about my background knowledge, my interests leading to this particular study, and my intentions for sharing the findings of the study with the participating school districts once my work was completed.

Throughout the study, I made a deliberate and conscious effort to maintain neutrality in all of my interactions with the therapists. When therapists shared a belief that was fundamentally different than my own or an intervention strategy that I personally felt was questionably effective, I asked them to expand on their responses or provide an example to further describe the scenario. I used the same probing strategy when therapists shared perspectives and practice experiences which I felt were relatable to my own perspectives and practices. This neutrality or what researchers have referred to as “reflexive bracketing” (Ahern, 1999) allowed me to set aside my own assumptions as I engaged with participants. This created a high degree of confirmability and assured that the interview responses were authentic and represented the therapist views and not my own.

Using the recommendations of Horvat, et al. (2013) as a guide to interviews, I chose to audio record each interview and refrained from taking written notes. This allowed me to stay focused on the responses of the participants and to pick up on the nuances of individual respondent’s non-verbal behavior. Prior to proceeding with an individual interview, each participant was provided with a written explanation of the study process and purpose. Therapists were given the opportunity to ask questions and clarify their role as participants in the study. Upon their approval, the audio recording device was turned on and placed on the table in view of the participant.

Each interview was conducted using a protocol of open ended questions (Appendix C). Individual participant responses served as a guide to further questions which were used to probe for the peculiarities of a situation or specific examples of factors which therapists indicated influenced their decision-making. Therapists were asked to describe their decision-making process for service delivery, their best moments as a school-based occupational therapist, their

day-to-day challenges, and what they specifically believed were factors impacting their decision-making at the district, school, classroom, and student level. Additionally, I included a specific question about how the IEP process impacts service delivery decision-making. When I thought their stories would provide thicker and richer data, I asked therapists to expand on their responses with examples and scenarios of practice situations that would illustrate their decision-making process.

### **Journaling and reflection**

Beyond interview data and publicly available demographic information about the schools, districts, and municipalities in which I collected data, I also engaged in the process of journaling and recording field notes. Horvat, et al. (2013) stresses the importance of field notes and the value of recording what is seen and heard at study sites at a time proximal to the actual data collection. Therefore, at the completion of each of the individual interviews I spent confidential time, typically in my car, audio recording my reflections and thoughts about the interviews and my research process. I recorded notes on the physical location of the schools where I conducted the interviews as well as the surrounding neighborhoods and business communities. I also reflected on comments made by the therapists and on information learned from them about the study sites. For example, both Audrey and Penny talked about the low socio-economic status of the geographical boundaries of the Central 3 school district. They also discussed how they believed that was related to the status of the district as having been targeted by the state as underperforming. Carla, likewise, talked about the upper income families associated with the Central 4 district and how she believes that impacts parental involvement in service delivery. My reflections of these interviews were important to capture immediately following the interview and voice recording proved to be the most efficient means for me to

capture my thoughts and recollections. I personally transcribed my audio recordings and my handwritten notes into a written document which is stored on the secure server at the university and in the data analysis software.

At the end of each day of data gathering, all the interview recordings were sent to a professional transcriptionist via a secure online site. Identifying information on returned written transcripts was replaced with pseudonyms. Transcripts and recordings were uploaded to NVivo 11 data analysis software and to a secure server through the University of Missouri for online storage. Hard copies of completed forms were scanned and uploaded to NVivo 11 and to the university secure server. Hard copies are stored in a locked file cabinet.

### **Data Analysis**

I used the data analysis spiral offered by Creswell (2007) as my conceptual framework for analyzing data from the interviews, my field notes and journaling, and the information I learned about the districts and school. This model was well suited to this study because it is explicitly not linear. Analysis of qualitative data is presented as a continuous spiral that includes reading, listening, classifying, interpreting, and representing the data in a manner that gradually builds toward and culminates in presentation of findings (Creswell, 2007). I found the data analysis spiral to be inherently triangulating. As can be seen in my description of process; listening to interviews, reading transcripts, coding, analyzing, and making sense of my data was a back-and-forth process that led me to development of themes and to finding relationships and tensions within and across the themes.

My data analysis process began with open inductive coding of de-identified transcripts in NVivo 11 Pro. According to Horvat, et al. (2013) and Stake (2006) open inductive coding allows

the researcher to find meaning within each interview and across interviews. This process is important for uncovering themes in the data. I continued the open coding process using in vivo and descriptive codes. Creswell (2007) and Saldana (2014) define in vivo coding as using the exact words of the participants to describe segments of data. This was a useful tool in this study. Shared terminology among the therapists included terms such as push-in, pull-out, IEP minutes, and compliance. These shared terms held common meanings across participants and served as specific data codes. Descriptive codes as defined by Saldana (2014) are characterized by nouns that summarize a topic of interest. Descriptive codes for this data included topics such as documentation, early childhood, handwriting, IDEA, and school administrators. Passages in the data were in some cases given only one code and in other cases passages were given multiple codes. For example, if therapists discussed how the IEP process impacted their decision-making and their quote included a discussion of parent, teacher, and administrator input, the passage may have been coded under descriptive codes such as; IEP, families, teachers, and administrators.

I continued coding individual transcripts until reaching code saturation (Horvat, 2013). Triangulation occurred when I went back to previously coded transcripts to double check that new codes developed later in the coding process were also used in the earlier transcripts. I ran word and phrase search queries to find possible gaps in the codes that were used in later transcripts but not in earlier ones. My data was represented in 128 nodes which were then checked for overlap and redundancy. For example, I found I had a node named *handwriting* and another node titled *writing interventions*. I merged these nodes into the one node under the title *handwriting*. I also examined the number of references within particular nodes and began the process of merging and categorizing nodes to create meaningful and manageable data clusters. This process reduced my number of parent nodes to 84 and resulted in richer and more

comprehensive query results. This made it easier for me to find specific segments of data relevant to themes and propositions.

Categorizing nodes served as an important step in the analytical process. Saldana (2014) states that organizing and categorizing data is an interpretive act that requires the researcher to ask “why” certain nodes belong together. Since there are numerous possibilities for the way nodes are categorized, the process requires researcher interpretation and sense making especially when the quantity of data is fairly large (Saldana, 2014). Node families were created as an organizational strategy. For example, I created a family of codes under the parent node of intervention activities. Codes such as handwriting, therapy ball, scissor skills, and fine-motor were used as child nodes for this parent heading. Additionally, transcripts were formatted so that each interview question served as a node. This allowed me to examine responses of all the participant responses across each specific interview question. This was helpful in finding similarities, differences, and potential tensions across the therapist’s perceptions and descriptions of their experiences.

In the analysis process, I conducted data queries which included simple word and phrase searches across all data and exploration of the content of individual nodes. I considered propositions from the literature to guide my queries and determine the extent to which my findings aligned or conflicted with the literature. To further triangulate my data and findings with current literature, I conducted an additional literature search as a means of filling the one year time gap from when I first wrote my literature review to when I began processing data. The additional time spent reviewing literature assures credibility and transferability of my findings. During this process, I also created an interpretive journal as a means of being reflexive with my

data and making connections between my data, my analysis, and other scholarly findings and positions regarding school-based occupational therapy service delivery practices.

I took additional steps to triangulate my data by listening to several of the interview recordings a second time and by reading through transcripts for meaning and detail. Listening to interview recordings reminded me of the nuances in therapist's tone of voice, their pauses and hesitations, their excitement and enthusiasm, and the overall message each therapist relayed during the interviews. As I began discussing my findings and interpretations of data with my advisor, I was met with critical questioning regarding some of my interpretations. This led me back to the transcripts and audio recordings and resulted in a deeper and more robust analysis of the context of therapist statements. Because of this process I took care to revise my analysis when necessary and assure a more credible interpretation of data and overall findings. Stake (2010) refers to this process as progressive focusing and describes it as informal triangulation. Stake points out that progressive focusing "signals our commitment to gradualness, and effort to control presumption and invalidity" (p.132).

The iterative and spiraling process of data analysis led me to the development of a graphic concept map from which I developed themes and sub-themes. Creswell (2007) recommends development of a visual representation of data to aid in theme development and overall organization of information. I chose to develop a concept map with the research questions in a center box and developing themes branching off to the sides. This allowed me to "see" themes and subthemes and provided me the opportunity to progressively revise and rearrange concepts as needed for coherent analysis and representation of findings. My early thematic structure in my initial concept map included IEP and procedural compliance, child deficits, and perceived role of OT. Additional branches were developed from these themes that



were then reorganized in various iterations of the concept map as I continued to write interpretive journal notes, listen to interviews, converse with my advisor, and look to the literature for meaning and understanding of the data. These triangulation steps reminded me of my researcher positionality and caused me to be more reflexive in in data interpretation as well as check for bias as I searched for themes.

Continued triangulation of data and progressive focusing on findings resulted in four primary themes and several subthemes that I found to be responsive to my research questions regarding how school-based occupational therapists make service delivery decisions. The four themes are: 1. How OT's identify their role, 2. How therapists interpret the IEP, 3. Therapists beliefs about disability, and 4. How therapists respond to challenging behaviors. As the writing of my findings unfolded, I began the process of sorting data into subthemes. I pulled relevant quotes from the data queries into each theme, sorted them by subthemes, and used those quotes, stories, and examples that best illustrated the concept being relayed in each theme. The detailed description of my process in conducting this study is provided for the sake of transparency of methods. By providing a detailed account of my methods, I believe I have created an audit trail that can be used by other researchers in a dependable manner. While findings are largely dependent on context and are likely to vary across study sites and participants; the methods provided here can be replicated. Throughout the description of methods, I have addressed the study credibility, transferability, dependability, and confirmability. I relied on highly regarded qualitative research methodology to conduct this study and relay findings in a way that contributes to a scholarly knowledge base that others can use for understanding the decision-making process of school-based occupational therapists.

## Summary

Throughout this chapter I have presented my research questions and methods. I used common qualitative research concepts and practices to show that the methods were coherent with the research questions and study purpose. I have also provided detailed descriptions of my sites and participants for the purpose of verifying the transferability of my findings to other situations and contexts. I provided evidence of trustworthiness of my methods, data, and findings and have provided a method trail that creates an opportunity to replicate this study in other sites. Including fourteen therapists across multiple sites provided me data that were rich in content and context. The research methods resulted in data that were both rich and thick in detail and allowed for development of themes that resonated across participant responses which will be discussed in chapters IV and V.

## Chapter IV: Findings

For the purpose of supporting the education of children with disabilities, occupational therapists working in schools make day-to-day decisions about where, when, for how long, and to whom their interventions will be directed. As a school-based occupational therapist, I have a vested interest in better understanding how the context of various school settings impacts the ways in which therapists deliver their services. To lay bare the many factors that therapists consider in their day-to-day decision-making, I conducted this qualitative interview based study to answer the following research questions:

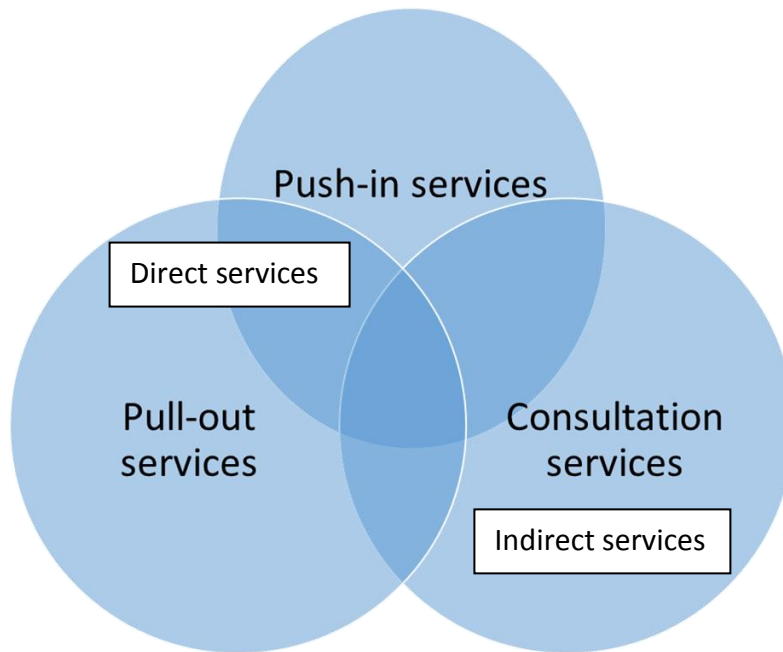
1. How do occupational therapists discuss and narrate the process by which they make decisions about service delivery in public elementary schools?
2. According to occupational therapists, what factors influence the service delivery decisions they make?
3. Specifically, what are their perspectives regarding why and how they make service delivery decisions?

### Decision-Making Model

As I engaged in the process of exploring and making sense of the interview data collected from the 14 participating therapists, what most resonated with me were the factors therapists considered when deciding to provide direct or indirect services to children. Direct services include two options. These were (a) to pull children out of classrooms and provide services one-to-one and / or (b) for therapists to push their services into classrooms and provide one-to-one interventions within the classroom context. Indirect services were described mostly as consultative strategies which meant the therapist met with teachers to discuss therapeutic strategies that could be used in the classroom when the occupational therapist was not present.

For some children therapists used both direct and indirect service delivery options simultaneously and for other children they used exclusively one or the other. The decision-making model that emerged from this study is represented in Figure 1. Each circle represents a service delivery model. The overlap areas represent the times when therapists used more than one model of service delivery for any given child on their caseload.

Figure 1. The Decision-Making Model



The service delivery model presented in Figure 1 is developed from the common terminology used by the therapists in their interviews. The terms push-in, pull-out, and consultation were used throughout the interviews when therapists discussed where and how they delivered services. Using the literature as a guide, I framed the therapist's terminology and descriptions into categories of direct and indirect services. While I recognized that there are other service delivery models available to therapists and discussed throughout the literature, the therapists in this study talked about the options in this model as being their primary means of

delivering school-based occupational therapy services. Therefore, it made sense to discuss the findings using the terminology of the therapists.

## **Themes**

There were several factors that therapists considered when deciding which model or combination of models of service delivery to use for a specific child. These factors are folded into the following four themes that I found to be important in providing answers to the research questions.

1. The role of the school-based occupational therapist. This theme relates to the ways therapists describe not only who they are and what they do but also who they are not and what their responsibilities do not include. They specifically differentiate their role as occupational therapists as being different from that of teachers and paraprofessionals.
2. The therapists' conception of the IEP as a prescriptive document which offers little service delivery flexibility. Therapists used the IEP as a guide to decision-making in terms of where and for how long they provide interventions. They intervene on behalf of particular IEP goals and believe in being faithful to the services as explicitly stated on the IEP document.
3. Therapists' beliefs about disability and how to best meet the needs of children with complex disabilities. This theme reveals specific ways therapists' think about children with disabilities and how their ideas impact what they believe is the best method and place of service delivery.
4. The matter of student behavior as a factor influencing the service delivery model that a therapist chooses. Depending on the contextual factors of the classroom setting,

behavioral issues worked to justify both pull-out services and push-in services for the therapists in this study.

There were similarities and differences across the 14 therapists with the extent to which the four themes and the factors associated with each were present in their interviews. At times, decision-making factors associated with one theme also emerged as decision-making factors in the other themes. The daily consideration of various contextual factors resulted in service delivery decisions that impact where therapists believe it is best to provide interventions and whether those interventions should be provided directly or indirectly to children or in some combination of the available service delivery options.

As I discuss my findings, it is important to note that while these themes are presented here in a specific order, it is not my intention to imply that they function in a hierarchy. Nor is it my intention to suggest that one theme necessarily has a unidirectional or dependent relationship with another. The themes overlap in different ways for different therapists and for various circumstances therapists encounter in the schools in which they work and with the individual children they serve. The various factors that influence decision-making are inherently entangled. To make sense of the data and present coherency to my findings, I separated relevant factors into each of the themes which I will now turn to in this discussion.

### **Theme 1: The Role of the School-Based Occupational Therapist**

In my quest to understand how and why occupational therapists made their day-to-day decisions, I found that therapists in this study shared many common ideas about the role of occupational therapy in school-based practice. Their identity as school-based occupational therapists was shaped by how they saw themselves relative to teachers and para-professionals. They specifically talked about being “related service providers” as defined by IDEA and saw

themselves as being responsible for helping children develop skills related to their performance in the school environment. When therapists talked about their distinct role in schools they also discussed how their role shaped their decisions about whether to push-in to a classroom, pull a child out of the classroom, provide consultative services, or use some combination or progression of these models as the best means of helping children develop the skills they needed to engage in school tasks.

### **We are related service providers**

There was considerable discussion among the therapists regarding what they believed their role to be as occupational therapists in school settings. They spoke of their identity by employing the IDEA (2004) terminology of “related service providers” (p. 222). Occupational therapy is included in IDEA (2004) as one of several types of services that schools can include on IEP’s to support a child’s access to special education. Therapists felt it was important to distinguish the difference between teachers and related service providers when participating with other school staff in making decisions about the nature of therapy services. Jessica, for example, reminds teachers that her role is to support students with disabilities but not to be an ongoing provider of educational instruction.

People forget that we aren't teachers. That's probably the biggest thing, is, the teachers want us to be everything. They want us to be exactly like they are. Like, we follow the same schedules. We follow, you know - even, like, professional development, all that. But we're not teachers. We're not teacher-level. We're not teacher staff. We're related service, and so ours [services] looks different. And so, I want to pull this kiddo out. I want to give them the skills they need to be successful. And I want to get them back

in the classroom without services. You know, general-ed teachers will see these kids all the way through. It's just the nature of the beast. You're going to struggle in math. You're going to struggle in math the whole way through. You're going to struggle with language. You may get better, but you're still going to struggle.

Jessica offers her view of what she believes it means to be a related service provider. She suggests that her role is supposed to “look different” from that of teachers. Jessica states that she wants to pull children out of the classroom to provide them with direct interventions so she can address specific skills and then get them back to class without the need for services. Use of pull-out services serves a distinct purpose for Jessica and has a definitive end-point. Jessica’s statement about math and language show that she expects academic and other student deficiencies to persist throughout a child’s formal education thereby necessitating long term academic support from teachers. In contrast, she sees the role of occupational therapists as offering a child opportunities for remediation of skill deficiencies as well as development of new skills that can then be carried over into the classroom setting for enhanced performance.

Jessica also stated that she often reminds teachers that her goal is to remediate problems so that children eventually do not need the related services. “Remember, I'm a related service. My job is to get them [students] to a certain point, but the goal is to get them off services and not keep them on OT”. Like other therapists in this study, Jessica sees occupational therapy services as providing a short term, goal directed service that ends when the child is successfully able to use a newly learned skill in their classroom setting.

Discussion of the identity of occupational therapists in schools also included relaying the unique frame-of-reference occupational therapists use when addressing student problems. In the



following example, Susan refers to this as her “OT eye”. She explains how she differentiates her role as an occupational therapist in a general education classroom providing handwriting interventions from that of teachers and paraprofessionals who also provide handwriting interventions.

If the teacher is leading class, and I'm sitting with the student that is on my caseload, it's more... I just kind of feel like... let's see if I can explain this. It's more like I'm just kind of sitting there, helping, and not really leading, and changing, and being able to adapt as much as it would be if it were my activity that I come in with the plan. I know that this is the goal, but if I need to change it, I can, without changing the goal of her teaching. So, I feel like I'm there more just there to support, as opposed to really coming in as an OT with my OT eye.

A lot of times, it's more those students who have writing goals. So, I go into work, and we're really working on these mechanics and visual-perception concepts. They may have a delay in fine-motor, so that may be impacting it, but they're just there, and they're writing, and working on whatever the teacher is wanting them to do. And I'm just kind of sitting there. I might give them a, "remember to put your letters on the line," or, "try this". But I'm not able to really kind of focus on those individual skills that might then carry over to that task. It's more just kind of sitting there. I may be with one student, and the paraprofessional is with another, and we're doing the same thing. So, I don't feel like its skilled services at that point. I feel like I'm sitting there with the student.

When I actually plan my treatment, we might be doing some fine motor things. We might do some visual perceptual things. I feel like I'm able to bring in... Because it's a small amount of time, I try to bring in something that's more kind of fun. So, I might do a fine motor activity that looks fun, but has a purpose. So, with writing, we might do some cutting and pasting, or whatever. Then we'd write about it. But trying to give them that hands-on task so they then have a reference point, if they're having a hard time developing an idea. That then helps, so they're not just copying, but they're still working on that idea development. Whereas when I go in the class, the teacher may do the introduction, and then, "write about it."

Susan provides a specific explanation and example of how she differentiates herself, as the occupational therapist, from that of teaching staff when addressing handwriting problems with students. In this scenario, the push-in model of service delivery has become problematic for Susan. She experiences role conflict because she feels that she cannot draw on her occupational therapy frame-of-reference or her "OT eye" in the classroom setting to implement specific interventions associated with improving underlying skills that she believes impact the child's performance.

In the case of handwriting support, Susan and other therapists expressed feeling like a paraprofessional when pushing services into the classroom. As Susan explains, following the lead of the teacher while supporting a student in the classroom setting is not skilled intervention. Susan uses the phrase "just sitting there" more than once to indicate that she is not leading the activities in which she and the child are engaged. Therapists, like Susan, believe that offering verbal cues and reminders to a student to improve their handwriting performance does not

differentiate occupational therapy services from that of a paraprofessional who may be “doing the same thing”.

### **We help children develop skills**

Discussion about the role of occupational therapists in this study also included helping children develop specific skills. Decision-making for selecting the best service delivery option was tied to therapist’s belief about the benefit of direct one-to-one interventions for promoting skill development. Because they believed in the benefit of focused one-to-one time with children, they mostly opted to use pull-out strategies to teach a children new skills and then a push-in model of service delivery to promote carryover of newly learned skills into classroom settings.

Rachel exemplifies the sentiment expressed by most therapists in the study. She discusses the need to provide direct services to children and indicates that her interventions are best provided by pulling children out of their classrooms. Rachel states:

I mean I see most of my kids pull out services as opposed to pushing in the class. It's usually because I feel like I need that direct intervention - there's a specific skill lacking that we need to work on, whereas, a lot of times when you're in the classroom it's more kind of cues and reminders than the time to practice a specific skill.

Rachel talks about giving children the opportunity to practice new skills and finds that the classroom space is not conducive to delivering the direct services she feels children need. When attempting to support students in the classroom, Rachel describes herself as providing “cues and reminders” which she does not see as skilled intervention.

Audrey provides another example of how therapists see themselves as promoting skill development with children. Her service delivery decisions are based on what she sees as the most

effective way to help children develop handwriting or specific functional skills. She discusses how she uses the service delivery options as a progression from pull-out to push-in as a child's skill development improves with intervention.

When they're more of a child that has the handwriting concerns or some functional concerns, based on their eval. [evaluation] is kind of how I determine. And usually, I'll always pull them out, and I usually start with 30 minutes a week to try to pull them out, and then go from there and then slowly try to integrate them back into their classroom, based on the progress that they've made.

Audrey has a standard plan for service delivery for children with specific types of goals. If she needs to address development of handwriting or functional skills she states that she "always" pulls children out of their classrooms until they make sufficient progress toward their target goal(s). Audrey then begins gradual integration of children with their newly learned skills back into the classroom setting. As Audrey explains, her decisions about service delivery are based on general rule that she applies when providing interventions aimed at children's development of specific skills. Pulling children out of the classroom is what Audrey uses as the first step in the progression of skill development interventions that culminate in pushing services into classrooms for carryover.

Therapists also discussed the decision to provide services using a pull-out model based on their belief that children's motivation to engage in tasks with them was better in a one-to-one setting. Sandra's statement in her interview exemplifies this belief.

The fact that they're [students] more motivated to work for me if I pull them out then if I stay in their room. If it's a skill that I'm really working on carryover for them, I will push into their room and try to work on it there.

Like the other therapists in this study, Sandra believes pull-out services create better opportunities to address skill development than providing therapy services in classrooms. Sandra's statements about her service delivery decisions give us a clearer view of a commonly held belief that children learn skills best in pull-out settings and that they need direct support from the occupational therapist to carryover newly learned skills into their classroom setting. The progressive use of pull-out to push-in service delivery is based on ideas about children's motivation and ability to learn in various settings.

Included in their role as occupational therapists, the participants in this study spoke of supporting children in their development of self-help skills. This was an important aspect of the therapists' identity as school-based occupational therapists. Self-help skills are included in the *Occupational Therapy Practice Framework: Domain & Process (3d edition)* (OTPF-3) document under the category of activities of daily living (AOTA, 2014). Activities of daily living listed in the OTPF-3 that would be relevant to school based practice include toileting and hygiene, dressing (typically outerwear), eating and feeding oneself, functional mobility, and personal hygiene and grooming (AOTA, 2014). Because of the profession's long standing role in addressing activities of daily living, therapists in schools often take a lead role in addressing a student's ability to independently perform self-care tasks at school.

In her statement about addressing children's self-care development, Natalie lists some of the common tasks that she addresses as an occupational therapist. She also specifically teases apart the role of the occupational therapist from that of other school staff in terms of supporting

toilet training with children.

Putting on your jacket, zipping it up. Those things the kids do on a regular basis and in order for them to get into line with their peers and get outside when they need to, we work on those type of skills. Whereas other type of self-care might be - well this is more in the early childhood program - toilet training, where OT's don't really work on the toilet-training piece. We work more on the motor piece. Can they reach down? Do they have the balance to do that? Can they pull things up and manipulate and stuff like that? So sometimes that's also kind of a grey area.

In this quote, Natalie relays the role of occupational therapists in supporting children's development of independence with a variety of daily tasks. While tasks like putting on and zipping up a jacket are pretty straight forward she also brings up tasks where the role of the occupational therapist overlaps with that of other school staff. Natalie talks about a "grey area" with toilet training. With toilet training, she differentiates the role of occupational therapy from other school staff by separating out the motor skills aspects of the task from the actual self-control, communicative, and cognitive aspects of the toilet training process. Just as therapists talked about which aspects of handwriting they focused on and how that differed from teachers, Natalie separates the clothing management, balance, and motor skills aspects of toilet training from the toilet training process at large. This distinction is part of her overall process of deciding which aspects of learning a self-care skill requires occupational therapy intervention and which problems associated with self-care tasks are not within the scope of occupational therapy practice.

Samantha also described her role in addressing self-help skills. She shared with me how she responded to a teacher request to help a child learn to put on and zip his coat. The example in the following quote was part of her response to my question about how she makes service delivery decisions in the moment. In this situation, Samantha decided that the skill at hand was important enough to warrant her immediate attention.

I see them beginning in August, and then all of a sudden it's the winter season, and the teacher comes to me and says, "Joey can't put his coat on at all. Can you help me? He can't do a zipper. Not only can he not do the zipper, he doesn't even know how to put his coat on". And I'll say, "really?, that surprises me". And then I'll go in, and sure enough, Joey has absolutely no idea how to put his coat on. That would be a spontaneous thing that suddenly, this is not a goal area. I didn't even realize this was an area of concern. This is a huge life skill. Obviously, we need to revamp [the IEP and therapy plan], and I need to work on this right now. I feel like that happens a lot at a change of season like this, if that makes sense.

When Samantha learns that Joey is not able to manage putting on and zipping his coat, she is quick to take on the responsibility of helping him learn these skills. She expresses surprise that she hadn't noticed his difficulties sooner and does not hesitate to respond to the teacher's request to help him. Her statement that this is a "huge life skill" provides context for the relevance this self-help skill has to Samantha as an occupational therapist. Her willingness to revamp intervention priorities suggests that she clearly sees teaching self-help skills as an integral and important aspect of her role as an occupational therapist. There does not appear to be any role confusion for either Samantha or the teacher regarding whose responsibility it is to

address this child's ability to manage his jacket. Samantha's decisions about service delivery in this situation are made spontaneously because a previously unnoticed problem has arisen with a child on her caseload. Her suggestion that she can address the IEP later suggests a sense of urgency in intervening on behalf of the problem that has arisen.

### **OT's address sensory issues**

Occupational therapists agreed that they have a unique role in addressing sensory needs of children in school settings. Whereas interventions aimed at helping children develop skills seemed well suited to direct services that start with a pull-out model and progress to push-in services; addressing sensory needs of children was described as aligning more with a consultative model of service delivery. The nature of sensory based interventions did not have a clearly delineated end-point as did skill development. Sensory interventions were aimed more at improving general classroom behaviors and participation among individual students.

In the occupational therapy profession, sensory issues are generally referred to as behavior based responses to both internal and external sensory stimuli. For example, some children have been known to respond to ordinary tactile input, such as sand or grass, with an unexpected reaction of fear or discomfort not typically seen in other children (Parham & Milloux, 2015). Another example of atypical sensory response patterns is a child who is constantly moving about in a classroom touching things and people. This child may have difficulty filtering and selectively attending to external auditory, tactile, and visual stimuli in a way that affords him access to classroom learning activities. When children are unable to habituate to ordinary sensations, they may react defensively or they may shut down and become less responsive than would be considered functional (Parham & Milloux, 2015). These are some simple examples of how therapists frame children's behaviors from a sensory perspective.



Because there is a great deal of occupational therapy education and literature devoted to these types of issues with children, occupational therapists often take a lead role in providing interventions that intend to improve children's readiness to sort, select, and attend to stimuli in a way that supports their attention and learning (Parham & Milloux, 2015). Occupational therapists who work with children typically have a strong focus on addressing the perceived sensory needs of children and many therapists identify themselves as having expertise in this area of practice (Parham & Milloux, 2015). When addressing sensory problems, it is typical for occupational therapists to offer teachers and children a variety of tools and / or strategies to use throughout their day. For example, a therapist might offer a child a ball chair, a basket of fidget toys, or recommend to a teacher that the child have frequent movement breaks (Parham & Milloux, 2015).

Carla's explanation of how she delivers sensory based services represent the beliefs that other therapists also shared in this study. Carla and others believe that sensory based services are best offered through consultation with teachers versus providing direct interventions to a child. Carla states that pulling a child out of a classroom is not the best way to address sensory problems.

And if, like, say, it's a sensory-based kid, I truly think that sensory is not something that you would necessarily pull a kid out for to receive those services in the school. They should be getting those [sensory interventions] throughout their day. So, if it's a sensory-based kid, I pretty much try to help come up with a plan, and I see them on, like, a consult . . . So, it's more of a conversation between myself and the teacher or the rest of the

team on how to provide services, sensory-based services, so that they're able to stay in their classroom all day long.

When addressing sensory problems, Carla sees the role of the occupational therapist as “coming up with a plan” to help children remain within their classroom settings throughout the day. The nature of the services provided to address sensory based problems is less specific and more fluid than direct skill development interventions. Carla, like many therapists, doesn't reference any particular skill that she expects an individual child to perform as a result of intervention. Carla's decisions regarding providing services through a consultative model are made on the premise that sensory issues are best addressed by providing a classroom based intervention plan to a teacher and offering ongoing occupational therapy support for implementation.

Thinking of sensory interventions as accommodations provided to individual children within their classrooms and throughout their everyday activities was discussed among the therapists as an effective means of providing occupational therapy services that address sensory issues. Jessica specifically stated that sensory interventions need to be listed on the IEP and provided to a child by all school staff. In offering a simulated exchange between herself and the teacher, Jessica differentiates the role of the occupational therapist from that of other school staff in meeting the sensory needs of children throughout their regular school day. She expects these needs to be met even when she, as the occupational therapist, is not present.

[Teacher]: “Oh, it's sensory, therefore” . . . and it was always kind of like; “that's your area” [teacher]. And I'm like, “well, it's my area for 60 minutes a week, possibly”. And trying to educate [school staff] and just say; “you know, is it behavior? Is it sensory? Or is it a combination? What are

you going to do when I'm not here on Thursday? What are you going to do?" You know, that type of thing. "And I won't see you again until next Tuesday". So, just kind of spreading out that, "yes, it's sensory, and yes, it's my area".

But everybody needs to kind of come on board and understand that we all have to be responsible for this for it to be successful. And I think that was the hardest part, everybody just wanted to say: "Oh, it's you". "Well, yeah, it is me to head it up and to make sure that I oversee it all, but I need you all to help me carry it out". . . So, if you [student] have sensory needs, they list the accommodations. It's all in the IEP, what we can do for this child.

Jessica is engaged in an ongoing struggle with school staff over who has the primary responsibility for addressing issues that are perceived to be sensory based. She uses the term "area" to suggest that occupational therapists are looked to as the professionals who have an expertise in understanding the nature of sensory problems. In the preceding exchange, Jessica offers agreement with school staff in the belief that addressing sensory problems is the responsibility of the occupational therapist. Her argument, however, is that while she agrees to take a lead role, she also believes that "everyone needs to come on board". It is important to Jessica that all members of the IEP team feel a sense of shared responsibility for implementing sensory strategies throughout a child's school-based routines. She thinks of her scheduled time with the child for 60 minutes per week as inadequate in addressing sensory problems. By listing the strategies on the IEP, she has made them available to everyone on the team.

In contrast to direct interventions in which therapists work with a child to teach a skill or remediate a problem outside of the classroom environment and then expect the new skill to be carried over into the classroom context; therapists believe that sensory interventions should be integrated into the classroom context from the beginning of the intervention and not worked on in a pull-out model of service delivery. While the outcome of this intervention is loosely defined compared to the outcomes of skill development, therapists were mostly in agreement with the model of service delivery for addressing sensory issues being very different from that of addressing skill development.

As noted in the preceding discussion, the conceptual ideas that occupational therapists have of their role in supporting children with disabilities as related service members of IEP teams shape the way they make decisions about which model of service delivery is the best fit for their intended outcomes. In most cases, therapists preferred to work with children on developing specific skills in a direct one-on-one service model. They expressed preference for pulling children out of classrooms, teaching them a skill or task, and then supporting the child using push-in services to promote carryover of the newly developed skill during relevant times in the classroom. Additionally, there was agreement among the participants that occupational therapists should provide consultative support to school staff to assure implementation of sensory interventions intended to improve a child's classroom behavior and participation.

## **Theme II: Therapists Conception of the IEP**

The second theme in related to how IEP documents impact therapists' decisions about service delivery. Most of the therapists talked about the IEP documents being prescriptive of the time they spend with individual children. This led therapists to provide services in ways that they believed were most conducive to complying with the IEP. Therapists also talked about

challenges they faced with IEP documents when they felt that an indirect consultative model of service delivery was the best option for a child.

### **The challenge of minutes**

The services therapists provide are defined in each child's IEP document. There is a section on the formal IEP that requires the team to designate the commitment of related services that the school will make to the child. Often this section is completed with statements such as "60 minutes per week" or "30 minutes, twice per week". It also typically includes an indication of whether the services are provided in general or special education classrooms. Therapists talked about this section of the IEP document as being prescriptive and had considerable discussion about service delivery in terms of direct intervention and minutes per week. They interpreted the time on the IEP as a statement that their services be provided one-to-one, hands-on, and goal directed for all the minutes they spend with a child.

Samantha exemplified what therapists thought about the prescriptive services given in the IEP. She refers to the IEP as a legal document and this drives her toward literal compliance. Samantha comments on an example of an IEP to illustrate her point about the way minutes are stated.

On our IEP's we have to say the amount of minutes, if it's weekly or monthly, and the setting. And so, if it says special ed. that means that child is being pulled out into my setting in the special ed. setting. So, legally, if it said special ed. and I was pushing in week after week after week after week, I would be out of compliance and I would need to amend the IEP. Or, the example that I gave you, it's written as gen. ed., If I was, week after week after week, going in and saying; this is not working, he's missing these

direct services because the teacher is not complying, and that continued to happen, we would need to reconvene the IEP so that I could change that setting. Otherwise, legally, I would be out of compliance.

The concerns expressed by Samantha are indicators of how therapists think about the IEP as a legal document that prescribes both where and for how long they must provide occupational therapy services. While it seems that Samantha feels relatively constrained by the IEP, she does hint at some flexibility with service delivery decisions when she suggests that she would need to amend the IEP only if she provided services in a way that violated the IEP “week after week after week”. In other words, some violations of the use of special versus general education classrooms is okay; but if she made reoccurring decisions to provide services differently than stated in the IEP, she would have to change the IEP document.

Samantha also discusses a student missing direct service minutes because of a teacher “not complying”. By this, she is pointing out how a teacher’s adherence or lack of adherence to a classroom schedule impacts her service delivery. Samantha described how she schedules push-in services with teachers so that when she is in the classroom she is helping a child with classroom based skills that align with IEP goals. If the classroom activities do not follow the schedule she anticipates, she sees herself as not being able to provide her planned intervention. She goes on to describe a scenario where the general education teacher is 15 minutes behind in introducing daily writing activities and this interferes with her scheduled time for delivery of occupational therapy services.

And then its 15 minutes wasted where I'm sitting next to the kid. We're actually not doing anything, because I can't interrupt the teacher. And then

that's affecting their service, because they're really only getting 15 minutes of direct service from me.

The concept of therapy time being wasted in general classrooms when a teacher is providing instruction was a common concern among the therapists. This became a part of a larger conversation about scheduling challenges. Like Samantha, therapists felt that they were not providing occupational therapy services for the number of minutes designated on a child's IEP when they sit next to a child in a classroom waiting for a teacher to finish instruction. Being present with a child in a classroom setting is not regarded as a valid service for Samantha and others if the naturally occurring events of the classroom do not permit constant and direct interaction with the child to whom the service is being delivered.

Even when intervening in a small group for the full designated time frame, Samantha questions whether her services comply with the IEP.

If I had a kid for 60 minutes, for 30 of it, I might see them on a Monday for 30 minutes, and then maybe on a Wednesday I would see them with one other child. It's to the point now that I will group kids with similar goals, but I may have three kids in one group for 30 minutes a week. And when I really step back and look at that, those kids are not getting individualized 30 minutes of my attention.

Samantha expects to provide services one-to-one with each child on her caseload for all the minutes stated on the IEP. In the example of the group, she is actually with the children for the length of time stated on the IEP and providing them with services. But, Samantha questions if she is in compliance with the number of minutes stated on the IEP because she is not one-to-one with each child during that time.

Some therapists felt they were being held accountable for service delivery minutes by children's parents. Debbie talked about parents tracking service delivery minutes and how that made her feel very conscious of how she delivers services. "We have parents very touchy that will sit down and count how many minutes are scheduled in special ed. and how many minutes are gen. ed. and they will really scrutinize if we're following the exact amount of minutes". Given this pressure, Debbie feels that she is being held to a rigid model of service delivery defined by an IEP and monitored by parents. This offers her little leeway in making service delivery decisions that are spontaneous or adaptable to unplanned or unpredictable situations.

In addition to feeling accountable to parents in the provision of a defined number of service minutes, Debbie and other therapists discussed feeling constrained in service delivery decision-making by the complexity of special education law. While some therapists suspect that there are more flexible options available to IEP teams in designating service delivery minutes, most have not been able to operationalize that flexibility in practice. Debbie describes her ideas about special education law by stating the following:

You know, the educational law is so complicated. It has so many restrictions and doesn't necessarily allow for in the moment decision-making. I've heard some school districts they put monthly minutes of OT. Someone told me that their district only put monthly minutes of OT and they [the OT's] don't have a regular schedule, they come and go. I guess more flexibility to deliver would be ideal.

Like Debbie, therapists want more flexibility in making decisions about how to deliver services. Debbie questions how minutes are stated on the IEP document. She talks about other districts documenting the commitment of occupational therapy services differently and believes



that there are other options that her district could use. The notion of monthly service commitments versus weekly is appealing to Debbie as she contemplates the increased flexibility this might offer her in making decisions about the best ways to provide services.

While therapists talked about being compliant with providing direct services based on the number of minutes stated on the IEP, they also challenged the value of the minute driven model. Janet, for example, was forthright in her questioning of whether the Federal IDEA requires districts to provide direct services according to a specific number of minutes. Janet states that she believes this interpretation of the IEP to be a poor use of resources.

I wish we didn't have to be so tied to minutes. . . It almost feels like an accountant made the decision about the minutes. . . It's my understanding in the IDEA law it never says it has to be documented to the minute; the special education services. It just needs to be communicated to the team how this student is spending their day. So, to get so picky minute-wise, I think, can tie up resources that could be flexed a little bit more. I would love if we could put ranges in: student will receive 15-45 minutes of occupational therapy a week. If we have to stay with numbers, that would be really nice to me. It would be easier for minutes to be quarterly or monthly. I wish that was kind of more part of the culture rather than sometimes at teams they are like; you're not doing weekly minutes? You're not going to see them all the time? It's not going to be Tuesday at one [1:00] all the time?

Janet's challenge to the manner in which districts define services reflects the frustration shared by therapists who expressed a need for more flexibility with their service delivery

decisions. Janet sees the minute driven model as being unquestioningly engrained in the culture of the schools in which she works. She and other therapists have conceived of alternatives to the weekly minute model by suggesting monthly, quarterly, and the possibility of a range of minutes on the IEP. They have, however, hinted that these alternative ways of indicating service commitments have not been well received by IEP teams.

### **Consultation without collaboration**

Therapists in this study talked about the ways they felt obligated to comply with statements on the IEP documents that prescribed the number of minutes they would see children and whether they would use general education or special education spaces for service delivery. Most of the therapists, however, did not question the nature of service delivery being offered through direct one-to-one interventions. Sandra, however, did contemplate alternatives to the widescale use of the direct intervention model. She shared that she knows of some occupational therapists who have found effective ways to use an indirect consultative model of service delivery for large caseloads and this has piqued her curiosity.

As discussed in the chapter one, consultation is a model of service delivery in which information flows in one direction from an expert to a recipient. The expert makes recommendations and problem-solves potential solutions to a problem brought to them by the recipient of the service. For Sandra, the consultation model seems to have some merit and she discusses how an occupational therapist she knows uses consultation to provide services to over 100 children in another school district.

She has a caseload of over 100 kids. And I always talk to her because I'm like, "I don't know how you do it". And she's like, "I barely see anyone directly. Everything is almost - everything is almost all consult". I'm like

“do your kids make progress”? She's like, “yeah, they do”. She was employee district of the year last year.

I was just like, “I want to see this. I want to see how it works”. Because I feel like sometimes, why do we pull them?. . . It should be a lot of consults. And I think we tend to - even teachers are like, no take them. For those 30 minutes I [the teacher] get a break. And it needs to be - we need to work together. So, I'm - I just question whether that consult versus direct would they [student] still make progress?

That's - that's where I'm struggling right now. Because I'm trying to push more at least for my self-contained kiddos to go more consult than direct. Because I - I feel like they make more progress when the teacher has much more of the responsibility and the buy in. Now, that doesn't mean I don't want to see the kid. I want to work with the kid too. But I'm not the one here every day and working with them and knowing exactly what they need to do.

Sandra seems quite taken by the idea of providing services in a consultation model to a caseload of 100 kids. She asks the other therapist if the children she sees make progress with consultation being the model of service delivery. She is intrigued by the prospect of a therapist being effective without spending one-to-one direct intervention time with students. While she expresses concern for reliance on a consultative style of service delivery she seems to validate that the model works by stating that this therapist was employee of the year in her district.

Sandra is clear in stating that her effort to provide consultative services is a “struggle”. Stating that teachers need to have “buy in” suggests that in her district her efforts toward

consultation are either not well received or are not regarded by the teachers as important. Sandra seems to have some concern about what others may think of her intentions with service delivery when she spends less individual time with children and makes requests of teachers and other school personnel to carry over intervention activities.

There is a conflict for Sandra in the role of the occupational therapist and that of the teacher when using consultation as a means of service delivery. Sandra adds a statement of assurance that she does want to see children directly but that she is not sure that her limited interactions with them are as beneficial as commonly presumed. How Sandra provides services, direct or indirect, is impacted by how teachers and others respond to her choice of intervention style.

Other therapists also talked at length about the idea of consultation. These therapists have strong ideas about their roles as consultants. There were two common descriptions that emerged. In one description, therapist's portrayed consultation as sharing strategies for interventions with teachers and in the other description therapists stated that therapists converse with teachers to identify potential student problem areas that might invoke the need for occupational therapy expertise.

When discussing the use of consultation as a means of sharing strategies, the therapists held expectations that teachers would use those strategies with individual children throughout the school day. This type of consultation is explained by Sandra when she discussed using consultation for some of the children on her caseload.

The teacher is the one that needs to understand how to implement the fine motor strategies that we're working on. I can work on those specific

strengthening or neurological pattern things that I've been trained to do, but they [teachers] need to do the stuff day to day.

Sandra's statement about teachers needing to know how to implement fine motor strategies was common among the therapists. In this type of consultation there is a passing off of intervention strategies from the therapist to teacher. Sandra believes that the activities she suggests when she says, "we're working on", should be carried out daily in classroom settings by the teachers.

The other description of consultation that therapists described involved discussions with teachers to identify if there were any issues or concerns that teachers wanted therapists to address regarding children on their caseload. This generally meant that therapists checked in with teachers periodically to ask about particular students and to see if recommended intervention strategies were effective. Some therapists, however, felt it was not their responsibility to check in with the teachers, but rather the responsibility of the teachers to contact them when a need arose with any individual student. Carla exemplifies this when she succinctly described her idea of consultation.

It's just an opportunity for the staff, for us to talk to gen-ed teachers, anybody that would have contact with the students that would help [the child]. . . So, maybe like, the OT would make the sensory diet, you know, and like talk to somebody about it and kind of check in and see how they were doing. . . I mean, I've gone months and months and not had to check on a kid.

Carla sees her responsibility in the consultation model as talking with school staff to set up interventions and strategies for individual children. Then, as stated in the quote, she checks back to see how her suggestions worked out and how they impacted the child. By stating she has

gone “months and months” without checking on a child once the interventions were established, she suggests that she doesn’t necessarily initiate further contact unless a teacher reaches out to her.

When therapists take this approach, the roles of teacher and therapist in the consultative relationship may not always be clear. Carla didn’t express an obligation to a meeting schedule, frequency, or amount of time she would spend consulting with a teacher on behalf of any one child. This was also the way Jessica seemed to approach consultation. Jessica stated that once she establishes classroom interventions she waits for teachers to engage her in further consultation. She also talked at length about her frustrations with teachers not reaching out to her throughout the school year and then surprising her with statements relative to the need for direct occupational therapy services at IEP meetings.

So, you say [to teachers], come to me if you have any questions. Let me know. And then you don’t hear from anybody from August until the IEP happens in December. And then, you go to the meeting and you say . . . “Hey, I haven't heard from anybody, so I'm assuming everything's going well. My plan is to discontinue the services." And then its like, "Oh, no, you can't do that." The principal says, "Oh, no, we don't drop services. And what if this, and what if that, and what if that?" I'm like, "I've been here since August. Nobody's come to me. Nobody's come to me with any kind of concerns. You know, so, it's like, they come to the IEP with, "Well, what about, what about, what about?"

And it's in front of the parents and that type of thing. It's, like, kind of like getting stabbed in the back, in a sense, by your own teammates, you

know what I'm saying? Basically, it's like, the service isn't for me to come to you once a month and say, "Hey, Cindy, how's it going? How's Johnny doing?" It's like an open-door policy. You [teachers] come to me. "Hey, Jen, I have questions because Timmy's doing this and this and this. . . hey, how about this? Try this and that." So, it's that give-and-take, but I don't hear from you, and everybody's like, "It's fine, it's fine, it's fine," but then at the IEP all these concerns come out.

Therapists who used this style of consultation, like Jessica, experienced conflicts of communication and misunderstandings about the potential need for occupational therapy services. Jessica has become very frustrated with what she sees as the lack of communication coming from the teachers (and Principal) to her throughout the school year. She approaches the IEP meetings with a plan to discontinue occupational therapy services assuming there are no issues for her to address. She takes the position that if the teachers are not contacting her, then the direct or indirect services of an occupational therapist must not be needed. The demands of teachers at IEP meetings to continue services feels like betrayal to her and she is agitated that this happens in the presence of parents.

Jessica explicitly states that she expects the teachers to come to her; yet she describes the relationship as "give-and-take". When therapists talked about their roles as consultants to teachers and IEP teams, they had different ideas about what being a consultant looked like and different mechanisms for operationalizing that role. Decisions about using consultation as a service delivery model are complicated by communication challenges between the teacher and therapist and by the expectations therapists have of teachers to carry out classroom based intervention strategies.

The perceived prescriptive nature of the IEP document challenged therapist's flexibility with decision-making regarding the length of time they worked with children and the model of service delivery they used for providing interventions. Therapists also felt the IEP process and document caused confusion and resulted in communication conflicts when they attempted to use a consultative model of service delivery. With consultation minutes not being specific on the IEP and the nature of service delivery in this model being perceived differently by teachers and therapists, therapists found themselves unable to operationalize an effective means of providing indirect interventions.

### **Theme III: Therapist's Beliefs about Disability**

Therapists expressed common ideas about what they believed to be the best means of educating children with complex disabilities. Their descriptions of children included terminology that highlighted what they perceived to be the nature and severity of a child's impairments. By first describing children by their impairments, therapists made a case for self-contained classroom placements. They could then proceed to discuss service delivery decisions from the perspective that children with complex disabilities were best served in the special education setting which they referred to as the child's natural environment.

I have included a sampling of some of the labels therapists in this study used when discussing children on their caseloads. When they talked about children whose primary placements were segregated special education classrooms and programs, they were sure to differentiate the needs of these children as being different and extraordinary compared to other children in general education settings. When using these descriptions therapists spoke of the children with positive regard and did not use this language with the intent of being disrespectful.



They mostly used this language to give me, the interviewer; a picture of the children they were talking about. Here are some of the labels and descriptions used by the therapists.

- Multi-handicapped kiddos (Sandra),
- Kids with significant medical impairments; Low-functioning; Muscle impairment friends (Audrey),
- Significant disabilities-global; Very, very significantly involved, (Debbie),
- They aren't even functioning . . . at a one-year-old level. I mean, on gross motor they might be at a two-year level. But on language, they're at a nine-month level. They don't even have words (Katherine),
- Kids with more severe needs. The kind of diagnosis of the kids in that particular classroom is autism and mental retardation. And they're kids that are more involved (Samantha).

This way of talking about children was used by the therapists to differentiate the needs of children whose disability related impairments resulted in greater perceived gaps in cognitive, social, language, academic achievement, and/or physical abilities than most of the children in the school setting. When therapists described children in this way, they were communicating that the nature and characteristics of the child's disability not only made placement in regular classrooms difficult; but that placement in segregated, self-contained classrooms was preferred.

While it is common among occupational therapists to refer to a child as being "significantly" impaired; I use the phrase "complex disabilities" when discussing children who have medical, social, physical, cognitive, or other needs that significantly depart from the mainstream population of children in schools. The word "significantly" suggests to me that a classification of the severity of disability exists and can be used to describe some children as

falling on the extreme end of the disability continuum. For this writing, I will use the term “complex” to indicate that there is a complexity of support and other needs which must be considered in the course of a child’s education.

### **The self-contained “kiddos”**

Therapists used the terms listed in the preceding section to indicate the extent to which they believed a child’s ability level was impaired and to lend credence to the use of self-contained schools and classrooms. Service delivery decisions regarding direct and / or indirect services were made relative to children’s placements in self-contained schools and classrooms. Therapists made decisions about push-in, pull-out, and consultative services based on what they perceived as academic versus non-academic needs of the children with complex disabilities. Discussion about children in self-contained settings typically began with descriptions of the children and the degree to which they have impairments.

For example, when discussing the self-contained school in which she works, Audrey emphasizes the degree and severity of children’s impairments and matches those impairments to the types of supports and services that are available within her school.

The classroom that would serve children who are non-ambulatory, who has multiple impairments, and I’m talking more medical, medical impairments, significant medical impairments. That classroom would be here. So, even if they live in another district, they would likely come here, because it’s accessible. We have a nurse in the building all day long. So, that classroom is significantly different than some of the other classrooms I go into. So, the services I would provide OT-wise for those children is going to look a lot different than, you know, then some of my other classrooms.

Audrey uses descriptive terms to make her point that children in the school in which she works have disabilities and medical conditions that are so complex that their needs are best met in a school that is accessible, has a nurse, and a special classroom. Audrey first mentions that the children have medical impairments and then qualifies their medical impairments as “significant”. She also states that the therapy services in a particular classroom look very different than they do for other children in the school, although she is not specific as to how the services look different.

Like Audrey, therapists generally talked about children with complex disabilities being better served in self-contained classrooms. When sharing her thoughts about self-contained classrooms, Debbie specifically related the perceived degree of a child’s impairment to their capacity to benefit from general education settings.

I would say we want the children to access the curriculum as much as we can but the most challenging ones for me was when people just went flat out full inclusion. I don’t think it’s in some cases was in the best interest of that child to do that. . . I’m not talking about a child that has - we can accommodate for children that have a certain discrepancy. I have some children that the discrepancy was so huge and what it looked like for that child was to be sitting in the classroom because they couldn’t do anything. . . When I feel like people are asking a child to be in a program that is not even close to fitting their true needs

When therapists described children, they often used impairment terminology to indicate their perception the child’s severity of disability. They then indicated the classroom placement they believed corresponded to the degree of disability or difference they saw in the child. Service delivery decisions were made based on a culmination of these factors. Sandra exemplifies this

thinking when she describes the children she is referring to and then explains how her service delivery decisions are based on the nature of the classroom setting in which they are placed.

My multi-handicap kiddos, I tend to see more often depending on what kind of setting they're in. If they're in self-contained setting or low incidence program, I try to go more of a consult model with some direct [intervention] instead of pulling them a ton. Because again they're with the teacher all day long.

Sandra has somewhat of a common intervention plan for children with complex disabilities because of their placement in self-contained classrooms. She sees them more often than other children but states that she offers therapy services using both consultative and direct intervention models. She sees this as best suited to children in this type of classroom because, as she states, the teacher is present with the children all day. With the teacher having all day access to the children, Sandra implies that, through a consultation model, she can offer instruction and services to the teacher who can use the strategies with the children all day.

The overall support among the therapists for placing children in self-contained schools and classrooms resulted in an interesting phenomenon in which the therapists considered segregated, self-contained spaces to be natural environments. In occupational therapy and special education literature, natural environments are those spaces and places where an individual would be if they did not have a disability (Giangreco, 1995; Mu & Royeen, 2004). Special education classrooms, programs, and schools, therefore, are not referred to in the literature as natural environments. Therapists in this study, however, talked about the child's primary classroom placement; whether it was general or special education, as the natural environment. There were times in the interview process where I sought clarification from the participants about which type

of education space they were referring to when they stated they were pushing into or pulling students out of their natural environment.

For example, when Janet spoke of natural environments, contrived settings, and generalizing of skills, I asked for clarification of the types of educational settings she was referring to in her discussion. She clarified for me that she was referring to the self-contained classroom as the natural context because it was the child's primary placement in her school.

I try as much as possible to do everything within the natural context for the student. That again is my default. Right now, I am working in a self-contained setting, so it's only students with severe disabilities. In this setting, I especially want to be in that natural environment because these are students who have a hard-enough time generalizing new skills, generalizing any skill across their day. I don't want to contrive a pull-out environment for them that we are then going to have to generalize back into the classroom. So, I always try 100% of my sessions are in the classroom, or in the bathroom, or in the cafeteria, or in the art room. I do not do a contrived session.

Janet values the student's primary classroom environment as being the place in which students are most likely to learn new skills. In addition to the special education classroom, Janet talks about other school spaces, such as the bathroom, art room, and cafeteria as being part of the natural environment. By Janet's description, this model of service delivery aligns with direct services using a push-in model. In her terms, Janet is opposed to pull-out service delivery for children in self-contained classrooms because she believes the environment for service delivery is contrived when students are not seen in their primary classroom setting.

#### **Theme IV: Behavior Matters and Matters of Behavior.**

Throughout the interviews, therapists talked about how student behaviors impacted decisions they made about service delivery. Therapists not only discussed the behaviors of students to whom they were providing direct services, they also talked about the behaviors of other children in classroom settings who had an impact on their decisions to provide push-in or pull-out services. The responses of teachers to children's behaviors also mattered to therapists and impacted how and where they decided to provide occupational therapy services.

The direct model of service delivery that therapists used when pulling children out of classrooms was discussed by most therapists as being conducive to establishing rapport with individual children. Establishing rapport with individual children created the opportunity for therapists to give children individual attention and thus ward off negative behaviors. This, in turn, allowed therapists to maintain focus on skill development with children and provide therapy that they felt was productive and effective.

Rachel's story about her rapport with a child who frequently has challenging behaviors serves as an example of how pull-out services are used by therapists to build positive relationships with children and maintain effective use of therapy time.

Like yesterday, I brought a kid back to class, and I said, "We had a great day. He didn't lay on the floor, and he didn't cry once." Just that kind of social/emotional aspect of it, having either- figuring out like . . . what makes him click and how to use the behavioral strategies and get something out of him. Or he was just having a good day, and we had a good day together as well as - I feel like I have this vague specific - like just

something that I've been working and working on with a kid and then they got it.

Every decision is based on - a lot behaviorally like if a student has particular behaviors that are - like they're extremely active and can't sit still and impulsive and grabbing things off the shelf, I'm less likely to put them in a group of other students because I know I'm going to spend more time monitoring their behavior than getting therapy done. I feel like that's the biggest factor with behavior. I feel like kids - my experience is that kids with behavior issues do pretty well in OT because they're getting attention. They're getting small group or one-on-one attention so I kind of enjoy those kids because I don't tend to see the behaviors. So, I get to see their better side if that makes sense.

Rachel describes not only the specific behaviors that she finds challenging with this child but also how she sees the absence of negative behaviors as a measure of behavioral progress. The absence of negative behaviors allows her to experience the best in children and to enjoy her one-to-one time with them. These positive experiences lead her to making deliberate decisions to see children who have challenging behaviors in one-to-one or small group settings. This way she can give children the close attention she believes they need.

Giving children her direct attention allows her to diminish the problem of behaviors and use therapy time to provide relevant intervention. Rachel's comment "get something out of him", implies that negative behaviors act as an obstruction to achieving the goals of therapy. Rachel makes decisions about therapy services that create opportunities to provide children with the attention they need to engage in therapy without the disruption of behavioral problems.

While pull-out services were used by therapist to establish positive relationships with children who have frequent behavior problems, this service delivery strategy was also used by therapists who found behaviors of other children in the classroom to be distracting or disruptive to providing services to children on their caseload. Penny and Sandra give examples of how the behaviors of other children in the classroom can create situations in which pulling out children for individual services is regarded as the most effective and productive use of therapy time.

In Penny's example, she explains how she changed her service delivery model from push-in to pull-out to accommodate for the negative behaviors of other children and clarifies that problems exist with the general education students as much as with other special education students.

So, today's the day I generally push into this special ed. classrooms. This year we have had a team classroom which half of it is gen. ed. [general education] and half of its sped. ed. [special education]. The behavior in the classroom, not necessarily from the sped. ed. side precludes me being effective in the classroom. So, I generally pull those kids out for small groups in here [occupational therapy/special education room].

Penny doesn't offer specifics about the nature of the classroom behaviors that she finds disruptive and being non-conducive to providing classroom based interventions. It is her perception of the effectiveness of her interventions in a busy classroom setting that ultimately matters to Penny. It is interesting that Penny makes a point that the classroom setting which she is describing has a mix of students who are identified as special education and general education students and both groups of students contribute to the behavior problems of the classroom.



As exemplified in Sandra's statement, it is not just the behaviors of the students in the classroom that impact her service delivery decisions, but also the effectiveness of teachers in managing classroom behaviors. Sandra explains how she arrives at decisions for staying in a classroom or removing children based on the teacher responses to children's behaviors.

If I know it's a teacher that has really good behavior management, I'm much more likely to push into that room. Because I know that I won't be pulled from my student to manage behavior of other students. Because I can't sit in a classroom and not - and ignore what's going on. I will jump in and correct if I need to. And so, that usually pulls away from what I'm working on with my student.

Sandra implies that she makes her decisions about where to provide services in part based on behaviors of the other students in the classroom as well as the ability of the teacher to manage classroom behaviors. Helping maintain order in a classroom or correcting the behaviors of other children is described by Sandra as a distraction to providing direct interventions. Push-in services, therefore, works well when the teacher doesn't need much support in managing a classroom. When the teacher is effective with behavior management, Sandra is free to focus her attention and time on the children on her caseload. Sandra resorts to pulling children from classrooms so she can provide distraction free occupational therapy services.

Therapists shared a primary concern for being able to deliver effective services to the children on their caseload. Behavior problems described here by Rachel, Sandra, and Penny showcase the various factors therapists take into consideration when deciding to use pull-out services to manage behavior issues. In contrast, therapists provided two specific reasons that they felt inclined to stay in classrooms with children when they felt challenged by negative student

behavior. First, they stated that some children simply don't want to leave the classroom and that pulling them out becomes the cause of behavior problems. Second, therapists expressed concern about their own safety when confronted by aggressive child behavior without another adult nearby.

The first scenario was explained by Sandra. She talked about using push-in service delivery when a child refused to leave the classroom.

If the student is refusing to come than I will just stick around and just work on whatever it is they are working on in the classroom and just make it apply to their goals. I have a couple of students like that in this building where last year that is all we did.

Sandra is willing to make changes in her service delivery plan based on student preference.

Sandra employs flexibility in making service delivery decisions based on her interpretation of student behavior. She chooses either push-in or pull-out models based on what seems to be in the best interest of the student and the most effective and impactful use of therapy time.

In this example offered by Carla, she explains how it was in her best interest to provide services in the classroom setting because of the risk of not being able to handle negative behaviors in an alternate setting. She shared her thoughts about children who she and others consider to be potentially aggressive.

Sometimes, I need to be in a room where there's more support, because we do have some aggressive kids. So, sometimes, there might be a day that I can absolutely pull him out, and then there'll be a day where the teacher's like "Oh, he's having a hard time." And so, then, I should probably stay in a room where there might be some more paras [para professionals], because I

usually see kids by myself. But I always will just come with my bag, already prepared for those kiddos.

When it comes to managing negative behaviors, Carla makes an in the moment decision about service delivery. Because she knows children in this class are prone to aggressive behavior, flexibility in her service delivery is expected. She states that she arrives at the classroom “already prepared for those kiddos”. Taking her cues from teachers, Carla changes her plans so that she has support for the child who she believes has the potential to engage in aggressive behavior with her in a one-to-one setting. Self-protection is a consideration in Carla’s decision about where to provide services for children who present behavioral challenges.

### **Summary of Findings**

Therapists in this study generously and graciously volunteered to share with me their personal thoughts, experiences, frustrations, and what they considered to be the joys of their profession and practice. Having carefully read the transcripts and listened to the interview recordings, I recognized quickly the multitude and complexity of factors associated with school-based occupational therapy service delivery. I organized my findings by discussing service delivery models of direct and indirect services. Direct services include pulling children out of classrooms or pushing services into classrooms. Indirect services were discussed less often and were described as consultative interactions with teachers. The service delivery models are not exclusive and can be used in various combinations for any one child or as a linear progression toward dismissal from services.

There are many factors that impact which service delivery model a therapist chooses at any given time. I have highlighted those factors that best answered my research questions about therapist decision-making and organized them into the following four themes.

1. How therapists identified their role in school-based practice,
2. Therapists interpretation of IEP documents,
3. How therapists think about the capacity and needs of children with complex disabilities, and
4. The way in which therapists respond to challenging behaviors.

In theme one, I discussed how therapists felt it was important to define their role in schools as being different from that of teachers and paraprofessionals. The language of IDEA that categorizes occupational therapists as related services was used by therapists to communicate their role to other school staff. Therapists talked about their preference for direct interventions when helping children develop specific skills. They discussed indirect interventions as the primary means of supporting school staff in addressing childrens' sensory needs.

In theme two, I pointed out that therapists perceive the IEP as a prescriptive document that limits their flexibility with service delivery decisions. They found the specificity of minutes on the IEP to be particularly restrictive and felt a strong need to comply in literal ways with the IEP as written. Consultation services were described as problematic because therapists were frustrated by the ways some school staff responded to their efforts to use this model of service delivery. While some therapists contemplated the value of consultation, others expressed interest in learning how to make this model of service delivery more effective.

Theme three considered therapists' perceptions of disability. Ideas about service delivery related to how therapists regarded children's impairments and whether the children were placed in self-contained classrooms. The way therapists think about children with disabilities is reflected in the descriptive terms they used in their discussions. Children are referred to as having severe and / or multiple disabilities which is offered as justification for their placement in

self-contained special education schools and classrooms. Occupational therapy service delivery aligns with these types of placements in different ways. In most cases the therapists believed these classrooms were conducive to direct intervention and they provided mostly push-in service. In some instances, they felt that these type of special education environments were disruptive to service delivery and opted to pull students out. Overall, therapists' decisions are directly impacted by how they think about children and the special education placements and programs in which children are assigned.

The fourth and final theme related to how therapists respond and adapt their interventions to the behaviors of children with disabilities and children in various classroom settings. When children exhibited, or had the potential to exhibit negative behavioral responses to interventions, these responses became the priority in therapists deciding which model of service delivery would be most effective and productive. Therapists had different reasons for pulling children out of classrooms or pushing their services into classrooms but they all sought to provide services with minimal behavioral interruptions.

The themes and findings here clearly intersect to create a myriad of ways in which school-based occupational therapists navigate their service delivery. Therapists in this study chose models of service delivery that included combinations of pull-out, push-in, and consultation. Their decisions for which model to use were based on the interaction of how they defined their roles as therapists, how they interpreted and responded to IEP documents, what they believe about the nature of disability and what is best for children based on the complexity of their impairments, and the need to maximize their use of intervention time and minimize behavioral disruptions or distractions.

## Chapter V: Discussion

Occupational therapists who work in school settings make daily decisions about where and how they will provide services to students with disabilities. Therapists in this study chose from models of direct and indirect services that led them to pull children out of classrooms, push their services into classrooms, and / or to provide services using a consultative model. This study revealed factors that impact therapist's choice of service delivery models and provides an understanding of how they rationalize the decisions they make. The decision-making of school-based occupational therapists occurs in the context of the delivery of special education services and is influenced by a myriad of factors that are deeply entrenched in traditional special education practices and belief systems.

Therapists revealed that they use more than one model of service delivery simultaneously for any given child and for children on their caseload in general. For example, therapists discussed seeing a child once per week using a push-in model and once per week using a pull-out strategy. Some therapists used pull-out, push-in, and consultation as a progression of services that led toward justification of dismissal of services. Therapists also talked about using one strategy exclusively with a child and shared that they always do pull-out or, in some cases, only use consultation. Throughout the study, therapists maintained consistency with traditional practices as described in the literature review of Chapter II. Some of the therapists discussed the limitations of traditional practices and contemplated alternatives to heavy reliance on pull-out, push-in, and consultation models of service delivery.

### **Decisions Based on What OT's Believe OT's Do.**

There was general agreement among therapists that it is their role to promote and foster the development of skills children need to perform school tasks. Skill development interventions

were characterized as being one-to-one with a child and providing hands-on activities for a specified period of time. The nature of these interventions led therapists to a preference for pulling children out of classrooms. They saw skill development strategies as incompatible with teacher led classroom instruction and activities. When therapists tried to work in classroom settings during instructional time they believed they were wasting valuable therapy time if they had to wait for teachers to finish providing instructions. They also experienced tension when the schedule of classroom activities did not align with their therapy objectives. Therapists felt pressured to pull children from classrooms so they could intervene in the way they felt would be most productive in promoting skill development.

When helping children develop skills, therapists first used pull-out strategies to teach the skill and then switched to push-in services to promote carry over of the skill into the classroom setting. They wanted teachers and para professionals to use the strategies they recommended from their pull-out interventions to assure the child used the newly learned skill in the context of their school day. This use of pull-out and push-in service delivery models to teach skills to be generalized into daily activities derived in part from the therapist's identity as a related service provider who works toward short term, goal directed outcomes. Providing skill focused interventions maintained a distinct role for the school-based occupational therapist and differentiated their services from that of teachers and other school staff.

With skill based interventions, therapists' decisions were made based on what Giangreco (1995) termed "return on investment" (p.57). When students engage in cooperative behaviors and there is an expectation that they can learn a new skill or remediate a deficiency, they are perceived as most likely to benefit from one-to-one direct intervention and reap the greatest return on the investment of therapy services. Therapists believed that this ideology fit best with

students who are already in general education classrooms. Their stories indicated that it is considered less suitable for those children who have complex disabilities and are served primarily in special education programs and classrooms. This will be discussed later in this chapter.

Therapists agreed that sensory issues were within the unique purview of occupational therapy to address but believed that these issues were best addressed through consultative models versus direct one-to-one pull out services. Most therapists believed it was best in a school setting to share their expertise about sensory interventions with teachers and paraprofessionals and promote strategies that could be used for individual children to improve overall classroom and school behaviors. Therapists mostly expected that these strategies would be used regularly throughout a child's school day and that their role would be to check in occasionally and offer additional ideas as needed.

It is interesting that addressing the perceived sensory needs of children departed significantly from interventions aimed to develop skills that would improve school performance. The ideology and resulting intervention strategies for sensory issues are the opposite of the strategies employed for skill based interventions. It is likely that because the benefits of sensory interventions are not defined as tangible, observable, and measurable skills (like using a scissors or writing one's name), service provision looks different for therapists in these two areas of occupational therapy practice in school settings. Sensory interventions are provided in classroom settings through consultation while skill based interventions are provided outside of classroom settings with generalization expected as the interventions progress.

When issues of student behaviors were discussed, therapists generally did not see themselves as taking a primary role in intervening on behalf of addressing the underlying reasons



students engage in acting out or disruptive behaviors. The exception to this was when therapists believed behavior problems were related to sensory issues which led them to consult on sensory strategies that would potentially impact development of positive replacement behaviors. For other behavioral issues therapists mostly tried to work around the behaviors by setting up circumstances which would not trigger undesirable behaviors. Decisions about pulling out or pushing into a classroom or providing interventions one-to-one or in small groups are based on the situation that is most likely to result in cooperation and engagement with the therapeutic activities. When other children in the classroom settings are perceived as disruptive or poorly managed from a behavioral standpoint therapists choose to pull out the students to whom they are providing services. For most therapists, this was the model that resulted in the most productive use of time toward a skill based outcome. This is another example of how Giangreco (1995) used the phrase “return on investment” (p.57) to describe therapists’ consideration for deciding how and where to provide services.

### **The IEP Prescription**

For therapists, the IEP document became a form of service prescription that they perceived as offering little flexibility. According to the therapists, these ideas about the IEP were also held by other school staff, including administrators, and in some cases the parents of children with disabilities. Fear of being non-compliant with service provision as defined in the IEP served as a driving force behind many service delivery decisions. As mentioned previously, because therapists believed their role was to provide direct one-to-one services to children, and because they were trying to adhere to a minute driven model, they found classroom push-in services to be not only unproductive but some of the therapists also believed that push-in

services short changed children of valuable intervention time. This responsibility to being faithful to the IEP as written often leads therapists to the default intervention of pull-out services.

How therapists thought about the utility of the IEP varied. Some seemed to embrace the idea of service delivery by minutes and a few questioned the necessity and effectiveness of this model. Those who supported and complied with the minute drive model expressed that they pulled children out of classrooms as a means of maintaining IEP compliance and providing services they felt were focused and effective. Therapists who questioned the need to write IEP's by designating minutes per week and stating specifically where services would be provided expressed frustration with a system they perceived as rigid and inflexible but felt they had few options to provide services differently. Some of the therapists' statements reflected an interest in learning about alternate ways of providing services and creating IEP documents that offered more flexibility.

### **Consultation Without Collaboration**

Almost all the therapists talked about consultative services. They described their consultation role as departing expertise to teachers for the purpose of advancing progress toward an IEP goal or other school-based outcome. Many of the therapists talked about "buy-in" from teachers and expressed frustration when intervention strategies they recommended were not carried over into the classroom. Therapists typically felt the key to a child generalizing a newly learned skill into their natural classroom environment lay in the effort of teachers and paraprofessionals to make the new skill a routine part of classroom activities. Decision-making around consultation services relied heavily on whether therapists believed the teachers and other school staff would comply with carryover requests.

In addition to issues of transferring learned skills to classroom settings, therapists using consultation strategies experienced tension with teachers regarding communication about student needs. This finding is consistent with Bose and Hinojosa's (2008) finding which suggested that therapists who perceived themselves as delivering expertise to teachers found themselves frustrated with the teacher response to their intervention efforts. The interaction style of therapists in this study and Bose and Hinojosa (2008) is best defined as consultative but not collaborative as discussed in Chapter I (Idol, et al., 2000).

Some therapists used consultation as a way of testing to see if children could be weaned from the support of the occupational therapist. They probed for teacher concerns and in some cases waited for teachers to initiate a call for intervention support. When an IEP meeting approached and there had not been teacher-therapist contact, the therapists recommended dismissal or reduction of occupational therapy services. From the therapists' perspectives, lack of communication with teachers meant there was no further need for consultation. This created frustration and confusion at IEP meetings regarding the need for occupational therapy services. Ultimately, some therapists' decisions regarding recommendations for occupational therapy services at IEP meetings hinged on whether therapists perceived a need for continued consultation services and whether that was initiated by teachers.

Based on the findings in this study and the current literature, the collaborative aspect of the collaborative consultation model seems to have a small footprint in service delivery between special educators and occupational therapists. When therapist intervention time is expected to be delivered directly to children in a minute driven, one-to-one model; collaboration with school staff becomes a secondary obligation. The absence of collaboration between teachers and therapists works against IEP teams when making decisions about the need for occupational

therapy services. Therapists indicated that they are interested in more effective models of consultation but have not been able to fully conceptualize or operationalize collaborative practices that are bi-directional in nature and create parity of teacher and therapist expertise. According to Idol, et al. (2000), parity of knowledge and bi-directional communication are aspects of collaborative consultation that are essential to making this intervention model work.

### **Predetermined Decisions versus “In-the-Moment”**

As the therapists in this study discussed their service delivery decision-making, most of them described a process in which decisions were made prior to a scheduled therapy session. They arrived in general and special education classrooms having already contemplated the myriad factors they considered important to determining which service delivery model would offer the best return on investment. Some of the therapists described standard practices they employed for certain types of student goals or problems. For example, Audrey stated she “always” pulls children with handwriting goals out of their classroom when she begins their services. In another example, therapists held to the idea that consultation was best for children with sensory problems. In these situations, therapists did not employ much flexibility and described service delivery based on informal, personal “protocols” associated with specific student problems.

I found that “in-the-moment” decision-making among therapists in this study was rare. Therapists discussed only a few circumstances that caused them to change their service delivery plans on-the-spot. When asked to address an unexpected problem that teachers and therapists considered a high priority, therapists were willing to change their service delivery plan for a few sessions. Other in-the-moment changes were justified by therapists when children’s behaviors were perceived as not being conducive to intervention. Overall, therapists were highly guarded

about making in-the-moment service delivery changes. As discussed by the therapists, the pressure they felt to maintain compliance with the IEP led them to carefully monitor how often they deviated from the prescribed service model. If the changes persisted over time (which was not well defined), they explained that it would then become necessary for them to change the IEP document to accurately reflect the services they were providing.

### **Traditional Medical Paradigm and Intervention Decisions**

Throughout this study, I found that therapists held perceptions of disability consistent with the ideological framework from which special education services were historically designed. Specifically, therapists framed their discussion about children with disabilities through language and perspectives that align with the medical model of disability that I presented in Chapter II. Medical perspectives espouse the idea that children with disabilities have varying constellations of biological and physical impairments that require the specialty skills of professionals to address with remediation and skill development interventions (Linton, 2006; Skrtic, 1995; Stiker, 1999). This provides an unspoken rationalization for the provision of special education and related services in segregated educational settings (Jackson, et al., 2010; Lipsky & Gartner, 1997).

The way therapists describe children by their impairments and disabilities serves as an example of how the medical perspective shapes their thinking about children and their needs. This was most apparent with children who have complex disabilities. It is important to also note that therapists often softened their impairment descriptions with endearing terms. For example, Sandra referred to children with complex disabilities as “multi-handicapped kiddos” and Audrey used the phrase “muscle impairment friends”. This labeling begins with impairment and ends

with a term of affection indicating that the therapists care for the children whom they are discussing.

Impairment based descriptions were also used when therapists were explaining the need for specially designed classrooms and programs for children with complex disabilities. In most cases, therapists believed that children's impairments and medical conditions were the primary factors that kept them from participation with non-disabled peers. When services were provided in segregated classrooms, therapists considered academic growth as less important than functional skill development because they didn't believe children with complex disabilities could benefit from traditional academic instruction. When therapists made decisions about service provision for children in self-contained special education classrooms they focused on "functional skills" versus academic skills.

I found there to be confusion and irony in the way therapists talked about the natural environment, push-in, and pull-out services regarding special education classrooms. Because the literature uses these terms relative to children being included in general education classrooms with non-disabled peers, therapists use of the terms natural environment, push-in, and pull-out suggested they defined the terms to match the environments in which they worked. When therapists were discussing self-contained special education classrooms and talked about their preference for push-in services in the natural environment they used language that suggested the services were inclusive. Relative to the literature, these services fall into the descriptions associated with traditional models of practice and would be described as non-inclusive. Pushing services into special education classrooms is not considered inclusive because there is no general education classroom being made available to children whose primary placement is in self-contained classrooms.

Therapists also talked about valuing consultation as a method of service delivery in self-contained special education classrooms. Rationale for choosing consultation was also somewhat perplexing because the reasons therapists cited for consultation in self-contained special education classrooms being an effective model of service also hold true for children in general education classrooms. Therapists reasoned that in special education classrooms teachers have all day access to students. This made consultation a model that therapists believed would be most effective in meeting the needs of students in the classroom. In general education settings, however, therapists prefer to remove children from their classrooms and provide services out of sight of teachers. This model of service creates the conditions that they see as ineffective for children with complex disabilities in self-contained classrooms. Therapists also talked about provision of occupational therapy services in the special education “natural environment” as being most conducive to generalization of skills to everyday activities. They believed contriving tasks out of the context of the classroom was ineffective for students with complex disabilities. Interestingly, the literature shows the same to hold true for children with disabilities who are placed in general education settings.

While therapists openly discussed the many barriers to providing services they encounter in school-based practice; they rarely challenged the medical paradigm from which they make decisions about delivering services. Much to the contrary, the occupational therapists in this study and across much of the literature, supported the medical paradigm and felt challenged by factors that prohibited them from providing more of their services in line with traditional medical model practices. For those therapists who did express some level of discomfort or were conflicted about their service delivery decisions, they seemed to have difficulty conceiving of options outside of traditional methods of service delivery. With the medical paradigm operating

unhindered and as a subconscious ideology, therapists' day-to-day decision-making had a strong tendency to fall within the bounds of traditional methods of service delivery. Medical perspectives, therefore, seemed to serve as the indiscernible paradigm that shaped the way therapists thought about children with disabilities and influenced decisions they made about where, when, and how to deliver services.

## **Summary**

Occupational therapy service delivery decisions align mostly with traditional models of one-to-one direct interventions focused on skill development. The exception to this model occurred when therapists were addressing perceived sensory needs of children and preferred to use indirect consultative service delivery. Apart from providing services to students placed in self-contained special education programs and classrooms, therapists preferred to provide services outside of assigned classrooms and in designated special education spaces. Time frames as designated on IEP's were strictly adhered to with therapists feeling compelled to account for all the minutes of service being directly expended on interaction and hands-on activities with individual children. The stated need to provide direct one-to-one services for the number of minutes specified on the IEP limited how productive and effective therapists believed they could be in general classroom settings where other instructional activities impacted the focused nature of their intended services. This conundrum was experienced by all the therapists in this study and led to most of them choosing to remove children from regular classrooms for most of their services.

For children in general education settings, therapists mostly believed that teaching skills outside of the natural environment [general education classroom] was the best service delivery option. They expected that newly learned skills would generalize and be available to children



when needed in the general education setting. They also expected teachers and paraprofessionals to take responsibility for creating the conditions in which individual children would be able to perform the newly learned skill. That expectation often included the delivery of various verbal, visual, or physical prompts and sometimes specific tools or accommodations that needed to be provided by teaching and other school staff.

When children were in self-contained classrooms, therapists were more likely to embed their services in the routines associated with the classroom structure and activities than when they attempted to push services in to general classrooms. Therapists who talked about staying in special education classrooms to provide services shared that this decision is based in part on their belief that children with complex disabilities have limited potential to generalize skills learned outside of the “natural environment” [special education classroom] back to their self-contained classroom. This was the opposite of what they believed for students who were in general education classrooms.

Service delivery decision-making among school-based occupational therapists is a complex process based on contextual factors that are closely interrelated. Traditional models of service delivery remain intact not necessarily because therapists have no will or desire to change, but because they are navigating a multitude of factors that change with each child, teacher, classroom, and school context in which they work. Most decisions are made and carried out with few “in-the-moment” adjustments. Contextual factors are accounted for early in the service delivery process and are amenable to change in only a few select circumstances.

Changing the way occupational therapy services are delivered based on suggestions and recommendations of prior studies has proven difficult. This study is not intended to be all inclusive of factors that impact occupational therapists’ decision-making in schools but does

provide perspective to the nature of the day-to-day considerations therapists navigate for each child on their caseload. When these findings are considered with findings from other studies the complexity of decision-making is further complicated by additional factors such as caseload size, administrative support, teacher preferences, and scheduling issues to name a few.

### **Implications for Practice**

Special education and occupational therapy literature share similar themes about effective and ineffective practices associated with delivery of services to students with disabilities (Giangreco, et al., 2008; Hanft & Shepherd, 2008). Both bodies of knowledge have suggested that traditional models of service delivery where children are removed from opportunities to learn and interact with non-disabled peers are generally ineffective (Hanft & Shepherd, 2008; Lipsky & Gartner, 1997). Both bodies of literature also suggest that collaboration and consultation between educators and related service providers has been shown to be the most effective and efficient model of service delivery available (Hanft & Shepherd, 2008; Idol, et al., 1986).

Looking more deeply at the occupational therapy theoretical literature, particularly the EHP model, therapists in this study and across other studies have talked about service provision mostly in terms of person factors and occupations or tasks (Dunn, et al., 2004). When intervening on behalf of person factors therapists focus on changing the physical, social, emotional, behavioral, and / or cognitive capacities of children whereas occupation / task focused interventions are focused on skill development. Skill development intervention seems to hold sway in the service delivery that therapists in this study primarily discussed.

Therapy aimed at addressing environmental factors were mostly addressed in terms of modifications aimed to make classrooms and classroom materials accessible to children with

disabilities. While this is a laudable effort to including environmental factors into occupational therapy interventions, there was not much discussion among therapists regarding the social and attitudinal barriers that children with disabilities face when accessing general education classrooms and curriculum. At large, therapists did not challenge the premise that some students need to be excluded from general education because they cannot benefit from general education instruction or activities.

Although I did not ask directly about their knowledge of contemporary evidence, therapists in this study did not express feeling conflicted about providing services using traditional service delivery models. Therapists also did not describe circumstances in which demands from other school staff were being placed on them to provide services in accordance with inclusive and collaborative intervention models. This suggests that most therapists and educators are either not apprised of the evidence or they have dismissed it because it does not fit with the ways in which they have been socialized to provide special education and related services. Therapists and educators would therefore benefit from interprofessional education that exposes them to systems and transactional theories which form the underpinnings of ecological models of interventions as discussed in Chapter II. Employment of best practices including collaborative consultation would stand a greater chance of being effectively implemented if all parties have a deep understanding of the practices that produce positive student outcomes (Hanft & Shepherd, 2008; Idol, et al., 2000).

The presumption that learning occurs best when children are placed with other children with similar disabilities or levels of function was supported by most therapists in this study. I believe this to be the case largely because therapists do not have a frame of reference for understanding that their perspectives and those of others are mostly informed from the medical

model of disability. Therapists generally do not seem to have a social constructivist ideology of disability and this makes it unlikely they will recognize or challenge perspectives or practices grounded in a traditional medical frame of reference.

Without changing the ideology of disability and the presumptions that are made about children with disabilities; traditional service delivery practices remain intact. School staff work at the perimeter of the system trying to change and tweak service delivery so it can be done better within a static medical based framework. In schools, this takes the form of segregated services focused on improving the impairments and functional performance of individual students. To fully shift interventions from person factors and tasks as the primary points of entry for service delivery to a more comprehensive and robust application of environmental factors, therapists need to understand and challenge structural and social barriers that are inherent in the medical model of disability.

I am calling here for a paradigm shift which would require professional development for occupational therapists and education teams on social philosophies and perspectives of disability. Contemporary perspectives of disability shift the roles of professional service providers from interventions aimed to change person factors to interventions aimed toward promoting student participation with general school activities and curriculum. This type of service delivery is heavily imbued with advocacy and could serve as the impetus for change that is needed to promote inclusive special education practices. Rebuilding and replacing traditional special education service delivery structures with progressive inclusive practices would promote participation of all children, regardless of the nature or complexity of their disability, in general education settings and curriculum.

For occupational therapists, this means service delivery would shift from one-to-one services to collaborative services. Therapists who currently use consultation as a service delivery strategy need to accept parity of knowledge between themselves and teachers. Working jointly with teachers to identify and address problems would serve to minimize tensions therapists experience in classrooms with teacher “buy-in” and “carry over”. While vestiges of traditional practices may remain intact for some situations, overall service delivery would expand to include authentic collaborative consultation.

Therapists who also employ contemporary practices of coaching, modeling, and collaboration with school staff will be positioned to challenge the status quo that retains ineffective models of service delivery. Therapists who are fully informed of philosophical perspectives of occupational therapy and who engage with evidence of best practice can become advocates not only for individual children they serve but also for broad policy change. Advocacy for policy change can happen at all levels of the system and can include institutional formalities as well as informal cultural practices associated with school districts, individual schools, and classrooms. Therapists also need to recognize their own professional enculturation in school practice and challenge beliefs and perspectives that lead them to decisions that depart from known best practices.

### **Study Limitations and Future Directions for Research**

The focus of this study was on therapists’ decision-making strategies. The study relied upon therapist volunteers to engage in semi-structured interviews and self-report on what factors they considered in the process of providing therapy services. Many of their conversations included discussion about their perceptions of and their interactions with teachers in both general and special education classrooms. In addition to teaching staff, therapists discussed parents,

paraprofessionals, and school administrators. All of these members of the education team were reported as having an impact on therapists' decisions about where, when, and how to provide services. None of these IEP team members, however, were interviewed for this study. Their experiences with therapists and their perceptions of the role of occupational therapy would provide valuable perspectives on the efficacy and value of occupational therapists as members of IEP teams.

This study was also limited by therapist self-report of their experiences through a one-time interview. With further data analysis and reflection of findings back to the therapists; focus groups methods would provide additional information, clarification, and expansion of therapists' perspectives on ways to move service delivery toward evidence-based practices associated with collaborative consultation and inclusive education for all children with disabilities. Further study of educational efforts, as suggested in the implications for practice section, would also offer the therapy community information about the value of efforts to impact the underlying influence of the medical model in informing everyday practice decisions.

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## APPENDIX A

### Therapist Demographic Questionnaire

#### General Background Information

What is the highest degree you have earned?

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How many years have you worked as an occupational therapist?

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How many years have you worked in school settings?

---

How many years have you been with your current employer?

---

How many hours per week do you work in the school setting?

---

How many schools do you serve in a week?

---

How many school do you serve in an academic year?

---

What is your caseload size (average size or range)?

---

## APPENDIX B

### School District and School Demographic Information

Therapist pseudonym	Katherine	Samantha	Rachel	Debbie	Jessica	Sandra	Carla	Janet
School	Neighbors	Highview	Highview	Valley View	Havenwood	King	Bridges	Self-contained
District name (SSC or MRSD)	Cent.1 (SSC)	Brookstone (SSC)	Brookstone (SSC)	Brookstone (SSC)	Cent. 2 (SSC)	Cent. 3 (SSC)	Cent. 4 (SSC)	Cent. 5 (SSC)
# EC	1	1	1	1	1	1	1	NA
# elementary	5	18	18	18	10	9	6	
# middle	1	5	5	5	4	2	2	NA
# of high	1	5	5	5	2	1	1	NA
pop. 2016	4165	17,000	17,000	17,000	10,000	5346	6495	
pop. 2001	3247	20,000	20,000	20,000	12,000	7587		
% free lunch (2016)	12	20	20	20	29	98	17	
% free lunch (2001)	20	14	14	14	20	71	18	
% White	60	63	63	63	81	*	85	
% Black	16.5	15	15	15	9	98	*	
% Hispanic/Latino		5	5	5	*	6	*	
% Asian	14			*	*	*	*	
% Multiracial				*	*	*	*	
% Other				*	*	*	*	
City	Cent. 1 (SSC)	Brookstone (SSC)	Brookstone (SSC)	Brookstone (SSC)	Cent. 2 (SSC)	Cent.3 (SSC)	Cent. 4 (SSC)	
Population	316,000	48,000	48,000	48,000	316,000	316,000	316,000	
% White	47	86.5	86.5	86.5	47	47	47	
% Black	47	2.6	2.6	2.6	47	47	47	
% Hispanic/Latino	4	2.8	2.8	2.8	4	4	4	
% Asian	3	8.6	8.6	8.6	3	3	3	
% Multiracial	2	1.4	1.4	1.4	2	2	2	
Other	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
% below poverty	25.5	5	5	5	25.5	25.5	25.5	
Median income	36,000	93,000	93,000	93,000	36,000	36,000	36,000	
% high school graduates	84	98	98	98	84	84	84	
Bachelor's degree or higher	32	65.5	65.5	65.5	32	32	32	

Cent. = Central

## APPENDIX B

### School District and School Demographic Information

Therapist pseudonym	Audrey	Penny	Melody	Natalie	Susan				
School	*FJHB	*FJHB	Creekside	Waters	Riversedge				
District name (SSC or MRSD)	Central 3 (SSC)	Central 3 (SSC)	MRSD	MRSD	MRSD				
# EC	1	1	2	2	2				
# elementary	9	9	21	21	21				
# middle	2	2	6	6	6				
# of high	1	1	4	4	4				
pop. 2016	5346	5346	17,000	17,000	17,000				
pop. 2001	7587	7587	16,000	16,000	16,000				
% free lunch (2016)	98	98	27	27	27				
% free lunch (2001)	71	71	45	45	45				
% White	*	*	62	62	62				
% Black	98	98	20	20	20				
% Hispanic/Latino	6	6	6	6	6				
% Asian	*	*	5	5	5				
% Multiracial	*	*	6	6	6				
% Other	*	*							
City	Central (SSC)	Cent. 1 (SSC)	Riverside (MRSD)	Riverside (MRSD)	Riverside (MRSD)	*Fairview (SSC)	*Justice (SSC)	*Harmony (SSC)	*Brothers (SSC)
Population	315,000	315,000	119,000	119,000	119,000	52,000	21,000	26,000	15,000
% White	47	4	79	79	79	70	30	64	8.5
% Black	47	47	11	11	11	27	67	30.5	9
% Hispanic/Latino	4	4	3	3	3	2	1		.6
% Asian	3	3	5	5	5	.8	.5	1.4	.2
% Multiracial	2	2	3	3	3	2.3	2	2.5	1.1
Other	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
% below poverty	25.5	25.5	25	25	25	8.5	22	15	3
Median income	36,000	36,000	45,000	45,000	45,000	51,000	43,000	45,000	29,000
% high school graduates	84	84	93	93	93	92	87	91	79.5
Bachelor's degree or higher	32	32	55	55	55	23	21	24	11

\*FJHB is a completion of data from four cities (Fairview, Justice, Harmony, and Brothers). These schools were closely situated geographically and operated as a distinct entity for Audrey and Penny.



## APPENDIX C

### Interview Questions

The following questions will guide the interview process:

1. Tell me a little bit about yourself as a school based occupational therapist.
2. I am interested in knowing how you make decisions about service delivery. Can you give me a recent example of how you planned services for children on your caseload?
  - a. Can you give me an example of a case where you had to make a different type of decision?
3. Can you tell me about times when you had to make in-the-moment decisions about services?
4. Can you tell me about the best moments you have had as a school-based therapist?
5. What factors came together to make those moments positive for you?
6. What aspects of school-based practice are most challenging for you? Can you give me an example of a time that was challenging?
7. If you could change anything about your practice as a school-based occupational therapist, what would that be? Can you tell me about a time when you wished that something was different?
8. I am wondering how different settings and aspects of the school environment influence the ways in which you provide services. Can you share some examples or stories from each of the settings to explain how they may have impacted your practice?
  - i. Classroom – how does the classroom influence your practice?
  - ii. Student
  - iii. School

iv. District

9. How do IEPs and therapy plans work in your decision-making?
10. Are there other stories that you would like to share about being a school based OT?
11. Is there anything I should have asked you that I didn't?
12. Is there anything you would like to ask me?

## Cynthia H. Clough

### Formal Education

- 2009-2017 **University of Wisconsin – Milwaukee**
- Ph.D. in Social Foundations of Education
- 2005-2008 **University of Wisconsin – Milwaukee**
- Masters of Science in Administrative Leadership
- 1983-1987 **East Carolina University, Greenville, NC**
- Bachelor of Science in Occupational Therapy, Minor in Psychology
  - Honors: Magna Cum Laude

### Positions Held

- August 2017 to Present **Mount Mary University, Milwaukee, WI**
- Assistant Professor
- January 2016 – August 2017 **University of Missouri, Columbia, MO**
- Assistant Teaching Professor
- August 2008 – January 2016 **University of Wisconsin Milwaukee, Milwaukee, WI**
- Occupational Therapy Program Coordinator (2012 to 2015)
  - Clinical Assistant Professor (2012 to 2015)
  - Academic Teaching Staff (2008 – 2012)
  - Ad-hoc Course Instructor (2005 – 2008)
- December 2004 to August 2008 **Dominiczak Therapy Associates, Brown Deer, WI**
- Staff Occupational Therapist providing occupational therapy services to children in the West Bend School District
  - Provide clinical instruction to level I and level II occupational therapy fieldwork students
- December 2004 to October 2008 **Community Memorial Hospital, Menomonee Falls, WI**
- Per Diem inpatient rehabilitation occupational therapist
- May 2005 to August 2010 **New Berlin Therapies, New Berlin, WI**
- Per Diem pediatric occupational therapist
- August 1995 to December 2004 **Cedar Haven Rehabilitation Agency, West Bend, WI**  
Director of Contract Services (2000-2004)
- Provide school-based occupational therapy services
  - Coordinate school-based occupational and physical therapy services for 10 school districts
  - Serve as coordinator for level I and level II occupational therapy fieldwork students
  - Establish and maintain contractual relationships with home health agencies, clinics and hospitals
  - Supervision of contracted occupational, physical and speech therapy providers

- Director of outpatient clinic services
  - Coordination of specialty programs
  - Coverage assistance with adult / geriatric inpatient caseload
- Staff Occupational Therapist (1995-2000)
- Provide occupational therapy services to assigned school districts
  - Provide outpatient occupational therapy services to children and families
  - Provide on-call inpatient adult rehabilitation services
  - Provide clinical instruction to level I and level II occupational therapy fieldwork students
- November 1989 to August 1995      **Curative Rehabilitation Services, Wauwatosa, WI**
- Senior Occupational Therapist – pediatric and adult outpatient therapy provider, includes birth-to-three services
- January 1989 to November 1989      **Columbia Hospital, Milwaukee, WI**
- Staff Occupational Therapist – Adult Rehabilitation
- January 1988 to January 1989      **St. Vincent Hospital, Green Bay, WI**
- Staff Occupational Therapist – adult rehabilitation

### Professional Presentations and Publications

- 2017    Dissertation: *What Influences School-Based Occupational Therapists' Decision-Making? A Qualitative Study*
- Columbia Public School District
- Student Support Strategies: Fostering Participation
- 2015    Sensory Integration and Sensory Processing. Webinar for OT.Com
- School improvement research team
- School climate and culture work in a Wisconsin high school. This is a 3 year project and 2015 was year two. Work includes staff and administrator training regarding data based decision making to impact school culture and climate and strive toward equity in student discipline and academic outcomes for all students.
- West Allis School District
- Motor development and theoretical considerations for practice.
- Derute Consultation Team
- Improving teaching and learning through enhancing cultural competence. Two day workshop.
- 2014    Irby, D. & Clough, C (2014). Consistency rules: A critical exploration of a universal principle of school discipline. *Pedagogy, Culture, & Society*, DOI: 10.1080/14681366.2014.932300

Providing Inclusive Services co-presented at CESA 1 Statewide School-Based OT/PT Conference and at Wauwatosa School District.

Developpement de l'Enfant Et les Incapacités Infantiles. Presented at Healing Hands for Haiti, Port Au Prince, Haiti.

Three day data retreat and full day school climate workshop in Verona School District.

Providing Inclusive Services in the Schools. Webinar for OT.Com.

Disability is Diversity. Webinar for OT.Com.

2011-2013 **Notes From Cindy's Desk Newsletter**

- Bi-annual newsletter for pediatric therapists

2013 **Wisconsin Occupational Therapy Association: Oconomowoc, WI**

- Sensory Integration: Evidence for Practice

**Use of the M-FUN Assessment Tool: West Allis, WI**

**Manuscript Review**

- Book Manuscript review for Julie Causton and Chelsea Tracy-Bronson from Syracuse University

**American Education Research Association Annual Meeting Presentation: San Francisco, CA**

- Disciplinary Philosophies and School Culture: An Exploration of Teacher Beliefs and School Practices

2012 **Milwaukee Public Schools Presentation: Milwaukee, WI**

- Motor Development and Theoretical Considerations for Practice

**Penfield Children's Center Presentation: Milwaukee, WI**

- Use of the Sensory Profile, 1 hour presentation

**Wisconsin Occupational Therapy Association Conference Presentation: Madison, WI**

- Defining Sensory Processing and Sensory Integration, 90 minute session
- Pediatric Assessment Tools, open display
- Going Beyond Inclusion, one day institute

**Sensory Processing Disorders Parent Group Presentation: Milwaukee, WI**

- Understanding sensory processing and sensory integration

**Menomonee Falls High School Health Professions Presentation: Menomonee Falls, WI**

- The profession of Occupational Therapy

**Waukesha High School Health Professions Presentation: Waukesha, WI**

- The profession of Occupational Therapy

- 2011 **Wisconsin Occupational Therapy Association Conference Presentation: Stevens Point, WI**
- Disability and Diversity: Changing How We Think and Talk About Disability, 50 minute session
- Wisconsin Occupational Therapy Association online course offering**
- Lead instructor for the online course OT/PT Orientation to School Based Practice, 2 week course
- Wisconsin Occupational Therapy Association South Central District presentation: Madison, WI**
- Evidence for Autism Interventions , 2 hour presentation
- New Berlin Therapies, Inc. Presentation: New Berlin, WI**
- Using the Sensory Profile, 1 hour presentation
- Milwaukee Public Schools Presentation: Milwaukee, WI**
- Demonstration / training for use of the Miller Function and Participation Scales assessment tool, 2 hour presentation
- 2010 **Wisconsin Occupational Therapy Association online course offering**
- Lead instructor for the online course OT/PT Orientation to School Based Practice, 2 week course
- Wisconsin Occupational Therapy Association Conference Presentation: Milwaukee, WI**
- WOTA Conference: Participation; A Model for School Based Practice, 3 hour session
- Dominiczak Therapy Associates Presentation: West Bend, WI**
- Promoting Participation of All Students
- Milwaukee Public Schools Presentation: Milwaukee, WI**
- Introduction to the Miller Function and Participation Scales assessment tool, 1 hour presentation
- 2009 **Wisconsin Occupational Therapy Association Conference Presentation: Madison, WI**
- WOTA Conference: Participation; A Model for School Based Practice, 3 hour session
- 2008 **Wisconsin Hand Experience Annual Conference Presentation: Milwaukee, WI**
- Transition of the Pediatric Patient to School Based Treatment Setting
  - Panel member for questions and discussion
- 2007 **School Therapy Update Newsletter**
- Dominiczak Therapy Associates Newsletter: 2(2), p.1-2
- 2004 **Wisconsin Occupational Therapy Association Conference Presentation: Madison, WI**

- School Based Assessment and Documentation: The Essentials, one day institute
- 2003-2004 **Cedar Haven Rehab Remarks Newsletter**
- Cedar Community newsletters created for contracted service recipients
- 2000 **Wisconsin Occupational Therapy Association Conference Presentation: Milwaukee, WI**
- Pre-cursive for Loops and Other Groups, 50 minute session
- 1999 **American Occupational Therapy Association, OT Practice, 4(8), p. 41-42**
- Teaching Cursive Writing
- 1997 **Germantown School District workshop series presentations: Germantown, WI**
- Manuscript and cursive writing workshops and instruction for elementary school teachers