

Multidisciplinary, Interdisciplinary, Transdisciplinary



A Family-Centered Continuum

A Closer Look for
Educational and Developmental Intervention Services (EDIS)
Early Intervention

Acknowledgements

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The Fernández Family

Carlo and Alona Fernández and their family have participated in early intervention services since Angel came home from the hospital. The Fernández family includes Carlo and Alona, Laura their four-year-old daughter, and eight-month-old Angel. Angel entered the world at 26 weeks gestation and has global developmental delays. Service outcomes for Angel and his family were derived from routine-based assessment focusing on the family's concerns, priorities, and resources. The routine-based assessment provided pertinent information to facilitate enhancement of the family's day-to-day routines and improve Angel's ability to participate in family activities. The family's primary service provider, Jenny, an occupational therapist, makes home visits on a weekly basis during lunchtime, as the family is concerned about Angel's eating and because that time of day works best for Alona. During the home visits, Jenny engages in friendly dialog with Alona, sharing needed information, modeling and brainstorming strategies, discussing how daily routines are going, and addressing any new concerns, the family may have. In addition, Jenny incorporates information she received through ongoing consultation with the early childhood special educator, and physical therapist, as well as information obtained through contact with the support agencies, TRICARE and Child Development Services. Through this dialog and interaction Jenny and Alona address the Individualized Family Service Plan (IFSP) outcomes which include: (a) advancing Angel's interest in spoon-feeding in order to make eating a more pleasurable activity; (b) helping Laura learn to play with Angel so that she can enjoy her baby brother; (c) finding a suitable bath chair so that Angel can be more comfortable at bath time; (d) helping Angel learn to sit independently so that he can be upright without needing someone watching over him; and (g) discovering opportunities for Laura to participate in a playgroup so that she can play with other children closer to her age; and (h) assisting Alona with getting a drivers license so that she will be able to drive when Carlo is deployed in three months.



This scenario represents an interconnected system, which recognizes Angel in the context of his family and respects the concerns, priorities, and resources of the family. Furthermore, the primary service provider approach, which is unique to the transdisciplinary model, facilitates the establishment of a relationship between the family and their early intervention primary service provider. The collaborative consultation team approach employed in this scenario is reflective of the cross-disciplinary unity of disciplines advocated by system theorists such as Bertalanffy (1968) and Laszlo (1996).

Handbook Intent



As early intervention systems have evolved, team models have developed from multidisciplinary, to interdisciplinary, and transdisciplinary (Gargiulo & Kilgo, 2000). This evolution of team models represents the increased value and emphasis placed on teamwork and collaborative consultation, as each model progressively acts more in unison. The notion that families represent a system, in which the child lives, has also developed with the advance of the 3 team models. This is evident, as the progression of team models has increasingly included the family as an integral component of the team.

Although team-based services in early intervention are obligatory, limited emphasis is placed on team training for professionals in the field (Wesley, Buysse, & Skinner, 2001; Hanft & Anzalone, 2001; Effgen & Chiarello, 2000; Olson, Murphy, & Olson, 1998; McWilliam & Scott, 2001). The diversity in foundational career training of educators and allied health care professionals also serves to generate a gap in disciplinary understanding of team-based services (Ogletree, Bull, Drew, & Lunnen, 2001). Therefore, establishing shared understanding of the different team models is a valuable step toward minimizing the gap.

The purpose of this handbook is twofold. The first purpose is to facilitate common understanding of the three team models and the continuum, which they represent. The second intent is to define and identify the transdisciplinary model as the standard practice for the provision of early intervention services within the Educational and Developmental Intervention Services (EDIS) programs.

Team Requirement

The requirement of team-based services in special education can be traced back to the signing of the Education of All Handicapped Children Act (PL 94-142) by President Ford in 1975. This legislation mandated team involvement and identified parents/guardians as key decision makers. In 1986, Congress passed PL 99-457, amending PL 94-142 and creating a new Federal program for infants and toddlers with disabilities and their families. Embedded in this legislation was continued accentuation of parent involvement and team participation. The landmark Education for All Handicapped Children Act (PL 94-142) was renamed the Individuals with Disabilities Education Act (IDEA) (PL 101-476) in 1990. IDEA was amended again in 1991 (PL 102-119) to further address the needs of preschool children with disabilities, require the delivery of early intervention services in natural environments, and establish funding for early intervention programs. The 1991 legislature also specifically required schools operated by the Department of Defense to comply with the requirements of the law. Consequently, Department of Defense Dependents Schools (DoDDS) was mandated to implement complete preschool services for children with disabilities by academic year 1993-1994. The implementation of early intervention services for eligible dependents overseas and in stateside Department of Defense Schools was also required. Academic year 1995-1996 was the mandated full implementation date for early intervention services in Department of Defense locations. On June 4, 1997, President Clinton signed IDEA '97 into law. The amendments of 1997 reinforced the tenets established by PL 94-142 in 1975 and refined aspects that secure team involvement.



IDEA mandates that a team of professionals representing more than one discipline, including the family, conduct the evaluation of children to determine initial and ongoing eligibility for early intervention services. In addition, a team is required to develop the IFSP. Furthermore, IDEA specifically addresses the provision of family-centered services by requiring “family-directed identification of the needs of each family ...to appropriately assist in the development of the infant or toddler” (IDEA '97). Family-centeredness requires early intervention providers to recognize the child in the context of the family, acknowledge the family as the focal point of services, build on the family’s strengths, and work in partnership with the family to enhance their capacity to meet the needs of their child and themselves. The emphasis on teaming, working across disciplines and agencies, and involving all stakeholders (i.e., the parents and individuals they choose to involve) reinforces the system-based intent of early intervention as mandated by IDEA.

A Systems Perspective

While early intervention legislation dating back to 1986 reinforced system design, as well as cross-disciplinary team involvement and recognition that parents are essential decision-makers, early intervention programs persist with the struggle to establish collaborative teamwork across disciplinary boundaries. Essentially, early intervention programs continue to evolve, from a reductionism framework in which disciplinary specialists on the team provide child-centered, domain-specific intervention, to a holistic systems perspective of complex interacting services working collectively toward a common goal of supporting families of children with disabilities. This shift parallels the conceptualization held by Bertalanffy (1968) in general system theory that entities are reliant and dependent on each other for functioning.



Early intervention represents multiple professionals and agencies coming together to form a system of services uniquely tailored to meet the diverse needs of infants and toddlers with disabilities and their families. The individual disciplines on an early intervention team represent different entities of the system that must integrate and function collaboratively to optimally support families of young children with disabilities within the system framework of early intervention and within the natural environments of the family.

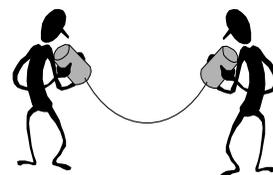
Because the needs of families of young children with disabilities are often multifaceted, no single provider or agency can fully address the array of potential needs (ERIC Digest # 461, 1989). In this same vein, early intervention providers cannot autonomously attend to isolated developmental domains, as families are complex systems and the functional maturation of the child is not a domain-specific process. Highlighting the nature of system functioning and recognizing the diverse needs of families, IDEA clearly mandates the delivery of team-based services. The interrelated nature of early intervention requires that support personnel and agencies work together while embracing each family as equal members of the team. In this complex system, interdependent design, and effective communication among the team members and service components are crucial ingredients affecting overall productiveness.

Effective Teams

Within effective teams, there are collaborative missions and mutual goals, which team members strive equally to achieve (Garland, Frank, Buck, & Seklemain, 1996). In early intervention, the aim of the team is to "enhance the capacity of the families to meet the special needs of their infants and toddlers with disabilities, and to enhance the development of infants and toddlers with disabilities to minimize their potential for developmental delay" (IDEA '97). Recognizing the contributions of all team members and employing the expertise that each member brings to the team best accomplishes this aim. Ultimately, team members must have a solid system understanding of early intervention and genuinely share the belief that the team working together can accomplish more than individuals working alone.



Team Communication



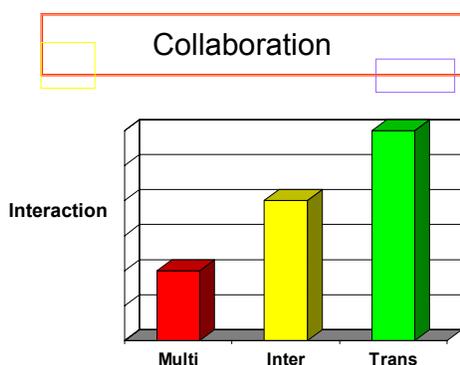
The hallmark of skilled teams is effective communication among members (Bruder, 1997). A fundamental facet of effective communication is active listening. Active listening is a practice of give and take, which facilitates mutual understanding. Active listening strategies include, (a) listening for speaker's feelings by attending to more than just the words, (b) acknowledging and responding to the speaker's feelings to verify full understanding, (c) paraphrasing to confirm understanding, (d) asking open-ended questions to facilitate conversation and enhance understanding, (e) listening with undivided attention and being aware of personal judgments and perceptions which may serve as barriers to active listening (Cousins, 2000; Public Management, 1997). Practicing active listening is a full time job. Team members need to be cognizant of their own communication habits, as well as the pitfalls that might catch them. Potential traps that impede active listening include: (a) day dreaming; (b) preparing what you are going to say next instead of focusing on the speaker; (c) interrupting the speaker; (d) doing something else while listening; and (e) talking more than listening. An active listener is one who gives the message that he is listening (Brodow, 2002). An effective speaker is one who understands that the spoken message is more than just words. In fact, it is made up of 38% vocal behavior such as the use of vocal emphasis 55% nonverbal behavior such as gestures and only 7% words (Bruder, 1997).

As part of effective communication, early intervention team members must also be attentive to their use of professional jargon (Bruder, 1997). While professional jargon has its place in the company of individuals from the same professional background, it can contribute to miscommunication on an early intervention team made up of professionals from multiple specialties and families. In addition, the use of professional jargon may be construed as demonstration of one-upmanship, and can be overwhelming for families and other team members. Both formal and informal communication is vital. Team members must devotedly set aside time to regularly share knowledge and ideas to successfully grow as a team.

**"What you hear
depends on what you thought
before you listened."**

source unknown

Team Models

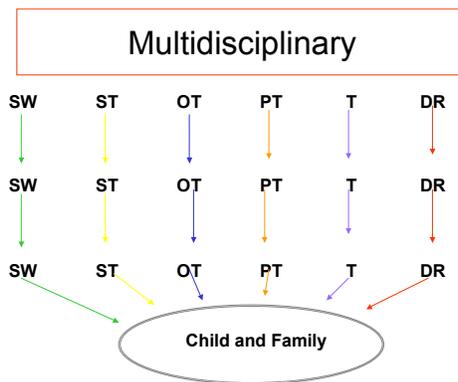


While the three early intervention team models, (multidisciplinary, interdisciplinary and transdisciplinary) are all comprised of families and professionals from different disciplines, they represent a continuum of collaborative interaction, family involvement, and family-centered practices. The steps in the early intervention process remain fundamentally the same across the continuum of models from multidisciplinary, to interdisciplinary, and on to transdisciplinary, as team members share the tasks of intake, assessment, IFSP development, and service delivery. However, each of the team models along the continuum

accomplishes these tasks differently, with varying degrees of collaboration and family-centered practice. The following provides an overview of the three models with emphasis on transdisciplinary information, as this end of the continuum represents the best and most family-centered practice and is strongly encouraged in the EDIS programs.

Multidisciplinary

The multidisciplinary team includes individuals from multiple disciplines who recognize the importance and relevance of the other team members, but work primarily independently (Bruder, 1997; Carpenter, King-Sears, Keys, 1998; Woodruff & McGonigel, 1988; Gargiulo & Kilgo, 2000; Ogletree, Bull, Drew, & Lunnen, 2001). While the family is a member of the team, the role they play in decision-making is secondary to that of the professionals. The members represent a team by sharing the common goal of enhancing the child's development, yet they function restrictively within the boundaries of their discipline. In addition, communication and coordination among team members is minimal.



From an individual team member's perspective, this model may be comfortable, as it grants autonomy for team members to implement their individual techniques and ideas without need for coordination and compromise with other team members (Ogletree, Bull, Drew, & Lunnen, 2001). It may also appear efficient, as time is not needed for consultation, allowing individuals to deliver services expeditiously (Ogletree, Bull, Drew, & Lunnen, 2001). However, this lack of collaboration yields fragmented, duplicative, and even conflicting interventions for the child and family. The lack of a synthesized approach leaves families in the position of having to decode the information received from each individual specialist. For example the physical therapist may recommend that the family take every opportunity to help their child walk, while the speech language pathologist encourages more face to face talk and play time with their child. In the multidisciplinary team model, children are described in pieces or by developmental domain rather than holistically, creating a division among team members and fragmented service delivery.



On a multidisciplinary team, the intake service coordinator is a designated team member who regularly conducts the initial intake process. Following the initial contact with the family, the intake service coordinator determines the team members needed to conduct evaluation based on the child's areas of potential delay. The decision to conduct evaluation is made with the family, however it is based on the intake service coordinator's recommendations derived from the child's potential areas of deficit. The individual team members subsequently arrange to conduct independent evaluations and autonomously determine the methodology and logistics.



Team members conduct evaluations separately focusing on their specific area of specialization (Woodruff & McGonigel, 1988). This often requires the family to repeat the same or similar

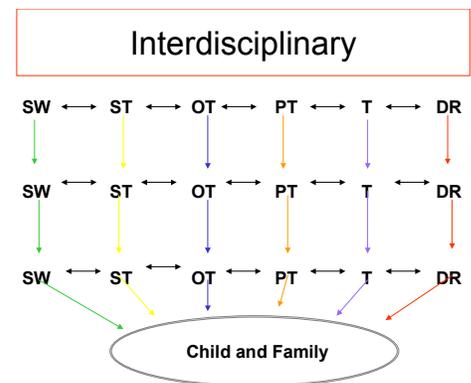
information with each team member. During evaluation, the family is essentially a passive participant (Gargiulo & Kilgo, 2000). Since evaluations are conducted separately, there is little or no way for the professionals to come to consensus or to provide each other with feedback on the results of their evaluations. Recommendations are established independently and derived from the domain specific focus of each discipline involved in the evaluation. The result is a fragmented, non-systems perspective of the child and the child in the context of the family (Woodruff & McGonigel, 1988).

Although the team members come together to develop the IFSP, each member develops separate intervention strategies and makes separate service delivery suggestions. Services are subsequently provided in an isolated manner with no ongoing dialog between the team members providing services. Hence, this approach is not unified and can be confusing and frustrating for families.

While the multidisciplinary team model may be easier for individuals on the team, it does not respect the relationship-based nature of early intervention. In addition, it leaves the family as an outside member of the team and does not encourage coordination and integration across disciplines (Bruder, 1997). Consequently, the multidisciplinary model is professionally driven rather than family-centered.

Interdisciplinary

The primary difference between multidisciplinary and interdisciplinary teams is the degree of communication and coordination among team members (Gargiulo & Kilgo, 2000; Ogletree, Bull, Drew, & Lunnen, 2001). Important aspects of the interdisciplinary model are the formal channels of communication and collaborative planning to facilitate development of an integrated plan. This consequently yields compatibility of intervention across disciplines and opportunities for team members to expand their skills by learning from others on the team. Yet, while families are included as a team members and decision-makers, their input remains inferior to the professionals' contributions.



Possible deterrents to the interdisciplinary model are the time demands for team members to participate in team meetings, challenges associated with adjusting schedules, and difficulty with compromising to ensure integrated services (Ogletree, Bull, Drew, & Lunnen, 2001). In spite of these encumbrances, the interdisciplinary model is an improvement from the multidisciplinary model in terms of family acknowledgement and holistic service delivery.

As team members continue to work within specific disciplinary arenas, the initial service coordinator makes the initial contact with the family. However, the initial service coordinator shares the family's concerns and priorities with the rest of the team to collaboratively design the ensuing evaluation.



While the team members conduct evaluation within the context of their specific discipline, they share information to facilitate a comprehensive and complementary evaluation. Team members may also conduct evaluations together while focusing on their specific area of specialty.

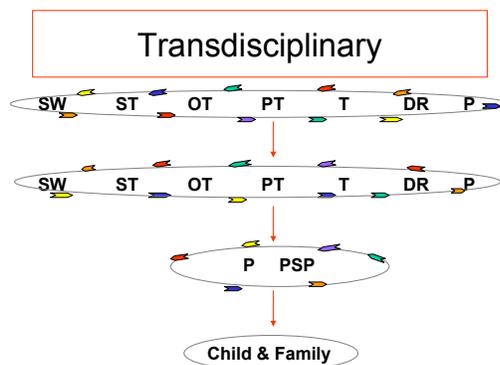
Following evaluation, all team members convene with the family to collectively discuss evaluation results and develop an IFSP. Each evaluator shares information from their respective domain blending information to capture a holistic picture of the child. While this facilitates a comprehensive understanding of the child's strengths and needs the child is still divided by discipline and minimal focus is placed on recognizing the child within the context of the family. As Ogletree, Bull, Drew, and Lunnen (2001) noted, "decisions are driven by the independent orientations of each discipline" (p. 141).

As team members implement the IFSP, sharing occurs and some strategies are exchanged. Team members may also conduct sessions together, creating an opportunity to directly blend strategies. However, the origin of focus continues to be through the specific disciplinary lenses of the individual specialists. The interdisciplinary model reduces the potential for incongruous service delivery denotative in the multidisciplinary model (Carpenter, King-Sears, & Keys, 1998). Despite this advancement, the family is still left to synchronize information received, as services are provided from different disciplinary sources.

The interdisciplinary model is clearly more collaborative than the multidisciplinary, which yields services that are more integrated. However, the interdisciplinary model does not embrace the family as a full team member to the greatest extent possible, does not fully recognize the child in the context of the family, and subsequently does not possess the family-centered philosophy apparent in the transdisciplinary model.

Transdisciplinary

The transdisciplinary approach was first identified in the mid 1970s. This model has evolved from multidisciplinary teams providing the required individual therapies to a child, to collaborative consultative services provided by a team with one person being the primary service provider and other team members consulting as needed. This approach to service delivery recognizes the interrelated nature of the developmental, biological and psychological components in a child's life and acknowledges the vital role and influence of the family. It focuses on the family in the assessment and service delivery processes and supports them in enhancing their child's development. The family is the "director of services" rather than "entities to be taken care of". Families are viewed as imparters of knowledge about their child during assessment, as active interventionists implementing strategies within their regular routines and activities, and as recipients of information that allows them to better understand issues regarding their child and make informed decisions for their child and themselves. Engaging families in this manner promotes the parent's role as primary interventionist and lifelong advocate for their child.



The transdisciplinary team model is an improvement from the multidisciplinary and interdisciplinary models, as it represents the highest degree of collaboration, family-centeredness, and holistic service delivery. Unique to the transdisciplinary team model is the emphasis on crossing disciplinary boundaries, and sharing expertise, roles, and responsibilities while recognizing the child as a whole



within the context of the family (Mayhew, Scott, McWilliam, 1999; Gargiulo & Kilgo, 2000; Woodruff & McGonigel, 1988). Within this model sharing the expertise of all team members, including the family, provides a well-rounded approach without fragmenting services by specialty or domain (Dinnebel, Hale, & Rule, 1999). Consequently, the traditional territory of individual disciplines is opened up to heighten collaborative communication and team member cooperation (Woodruff & McGonigel, 1988). Unlike the interdisciplinary and multidisciplinary models, the transdisciplinary model does not piece the child into developmental domains associated with respective disciplines (e.g., fine motor connected to occupational therapy, communication connected to speech language pathology, and gross motor connected to physical therapy). Rather, team members maintain a collaborative focus on functional and meaningful proficiencies within the context of the family and their day-to-day life. A primary service provider who works in close collaboration with the other team members integrates and synthesizes shared information to deliver efficient and comprehensive services. Respecting the family as a fully contributing, decision-making team member is another significant tenet of the transdisciplinary model, which reflects the highest degree of family-centeredness (Woodruff & McGonigel, 1988).

The Division of Early Childhood of the Council for Exceptional Children (Sandall, McLean & Smith, 2000) endorses the transdisciplinary model, as it works well to reduce redundancy and avoid potentially conflicting input sometimes evident when individual providers see the family at separate times and address similar issues. Furthermore, according to McWilliam and Scott (2001) a transdisciplinary model facilitates emotional support, as families have an opportunity to develop a relationship with the primary service provider.

Within the transdisciplinary team, a primary point of contact is identified to receive all referrals. As referrals are received, the primary point of contact shares information with the team members and an initial family service coordinator is identified. The initial family service coordinator is responsible for introductory intake activities. This includes initiating contact with the family and arranging an initial visit. In a transdisciplinary model, the role of the initial family service coordinator can be shared among the various team members, without regard to discipline, given the team member is skilled in conducting the intake activities. Affording opportunities for team members to collaboratively conduct intake visits with an experienced initial family service coordinator creates a means to train other providers to effectively take on the initial family service coordinator role. This sharing of expertise and expansion of roles is distinctive to the transdisciplinary model.

On a transdisciplinary team, the intake process involves the family as an integral team member allowing them to make decisions, which in turn direct the entire process. During the intake process, there is emphasis on identifying the family's agenda, building a basis for rapport with the family and child, and establishing a warm climate of mutual respect. Early intervention providers work collaboratively with their focus on supporting, respecting, encouraging, and enhancing the strengths and competence of the family. As part of the intake process, the family and initial family service coordinator exchange information, to include sharing particulars about early intervention services, and gathering information about the child and family and their regular routines and activities. Supplying information is an important support component of the early intervention process (McWilliam & Scott, 2001). During the first contacts with the family, the initial family service coordinator provides information about the transdisciplinary approach, family-centered philosophy, and the early intervention process. This is necessary for families to make informed decisions. Also of value early in the process is talking to the family about



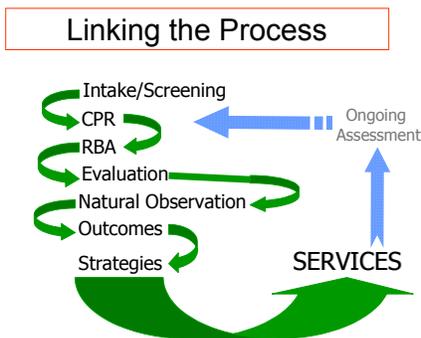
the provision of services by a primary service provider with consultation from other team members, as the family may be expecting a traditional medical-based model.

In the transdisciplinary model, team members respect the family as a full team member from the initial contact through the entire process. Therefore, team members facilitate family involvement in selecting and designing the evaluation process. Just as in other early intervention processes, the evaluation is tailored to meet the unique needs of the child and family. Team members collaboratively provide information to help the family prepare for the evaluation. Collectively the team members, including the family, make evaluation decisions about location, time, duration, individuals involved, and evaluation methods. Vital to the evaluation process is gathering information about the family’s day-to-day routines and activities, as this facilitates understanding of the family’s concerns, priorities, resources, and desires. Information about family routines also facilitates functional IFSP development that is meaningful, practical, and relevant to the family.



While there are several approaches to evaluation, an arena approach is frequently utilized within the transdisciplinary model. This approach involves professionals from various disciplines and the family gathering in one room. One member from the team interacts with the child and family while the other members observe and record their observations. Although arena evaluations can involve professionals from numerous different disciplines, it is important to recognize that an arena evaluation need not include an extensive

team of professionals, nor is it necessary or best for all children or all families. To illustrate, a family may choose to have the evaluation in their home, making it difficult to accommodate professionals from several different disciplines. Another family may feel that their child will do better in a setting with no more than two unfamiliar adults. One more family may feel their child’s motor skills are a strength and see no need to make special arrangements for the physical therapist’s involvement in the evaluation process. Respecting the family as an essential decision maker is cardinal to the transdisciplinary model. Therefore, no single evaluation recipe is possible for all families. Regardless of the evaluation team make up, a unique aspect of the transdisciplinary arena approach is the emphasis on having one team member primarily interacting with the child and family rather than the more traditional “pass the baby” method. As the evaluation process is completed, consultation from other professionals may be requested. Video taping the evaluation so that others can view the video and provide input is an alternative way to gather input from other team members. In addition to being an excellent means of gathering extra information, it provides a visual record of the child’s progress and can serve as a tool for cross training and team building.



The IFSP development process incorporates input from all involved team members and recognizes the family as the primary decision-maker. The team members collectively craft outcomes derived from the family’s concerns, priorities, and desires as relevant to their day-to-day routines and activities. Subsequently, the team members cooperatively design services based on the identified IFSP outcomes, not on developmental deficits. Service delivery is designed to encourage the use of a primary service provider to keep the family from having to face a revolving door of different service providers and

decipher the information received. The primary service provider is the individual responsible for implementing the IFSP, based on input, ongoing consultation and support from other necessary

disciplines and agencies. Use of a primary service provider does not mean individuals work in isolation or outside their expertise/comfort level. Rather, close communication, consultation, and necessary monitoring from other team members are assured to support the primary service provider. While there are no service frequency guidelines, nor should there ever be any, early intervention teams are encouraged to individually tailor service frequencies, intensities, and durations from a primary service provider perspective to the greatest extent appropriate.

Clearly, the transdisciplinary model facilitates the greatest degree of family involvement, holistic service delivery, and collaboration. Although this model requires ample time and shared commitment from all team members to accomplish, the fundamental values encapsulated within the transdisciplinary model are elements worth striving for to provide optimal family-centered early intervention services.

The Continuum

The three team models represent a continuum from professionally driven with minimal reciprocal exchange to family-centered and highly interactive. Within this range, the transdisciplinary end of the continuum represents the highest level of family-centeredness and collaborative interaction, whereas the multidisciplinary end symbolizes the least family-centered perspective and most professionally centered model. Identifying where the team is on the continuum creates an opportunity for team members to collectively distinguish where they are, where they want to go, and what they might do to get there. Understanding where on the continuum services are most often provided for each step in the early intervention process can help the team identify areas of strength and opportunities for growth. Using this approach allows teams to jointly establish the team, building long and short-term objectives toward advancing the provision of family-centered early intervention services.



The following provides a continuum look at four early intervention processes. The continuum for each process step spans from multidisciplinary and professionally directed, to transdisciplinary and family-centered.

Intake

<p>1. The initial service coordinator gathers information and describes the program in terms of intervention for the child as determined and delivered by the professionals.</p>	<p>2. The initial service coordinator gathers information, describes the program in terms of intervention for the child, as determined by the professionals and carried out by professionals and the family.</p>	<p>3. The initial service coordinator gathers information and describes the program in terms of intervention for the child that is agreed upon and implemented by the family and professionals.</p>	<p>4. The initial service coordinator builds rapport and exchanges information with the family. The initial service coordinator shares program information in terms of supporting families.</p>
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Evaluation

<p>1. Providers conduct evaluation by area of specialty. Providers make recommendations for intervention based on their area of specialty.</p>	<p>2. Providers specializing in different developmental domains conduct evaluation. They share their results and recommendations for intervention with the team.</p>	<p>3. Team members work together, generally focusing on their area of specialty. Team members share information and integrate recommendations for intervention.</p>	<p>4. Team members work collaboratively. Family concerns, in the context of routines and activities, stimulate recommendations for intervention.</p>
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IFSP Development

<p>1. Professionals formulate ideas and present child-specific outcomes based on test results specific to their area of specialty.</p>	<p>2. Professionals share ideas for child-specific outcomes related to improvement in the developmental domain of their specialty area.</p>	<p>3. Professionals and parents share their knowledge and expertise to develop outcomes based on family concerns primarily regarding their child's development.</p>	<p>4. Family members and professionals collaboratively develop functional outcomes based on family concerns formulated from family routines and activities.</p>
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Service Delivery

<p>1. Therapists and specialists provide regular visits and communicate with others as concerns arise.</p>	<p>2. Multiple interventionists provide regular visits and exchange information occasionally or during agreed upon times.</p>	<p>3. Interventionists share information and provide varied frequency of visits with one provider typically seeing the family more frequently than others.</p>	<p>4. The primary service provider works with the family/caregiver and receives ongoing consultation from other professionals.</p>
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Adapted with permission from: McWilliam, R. A, (2000). Families in Natural Environments Scale of Service Evaluation. Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill.

Because the team is essentially a system with each member influencing the overall team functioning, recognizing and involving each team member as an integral component in the establishment of team goals is necessary to achieve team contribution and commitment. Furthermore, because the team is part of the overall early intervention system, gathering input from other system entities (e.g., families and community agencies) is indispensable, as modifications in one area of the early intervention system will likely stimulate change in other aspects of the system. Ultimately, input from all influenced and influencing elements of the system is necessary to ensure quality interaction occurs at all levels of the system.

The following are simple action plans that individuals and teams may use to build upon and improve their transdisciplinary family-centered service delivery.

Action Plan
What do we want to accomplish?
How will we know we are there?
What do we need to do to get there?
Who will do what and by when?
What resources are needed?
When will we evaluate our progress?

Action Plan						
Mission/Vision/Guiding Principles:						
Goal:						
Objectives	Responsible Agency	Delivery Date	Principle Coordination	Indicators of Success	Status	Comments

Transdisciplinary and Family-Centered

As research, policy, and practice have come together, the focus in early intervention has shifted from child-centered to family-centered, and the target of services has traversed from the child alone to the child within the context of the family. Because of this, early intervention providers are reframing their service approach from an individualized child focus to a collaborative family-centered focus.

Emphasis on family-centeredness permeates all aspects of early intervention service delivery. The professional community embraces a family-centered philosophy. From a statutory perspective, the IDEA addresses family-centeredness as a philosophy by highlighting the need to “enhance the capacity of families to meet the special needs of their infants and toddlers with disabilities” (Sec. 1431 (a)(4)). Furthermore, the IDEA mandates “family-directed identification of the needs of each family ...to appropriately assist in the development of the infant or toddler” (Sec. 1435 (a)(1)). With these words, IDEA reinforces the family-centered philosophy that children are part of the greater family system, making the family a vital entity of early intervention. Further bolstering this fundamental principal is the recognition that family input, family involvement, and family professional partnerships promote premium intervention services.

There are many important reasons for the use of the transdisciplinary approach that have not been mentioned in this handbook. However, by far the most important reason for its use is its positive effect on family-centered services. Of the three models discussed, the transdisciplinary model is the most effective in enabling effective relationship building. Because of its emphasis on collaborative consultation, teamwork and partnerships with families, it promotes the involvement of the family as valued team members in the planning for and implementation of intervention services. It emphasizes

that the family is a member of a team, which recognizes and values the contributions of all its members. In addition, after the team decisions are made, the transdisciplinary model allows one primary interventionist to work most closely with the family, thereby facilitating a parent provider relationship, promoting collaborative communications with other team members, and simplifying the delivery of services. Recognizing that the success of early intervention is embedded in the relationship with the family, the use of family-centered transdisciplinary practices is encouraged to ensure high quality early intervention services. Such practices promote a holistic focus on the family and their individual situations and enable programs to work with the family in providing the most efficient and effective services.

References

- Bertalanffy, L. (1968). *General system theory*. New York: George Braziller.
- Brodow, E. (2002). The forgotten art of listening. Retrieved October 20, 2002, from www.brodow.com/Articles/ArtOfListening.html
- Bruder, M. B. (1997). *Collaboration: Putting the puzzle pieces together*. Farmington, CT: Connecticut University Health Center. ERIC Document ED 416 655.
- Carpenter, S., King-Sears, M. E., & Keys, S. G. (1998). Counselors + educators + families as a transdisciplinary team = more effective inclusion for students with disabilities. *American School Counselor Association (ASCA) Professional School Counseling*, (2)1, 1-9.
- Cousins, R. B. (2000). Active listening is more than just hearing. *Supervision*, (61) 9, 14-15. Retrieved February 4, 2003, from <http://search.epnet.com/direct.asp?an=3503917&db=buh>
- Dinnebell, L. A., Hale, L., & Rule, S. (1999). Early intervention program practices that support collaboration. *Topics In Early Childhood Special Education*, 19(4), 225-235.
- Effgen, S. K. & Chiarello, L. A. (2000). Physical therapists education for service in early intervention. *Infants and Young Children*, (12)4, 63-76.
- ERIC Digest # 461. (1989). *Early Intervention for Infants and Toddlers: A Team Effort*. Reston, VA: Council for Exceptional Children ERIC Clearinghouse on Handicapped and Gifted Children.
- Gargiulo, R. M. & Kilgo, J. L. (2000). *Young Children with Special Needs: An Introduction to Early Childhood Special Education*. Albany, NY: Delmar Publishers.
- Garland, C., Frank, A., Buck, D., & Seklemian, P. (1996). *Skills Inventory for Teams*. Norge, VA: Child Development Resources Training Center.
- Hanft, B. E. & Anzalone, M. (2001). Issues in professional development: Preparing and supporting occupational therapists in early childhood. *Infants and Young Children*, (13)4, 67-78.
- Individuals with Disabilities Education Act (IDEA), (1997) 20 USC § 1400 et. seq. Retrieved January 21, 2003, from <http://www4.law.cornell.edu/uscode/20/1431.html>
- Laszlo, E. (1996). *The systems view of the world: A holistic vision for our time*. Cresskill, NJ: Hampton Press.
- Mayhew, L., Scott, S., & McWilliam, R. A. (1999). *Project INTEGRATE a training and resource guide for speech and language pathologists*. Chapel Hill, NC: Frank Porter Graham Child Development Center University of North Carolina at Chapel Hill.
- McWilliam, R. A. & Scott, S. (2001). A support approach to early intervention: A three-part framework. *Infants and Young Children*, (13)4, 55-66.

- Ogletree, B. T., Bull, J., Drew, R., & Lunnen, K. Y. (2001). Team-based service delivery for students with disabilities: Practice options and guidelines for success. *Intervention in School and Clinic*, 36(3), 138-145.
- Olson, J., Murphy, C. L., & Olson, P. D. (1998). Building effective successful teams: An interactive teaming model for inservice education. *Journal of Early Intervention*, 21(4), 339-349.
- Public Management. (1997). Active listening. *Public Management*, (79)12, 25-27. Retrieved February 4, 2003, from <http://search.epnet.com/direct.asp?an=9712102989&db=buh>
- Sandall, S., McLean, M. E., & Smith, B. J. (2000). *DEC recommended practices in early intervention/early childhood special education*. Longmont, CO: Sopris West.
- Wesley, P. W., Buissee, V., & Skinner, D. (2001). Early interventionists' perspectives on professional comfort as consultants. *Journal of Early Intervention*, 24(2), 112-128.
- Woodruff, G. & McGonigel, M. J. (1988). Early intervention team approaches: The transdisciplinary model. In J. Jordan, J. Gallagher, P. Hutinger, & M. Karnes (eds.), *Early Childhood Special Education: Birth to Three* (pp. 163-182). Council for Exceptional Children.