The Developmental Systems Approach to Early Intervention

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CHAPTER 2

SERVICE COORDINATION AND INTEGRATION IN A DEVELOPMENTAL SYSTEMS APPROACH TO EARLY INTERVENTION

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My son, Jason, woke up vomiting again, but at least he only woke up once during the night. Jason was born 2 months premature and has struggled since his birth. Jason currently has seven different specialists (not all in the same cities), as well as our Birth to Three providers that include two evaluators, a physical therapist, an occupational therapist, and a special education teacher. I change the set-up for Jason's feeding pump while I try to clean him up. After another load of laundry, I am able to get him to drink an ounce and a half of formula. As I am congratulating him for his accomplishment, I remember that the occupational therapist is coming to work on his feeding skills. I hope she comes prepared to do something else because Jason won't be hungry when she gets here, and I hope she understands that I don't want to sit and watch anymore. I need to learn ways to incorporate these skills and techniques into our everyday lives if Jason is ever going to improve.

There are not enough hours in the day to work on all the different things that the providers and physicians tell me are so important. Each specialist has a different focus and agenda. I want to be a good mom, but it is impossible for me to do all of the prescribed activities every day. And why can't they ever meet together? At least they could then talk to each other.

At 8 A.M. I get a telephone call from the nursing agency telling me my nurse is sick (this is the second Tuesday in a row) and they do not have a

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replacement for her. I can't get anyone else, so I call work to tell them I won't be in again. I have been trying so hard to find a back-up child care arrangement. The good news is that Jason won't have to miss swimming because I will be home to drive him. We get charged for the pool time whether we use it or not. It's ironic that my insurance pays for a physical therapist appointment, but we do not get any help to pay for swimming, even though he does more there than he does with the physical therapist. I check our schedule board at home and realize Jason has a nephrology appointment tomorrow at 4 P.M. I had planned to take part of the day off, but because I will miss work today, I will have to see if my husband can take him to that appointment. Keeping track of Jason's appointments is time consuming, and having to make choices based on 10 differing opinions and trying to prioritize these choices is exhausting. I can't even attempt to integrate them into the type of life I want for my family.

SERVICE INTEGRATION IN EARLY INTERVENTION

Through Part C of the Individuals with Disabilities Education Act (IDEA) Amendments of 1997 (PL 105-17), Congress identified an "urgent and substantial" need to enhance the development of infants and toddlers with disabilities, as well as enhance the capacity of families to meet the special needs of their infants and toddlers with disabilities. The attention on families in this law was a welcome provision that acknowledged the important role of parents in the development of their child. As a result, early intervention programs have tried to provide enrolled families with a sense of confidence and competence about their children's current and future learning and development (Bailey et al., 1998; Dunst, 2000; Turnbull & Turnbull, 1997). One of the ways this can happen is through the development of early intervention systems that are coordinated around a family's priorities, most important as they relate to meeting the special needs of their child.

A core principle of the developmental systems approach of early intervention is the coordination and integration of agencies, services, and personnel within the key components of service delivery as outlined in Chapter 1 (see also Guralnick, 2001). This principle has been a cornerstone of early intervention for as many years as there have been formalized systems of service delivery (Elder & Magrab, 1980; Swan & Morgan, 1993). In addition, and more important, service integration has been a component of service delivery from as far back as the colonial period, and it has been a hallmark of social services availability (Kagan & Neville, 1993).

This is not surprising as there are obvious benefits to integrated, collaborative service delivery models, the most important being an improvement in service delivery to the target population. This occurs as a result of more efficient and effective use of services, providers, and funding streams across agencies (Dinnebeil, Hale, & Rule, 1999; Roberts, Innocenti, & Goetze, 1999; Summers et al., 2001), and reduction in service duplication (Bruder & Bologna, 1993). In addition, collaborative efforts enable parents and service providers to efficiently locate and manage the varied resources, supports, and services required by a family (Dunst & Bruder, 2002). Unfortunately, in analyzing the long history surrounding the concept of service integration, one is struck by its nobility of intent, its tenacity of purpose, and its ineffectiveness in implementation (Kagan & Neville, 1993).

No one in the field of early intervention would argue that infants and toddlers with disabilities, or those at risk for disability, often require the combined expertise of numerous personnel, services, and agencies (Bruder & Bologna, 1993). For example, personnel having medical expertise, therapeutic expertise, and educational/developmental and social services expertise traditionally have been involved in the provision of services to infants and young children with disabilities and their families (Stayton & Bruder, 1999). However, the coordination and integration of these entities are frequently overwhelming. Each of these service providers may represent a different professional discipline, be employed by a different agency, and practice under conflicting philosophical models of service delivery. In fact, at the service level, coordination can be fraught with tension because of the inherent structure of personnel preparation programs and subsequent discipline-specific practices (Bruder & Dunst, in preparation; Kilgo & Bruder, 1997). Each discipline has its own training sequence (some require undergraduate degrees), licensing and/or certification requirements (most of which do not require age specialization for young children), and treatment modality (e.g., occupational therapists may focus on sensory integration techniques; Bruder, 2000; McCollum, 2000). Equally problematic are those issues confronting the agencies that employ early intervention personnel (see Table 2.1). Whether at the agency, service, or personnel level, such issues add to the perception that child development and family support are the products of independent domains, rather than an interdependent interaction across processes (Guralnick, 2001).

The purpose of this chapter is to address the issues related to service coordination and integration within the developmental systems approach to early intervention: in particular for infants and young children who are eligible for Part C services under IDEA. Although the majority of this population must have an established disability or delay to qualify for services, infants and toddlers at risk for disability also are eligible for services

Table 2.1. Issues in interagency collaboration

Issues
Competitiveness between agencies
Turf issues
Lack of information about other agencies' functions
Political issues
Lack of organizational structure for coordination
Differing philosophies
Independent goals
Haphazard team process
Lack of a facilitator
Lack of monitoring and evaluation process
Lack of planning
Lack of power and authority to make and implement decisions
Technical factors
Resources: staff, time, budget
Logistics: distance, geography
Personnel
Parochial interests
Resistance to change
Poor staff attitudes
Lack of commitment to community needs
Questionable administrative support
Discipline-specific jargon and perspectives

in seven states; thus the impact of the federal legislation in these states reaches a wider range of children and families in need of early intervention. The primary reason for the focus on Part C is because of the collaborative nature of both the spirit and letter of the law, thus laying a foundation for coordination and integration across and within all levels of service delivery. However, the intent of this emphasis is not to negate the effectiveness of practices demonstrated by case management or care coordination conducted under the auspices of other early intervention programs serving specific populations (Kagan & Neuman, 2000; Nickel, Cooley, McAllister, & Samson-Fang, 2003; Roberts, Behl, & Akers, 1996b; Rosman & Knitzer, 2001; Smith, Gabard, Dale, & Drucker, 1994; Summers et al., 2001) but rather to view service coordination and integration within the most cohesive service delivery frame available. In doing so, the chapter will rely on a definition of service integration that has evolved from the work of Kagan and Neville (1993) and Kagan, Goffin, Golub, and Pritchard (1995). Service integration is the realization of a truly collaborative model of early intervention that involves all supports and services that a family uses, regardless of whether the supports and services are related to a child's disability.

SERVICE COORDINATION AND INTEGRATION IN PART C OF IDEA

In 1986, Part H of the Education of the Handicapped Act Amendments (now Part C of IDEA) created an early intervention program with much promise. Inherent in this program was the concept of a statewide system of family-centered, culturally competent, coordinated, comprehensive, multidisciplinary, interagency early intervention services for infants and toddlers with disabilities and their families (Hanson & Bruder, 2001). This concept required a commitment by all service agencies and providers to cooperatively and collaboratively plan, implement, and evaluate services that enhance the development of an eligible child and the capacity of the family to meet the special needs of the child. To do this, the law required coordination and collaboration at both the state and local level. For example, specific requirements included and still include

1. **The establishment of statewide interagency coordinating councils (ICCs) composed of parents and representatives from relevant state agencies and service providers.** These councils must consist of between 15 and 25 members, and the chair must not be from the lead agency. Councils may vary in how many agencies are represented, and at least 20% of the membership must be parents.
2. **The maintenance of a lead agency for general administration, supervision, and monitoring of programs and activities, including responsibility for carrying out the entry into formal interagency agreements and the resolution of disputes.** Approximately 15 states have chosen the Department of Health as their lead agency; 16 others have the Department of Health and another agency; 13 have the Department of Education; and 12 have other agencies as lead.
3. **The development of interagency and multidisciplinary models of service delivery for eligible infants, toddlers, and their families as specified in the individualized family service plan (IFSP), which is directed by the family.** *Multidisciplinary* has been further defined by the U.S. Department of Education to mean efforts involving people representing at least two disciplines. The IFSP is required to have integrated goals and objectives for each child and family.
4. **The appointment of a service coordinator to facilitate and ensure the implementation of the IFSP.** The service coordinator is responsible for the implementation of the IFSP and for ongoing coordination with other agencies and individuals to ensure the timely and effective delivery of services.

Collectively, these components provide a framework to describe the collaborative foundation of early intervention under Part C, and individually they contribute to the development of comprehensive systems of early intervention. Yet, data collected by the Research and Training Center on Service Coordination (2004), as well as others (Campbell & Halbert, 2002; Dinnebeil, Hale, & Rule, 1996; Roberts, Akers, & Behl, 1996a, 1996b; Wesley, Buysse, & Tyndall, 1997), suggested difficulty implementing true service integration: the result being that agencies, services, and personnel operate as independent entities when interfacing with families. The promises of early intervention service integration have yet to be realized, as demonstrated by Jason's mother at the beginning of the chapter.

STATE MODELS OF SERVICE COORDINATION

Although IDEA requires the provision of service coordination, it does not specify how it should be implemented at the state level. Research (Dinnebeil et al., 1999; Dunst, Trivette, Gordon, & Starnes, 1993; Harbin, 1996; Jung & Baird, 2003; Park & Turnbull, 2003; Summers et al., 2001) and practice recommendations (Bruder & Bologna, 1993; Harbin, McWilliam, & Gallagher, 2000; Roberts, Rule, & Innocenti, 1998; Rosin, Whitehead, et al., 1996; Swan & Morgan, 1993; Thurman, Cornwell, & Gottwald, 1997) have produced a plethora of recommendations on how to design and implement collaborative service models. However, there is a lack of comprehensive, developmental system examples from which to glean evidence on effective early intervention coordination and integration practices that lead to positive system, family, and child outcomes (Dunst & Bruder, 2002). Much of this is because of the complexities demonstrated by agencies, services, and providers as they attempt to individualize services and supports for families in a collaborative manner (Bruder & Bologna, 1993).

As previously stated, state policy makers are free to decide which model of service coordination to use in their states. Five such models have been identified: 1) independent and dedicated—the role of the service coordinator is dedicated to service coordination only, and the agency providing service coordination is independent from service provision; 2) independent but not dedicated—the agency providing service coordination is independent from service provision, but the service coordinator performs other responsibilities (such as system entry tasks) in addition to service coordination; 3) dedicated but not independent—the service coordinator provides service coordination only in an agency that also provides intervention services; 4) blended—the service coordinator also provides developmental intervention; and 5) multilevel blended and dedicated—children

and families with the most complex service coordination needs are assigned a dedicated service coordinator, while intervention service providers carry out service coordination tasks in addition to providing intervention for children and families with less complex needs (Harbin & West, 1998).

In an attempt to identify and understand the service coordination models currently in place across the country, the Research and Training Center on Service Coordination (Harbin et al., 2004) conducted a survey in all 50 states and 7 territories. Findings suggest that each of the entities administers early intervention and service coordination differently, according to the unique political and contextual variables of their locale. When asked about specific state models, 47% reported variability across all of the previously described models, 27% reported using a dedicated model (a person dedicated to only providing service coordination), and the remainder of the respondents reported models divided among the others mentioned previously. It is no surprise that the National Early Intervention Longitudinal Study has also identified service coordination as one of the more difficult aspects of early intervention service delivery to describe (Hebbeler, Simeonsson, & Scarborough, 2000, p. 204). As a result of these variations, the literature on service coordination and integration is replete with the barriers that impede service integration (Friend & Cook, 1996; Johnson, Ruiz, LaMontagne, & George, 1998; Pugach & Johnson, 1995; Stegelin & Jones, 1991) and the complexity and variation of state practices (Hebbeler et al., 2000). A conclusion is that a state model may or may not contribute to the facilitation of early intervention service coordination and integration, or provide enough clarity and specificity to enable a service coordinator to fulfill his or her job responsibilities.

THE ROLE OF SERVICE COORDINATION

According to Part C of IDEA, *service coordination* is defined as the activities carried out by a service coordinator to assist and enable the eligible child and his or her family to receive the rights, procedural safeguards, and services that are authorized to be provided under the state's early intervention program. This includes coordinating all services across agency lines and serving as the single point of contact to help families obtain the services and assistance they need. In order to do accomplish these tasks, service coordinators must demonstrate knowledge and understanding about eligible infants and toddlers, Part C of IDEA and its regulations, the nature and scope of services available under the state's early intervention system, and the payment system as well as other pertinent information. Table 2.2 contains the qualifications, responsibilities, tasks, and outcomes of service coordination under the law.

Table 2.2. Service coordinator expectations under Part C of IDEA '97

Qualifications →	Responsibilities →	Tasks →	Outcome
Knowledge and understanding about • Infants and toddlers who are eligible under Part C of IDEA • Part C of IDEA and the regulations of this part • The nature and scope of services available under the state's early intervention program, the system of payments for services in the state, and other pertinent information	Assisting parents of eligible children in gaining access to the early intervention services and other services identified in the individualized family service plan (IFSP) Coordinating the provision of early intervention services and other services (e.g., medical services for other than diagnostic and evaluation purposes) so that the child's needs are being met Facilitating the timely delivery of available services Continuously seeking the appropriate services and situations necessary to benefit the development of each child being served for the duration of the child's eligibility	Coordinating the performance of evaluations and assessments Facilitating and participating in the development, review, and evaluation of IFSPs Assisting families in identifying available service providers Coordinating and monitoring the delivery of available services Informing families of the availability of advocacy services Coordinating with medical and health providers Facilitating the development of a transition plan to preschool services, if appropriate	Children and families receive appropriate supports and services that meet their individual needs

Though straightforward as described by law, the service coordinator is ultimately responsible for the coordination, maintenance, and evaluation of services and supports delivered to a family and child. However, the complexities of tasks across the multiple levels of early intervention (family, service providers, and system administrators) are growing every day. Underlying each of these levels are fiscal challenges facing both families of children with multiple needs and state and local systems of care that are trying to coordinate multiple (shrinking), confusing, and diverse funding streams for service delivery (Akers & Roberts, 1999; McCollum, 2000;

Striffler, Perry, & Kates, 1997). This is occurring simultaneously with expanding system reforms across systems such as welfare (Janko-Summers & Joseph, 1998; Ohlson, 1998; Rosman & Knitzer, 2001), child care (Kagan, 1996; Spencer, Blumenthal, & Richards, 1995), health care (Braddock & Hemp, 1996; Lobach, 1995), and mental health (Knitzer, 2000; Knitzer & Page, 1998).

A FRAMEWORK FOR SERVICE COORDINATION AND INTEGRATION

Elder and Magrab (1980) first described a hierarchy for an integrated early intervention service model. The first level of such a hierarchy would consist of cooperation wherein people and agencies cooperate for a common goal. The second is a more active attempt whereby the people and entities coordinate activities in order to reach a goal. The last level is a collaborative relationship in that the entities work together throughout the achievement of a goal (Melaville & Blank, 1994). Though helpful, this hierarchy has proven inadequate to describe the depth and levels of collaboration needed to achieve the service coordination and integration necessitated in current systems of early intervention (Bruder & Bologna, 1993; Hanson & Bruder, 2001).

A more relevant framework for the complexity of service integration in early intervention today is based on the ecological framework of Bronfenbrenner (1993), as applied to the Developmental Systems Model (Guralnick, 2001) illustrated in this volume. This orientation requires attention be given to the multiple characteristics of a service system, suggesting that child and family outcomes of service coordination and integration are influenced by the individuals, organizations, agencies, cultures, communities, and states involved in service delivery and system administration. In addition, the child and family exist within a series of complex contexts such as their history, values, culture, ethnicity, structure, home routines and community activities, child disability, child age, economic status, and geographic location. Likewise, service providers and coordinators possess attitudes, values, knowledge (of resources and recommended practices), previous experiences, training, and skills that they bring to the service implementation endeavor. These characteristics of both the family and service provider also influence the multiple elements of service coordination. Finally, service coordination is also influenced by the existing system infrastructure. The infrastructure is made up of multiple organizations, agencies, and programs that can facilitate or hinder effective service coordination. Although funding is an important piece of the infrastructure, other

aspects of the infrastructure are equally important (e.g., personnel development, service coordination caseload). Families, service providers, and service system infrastructure are embedded within community contexts, all combining to influence not only the nature of service coordination but also the consequent outcomes as well.

SERVICE COORDINATION AND INTEGRATION

Over the last decade, work in early intervention service delivery has focused on the identification of factors that facilitate service coordination and integration. In particular, work by Harbin and colleagues (Harbin, 1996; Harbin et al., 2000; Harbin & West, 1998) has consistently broadened the view of system issues to include seemingly intangible, yet essential, qualities that lead to successful service integration models. In particular, Harbin and colleagues (2000) identified seven broad interactive variables that facilitate service integration: 1) state and community context, 2) state policy, 3) service delivery model, 4) leadership, 5) service provider skills and characteristics, 6) family characteristics, and 7) service provider/family relationships. Other researchers reinforced their findings and also have examined the interrelationship of variables that contribute to effective collaborative early intervention models (Johnson, Zorn, Tam, LaMontagne, & Johnson, 2003; Park & Turnbull, 2003; Summers et al., 2001). Categories of practice such as the management and delivery of services, the approach for teaming, the program philosophy and climate, and the personal characteristics of providers (including months of experience and attendance in training) have been identified by both parents and service coordinators as facilitating collaboration (Dinnebeil et al., 1999; Jung & Baird, 2003). Although it is no surprise that service delivery and management (e.g., caseload, funding) have been consistently identified as critical facilitators to coordinated service delivery (Dinnebeil et al., 1996; Harbin & West, 1998; Hebbeler, 1997), the personal characteristics of those involved (e.g., willingness to work together, leadership, common vision, trust) have also been increasingly acknowledged as a key to successful service integration (Dunst et al., 1993; Harbin et al., 2000; Johnson et al., 2003; McWilliam, Tocci, & Harbin, 1998; Park & Turnbull, 2003). In fact, it has been concluded that effective service integration is built on the foundation of partnerships between the people who comprise agencies, services, and families (Summers et al., 2001). Under Part C of IDEA, the person designated as the service coordinator has the ultimate responsibility to build and nurture these partnerships.

DEVELOPMENTAL SYSTEMS APPROACH

In an attempt to provide guidance to the service coordination and integration process, the components of the early intervention developmental systems approach have been compared with the tasks of a service coordinator under Part C of IDEA (see Table 2.3). The parallels are easy to see and for this reason, the developmental systems approach will be used to define service coordination and integration strategies that have been used successfully in early intervention. These components will be described in regard to practices within each that facilitate coordinated and integrated early intervention service delivery systems. The intent is not to provide information that is more comprehensively described in the following chapters but to briefly illustrate examples of practices that support the principles of service coordination and integration in early intervention. Table 2.3 contains the components and sample practices.

Screening, Referral, and Access

A lack of a coordinated, comprehensive screening, referral, and access process for children and families in need of further assessment is not only

Table 2.3. Comparison of developmental systems approach components and service coordination tasks

Developmental systems approach	Service coordination tasks
Screening, referral, and access	
Comprehensive interdisciplinary assessment	Coordinating the performance of evaluations and assessments
Eligibility and program entry	
Family assessment	
Development and implementation of a comprehensive program	Facilitating and participating in the development, review, and evaluation of individualized family service plans
	Assisting families in identifying eligible service providers
	Coordinating with medical and health providers
Monitoring and outcome evaluations	Coordinating and monitoring the delivery of available services
	Informing families of the availability of advocacy services
Transition planning	Facilitating the development of a transition plan to preschool services, if appropriate

inefficient but also results in additional stress for families, service providers, and agencies. As described in Chapter 5, a single point of access into the early intervention service system is predicated on a collaborative approach to screening and referral for all children. Early identification of children in need of services is a national issue. For example, there are multiple models for developmental and medical screening programs (McLean, 2003); however, the coordination of the screening programs across populations of children and service sectors is usually absent. An example of a problem that can occur when there is a lack of such coordination is when children may not have access to a medical home (Nickel et al., 2003) and, therefore, are not provided with the medical and developmental screens that may be required by law (Dworkin, 2000). Most recently, this concern was identified in relation to children who are screened as newborns for hearing and are referred for further evaluation by pediatricians but do not show up for further assessment. Likewise, a concern also has been expressed about children who pass a newborn hearing screen but do not receive another hearing screening until school entry (American Academy of Pediatrics, 2003; Widen, Bull, & Folsom, 2003).

Although screening, referral, and access are considered early intervention systems issues and are not required under the service coordination provision of Part C of IDEA, a national survey found that 15 states do assign a service coordinator to a family on system entry because of either an automatic eligibility to service or referral for assessment after screening (Harbin et al., 2004). This assistance into the system should be helpful across all levels, and perhaps other state systems could follow this lead and assign service coordinators to assist families during this time. To ensure a smooth progression from screening, referral, and subsequent assessment if needed, an additional outcome of this practice would be the coordination of social, medical, and developmental background by the service coordinator prior to system entry.

Another coordination and integration practice for screening, referral, and access is the move by states to implement birth defect surveillance programs. As of 2004, 33 states have surveillance programs, and of these, 13 have implemented an identification and referral system into early intervention (Farel, Meyer, Hicken, & Edmonds, 2003). Although many issues need to be resolved with this practice (e.g., confidentiality), states have reported success on many levels. Not surprisingly, a survey of parents reported satisfaction with the use of a birth defects registry to track and refer (as appropriate) children to early intervention (Farel, Meyer, & Hicken, 2001), thus assisting in system entry in a timely manner.

Comprehensive Interdisciplinary Assessment

Inherent in the comprehensive interdisciplinary assessment component of early intervention is the determination of eligibility through a multidisciplinary evaluation and the administration of further assessments, including family assessments, after eligibility is determined. A service coordinator in Part C of IDEA has the responsibility to coordinate the performance of evaluation and assessments. This coordination encompasses both the people who administer the assessment and the tools and processes used during the assessment.

Assessment is the process of gathering information in order to make a decision. Assessment is an important component of the developmental systems approach of early intervention, yet traditional assessment models (e.g., discipline specific, in a novel setting with contrived activities, conducted by strangers) prove inadequate when working with infants and toddlers with disabilities (Meisels & Fenichel, 1996). Effective early childhood assessment protocols must rely on a sensitivity to the age of the child, the nature of his or her delay or disability, the family context, and the integration of a child's behaviors across developmental domains.

In order to qualify for services, most children will require an assessment to determine eligibility. This assessment can serve a diagnostic function and create an accurate portrayal of the child's needs across the medical, educational, and social systems perspectives. It should be noted that an eligibility assessment is not needed for children who may qualify for early intervention because they have received a diagnosis of a medical condition that qualifies as an established condition for early intervention. Recommendations in regard to diagnostic assessment include a focus on the process as opposed to just the product of assessment (Vig & Kaminer, 2003). This supports the strongly held belief that it is nonproductive to assess a very young child on developmental skills assigned by domain, as these domains are interdependent (McLean, 2003). This does not mean that professionals with discipline-specific expertise are not an important component of the assessment protocol, but rather, they collaborate as a team on the assessment process and integrated assessment report so that the child is seen as a whole rather than domain by domain.

The service coordinator must ensure that a team process occurs prior to (planning), during (process), and after (reporting) an assessment. The first challenge is to identify team members who are competent in both their discipline and in early development. Part of this task can occur through the assurance that team members have met discipline-specific

standards. The more difficult challenge is to assess a team member's competencies in early development (Bruder, 2000). At this time, it is the latter task that is most problematic, as most training programs do not provide training in cross-disciplinary skills or early developmental processes (Kilgo & Bruder, 1997).

Second, the service coordinator must ensure that the team members are competent in team process and collaborative consultation. Although these competencies have been advocated for many years in regard to early intervention (Bruder, 1996; Rapport, McWilliam, & Smith, 2004), comprehensive research on team functioning and collaborative consultation is sparse in regard to the assessment process. Nonetheless, Part C of IDEA requires the use of multidisciplinary teams in evaluation and assessment. The composition of these teams is then dictated by the unique needs of the child and family in relation to the purpose of assessment. For example, a diagnostic assessment may require more in-depth involvement from numerous professionals in a variety of specialized disciplines. The service coordinator must identify the team members for the assessment process and must develop a collaborative climate in which all can work as a team on this component of early intervention. Larson and LaFasto (1989) highlighted a number of features characteristic of successful collaborative teams including 1) clear roles and accountability, 2) the monitoring of individual performance and the provision of feedback, 3) fact-based judgments, and 4) an effective communication system. This last feature can be immeasurably enhanced through the use of collaborative consultation strategies.

Collaborative consultation is an interactive process that enables people with diverse expertise to generate creative solutions to mutually defined problems. The process encompasses a number of interpersonal competencies that cross discipline boundaries. These include written and oral communication skills; personal characteristics, such as the ability to be caring, respectful, empathic, congruent, and open; and collaborative problem-solving skills (West & Cannon, 1988). The last attribute is critical to the development of a relationship of parity between both (or among all, if there are more than two) individuals involved in the consultation. However, the use of collaborative problem solving does not override the need for the consultant to use his or her specialized and discipline-specific skills to meet the consultee's needs (Bruder, 1996).

Finally, the team should develop an integrated assessment report for both an eligibility evaluation and comprehensive assessment for program planning, and this should be coordinated by the service coordinator. Assessment information must be summarized from the recorded observations, interviews, checklists, and scales. The purpose of the assessment report is to provide a picture of the child and his or her family to help create objectives and intervention adaptations, supports, and strategies. The

report should be representative of the total process and report on strengths as well as needs (Wolery, 2003).

Of special note is the family assessment that also occurs in this component. The service coordinator needs to make sure that the family assessment is culturally sensitive, family centered, and representative of the family's values, concerns, and priorities. The service coordinator must ensure that this assessment is coordinated and integrated with the total assessment protocol.

Develop and Implement a Comprehensive Program

An early intervention program of supports and services for a child and family under Part C of IDEA is coordinated through an IFSP. It is the service coordinator's responsibility to ensure that this is developed, reviewed, and evaluated periodically. The plan must represent a family's priorities, concerns, and resources; the child's developmental needs; and other needs identified by the family. The IFSP must be comprehensive and collaborative if it is going to result in positive outcomes for a child and family. The collaborative components include a plan with integrated outcomes and objectives that cross agency boundaries as needed (including coordination of social, medical, and health needs). In addition, service providers (who meet the state's highest personnel standards) must be identified to implement the plan's integrated outcomes and objectives. The subsequent program of services must be implemented within a child's natural environment.

The service coordinator can assist in this component of the systems model by coordinating and monitoring the delivery of services through an interagency service plan (see Salisbury, Crawford, Marlowe, & Husband, 2003). Salisbury and colleagues (2003) demonstrated the use of such a plan that allows for agency (as well as cross-disciplinary) collaboration and integration. The plan is the tool used to integrate services and supports. The data supplied by Salisbury contrast with previous data collected on IFSP development (Boone, McBride, Swann, Moore, & Drew, 1998; Bruder & Staff, 1998; McWilliam, Ferguson, et al., 1998). A difference may be that the interagency plan relies more on a collaborative process than conforming to the requirements of a product. In addition to an interagency process, the plan must represent a valid and cohesive model of intervention if it is to have a positive impact on families, providers, and systems. An early intervention framework that provides a model for IFSP development is the use of family-identified activity settings as the context of learning and the use of a primary provider to provide the services needed. These learning contexts support a variety of subcontexts that can be used to describe the experiences and learning opportunities given to

children as part of daily living. They include child and family routines, family rituals, family and community celebrations, and family traditions. Termed *activity settings* (Gallimore, Goldenberg, & Weisner, 1993; Gallimore, Weisner, Bernheimer, Guthrie, & Nihira, 1993), these units are important features of any planned interventions for children and their families (Roberts, 1999).

Surveys and case studies have documented the abundant sources of activity settings in children's lives (Bruder & Dunst, 2000; Dunst & Bruder, 2002). Most children, regardless of their disability or severity of delay, experience multiple kinds of learning opportunities regardless of where they live. For example, findings indicate that young children experience learning opportunities, on average, in about 15 different home locations and 23 different community locations. These locations, in turn, support an average of 87 home and 76 community activity settings, respectively. These learning environments, in turn, result in an average of 113 learning opportunities in the child's home and 106 in the community. Consequently, an individual child could be expected to experience some 200 or more learning opportunities in the context of his or her family and community life beyond those provided as part of a child's involvement in an early intervention or preschool program.

The emphasis on learning through everyday learning opportunities has repercussions for the personnel serving children in early intervention, as well as the service coordinator. Not only do personnel have to understand learning theory, but also they have to understand basic principles such as the integration of development across domains (Bruder, 1997), an effective team process (Bruder, 1996), family-centered strategies (Bruder, 2000), collaborative consultation models (Hanft & Pilkington, 2000; Palsha & Wesley, 1998; Stayton & Bruder, 1999), and the integration of expertise across professionals into a primary provider (Harbin et al., 2000; McWilliam, 2003). The prime requirement of providing early intervention through a model that promotes learning through family-identified opportunities and experiences is the replacement for the model of service delivery that uses discipline-specific people focusing on one developmental domain.

Monitoring and Outcome Evaluations

A comprehensive program can only be effective if data are collected regularly on child and family service implementation, learning opportunities, intervention strategies, and developmental and behavioral outcomes. A service coordinator is responsible for the coordination and monitoring of

such services and informing families of the availability of advocacy services, especially if the family wants different/more/fewer services than agencies are able to provide (Brown, 2003). As with other components, this responsibility requires a philosophy of coordination and integration, as services and outcomes should only be measured within a collaborative framework (Roberts et al., 1999).

A practice to facilitate this component of the developmental systems model is ongoing team meetings in which professionals meet with the service coordinator and family to review and monitor a child and family's progress through the early intervention service plan. Unfortunately, the reason these meetings do not occur with regularity is because of a lack of infrastructure supports such as a funding for meeting time (McCollum, 2000; Roberts et al., 1999). In those systems in which such meetings occur, however, both satisfaction and progress are reported (Salisbury et al., 2003), and many individuals have recommended the use of such meetings to ensure quality collaborations (Campbell & Halbert, 2002; Johnson et al., 2003).

In regard to system monitoring of outcomes, statewide data sets have been advocated as a mechanism to coordinate information and integrate reporting requirements across agencies, programs, and personnel (Buysse, Bernier, & McWilliam, 2002; Roberts et al., 1999). Unfortunately, at this time, states organize their Part C database specific to their state needs, and rarely are these data sets coordinated with other state data sets either within or across states. States should avail themselves of the opportunity to design data requirements for federal and state needs in such a way as to facilitate the monitoring of family and child outcomes as well as system (both local and state needs) outcomes across levels of service (Gilliam & Leiter, 2003; Spiker, Hebbeler, Wagner, Cameto, & McKenna, 2000). Inherent in this strategy is a common vision of the measurement of indicators most important for inclusion on a statewide data base (Carta, 2002; Hauser-Cram, Warfield, Upshur, & Weisner, 2000; Wolery & Bailey, 2002).

Transition Planning

The importance of transition has been addressed in state and federal legislation, federal funding initiatives, and professional literature (Hanson et al., 2000; Rosenkoetter, Whaley, Hains, & Pierce, 2001; Rous, Hemmeter, & Schuster, 1999; Wischnowski, Fowler, & McCollum, 2000). A successful transition is a series of well-planned steps to facilitate the movement of the child and family into another setting (Bruder & Chandler,

1996). Successful transition is a major component of the developmental systems approach. Under Part C of IDEA, the service coordinator has the responsibility of coordinating transitions. Needless to say, the type of planning and practices that are employed can influence the success of transition and satisfaction with the transition process.

Within the field of early intervention, *transition* is defined as "the process of moving from one program to another or from one service delivery mode to another" (Chandler, 1992, p. 246). Others have emphasized the dynamic process of transition, as children with disabilities and their families will move among different service providers, programs, and agencies as the child ages (Rosenkoetter et al., 2001). Although formal transition for young children with disabilities typically occurs at the age of 3 (into preschool), transition between services, providers, and programs also can occur throughout these early years. Part C of IDEA increases the potential number of transitions. For example, transition can begin for some children at the moment of birth if professionals determine that their health status requires transfer to a special care nursery and subsequent developmental interventions (Bruder & Walker, 1990).

According to Wolery (1989), transition should fulfill four goals: 1) ensure continuity of services, 2) minimize disruptions to the family system by facilitating adaptations to change, 3) ensure that children are prepared to function in the receiving program, and 4) fulfill the legal requirements of the Education of the Handicapped Act Amendments of 1986 (PL 99-457). In order to achieve these goals, it is necessary to plan for transition. The responsibility for transition planning should be shared across the sending and receiving program and should involve families (Bruder & Chandler, 1996). Transition procedures should assist families and their children and promote collaboration between the service providers, service coordinators, and families who comprise the transition team.

The two practices associated with successful transitions focus on collaboration. One practice is the formation and maintenance of a team consisting of those involved in the child's services, and the second is an actual document that is used to guide the process. Both have facilitated a seamless move between and among services for families and providers (Rous et al., 1999). The transition plan should address the roles and responsibilities of both the sending program/service and receiving program/service and their staffs. Most important are the provisions of appropriate and adequate information, education, and support to families throughout the process and the use of a transition document to formalize and record the outcomes expected for an individual child's transition (Wischnowski et al., 2000).

FUTURE DIRECTIONS

Service coordination and integration can result in many benefits to families, service providers, and systems. A number of issues need to be resolved, however, if professionals are to overcome the many barriers inherent in current service systems that discourage, and in some instances prohibit, actual service integration. Two of these issues are described in an effort to illuminate these challenges to be overcome if we are to realize a comprehensive, integrated, early intervention service system.

Clarify the Intention of Service Coordination and Integration

In many instances, the concept is used interchangeably as both an outcome and as a practice. Although this may indeed be the status of service integration and coordination, the field would benefit from clarification as individual service programs are designed for families. Traditionally, service coordination under Part C of IDEA has been thought of as an outcome for those participating in early intervention: That is, if an individual is eligible and chooses to receive services, he or she is assigned a service coordinator. Many individuals view the receipt of the service itself (and other services under Part C of IDEA) as the outcome of importance. However, recommendations for early intervention research have called attention to the need to better articulate child and family outcomes within and across the many variables associated with service delivery (Carta, 2002; Dunst & Bruder, 2002; Guralnick, 2002; Roberts, 1999; Shonkoff, 2002; Wolery & Bailey, 2002). This recommendation follows the federal emphasis on outcomes that has resulted in the federally funded Early Childhood Outcomes Center, which is charged with designing a system that measures child and family outcomes as a result of participation in various dimensions of Part C of IDEA or preschool special education under IDEA.

A series of studies have begun to identify outcomes related to service coordination under Part C of IDEA. The Research and Training Center on Service Coordination conducted a series of national studies that have identified a core group of outcomes for both systems and families as a result of receiving Part C early intervention. Focus groups (26), surveys (5), and family and service coordinator interviews (125) have included families, service providers, service coordinators, and system administrators. Through both quantitative and qualitative methodology, data were summarized and reduced across all of the studies, and an expert advisory board

approved a final listing of outcomes (see http://www.uconnucedd.org to see these studies). Figure 2.1 contains these outcomes as included in a logic model framework (see Gilliam & Leiter, 2003; W.K. Kellogg Foundation, 2001).

These outcomes are but one model that can be used to measure the effectiveness of service coordination; furthermore, studies are needed to explicitly test the model in regard to various system components as represented by service coordination tasks (Dunst & Bruder, 2002; Guralnick, 2002). These studies can then support the developmental systems approach of early intervention and contribute to an understanding of the interrelationship of state models, local practices (including service coordination), and family characteristics that interact to produce positive outcomes for all.

Address the Training Needs of Those Involved in Service Coordination

There have been many articles (e.g., Bruder, 1998; Bruder, Lippman, & Bologna, 1994; McCollum, 2000; Stayton & Bruder, 1999; Thorp & McCollum, 1994) and books (e.g., Winton, 2000; Winton, McCollum, & Catlett, 1997) written on early intervention personnel preparation; yet, statewide systems of early intervention continue to struggle with providing effective and appropriate training to service coordinators (Romer & Umbreit, 1998). System variables including a lack of funding affect both the scope and delivery of training, and inadequate implementation of service coordination models (e.g., high caseloads) can override the positive outcomes of training that does occur (Trivette, 1998; Winton, 1998). In fact, various curricula (Edelman, Greenland, & Mills, 1992; Rosin, Green, Hecht, Tuchman, & Robbins, 1996; Zipper, Hinton, Weil, & Rounds, 1993) are available and a number of content areas (Roberts et al., 1998) are recommended for service coordinators; yet, a lack of training continues to be a barrier to effective service coordination and integration.

The Research and Training Center on Service Coordination conducted a survey of training opportunities and curricula for service coordinators in each of the 57 states and territories. The final sample consisted of 49 states and 4 territories. Twenty-six of the respondents reported separate job standards and requirements for service coordinators including seven states that required a 4-year degree and eight states that required competencies that demonstrated that the service coordinator had the skills and the knowledge required by law. A total of 37 states provided training for service coordinators, and 20 of these mandated that service coordinators attend the training. Fifteen of the respondents reported that the length of training was variable, and the remaining 22 stated the average length

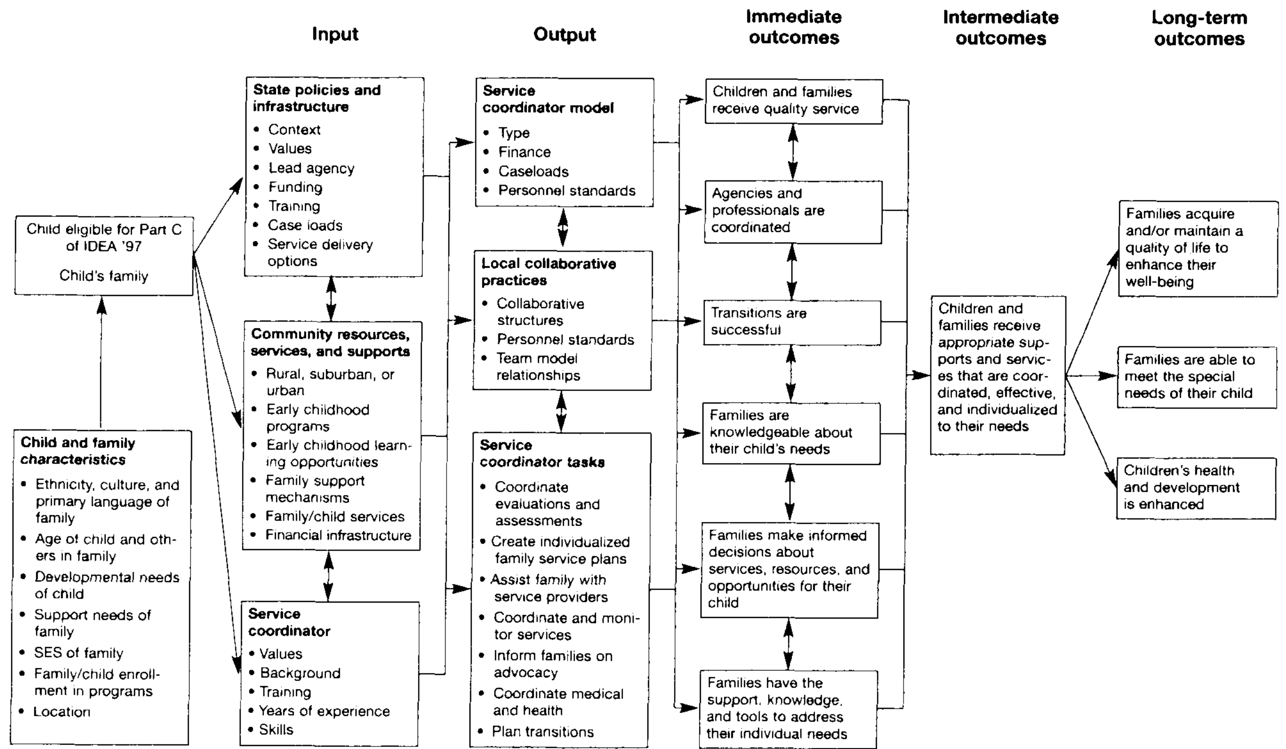

Figure 2.1. Final listing of outcomes from a series of national studies by the Research and Training Center on Service Coordination.

of training was 2.9 days. Seventeen of these states provided some type of follow-up to initial service coordination training. Twenty-nine of the states that had training provided curricula and training materials that were analyzed for content (see http://www.uconnucedd.org for the complete training report).

It seems reasonable to suggest that training for service coordinators must be addressed as a system support if we are to expect service integration to occur for families. Although many of the tasks assigned to service coordinators seem perfunctory, many would agree that the quality with which they occur ensures positive outcomes. Training, follow-up, and ongoing evaluation must occur in a systematic manner if we are to expect quality. The service coordinator's job is challenging and varies on a day-to-day basis depending on the interactions of systems, families, and needs. Service coordinators need tools to address these needs, and they must be able to provide service using family-centered practices, including a focus on relationships (McWilliam, Tocci, et al., 1998). These practices include treating families with dignity and respect; being culturally and socioeconomically sensitive to family diversity; providing choices to families in relation to their priorities and concerns; fully disclosing information to families so they can make decisions; focusing on a range of informal, community resources as sources of parenting and family supports; and employing practices that are empowering and competency-enhancing, including the provision of parent-to-parent models (Dunst, 1999; Santelli, Turnbull, Marquis, & Lerner, 2000). Considerable literature has been amassed on the individual and collective use of these practices, as they add value to early intervention by contributing to improved family and child outcomes (Dunst, 2000; Dunst, Brookfield, & Epstein, 1998; Dunst, Trivette, Boyd, & Hamby, 1996; Mahoney & Bella, 1998; McWilliam, Tocci, et al., 1998; Thompson et al., 1997; Trivette & Dunst, 1998). Service coordination delivered in this way forms the foundation for the tasks that must be accomplished within the components of the developmental systems approach of early intervention philosophy and practice.

CONCLUSION

Effective service coordination and integration are expected to result in better outcomes for everyone involved. Within the developmental systems approach for early intervention, this principle is predicated on the availability of a universal system of supports and services to facilitate positive outcomes for all children and families. However, challenges to collaborative service integration will remain as long as people, services, and agencies

continue to deliver early intervention idiosyncratically. Kagan (1996) proposed a structure of service integration that is multidimensional and includes a focus on infrastructure reform, direct services reform, and improved outcomes for families. This structure has been used in this chapter to describe service coordination and integration efforts for those families and children eligible for Part C of IDEA. This framework provides a basis for continued research in this area, as does the developmental systems approach of early intervention. The opportunity is upon us to incorporate the values, philosophy, and outcomes inherent in a collaborative model as we address the comprehensive needs of the children and families whose quality of life we are trying to improve.

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