Review Paper

A view to early intervention service delivery

A View To Early Intervention Service Delivery: What Is Happening Now And What Are The Recommendations: Inclusion, Evaluation, And Natural Environment - Part I

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As a concept early intervention and service delivery is one of the most talked issues today. Increasing importance and legal regulations on this area have drawn growing attraction to these subjects. The researches on these subjects have increased tremendously because it contains matters such as family-centered practice, children, service provider, natural environment, inclusion, transition, and evaluation. 20th anniversary of Part H of the Individuals with Disabilities Education Act of 1990 (IDEA), questions remain about the implementation of early intervention services as specified by this law. When the law was passed in 1986, the purposes of Part H were very clear: to enhance the development of children, to reduce later educational costs to society, to maximize the likelihood of independent living for individuals with disabilities, to enhance the capacity of families to meet the needs of their children, and to build the capacity of the system to meet the needs of historically underrepresented populations. In order to meet these purposes, Part H regulations established specific early intervention service requirements to ensure that the unique needs of infants, toddlers, and their families were met. These amendments suggest that children should receive services in inclusive settings and that it is the Individualized Family Service Plan (IFSP) team that determines whether alternative or non-inclusive placements are justified by the individual needs of children (U.S. Department of Education, Office of Special Education Programs, 2002).

Part H of the law differed in many significant ways from the previous legislation, Public law 94-142 (Education of the Handicapped Act). These are;

To pertained that not only special education but also no special education activities,

To specified that any state agency as designed by the governor could function as the administrative lead agency,

To left to states to determine how the define and assess developmental delay,

To extend and improve state collaborative efforts with respect to serving young children,

To allowed appropriately trained and supervised paraprofessionals and assistants to provide early intervention services,

To be provided to the maximum extent appropriate in natural environments including the child's home and community settings in which children without disabilities participate (Hanson and Bruder, 2001).

On December 3, 2004, the Individuals with Disabilities Education Improvement Act of 2004 were enacted into law as Public Law 108-446. This statute, as passed by Congress and

signed by the President, reauthorizes and makes significant changes to the Individuals with Disabilities Education Act.

Part C of the Individuals with Disabilities Education Act, as amended by the Individuals with Disabilities Education Improvement Act of 2004 (Act or IDEA), provides Federal funds to States to make available early intervention services for infants and toddlers with disabilities (from birth to age three) and their families. In 2004, the Act was revised to - (1) emphasize child find for underserved populations of infants and toddlers; (2) increase accountability for the success of early intervention services; (3) ensure a seamless transition for children and families when they exit from the Part C program to other appropriate programs; (4) provide States with flexibility to provide early intervention services to children with disabilities who are age three and older; (5) provide States with alternatives to dispute resolution under Part C's procedural safeguards; (6) clarify certain definitions including specific early intervention services, qualified personnel, and natural environments; and (7) streamline Part C grant application requirements (U.S. Department of Education, Office of Special Education Programs, 2007).

As commonly known, the Individuals with Disabilities Education Act (IDEA) were amended by Congress in December 2004. In an amazing feat of timeliness and determination, OSERS staff released a draft set of implementing regulations on June 10, 2005, conducted public meetings to receive comments from stakeholders, and set about revising the draft, with the end result being that, as of August 2006, we have *final* regulations on this newest iteration of the IDEA. We give you links below to connect with this exciting development in the field of special education. The Secretary issues final regulations governing the Assistance to States for Education of Children with Disabilities Program and the Preschool Grants for Children with Disabilities Program. These regulations are needed to implement changes made to the Individuals with Disabilities Education Act, as amended by the Individuals with Disabilities Education Improvement Act of 2004 (U.S. Department of Education, Office of Federal Register, 2006).

After the twenty years, there were a lot of studies about the implementation of various aspects of early intervention services as specified by this law. These studies have focused on such requirements as Child Find and eligibility criteria (Harbin, Danaher and Derrick, 1994), the Individualized Family Service Plan (IFSP) (Bailey, Winton, Rouse and Turnbull, 1990; Boone, Moore and Coulter, 1995, Summers and Turnbull, 1990), barriers to family centered service (Shonnon, 2004), service delivery models that occur within childcare programs (Bruder, 1993b;

Bruder, Deiner and Sachs, 1990; Bruder and Staff, 1997), effects of type of classroom (Bruder and Staff, 1998) support the collaboration in service delivery (Dinebeil and Rule, 1999; Zhang et. al, 2006), and service utilization (Sontag and Schacht, 1993) evaluation of early intervention (Barnet et. al. 1999, Duggan et. al. 2000), provision of early intervention (Bruder, 1993), inclusion of young children to service delivery (Mulvihill et. al., 2002; Odom and Diamond, 1998; Beckman et. al, 1998; Balley et. al. 1998; Baysse et. al. ,1998; Bruder and Staff,1997)

In a study of Shonkoff and Phillips suggested that awareness of the critical importance of the earliest years of life and child and family development has undergirded initiatives among policy- makers, researchers and practitioners in the United States to develop and expand federally funded programs for infants and toddlers and their families (as cited in Mc Collum, 2002). There have been many changes in early intervention over the past two decades The children served have become younger and the range of disabilities and severities wider: eligibility for intervention may be based on environmental or biological factors that place children at risk, rather than because the children currently have disability. Families served have become more diverse in cultural and linguistic background. Service systems have evolved as well. Increasingly, early intervention is organized such that services are none or cross-categorical, rather than directed toward a specific disability (MC Collum 2002).

The purpose of this article is to take a general look on what is going on now and how it should be on the subjects of early intervention service delivery, evaluation, natural environment, inclusion in Part – I and transition, service providers, and family-centered practice in Part –II.

New Model of Service Delivery

The new model of service delivery differed from the old model in two ways. First, it was based on having a single home visitor be responsible for all the clients in their caseload. The home visitor, called the "Child Development Partner-Home," would provide services in all the program content areas during two-hour weekly visits, and would have a lower caseload of six to eight families compared to the previous caseload of 8–13 families (depending upon their Education or Family Specialist roles). According to the official communication regarding these changes, the home visitors were responsible for providing comprehensive services related to early childhood education, health and immunization, safety, nutrition, family development (including connecting families with social networks), and life skills management. Second, four Child Development

Partners were designated as "Center Partners." They would take the lead in encouraging parent participation in the program and devote most of their time organizing and conducting parent–child activities, parent meetings and other social events for the program participants. A new position of "Enrollment Family Partner" was created to focus attention on enrollment, community awareness of the program, and program advocacy. Before these changes, the home visitors carried most of these responsibilities. The program administrators believed that the new model would help to avoid role confusion, promote the home visitor's sense of ownership and responsibility for comprehensive service delivery, improve home visitor–family relationship and bonding, and increase chances for group participation for the program families. Moreover, the program families would not have to find time to schedule visits with two home visitors. Altogether, this would be a significant step towards effective program implementation (Gill , Greenberg and Vazquez, 2002).

Mc William and Scot (2001) described "support framework of early intervention" as a model. They explained that the primary functions of early intervention are attended to through the provision of informational, emotional, and material support. This model has two significant implications for services as we know them. First, emotional support from service providers, which has traditionally been considered a mere by product of early intervention, is now recognized as an essential component of helping. Second, "therapy" and "instruction" in the context of home visits and consultation to child care are now seen as elements of informational support, which should help practitioners see that conversation with the adults is as important if not more important than hands-on work with child.

Two aspects of a systems perspective have been especially influential. Each emphasizes the many interrelationships between and among the developing child and her multiple environments. These two themes, `development-in context' and systems-of-service', encompass new understandings of how children develop and learn and how service systems can be organized to reflect these understandings (Mc Collum, 2002). Understanding of the mutual influences between development and its contexts is emerging from many areas of research. As children proceed through the early childhood years, development continues to be influenced by experience. Opportunities provided (consistent caregivers, new people and places); skills and abilities stressed (language heard, social expectations); views of children held in that family and that community (as receivers or constructors of knowledge); and child rearing practices that support those views (the importance of talking to children) will all influence how the child

develops. In very young children, the parent-child relationship is a particularly important developmental context in which critical foundations continue to be laid for all areas of development (McCollum and Hemmeter, 1997). (Mc Collum, 2002) The theme of development-in-context is evident in many currently recommended practices. First, services are not solely child-focused, but also emphasize developmental contexts such as the family or child-care environment, which influence the developmental opportunities available to the child. Parent education programmers' may be used to help parents or child care providers establish rich environments for exploration and play, or to assist the family to use adaptive equipment to allow the child to participate in everyday family routines. Family- centered approaches strengthen families as developmental contexts by enabling them to broaden their support structures and to form partnerships with professionals. A second good example of increased understanding of development-in context is the emphasis on collaboration among professionals who specialize in different areas of children's development (e.g., mental health workers, teachers, occupational therapists). Each area of development forms part of the context within which other domains develop, influencing and being influenced by others. A third example of an area of practice that recognizes development-in-context is seen in the emphasis on natural environments as contexts for intervention. Interventions that occur within natural environments (e.g., family home, child care centre) enable children to participate in the same developmental contexts as other children, and to develop skills and relationships relevant to those environments. Finally, this theme is reflected in individualization of services. Development- in-context implies that services should match the unique abilities, needs, and circumstances of each individual child and family. This may be especially important when the child has disabilities, given multiple influences within and among areas of development, as well as multiple ways in which the disability may influence interactions with social and physical environments. (Mc Collum, 2002) Early intervention is a system of services, with each component influenced by its own contexts and by the relationships among components (Garbarino and Ganzel, 2000). Collaboration, family members are viewed as important components of the system of services (Mc Collum, 2002).

Barnett and et al., (1999) clarified that major question for basic accountability and early intervention program innovations include efficacy (did the planned changes actually have the desired effects?), acceptability (did parents and teachers find the interventions in line with beliefs and expectations?), and closely related, practically (did parents and teachers find the interventions

relatively easy to use and maintain?). Answers to these questions within the natural contexts are challenging to provide because of the heterogeneous nature of children's characteristics and ecologies, and the idiosyncratic nature of intervention plans. Thus one of the ECI project's goals was to adapt and simply intervention evaluation procedures so that they can be used by practitioners in the field work. They are also mentioned that intervention planning procedures yielded considerable contextual information presented as child portfolios and follow-up data indicated reasonably high levels of parent satisfaction.

Problems and benefits with the existing model of service delivery

Interviews with the home visitors identified a number of barriers arising from the existing model in which two specialists worked with each family as a team. Barriers stemmed from differences in role perceptions and caseloads. In addition, differences in the successful completion of home visits, lack of clarity regarding the essential components of a home visit, and lack of information about the principles and guidelines of the service delivery model also contributed to the problems.

Gill and et.al.,(2002) indicated that there are barriers in the existing model which stemmed from differences in role perceptions in which two specialists worked with each family as a team. Education Specialists and Family Specialists were expected to work with each family as a team, but had separate roles and responsibilities. The Education Specialists focused on the care and development of the child by strengthening parenting skills. They worked with the primary caregiver (primarily the mother, and father where present) and the target child. Their responsibilities included providing information to develop parents' knowledge and skills in parenting, serving as role models, and working directly with children to promote their optimal development. The Family Specialists, on the other hand, focused on family goals. They were responsible for working with family members to develop Individualized Family Partnersh Agreements (IFPA), and time lines for working on the goals defined by the family, and connecting the families with other resources and agencies in the community to help parents achieve their goals. One point of confusion, for example, had to do with determining whose role it was to help parents get their child immunized. Some believed that it was an area directly related to child development, and thus within the Education Specialist's purview. Others thought it was a part of networking with other agencies in the community, and hence a job for the Family Specialist. Also,

there were no guidelines for service delivery to pregnant women. As a consequence, home visitors were unclear about what their respective duties were when working with pregnant women. Because there was no child to work directly with, the Education Specialists did not see a role in it for themselves. The Family Specialists did not know much about dealing with the prenatal period and were not sure that it was their duty either. Consequently, the program did not enroll any pregnant women during the first year of service delivery. Another example of blurred roles and responsibilities had to do with a mismatch of professional background and role assignment. For example, one home visitor who reported having applied for and been interviewed for the Family Specialist position, found herself in the Education Specialist's role. Some of her Family Specialist partners appreciated her shouldering additional responsibilities involving networking, but others were frustrated with her frequent crossing of boundaries.

The existing model of service delivery also caused problems in the completion of home visits as reported by program administrators and home visitors. First, some of the home visitors were unable to complete the requisite number of home visits or failed to engage the family. These home visitors reported an inability to schedule meetings despite their repeated efforts to get in touch with the family. However, the administrators noted that their teammate who was working with the same family faced no such problems. It seemed that some families preferred working with one specialist more than the other. These families met with their preferred specialist on a regular basis and devoted their time and energy to working with him/her while they declined meetings with the other specialist.

Second, there was confusion as to whether both partners could go on a home visit together and count one two-hour visit towards each home visitor's visitation requirement. Finally, it was unclear what constituted a "complete" home visit. The program administrators reported that the home visitors used the concept of home visit very loosely, counting any contact in or outside the home, meeting at a social place, or taking a family to a doctor's appointment, as a home visit. As a result, there was great variation in what was accomplished during these visits as far as different components of service delivery were concerned. The accumulation of perceived difficulty with the current model of service delivery was reflected in the communication between the home visitation team members. Many found their efforts to communicate and keep in touch with their teammates frustrating. They reported problems with coordination and difficulty in following-up on decisions made during their team meetings. Several home visitors reported that although their aim was to

hold a team meeting once each week, their schedules did not always allow them to meet. However, they maintained contact by talking to each other in the passing or leaving phone messages. Another communication problem faced by home visitors had to do with differences in caseloads between Education Specialists and Family Specialists. The Family Specialists worked with as many as three to four different partners, making it more difficult for them to communicate with their teammates effectively and in a timely fashion.

Conversely, those who worked well with each other visited their families together. They coordinated their tasks so that while the Family Specialist worked with the parent, the Education Specialist provided activities to the child. The home visitors who went on home visits together reported being supportive of each other, finding it safer to visit families during the evening hours, and having a very good rapport with their teammate. The program administrators reported that having two home visitors working with each family made it easier to continue undisrupted service delivery in the event of staff turnover. It also facilitated transfer of cases to newly hired home visitors who received detailed information on the characteristics and needs of families in their caseload as well as support in forming a positive relationship with them. These features were seen as significant merits of the team approach of home visitation.

As recommended, it is beneficial that to include two components in early intervention service delivery program. One of them is need of a program philosophy for early childhood services and the other one is inclusive. In the Bruder's study, thirty children, with a range of disabilities, participated in 28 communities early childhood programs to receive early intervention or early childhood special education services. Results suggested significant developmental gains for all of the children. In addition, families and program staff (both specialized and community) reported positive outcomes on measures of attitude. During the model development process, a number of service delivery characteristics were identified as necessary for the effective implementation of intervention services within community programs. In the study it was identified and refined a number of effective service characteristics through the context of project. (Bruder,1993). It has been suggested that a clear philosophy that dictates the goals and services of an intervention program is necessary to ensure a sense of professionalism and cohesiveness among staff (McDaniels, 1977). Further, it has been documented that programs that operate from a set of well- defined philosophical assumptions tend to generate services that are effective for both children and families (Bricker, 1986; Dunst, Trivette, and Cross, 1986; Foster,

Berger and McLean, 1981; Hanson and Lynch, 1989; Karnes and Stayton, 1988; Paine, Bellamy and Wilcox, 1984). Early intervention programs often neglect a philosophical perspective in their zeal to provide services to young children and families (Sheehan and Gradel, 1983).

There are recommends to be benefits for early intervention service delivery programs.

1. A program philosophy for inclusive early childhood services.
2. A consistent and ongoing system for family involvement.
3. A system of team planning and program implementation.
4. A system of collaboration and communication with other agencies that provide services to young children with disabilities and their families.
5. A well-constructed Individualized Education Program or Individualized Family Service Plan that dictates the instructional content for each participating child.
6. Integrated delivery of educational and related services.
7. A consistent and ongoing system for training and staff development.
8. A comprehensive system for evaluating the effectiveness of the program (Bruder, 1993).

Hurth et al. (1999) identified six elements of effective EI programs, including specific strategies, settings, and curricular areas: (a) earliest possible start to intervention, (b) individualization of services for children and families, (c) systematic and planned teaching, (d) specialized curriculum, (e) intensity of engagement, and (f) family involvement (Hurth et al., 1999; Hume 2005).

Inclusion in the Early Intervention Service Delivery

Inclusion refers to full participation by children with disabilities in programs and activities for typically developing children. A set of legal, moral, rational, and empirical arguments has emerged as a basis for inclusive practices (Bailey, McWilliam, Buysse and Wesley, 1998). The term *inclusion* began appearing in the early 1990s (Stainback and Stainback, 1990) in part as a reaction to the way in which mainstreaming was being poorly implemented in some public school settings for elementary school-aged children, and the term was rapidly applied to early childhood programs. The definition implied a more embedded (in regular education) and comprehensive (e.g., community as well as school settings) form of involvement of children with and without disabilities than occurred in mainstreamed programs. However, when authors currently write about inclusion at the early childhood level, they tend to define inclusion in different ways (compare

Bricker, 1995; Filler, 1996; Odom et. al., 1996; Salisbury, 1991; Siegel, 1996; as citied Odom and Diamond, 1998) There are a number of ways to provide opportunities for integration to young children with disabilities who are participating in early intervention or early childhood special education (Odom and McEvoy, 1990). One option becoming more prevalent is the provision of specialized services within community early childhood settings such as nursery schools and child care programs (Bruder, Sachs and Deiner, 1990; Hanline, 1990; Templeman, Fredericks and Udell, 1989). Called mainstreaming (Odom and McEvoy, 1980), or more recently, inclusion Salisbury, 1991), this option facilitates the integration of a child into a more normalized setting than is usually provided within segregated programs (Bailey and McWilliam, 1990; as citied Bruder, 1993).

Bailey et al. (1998) emphasized that the inclusion of children with disabilities and typically developing children in early childhood education programs is deeply rooted in four historical traditions: legal, moral, rational, and empirical. Collectively the legal, moral, rational, and empirical arguments provide an exceptionally strong foundation in support of inclusive practices (Bailey et al., 1998). They explained the basis for these concerns about inclusion.

These are;

1. All Children Should be in Programs Settings of High Quality
2. Services Should Address the Special Learning Needs of Children with Disabilities
3. Services Should be Family-Centered

In her article, Briker (2000) has shared her early experiences about the one of the first early intervention programs developed in the 1970s at Peabody College which used an inclusive approach by combining infants, toddlers, and preschool aged children with and without disabilities. She emphasized on the reasons of why inclusive program worked very well.

Which are;

- To learn importance of individualization not only for the children with disabilities but also for all children who participated the program. Along with the necessary resources, the focus on the individual needs of children and to meet needs of children was essential in the program's success.

- The recruitment of typically developing toddlers who were chronologically younger than the children with disabilities. Developmental matches at the year's beginning rather than chronological matches because of the children were more or less same physical size and

their developmental levels were similar. These helped promote interactions among all children.

- The positive climate that surrounded the children and parents. Parents and staff were committed to the philosophy that all the children would learn and benefit from the program activities.

After the results of experience about inclusion components, there are three factors need to be addressed to assure successful inclusion: Attitudes, professional skills and knowledge, and support system. Parents', children's and teacher attitudes and beliefs may affect in the success of integrating children with disabilities (Stoneman, 1993; Lieber et al., 1998; Stolber et al., 1998). But, even the most positive attitudes may not result in successful inclusion if the professional staff does not have the skills to manage the behavior and learning of a diverse group of children.

Teachers' willingness to attend training is related, in some way, to their own background (younger vs. older, African American vs. White) and the size and type of program in which they are employed. Further, caregivers with more disability-related training perceived fewer Needs and Structural Barriers. The results in this study strongly indicate that participation in disability-related training was related to less negative attitudes about inclusion (Mulvihill, Shearer and Lee Van Horn, 2002). There was agreement on the meaning of inclusion, the culture (shared beliefs) within the classroom appeared to shape the ways in which inclusive programs were implemented (Odom and Diamond, 1998).

To effectively share and collaborate by the variety of professionals may be critical to program success (Briker 2000). Collaborative relationships among early childhood teachers and specialists were a hallmark of successful inclusive programs (Odom and Diamond, 1998). Finally, having an adequate support system seems essential to successful inclusion (Briker, 2000).

The general findings across studies have been that family members: (a) have positive feelings about inclusive settings; (b) have identified some benefits for their children; and (c) share some fears or concerns about inclusive placements. (Odom and Diamond,1998). In their research Beckman et al., (1998) highlight the usefulness of an ecological approach to inclusion. By looking at multiple contexts, several themes emerged which can help investigators and interventionists understand the opportunities children have for social participation.

It is important to refocusing;

- The inclusion of children/adults with disabilities into mainstream society may ensure the

well-being of inclusion programs with the support and goodwill of professionals, parents, and the children in general education. Thus a useful refocus is that inclusion be designed to benefit all children and schools.

• It is critically important to understand the problems, challenges, and barriers that teachers and other professional personnel, parents, and children face in inclusive programs. To understand what works well, is effective and also satisfying, is important too.

• To improve and broaden inclusion efforts centers on the goals established for young children with disabilities. It is important to know what the desirable outcomes are, who should decide the outcomes and are they the reasonable outcomes (Briker 2000).

Balley and et al., (1998) debate about inclusion may not actually be over inclusion as much as it is about other goals for early intervention, such as ensuring high-quality services, meeting specialized learning needs, and supporting families. They are convinced that if the issues of quality, specialization, and family-centered practices were adequately addressed in community settings most barriers to inclusion would be eliminated. They make five sets of recommendations that, if implemented, could promote significant improvements in families' and children's access to appropriate inclusive settings:

1. Improve the quality of child care for all children;
2. Revise regulations and funding policies to facilitate inclusion options;
3. Build individual, program, and community support for inclusion;
4. Create technical assistance and training structures to support inclusion efforts; and
5. Consider inclusion in the broader context of a normalization goal.

Evaluation in early intervention service delivery

Early intervention and early childhood special education programs must consider a number of issues when designing evaluation plans. These include the heterogeneity of the population, the inability of many developmental assessments to measure small increments of progress, and the methodological limitations inherent in evaluation efforts involving non-standardized interventions and service settings. For these, as well as other reasons, it has been suggested that evaluation of early intervention and early childhood special education be multidimensional (Johnson, 1988; Sheehan and Gallagher, 1983: as citied Bruder, 1993) and

match the specific goals of the individual interventions. For example, evaluation and measurement procedures could examine the child's attainment of goals such as interactional competence, contingency awareness, and engagement with the environment. In addition, programs could measure the outcomes of various family variables such as independent resource management or recruitment of support networks. Last, the program could measure aspects of the environment, including staff status. All measures should be conducted on both a formative (during program operation) and a summative (at the completion of services) schedule. This type of evaluation plan was utilized by the Community Integration Project (Bruder, 1993).

Child assessment in early intervention service delivery

First, assessment can be used to hold teachers, school districts, and ECE/ECSE programs accountable for providing effective interventions (Kagan, 2003; Rous, Lobianco, Moffett and Lund, 2005) Another role of assessment within ECE/ECSE is to accurately identify children who are at- risk and in need of specialized intervention and educational services (Bagnato, 2005; Kagan, 2003; Macy, Bricker and Squires, 2005). Assessment also is used within ECE/ECSE settings to evaluate trends in service provision, utilization, and quality (Kagan, 2003; McConnell, Priest, Davis and McEvoy, 2002). The fourth, and in our opinion, most important role of assessment within ECE/ECSE is to provide information to educators regarding child learning that can be used to guide intervention (Bagnato, 2005; Kagan, 2003; Vanderheyden, 2005).

Professionals need information from eligibility assessments lie can use to develop quality goals and intervention content. Data collected from eligibility assessments need to be useful and connected across all erects of service delivery. Professionals are challenged because they lack functional information needed to create useful goals and objectives, implement effective interventions, and evaluate program effectiveness. The information derived from the eligibility assessment process should inform programmatic components of a service delivery system: and, therefore, the flow of data should be seamless (Macy and Hoyt-Gonzales, 2007). Downs and Strand (2006)**,** outlined five organizing principles for ensuring that assessment activities improve child outcomes via their impact on educator decision making and behavior.

These are;

1. Measurement should be restricted to variables that are responsive to intervention,
2. Assessments must have the potential for providing novel or unexpected information,

3. Outcomes, rather than curricula or instructional methods, should be the primary target of assessment activities,

4. Assessments should be conducted at frequencies that allow educators to adjust their methods as necessary in a timely manner,

5. Assessment results should be presented to professional peers,

Most common approaches can be described in general terms as traditional standardized testing, teacher-rating and work sampling, and curriculum-based assessment and measurement. Traditional tools, like standardized norm-referenced assessments, are able to provide quantitative information to inform eligibility decisions; however, they are difficult to translate into programmatic components. (Macy and Hoyt-Gonzales, 2007)The main weakness of this approach is that such tests provide very little in the way of information that can be used by educators to increase intervention effectiveness (Bagnato, 2005; Macy et al., 2005).A basic difficulty is that such assessments, due to their design and expense, are typically conducted two, or at most, three times per year. Another difficulty with standardized testing is that such methods may stigmatize children by labeling them as deficient, thus providing an excuse for why a child is not learning as expected. Researchers and educators have used names like "authentic assessment" as an alternative. In general, authentic assessment stresses the importance of using familiar adults to measure an individual child's skills while engaged in functional behaviors with familiar stimuli in natural settings. The Work Sampling System (WSS) is an example of one type of 'authentic' assessment that has been adopted by elementary and early childhood educators nationally and internationally. Described as a curriculum embedded performance assessment, the WSS combines portfolios of student work, teacher-rated developmental guidelines and checklists, and summary reports to provide a detailed assessment of a child's skills in a number of developmental domains. The WSS has some of the same difficulties as the standardized testing approach when one considers the ability of this method to provide information to educators that will help them improve child learning. Specifically, the WSS checklists are designed to be used two or three times per year (Meisels et al., 1994), thus severely limiting the ability of educators to use the results to improve intervention throughout the academic year (Downs and Strand, 2006). Another form of authentic assessment to only using traditional tools is the use of curriculum- based assessment (CBA) and measurement (CBM) when conducting eligibility assessments. Most CBAs designed for younger children are criterion-referenced and combine assessment and

curriculum. In addition to content areas [e.g., literacy, mathematics, etc.), an ECSE CBA covers multiple developmental areas such as adaptive, cognitive, communication, fine motor, gross motor, and social (Macy and Hoyt- Gonzales, 2007). Specific examples of the CBM assessment approach include General Outcome Measures (GOMs) (Greenwood et. al., 2002) and Individual Growth and Development Indicators (IGDIs) (McConnell et. al., 2002) which repeatedly and frequently (e.g., once every two weeks) sample key indicator skills that are related to desired outcomes in young children in different domains (Downs and Strand, 2006). The field of ECSE has several commercially available CBAs that include, but are not limited to, the Assessment, Evaluation, and Programming System (AEPS; Bricker, 2002), The Carolina Curriculum for Preschoolers with Special Needs (Johnson-Martin, Hacker *and* Attermeier, 2004), and the Hawaii Early Learning Profile (HELP; Parks et. al., 1994) to name a few. Parents and family members can provide input using CBA tools (i.e., AEPS Family Report). ECSE professionals could use CBA for corroborating information needed for eligibility determination (Bricker. Yovanoff, Capt *and* Alien, 2003). One advantage of using a CBA to corroborate eligibility decisions is items from CBAs are functional and can be easily translated into programmatic efforts. Functional items are those that promote a learner to become independent in his or her environment. Another advantage of using CBA for eligibility determination is that it provides baseline information that can be used to evaluate individualized programs at later times. A linked system approach directly connects assessment with program goals, intervention, and evaluation. The linked system components are (a) assessment, (b) goal development, (c) intervention, and (d) evaluation. Each component is linked to the next with evaluation linking back around to the assessment, goal development, and intervention components (Bricker, 2002; Pretti- Frontczak, 2002; Pretti-Frontczak and Bricker, 2004).

Students will benefit from an eligibility determination process where a CBA is used because they will enter their program with authentic and functional information that will lead to the development of tailored learning and developmental goals, objectives, and interventions (Guralnick. 2005). Students and families will not be burdened by additional assessments at program entry. Professionals benefit from a linked eligibility assessment approach because from the time a student enters their classroom/ program, they will have information needed for (a) developing meaningful goals/objectives, (b) creating effective interventions, and (c) evaluating program efficacy (Pretti-Frontczak, Kowalski *and* Brown. 2002). Professionals can save time by

not having to administer additional assessments once a student starts their program. The approach can provide professionals with assessment information that is relatively easy to understand and interpret because it is a system they may already be using in their practice. In addition, the linked eligibility assessment will provide a systematic structure for planning, implementing, and monitoring intervention efforts (Pretti-Frontczak, 2002). System of service delivery benefits from the use of CBA for eligibility determination because CBA resources will be managed more efficiently by saving time on administering eligibility assessments. Refocused efforts could be made toward improving system wide outcomes (Guralnick, 2005). In addition, a possible decrease in unnecessary referrals may result from using a CBA for eligibility (McNamara and Hollinger, 2003; Macy and Hoyt-Gonzales, 2007)

Downs and Strand (2006), described five guiding principles, which if used to evaluate the appropriateness of any given assessment method used within ECE/ECSE settings, would greatly increase the likelihood that such assessment will indeed improve intervention effectiveness and subsequent child outcomes.

1. As a general rule, assessment should be restricted to variables that are responsive to intervention on the part of teachers.

2. The value of an assessment is a function of its capacity for generating novel or unexpected information; therefore, assessments should be questioned to the extent that they are a source of redundancy, regardless of psychometric considerations.

3. Outcomes assessments should be prioritized over fidelity assessments.

4. The timing and frequency of assessment should allow for intervention changes in cases in which performance changes are inadequate or less than anticipated.

5. In the service of generating and sharing ideas about effective instruction, forums should be established in which teachers present to their peers data reflecting the cumulative educational attainments of students under their charge.

Recommended practices in assessment include assessment of the child's abilities and needs within context, using approaches such play-based assessment (Linder, 1993). Family interviews have become an important part of assessment used to obtain the family's perspective of the child and of their own needs and concerns within the contexts of their everyday lives (Boone and Crais, 1999) or may include assessment of parent-child interaction (McCollum and Hemmeter, 1997). Assessment may also address how well a particular learning context (classroom, home)

conforms to what is known about developmentally optimal environments, with the purpose of then modifying those environments (Mc Collum, 2002).

The value of any assessment is dependent on the action that it affords the person to whom the information is directed. As such, what constitutes valuable information for educators is often different than what constitutes valuable information for policy makers, administrators, or psychometricians. Because educators are the ones working directly with young children to provide intervention, it makes sense that assessment primarily be used to generate information that has value to educators and that will assist them as they strive to improve student outcomes. Relatedly, simply providing potentially useful information to educators is not enough. This information must be provided with sufficient frequency and in contexts that will inspire educators to develop, utilize, and disseminate effective interventions for all of the diverse children they serve (Downs and Strand, 2006).

Natural Environment in Early Intervention Service Delivery

Federal legislation, such as the Individuals with Disabilities Education Act (IDEA) Amendments of 1991 (Public Law 102–119), requires that early intervention services be provided in natural environments to the maximum extent appropriate to the needs of the child. With little guidance about what a natural environment is, early intervention professionals have been left to interpret the mandate for themselves. The most recent IDEA Amendments of Public Law 105–17 (1997) defines natural environments to include home and community settings in which children without disabilities participate as well as settings that are natural or normal for the child's age peers who have no disabilities (34 C.ER. 303.18) These laws support the right of young children with disabilities to participate in natural environments such as nursery schools and day care programs with children without disabilities (Bruder and Staff, 1997). These settings include places in the child's community such as the family's home, local playground, daycare center, grocery store, etc. (Hanft and Pilkington, 2000). These settings do not include clinics, playgroups enrolling only Part C eligible children, or therapy offices. According to the law, early intervention services must he provided in natural environments unless a child's 'ESP outcomes cannot be successfully addressed in those settings. In light of the 1997 reauthorization of IDEA emphasizing natural environments, early intervention programs across the country have been shifting their intervention options from home and center-based therapies for Part C eligible children to home and community-based supports and

services including young children with and without disabilities (Childress, 2004).

As a result, both families and professionals have articulated the importance of providing intervention to young children with disabilities within settings that also serve young children without disabilities (Buswell and Schaffner, 1990; Sailor et. al., 1989; Stainback and Stainback, 1990; Strully and Strully, 1985; Villa and Thousand, 1990; Bruder and Staff, 1997).

Shelden and Rush (2001) and Hanft and Pilkington (2000) suggest that a natural environment as a concept is more than a place; it includes not only where but also how services are provided. Since the provisions of IDEA focus on settings, they exclude a wide range of possible learning opportunities that occur during various activities. Dunst, Hamby, Trivette, Roob, and Bruder (2000) found that family and community life is made up of a variety of learning opportunities for young children. Those authors make distinctions between locations, activity settings, and natural learning opportunities. Everyday locations represent physical surroundings or places in which children participate in activities. Activity settings include everyday activities, such as meal times and play activities occurring within the context of family, early childhood programs, and community. They posit that natural learning opportunities occur during a child's everyday life experiences within activities and settings. This expanded perspective of natural environment practice challenges the narrow interpretations of IDEA and reveals a need for rethinking related definitions and practices. (Chai et. al., 2006) Parents intervene in their children's development everyday. They have infinitely more opportunities to enhance their child's development than a professional who visits weekly or monthly. Families do many wonderful things with their children every day to teach them without ever being told to do so by an interventionist. These daily interactions between families and children have a much greater impact on child progress than do early intervention sessions (Dunst, Bruder, Trivette, Raab and McLean, 2001; Hanft and Pilkington, 2000; McWilliam, 2000). The use of natural learning opportunities embedded in daily routines can be easily promoted through consultative service delivery (Jung, McCormick, Jolivette, 2004). Many factors influence the decision about the optimal places for an infant or toddler with disabilities to receive intervention. These include the location of the family's home, the needs of child, the resources of the family and community, and the recommendation of the IFSP team. It is important that not all services have to be provided at the same location; the settings may change over time as the needs of the family and child change. Clearly there is no standard setting for early intervention. The intervention services and

techniques must be transferable across all of the environments in which child and family participate (Bruder, 2000; Hansonand Bruder, 2001).

Families receiving services and early intervention professionals have identified issues with implementation of family-centered services. Families have expressed concern that professionals do not always respect their opinions or support their involvement in the intervention process (Able-Boone and Sandall, 1990; Summers et. al., 1990). Families indicate the need for several services from professionals, including more and better information about available services, aspects of developmental disabilities, and early childhood development (Summers et. al.1990; Shannon, 2004); professionals to teach skills to help families work with their children in their everyday lives and better services coordination to help families obtain and manage services (Able-Boone, Goodwin, Sandall, Gordon and Martin, 1992; Shannon, 2004). Professionals have expressed doubts about whether families have the necessary skills and initiative needed to participate fully in the early intervention process (Minke and Scott, 1995; Shannon, 2004). In addition, professionals are concerned that family-centered services are impractical because they require considerably more time and resources to implement (Mahoney and O'Sullivan, 1990) and may result in uncertainty in the roles and responsibilities for early intervention team members (Bailey, Palsha and Simeonsson, 1991). Also, professionals are concerned about a lack of education and training regarding the concepts and practices of family-centered practice (Gallagher, Malone, Cleghorne, and Helms, 1997; Mahoney and O'Sullivan, 1990). Finally, professionals have suggested that agencies often voice support for family-centered services but do not provide the necessary resources to implement them (Shannon, 2004).

The IDEA, Part C system, and services in California have been designated as the Early Start Program, with supporting legislation passed in 1993 as the California Early Intervention Services Act (CEISA). Regulations further defining implementation of CEISA at state and local levels have also been developed and enacted. For at least a quarter century leading up to 1993 California enjoyed a rich history of early intervention service delivery across urban and rural, center and home-based settings funded through the Department of Developmental Services and/or the Department of Education. As new federal requirements of IDEA, Part C1 were brought into play, many programs found that the structures they followed offered neither adequate guidance nor vision toward making the shift to practice in everyday settings. In the late 1990s, amid local hesitancies to embrace natural environment policy and practice, the Department

of Developmental Services looked to other states for ways to facilitate the transition. The move from segregated, clinic-based services to a service model that promotes learning across natural environments continues to be challenged across the country (Shelden and Rush, 2001) Colorado had begun to use the concept of ERAP - Everyday Routines, Activities and Places - to further define the model. Building on that and adding two new elements, the California Early Start Program introduced the acronym ERRAPP to mean Everyday Routines, Relationship*s,* Activities, Places and Partnerships-as the context for serving infants, toddlers, and their families (Pilkington and Malinowski, 2004). Most early intervention service providers have been trained to provide - thus most families receive - services in a model where therapy is delivered to the child as the family watches, remains in the waiting area, or, at best, receives a home program to administer outside of therapy sessions. The transition of services to natural environments as required by the IDEA, Part C, has not necessarily been smooth, as therapists and parent groups have insisted that services are more effective and the needs of the child are best met in clinic-based settings (Shelden and Rush, 2001). Implementing services in ERRAPP is a multi-dimensional pathway involving families, practitioners, organizations, and communities. This implementation evolves over time and through the influence of external and internal factors unique to each program. There is considerable diversity among early intervention programs in California, mostly due to the geographic and demographic characteristics of local communities, funding, vision and design of each organization and where it is along the path to ERRAPP. The idea of a turn to services in typical settings and through natural learning opportunities available to all infants and toddlers has been explored. Employing expanded levels of interaction requires that interventionists use "detective work" as a central strategy, seeking the simplest solutions, the easiest applications, and the sometimes hidden opportunities for therapeutic impact. Developing an understanding of and respect for the family's culture, in the broadest sense, occurs through family-professional relationships. Through the relationship Individualized Family Service Plan (IFSP) team members, including the parents, are able to define outcomes and action plans that are meaningful for the family and readily implemented, Using innovative models, many California programs have undertaken this initial phase of implementation, integrating ERRAPP components throughout the delivery of early intervention service. As interventionists incorporate the foundations of relationship-based practice into service delivery, parallel processes involving other dimensions of relationships must occur for early intervention services in natural environments to

succeed (Pilkington and Malinowski, 2004). In the recent proposed rules for reauthorization of the IDEA, 200 of the 350 comments regarding Part C implementation pertained to issues surrounding service provision in natural environments. Many programs continue to have difficulty supporting this process and wish to challenge or change the law. Care providers, service providers, service coordinators, and early intervention administrators across the country have strong opinions related to serving infants and toddlers with disabilities in natural environments. Special instruction, as with other services, may be most effective when provided within the context of natural environments (Shelden and Rush, 2001; Walsh, Roos and Lutzer, 2000; Dunst, Hamby, Trivette, Raab and Bruder, 2000).

Program administrations should ensure that interventions are designed to be delivered in the places where families would like the spend time (grandmother's house, child care, baby exercise group and so on). Likewise intervention should be embedded within those activities that families value (Hanson and Bruder, 2001).

Dunst et al. (2001b) examine models that on the surface appear similar, but in fact differ in terms of their assumptions and operational features. The authors use a three-dimensional framework to examine aspects of settings, activities, and provider involvement to compare and contrast various approaches to natural environment practice. The first dimension is contextual or non-contextual settings. Settings that are contextual involve everyday experiences enabling a child to participate in interactions with people and objects that will foster socially and culturally meaningful behaviors. Non-contextual settings involve learning opportunities that lack an apparent connection to the functionality and meaningfulness of the behaviors and/or skills targeted during the intervention. Second dimension, characterizes learning opportunities as adult-directed or child-initiated. Adult-directed learning occurs within activities that are structured by an adult to guide a child to produce or learn a desired behavior. The third dimension is identified as the provider dimension and refers to provider-absent and provider implemented learning opportunities. The three-dimensional framework reveals that natural environment practices may be implemented through careful consideration of settings, activities, and professional involvement (Dunst et al., 2001b).

Bricker (2001) suggests that naturalistic teaching approaches can be used effectively across a range of settings to implement services in natural environments. These teaching approaches might involve activity-based interventions and milieu teaching strategies that occur under

authentic conditions. Naturalistic teaching approaches embed children's IFSP goals and objectives into daily routines and activities.

Another conceptualization of natural environment practice involves the use of triadic interactions between professionals, caregivers, and children (McCollum, Gooler, Appl, and Yates, 2001) describe an early intervention model for enhancing developmental opportunities by building on the natural interactions among parents and children during every day routines. This model, designated Parents Interacting with Infants (PIWI) provides a structured method for group-based early intervention services in natural environments. During PIWI sessions, facilitators expand the knowledge and ability of caregivers through discussions about parent–child interactions and the child's developmental progress. The guiding philosophy of the PIWI model is the belief that parent–child relationships are the critical foundation for early development, and that daily routines and interactions with others provide a context for enhancing early development. The model is based on a family-centered approach, emphasizing quality relationships among children, parents, and professionals. The primary role of facilitators is to enhance parent–child relationships by providing meaningful opportunities for parent–child interactions. As the PIWI model portrays, naturally occurring interactions between caregivers and children are a valuable means for implementing natural environment practice (Chai et al., 2006).

Pilkington and Malinowski (2002), present a relationship-based approach through discussion of a service delivery model used in California's early intervention system. Which is called "Everyday Routines, Relationships, Activities, Places, and Partnerships" (ERRAPP) Model. In order to define and implement natural environment practices, the authors introduce ERRAPP model. They identify the following components as important to providing services in the context of ERRAPP: Trans-disciplinary teamwork, inclusive settings, community collaboration, seamless service integration, family-centered services, strength based approaches, relationship-based interaction, and infant/family mental health models of program philosophy. ERRAPP focuses on different levels of interaction through which professionals use ''detective work'' as a central strategy for seeking the simplest solutions, easiest applications, and hidden daily learning opportunities for effective service delivery. Pilkington and Malinowski (2002), suggest that professional competency should move beyond discipline- specific knowledge and skills to include personal qualities such as listening, empathy, self-awareness, sensitivity, and interpersonal communication skills.

Bruder (1993), investigated provides an opportunity to describe how the various requirements of the Part H early intervention program were being actualized across participants (children and families) an service(utilization) at a specific point within their longitudinal study, when the children were 30 months of age. Of added interest is the fact that these services occurred in childcare programs: a natural group environment as described by Part H regulations. Although there have been descriptions of early intervention service models that use the natural environment of the home for infants and toddlers (Klass, 1996; Roberts, Akers and Behl, 1996; Roberts, Behl and Akers, 1996), little has been documented about early intervention service delivery within natural group environments in which typical children participate.

Shannon (2004) suggested that empowerment the family is so important to make more effective family centered service depend on his study. These are (a). Empowerment should start with families identifying and addressing their most basic needs. Professionals may push families into therapy without first assessing basic needs. Once basic needs have been identified and met, a key ingredient to empowering families is education. However, although education provides the basic knowledge to participate, it does not necessarily facilitate family participation. Therefore, professionals need to encourage families to become involved in the early intervention process, which implies a responsibility for professionals to provide families with the support needed to assume control over decision making. (b)Families also have responsibility for their own empowerment. They must be persistent in their desire to learn and explore the complexities of the early intervention system. Systemically, empowerment can be facilitated through professional training that focuses on strategies for supporting families to complete early intervention tasks independently. In addition, training regarding relevant therapy techniques could be offered to families. (c)Encouraging family-to-family support may further empower families in early intervention. Support from other parents can boost self-esteem and make families feel more capable of working with multiple providers. Also, experienced families can provide practical tips and advice to families new to early intervention to improve the initial early intervention process. This type of peer support has taken several forms in this LICC, including parent support groups to discuss concerns related to families participating in early intervention, sharing a telephone contact list that allows for informal support relations to develop between families, and having experienced parents accompany inexperienced parents to team assessment meetings.

We have seen that both evaluation and inclusion and natural environment applications have

their problems. But continuous research on these subjects minimizes these problems through the results of these studies and suggestions on applications. Naturally there will be some hardship on the road to maximize the benefits and improve the implementation of Early Intervention Service Delivery. But the important thing is to show enough effort to overcome these hurdles by both families and professionals. In the second part of this article we will look at transition, service providers and family-centered practices in early intervention service delivery.

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