This paper lists practices recommended by the Council for Exceptional Children's Division for Early Childhood concerning service delivery models in early intervention and early childhood special education (EI/ECSE) programs for infants and young children with special needs and their families. An introductory section discusses five principles that guided the selection of the recommended practice indicators: least restrictive environment, family-centered services, transdisciplinary service delivery, inclusion of both empirical and value-driven practices, and inclusion of both developmentally and individually appropriate practices. Thirty-nine recommended practices are then listed, within the following categories: indicators across all models of service delivery, home-based models, center-based models, clinic-based models, and hospital-based models. (JDD)
Service Delivery Models

R. A. McWilliam and Phillip S. Strain

Service delivery models consist of the overall pattern and location of interventions for young children with disabilities or at risk for disabilities and their families. The impetus for identifying recommended practice in service delivery was, in the words of the Victorian statesman and man of letters Viscount Morley of Blackburn (1887), "It is not enough to do good; one must do it in the right way" (p.50). The recommended practice indicators for service delivery models are organized by common early intervention settings: homes, centers, clinics, and hospitals. A number of practices are grouped together, however, because they should be employed in all settings.

Principles

Five general principles guided the selection of best practice indicators: least restrictive environment, family-centered services, transdisciplinary service delivery, inclusion of both empirical and value-driven practices, and inclusion of both developmentally and individually appropriate practices.

Least Restrictive and Most Natural Environment

Optimal services are provided in a way that does not unnecessarily restrict opportunities for children and families. The language in the Individuals with Disabilities Education Act (PL 99-457) states that children should be placed in the least restrictive

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environment or the most natural setting. This is not simply a placement issue, however; the method of providing services, regardless of setting, should allow for maximum participation in the "mainstream." Despite the limitations that a disability might place on a child's and family's ability to lead an ordinary existence, good services promote the potential for "normal" rather than "disabled" routines. Hence, indicators are included which base the nature, delivery, and scope of intervention upon activities of daily living (SDM11); providing fun environments that stimulate children's initiations, choices, and engagement with the social and material ecology (SDM24); preparing children for the next, less restrictive environment (SDM31); and providing neonatal intensive care unit environments that are appropriate for the neurological status and developmental level of the child (SDM34).

Family-Centered

A second undergirding principle was that service delivery models should (a) recognize that the child is part of a family unit; (b) be responsive to the family's priorities, concerns, and needs; and (c) allow the family to participate in early intervention with their child as much as they desire (Bailey, McWilliam, & Winton, 1992). Services that previously might have been geared almost exclusively toward children must have the flexibility, expertise, and resources to meet the needs of other members of the family, as those needs relate to the child's development (Public Law 99-457). It is strongly recommended that service providers rethink the concept of "parent involvement" (Foster, Berger, & McLean, 1981). "Getting parents more involved in their child's education" presumes that families are not already "involved" and that the opportunities for parent involvement (e.g., parent education classes)
are worthwhile for individual families, compared to their competing priorities. Thus the indicators include giving families choices in the nature of services (SDM3), matching the level of intensity desired by the family (SDM13), providing center-based services close to where families live (SDM16), encouraging and supporting families to be with children during clinic-based procedures (SDM28), and giving families opportunities to participate in hospital-based services (SDM35).

Transdisciplinary

One model for increasing the opportunity for family members to make meaningful decisions and participate in early intervention as much as they want is transdisciplinary service delivery (Raver, 1991). This model involves team members' sharing roles: each specialist helps other members to acquire skills related to the specialist's area of expertise. This requires both role release (accepting that others can do what the specialist was trained specifically to do) and role acceptance (accepting that one's job can include more than what one was specifically trained to do). Transdisciplinary service delivery encourages a whole-child and whole-family approach, allows for the efficient use of the primary interventionists (i.e., the child and family do not always need to see many different specialists), and fosters skill development in interventionists. The list of indicators includes only three that are somewhat related to this model: employing pull-out services when routine, activity-based options have failed (SDM20); providing noncategorical center-based services (SDM21); and

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1Although we agreed with the Chinese proverb that it is better to light a candle than to curse the darkness, the need to suggest recommended practice has been clear because of our experiences with services that have violated our values, evidence from research, or families' desires. It is sometime useful, therefore, to articulate what we are trying to get away from as well as what we are aiming towards.
consultants’ communicating regularly with center-based staff and families (SDM26). This probably underrepresents the importance of transdisciplinary service delivery.

Was such a small number of indicators addressing transdisciplinary service delivery included because they would be too controversial? Certainly, many specialists and their professional associations have stated reservations about the idea that their services could be supplanted by other professionals’ taking on some of the roles. The most threatening argument against transdisciplinary service delivery is that it is illegal to practice without a license or teach without a certificate. This reveals a lack of understanding about the judicious use of this model. After all, specialists almost always give families suggestions about how they can do "speech-language therapy," "occupational therapy," "physical therapy," or "special education" with their children. At a time when there are enormous shortages of specialized personnel (Yoder, Coleman, & Gallagher, 1990), when more than ever the importance of integrating interventions across developmental domains is recognized, and when early intervention staff roles are being redefined (LeLaurin, 1992), we probably should have included more indicators directly addressing transdisciplinary service delivery.

Empirically and Value Driven

For 20 years or so, there has been a steady output of research related to young children with disabilities and their families. Some of these studies are better than others; the most believable findings are those that have been replicated. From this body of work, it was possible to include indicators that are empirically sound, such as adult:children ratios that maximize safety, health, and promotion of identified goals (SDM19); barrier-free center environments (SDM22); center and environments to promote high levels of engagement
Interestingly, most of the research-based indicators are associated with environments.

A number of indicators address the importance of measuring the effectiveness of services. Most researchers and interventionists would agree that the evaluation of services is haphazard at best. Researchers often find they cannot use the existing data collected by service providers; many of the decisions, both at the individual child and family level and at the program level, are based as much on intuition as on data. More accountable systems are necessary, but they need to be flexible enough to allow for adjustments in families’ priorities, children’s development, personnel availability, and program resources. Indicators supporting the importance of data collection include measuring effectiveness and communicating results to the family (SDM2); monitoring service delivery to insure that agreed-upon procedures and outcomes are achieved in a timely fashion (SDM4); monitoring interventions frequently, making changes in programming as needed (SDM8); and continuing clinic-based services only as long as it takes to reach prearranged goals (SDM29).

The importance of unproven but highly valued practices must also be acknowledged. Many of these "value-based" indicators emerged from families’ and professionals’ bad experiences; they stem from a desire to guide services in positive directions and away from practices that violate currently held beliefs and priorities. Considering the enormous diversity of families in early intervention, we cannot be sure that we truly represent all families’ values. The most important safeguard against a paternalistic approach, however, is to individualize practices for each child and family. The canon of individualization characterizes early intervention and distinguishes it from other early childhood services; it
reflects a strongly held value in our field. Indicators guided by values include having someone available to speak the family's preferred language (SDM6); basing communication with family members upon principles of mutual respect, caring, and sensitivity (SDM14); making center environments safe and clean (SDM15); employing clinic-based services only when they are identified as the least restrictive option (SDM27); and giving opportunities for the family to have access to medical decision-makers (SDM36).

**Developmentally and Individually Appropriate Practice**

At the time these indicators are being delineated by DEC, the field of early intervention is undergoing examination from within and without as to the developmental appropriateness of its practices. "Developmentally appropriate practice" (DAP) is a term coined by the National Association for the Education of Young Children to refer to educational methods that promote children's self-initiated learning (Bredekamp, 1987). Early childhood special education (ECSE) has been criticized for being too structured, too adult-directed. The strengths of both DAP and the traditional ECSE emphasis on individualization are recognized through indicators such as individualization of services in response to children's characteristics, preferences, interests, abilities, and health status (SDM7) and curricula that are unbiased and nondiscriminatory around issues of disability, sex, race, religion, and ethnic/cultural origin (SDM17). As the research base for DAP increases, it is likely that additional recommended practices will be identified.

Some of the recommended practices for service delivery models are stated directly and with no apology [e.g., "Professionals keep appointments in a timely fashion," (SDM33)]. Some are possibly controversial [e.g., "Programs employ clinic-based services only when..."].
they are identified as the least restrictive option," (SDM27)]. Many, however, will be considered platitudinous; they are little more than common sense and are eminently socially acceptable [e.g., "Environments are safe and clean," (SDM15)]. These have been included however because, unfortunately, they are not universally practiced. Our hope is that these indicators will generate questions such as the following:

--Do we really deliver services this way?

--Could we do this more or better?

--Do we do this consistently?

References


DEC Recommended Practices
Service Delivery Models

Indicators Across All Models of Service Delivery

SDM1. Program staff coordinate early intervention services with all other modes of service delivery available to and needed by the child and family.

SDM2. Services include a measure of effectiveness and results should be communicated in a timely fashion to the family.

SDM3. The nature of services provided are based upon families' informed selection from an array of viable options.

SDM4. The early intervention program frequently monitors delivery of services to insure that agreed upon procedures and outcomes are achieved in a timely fashion.

SDM5. Programs are staffed by personnel who have received competency-based training with children of the age being served.

SDM6. Someone in the program or immediately available to the program speaks the family's preferred language.

SDM7. Program staff individualize services in response to children's characteristics, preferences, interests, abilities, and health status.

SDM8. Staff monitor interventions frequently, and make changes in programming as needed.

SDM9. Staff employ a variety of strategies and interventions to address individual child and family needs.

SDM10. Staff design services to allay children's fears and anxieties regarding separation, medical interventions, and other intervention related issues.

Home-Based

SDM11. Staff base the nature, delivery, and scope of intervention upon activities of daily living (e.g., bathing, feeding, play, bedtime, etc.).

SDM12. Intervention includes all family members (family members being defined by the family) who wish to be involved.

SDM13. The level of intensity and range of services match the level of need identified by the family.
SDM14. Staff base their communication with family members upon principles of mutual respect, caring and sensitivity.

**Center-Based**

SDM15. Environments are safe and clean.

SDM16. The setting is physically accessible to families (i.e., within a short distance to allow for regular contact).

SDM17. Services insure an unbiased, nondiscriminatory curriculum around issues of disability, sex, race, religion, and ethnic/cultural origin.

SDM18. Service programs are well integrated within the administrative unit with which they are affiliated.

SDM19. The ratio of adult staff to children maximizes safety, health, and promotion of identified goals.

SDM20. Programs employ pull-out services (e.g., for ECSE, OT, PT, Speech) only when routine, activity-based options for services have failed to meet identified needs.

SDM21. Services for children with disabilities are noncategorical.

SDM22. Environments are barrier free.

SDM23. Environments include an adequate quantity and variety of toys and materials suitable for ages and needs of children enrolled.

SDM24. Environments are fun: they stimulate children’s initiations, choices, and engagement with the social and material ecology.

SDM25. Staff arrange environments to promote high levels of engagement for children with diverse abilities.

SDM26. Personnel delivering related or consulting services (OT, PT, Speech, ECSE) communicate regularly with teaching staff and families.

**Clinic-Based**

SDM27. Programs employ clinic-based services only when they are identified as the least restrictive option.

SDM28. Professionals encourage and provide support for families to be with children during interventions/procedures.

SDM29. Services in clinics continue only as long as it takes to reach prearranged goals.
SDM30. Clinics include comfortable care for family members (e.g., on-site daycare, sleep-in options).

SDM31. Clinic services prepare children for the next, less restrictive environment.

SDM32. All clinic services are available regardless of family income.

SDM33. Professionals keep appointments in a timely fashion.

**Hospital-Based**

SDM34. Neonatal intensive care units provide environments (stimulation levels, schedules, etc.) appropriate for the neurological status and developmental level of the child.

SDM35. Hospital-based services provide ongoing opportunities for family participation.

SDM36. Hospital-based services include opportunities for the family to have access to medical decision-makers.

SDM37. Program staff delineate and communicate to families the roles of decision-makers in hospital-based services.

SDM38. Medical personnel in hospital-based services understand recommended practices in early intervention.

SDM39. Hospital-based services include referrals appropriate for individualized child and family outcomes.
General Curriculum and Intervention Strategies

Mark Wolery and Diane Sainato

The indicators of recommended practice in the area of general curriculum and intervention strategies are based on several foundations, including values shared in the field, logic, experience, and research. This set of indicators is divided into four subsets: (a) the broad outcomes that should occur from using appropriate curriculum and instructional strategies, (b) the issues teams should consider in developing and making selections about which strategies to use, (c) the issues teams should consider in making adjustments to the curricular strategies that are used, and (d) the types of strategies that are effective and should be a part of every early childhood educator's repertoire. Each of these four groups of indicators are discussed in this section. First, however, definitions of "curriculum" and "intervention strategies" are provided, and the assumptions on which the indicators are based are listed.

Definition of Curriculum and Intervention Strategies

Although many definitions of curriculum exist, most individuals agree that curriculum includes at least three components (Dunst, 1981; Wolery & Fleming, 1993). The first component is the content (i.e., behaviors, skills, abilities, and patterns of interacting) that is taught. In this section, the term "skills" is used to include all behaviors, abilities, and patterns of interacting. In the case of infants, toddlers, and preschoolers with developmental

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