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ABSTRACT

This newsletter theme issue contains contributions by parents, practitioners, researchers, administrators, and providers of technical assistance, which explore aspects of the complex process of developmental assessment of infants and young children. They describe what is helpful and what can be harmful in current assessment practice. They offer guidelines for assessing development of young children from diverse sociocultural backgrounds, implementing family-directed evaluation and assessment, assessing adaptive competence, and formulating a systematic developmentally-based approach to the diagnostic classification of mental health and developmental disorders of infancy and early childhood. Feature articles include: "Toward a New Vision for the Developmental Assessment of Infants and Young Children" (Stanley I. Greenspan and others); "Thoughts on the Assessment of Young Children Whose Sociocultural Background Is Unfamiliar to the Assessor" (Isaura Barrera); "New Visions for the Developmental Assessment of Infants and Young Children: A Parent's Perspective" (Susan Rocco); "Family-Directed Evaluation and Assessment under the Individuals with Disabilities Education Act (IDEA): Lessons Learned from Experiences of Programs and Parents" (Carol Berman and others); "Journey to a Desirable Future: A Values-Based Model of Infant and Toddler Assessment" (Lucy Jane Miller and Brian A. McNulty); "Assessment of Adaptive Competence" (G. Gordon Williamson); and "Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood" (Stanley I. Greenspan and Serena Wieder). Annotations for 2 videotapes and 10 publications conclude the issue. (JDD)

[Developmental Assessment.]

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Toward a New Vision for the Developmental Assessment of Infants and Young Children

Subjects and Predicates

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Developmental assessment is a process designed to deepen understanding of a child's competencies and resources, and of the caregiving and learning environments most likely to help a child make fullest use of his or her developmental potential. Assessment should be an ongoing, collaborative process of systematic observation and analysis. This process involves formulating questions, gathering information, sharing observations, and making interpretations in order to form new questions.

The systematic assessment of various aspects of children's knowledge, skill, or personality involves some of the most difficult questions that early childhood researchers, practitioners, and policy makers must face. For example:

- Which features of a child's knowledge, skills, or personality can and should be measured?
- Can the rapidly changing characteristics of infants, toddlers, and preschoolers be measured reliably?
- How can we enhance the accuracy of the measurements that are conducted in early childhood?
- Are assessment approaches in early childhood meaningful when conducted in isolation from the child's family and living conditions?
- Does information from early childhood assessments successfully predict long-term developmental status?

Contents:

Critical issues in the assessment of infants and young children

Assessment is the process of obtaining information for the purpose of making evaluative decisions. The choice of a given assessment tool or approach depends on the type of decision that is required. Assessments may be performed in order to:

- identify children who are likely to be members of groups at risk for health or developmental problems (screening);
- confirm the presence and extent of a disability (diagnosis);
- determine appropriate remediation (program planning);
- ascertain a child's relative knowledge of specific skills and information (readiness tests); or
- demonstrate the extent of a child's previous accomplishments (achievement tests).

Some assessment approaches are quite circumscribed in their goals. For example, assessing how long a child will look at a picture as part of a research study on preferential looking behavior has very limited goals and highly standardized parameters. Most assessment approaches, however, are part of a larger "clinical" decision-making process, having to do with diagnosing emotional, cognitive or other developmental problems, and/or planning and monitoring intervention. This discussion addresses developmental assessment in this broader context.

Any specific assessment approach is primarily a sampling process. It consists of a "snapshot," or series of snapshots, of a child's knowledge, skills, abilities, or personality characteristics taken at a particular point in time, from a particular vantage point, and with a particular instrument or recording device. A measurement or assessment approach that is not representative of a child's usual functioning will not be meaningful. This is a particularly important concern since the first three years of life constitute a period of such immense modification, growth and development.

The constructs and phenomena that are assessed should be closely related to core processes of human growth and development. For assessment approaches to be meaningful, therefore, they must be informed by knowledge of how development transpires, and how children's growth in the first years of life is enhanced. Central to this task is the recognition that children's development is complex and is determined by multiple factors from the very beginning of life. Although areas of development can be addressed separately, they are not necessarily independent. Rather, they are interdependent.

Related to the interactivity among areas of development is the fact that both biological and environmental influences operate to support, facilitate, or impede the development of infants and young children. Thus, interpretations of data from assessments should con-

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sider both the child's biological status and the impact of environmental factors on the aspect of development assessed. For example, when one is assessing general cognitive functioning of a two-year-old, one must look at observational or test data in the context of the child's experience. Is the child being assessed challenged by premature birth or a medical condition, living in poverty, and spending most of his waking hours in a poor-quality child care setting? Or is the child the product of a healthy, full-term delivery, and living in an economically secure, two-parent household that affords ample opportunity for play and discovery?

An understanding of protective and risk factors in the caregiving environment is essential to meaningful assessment. This is particularly the case for very young children and for those who are at risk developmentally. Longitudinal research by Sameroff and his colleagues makes this point very clearly (Sameroff, Seifer, Barocas, Zax & Greenspan, 1987). Their study of 215 families in Rochester, New York, examined 10 variables thought likely to have a major impact on the development of children's competence at age four, including: maternal mental health, anxiety, education and occupation, family social support, and stressful life events.

It was found that the higher the number of risk factors, the lower the competence of the child. More than 50 percent of the variance in four-year-olds' verbal IQ could be explained by taking into account the environmental context of the child. Children with four or more risk factors were 20 times more likely to have marginal cognitive functioning than children who were subject to fewer than four risk factors. No single risk factor was always present or always absent among the children who were experiencing cognitive difficulties. Thus an assessment approach which is intended to identify existing or potential developmental problems in young children and to suggest interventions that might eliminate or reduce risk factors needs to use a mixed measurement strategy that incorporates a wide range of data.

Knowledge and understanding of the cultural context of a young child's caregiving environment is essential to understanding the meaning of the child's repertoire of skills, knowledge, and personality characteristics. Family and community culture influence, among other experiences, the child's access to multiple approaches to literacy; expectations regarding educational accomplishments; explicit and implicit connections to rite, ritual, and tradition; and overall sense of familial/communal interaction and support.

For measurement in early childhood to be faithful to the phenomena it seeks to document — for it to be meaningful — it must take into account how children are affected by the contexts in which they are reared. Each assessment approach need not set the impossible task of taking all of this complexity into account at once. However, in order to give the data meaning, even assessments of relatively isolated aspects of functioning should be interpreted within a larger conceptual framework.

Editor's note:

"Developmental assessment is a process designed to deepen understanding of a child's competencies and resources and of the caregiving and learning environments most likely to help a child make fullest use of his or her developmental potential." So begins the statement of ZERO TO THREE's Work Group on Developmental Assessment, on page 1 of this issue of Zero to Three. All the contributors to this issue explore aspects of the complex process of developmental assessment, which can have life-changing implications for children and families. We hear from parents, front-line practitioners, researchers, administrators, and providers of technical assistance. They describe both what is helpful and what can be harmful in current assessment practice. Most important, they offer specific guidelines for undertaking some of the most critical challenges in our field — assessing the development of young children from diverse sociocultural backgrounds, implementing family-directed evaluation and assessment, assessing adaptive competence, and formulating a systematic, developmentally-based approach to the diagnostic classification of mental health and developmental disorders of infancy and early childhood.

Readers are encouraged to call ZERO TO THREE for information about new publications, training opportunities, and ongoing investigation of developmental assessment and diagnostic classification, and to write to the Editor with your own perspectives on these issues.

In addition to the design considerations noted above, assessment approaches that rely on structured tasks or questions in early childhood are marked by recurrent practical problems, which contribute to error in determining early childhood capacities:

- Young children have a restricted ability to comprehend assessment cues.
- Young children's verbal and perceptual-motor response capabilities are limited.
- Some types of questions require complex information-processing skills that young children do not possess.
- Young children may have difficulty understanding what is being asked of them in an assessment situation, and they may not be able to control their behavior to meet these demands.

It is no easy task to identify behaviors that represent the infant's or child's true range and depth of capacities; understand the biological endowment, current health status, and caregiving environment that form the context for a young child's functioning; and help a child represent his or her own range of functioning, given immature perceptual and motor capacities. As we look at existing approaches to assessment in the first three years of life, we are struck with how much work is needed before the field adequately addresses these critical issues.

Limitations of current assessment approaches

Despite widespread awareness of the importance of a systematic, contextually based approach to the developmental assessment of infants and young children, demands for "immediate expertise" and the pressures associated with enormous service challenges present formidable barriers to best practice. Under the pressure to act quickly, a fragmented, piecemeal, occasionally undermining approach to assessment has emerged, rather than one that reflects a comprehensive, integrated understanding of the infant and young child and their relationships within their family and larger community and culture.

Under pressure to produce quick formulations or "scores," professionals have often called on their experiences with procedures and instruments developed for assessing selected competencies and skills in older children. These can often yield misleading information. They are not built on a model of how the infant and young child develops within the family; do not reflect an understanding of the specific types of difficulties and developmental challenges that children and families face in the first three years of life; and do not represent the best ways to observe and assess the dynamic developmental process as it occurs in infancy and early childhood.

In addition, there has been a tendency to assess those functions of infants and young children for which there are tests or scales already in existence. We have tended to put less emphasis on those aspects of development that are hard to measure and, as indicated earlier, have underemphasized the social and family contexts within which the infant or young child develops.

Most importantly, we have not yet met the challenge of working with the young child's individual differences in the family context to elicit the infant or young child's best level of functioning. Indeed, it is commonplace for assessment approaches to overlook some of the infant or young child's capacities. This seems to be the case especially when an infant or young child has severe relationship and communication difficulties that may interfere with his or her demonstration of seemingly hidden emotional or cognitive strengths.

Some assessment approaches may, inadvertently, actually stress or undermine the infant, young child and his or her family. Not infrequently, for example, infants are expected to quickly perform for a stranger. More often than not, they are not adequately observed in interaction with parents or caregivers. At times, infants and young children are even separated from parents for the purposes of assessment.

The ZERO TO THREE Work Group on Developmental Assessment

The challenge before the field is to rethink our approach to the assessment of infants and young children and base it on our best state-of-the-art knowledge of infant and early childhood development. In recent years there has been progress in assessing hard-to-measure areas of development, including children's individual differences, temperament, affective development, interactive capacities, and coping capacities. We are learning more about how families function to support development.

In order to acknowledge this constructive movement and give its evolution encouragement and consolidation, **ZERO TO THREE**/National Center for Clinical Infant Programs, with the support of the A.L. Mailman Foundation, convened a work group of clinicians, researchers, and parents representing the state-of-the-art knowledge base in assessing infants and young children. We set ourselves the task of formulating the basic principles of assessment for infants and young children. We attempted to articulate:

1. principles that clarify what constitutes an appropriate assessment; and
2. those current assessment practices which are at odds with state-of-the-art understanding of development in infancy and childhood.

Assessment must be based on an integrated developmental model.

Assessment of the infant or young child with developmental and emotional challenges must take into account the full complexity of the child's development. This includes the core functional areas of the child's development, as well as the factors that influence these core functional areas. The functional areas include the child's functional emotional and social capacities; cognitive capacities; and language, motor and sensory functioning. They also include the constitutional and maturational variations that influence the child's development, and the caregiver, family, community and cultural patterns that influence the child's development.

Most importantly, this approach to assessment represents an effort to understand infants and very young children in the context of their families, and their emergent developmental abilities to communicate and relate with the world. This approach recognizes that to understand a child's capacities, we must find ways to see the child's **optimal** level of functioning. This means that parents or other familiar adults are **working** with the child, using what they know about her interests and abilities to discover more, through assessment approaches, about her capacities and the challenges she is facing. Parents and professionals must observe the range of the child's functioning in different contexts. We do not wish to test and grade a child, but to learn how best to be of help to him.

The principles of assessment which follow all derive from this approach.

Assessment involves multiple sources of information and multiple components.

Assessment includes most prominently:

- the parents' description of the child's capacities in the different areas of development and discussions of their questions and concerns about the child's development;
- the parents' detailed description of the child's developmental history;
- direct observation of the child, including the child interacting with a caregiver(s);
- observations and discussions with the family about ways they have found to support the child's development and family patterns related to the child's development that are of concern to them; and
- focused observations and/or assessments of specific areas of the child's functioning.

This approach builds on information from family members and adds sources of information — such as direct observation of the child's play and, if needed, assessment of a specific area of functioning — to help answer questions about the child's development. This approach is in marked contrast to some current practice, in which examiners use a series of structured assessment tools which look at specific areas of development, with only brief attempts to obtain a picture of the "whole" child from family or other sources of information.

An assessment should follow this sequence:

1. Establishing an alliance with parents, listening to their views of the child's strengths and challenges, and discussing the issues to be explored in the assessment.

2. Obtaining a developmental history of the child and beginning picture of the family's experience. While basic information may be readily available, some insights may only emerge over time, as part of an ongoing relationship and working alliance.

3. Observing the child in the context of unstructured play with parent(s) or other familiar caregivers.

4. If appropriate, observing interaction between the child and a clinician.

5. Specific assessments of individual functions in the child, as needed.

6. Using a developmental model as a framework for integrating all the data obtained from parents' reports, direct observation, and other sources, conveying and discussing assessment findings in the context of an alliance with the child's primary caregivers, with the potential for starting an intervention process if needed.

Subjects and Predicates

The child's relationship and interactions with his or her most trusted caregiver should form the cornerstone of the assessment.

Emotional and social competencies, as well as cognitive, language, motor and sensory patterns, should always be assessed in the context of spontaneous, motivated interactions between child and caregiver. This context provides an optimal setting for security and engagement, and is most likely to bring out the child's abilities. The clinician/assessor can build on these natural interactions, either through coaching the parent to try certain types of interactions in order to elicit a particular competency, or through joining the caregiver and becoming part of the interaction pattern.

Occasionally, when a caregiver has difficulty interacting with the child in a way that allows the child to evidence certain competencies, the clinician may need to use her own interactions with the child as the basis for observations of the child's competencies. Before the clinician interacts directly with an infant or young child, he or she must take time to get to know the child and be sure that the child feels secure and comfortable in the interaction.

An understanding of sequences and timetables in typical development is essential as a framework for the interpretation of developmental differences among infant and toddlers.

The period from birth to three is one of rapid physical growth and maturational change. While maturation generally proceeds in an orderly and predictable sequence, there may be considerable variation in both the characteristics of and the timetable for the emergence of a particular skill. Therefore there is considerable range in what can be regarded as normal or typical development.

In some areas of development, there is more range in the expectable capacities of children than in others. For example, as long as an infant's social relating is increasing during the first years of life, there would not be significant concern, but if a child were only beginning to sit up without support as the end of the first year approached, there would be a clear need for a full assessment and potential intervention. To understand where a child is in his or her development, clinicians need to have in mind a broad sense of the **sequence** (what precedes what) and **timetable** (during what age range one can expect to see a capacity emerge) for different areas of development.

Understanding where a child is in his or her development in terms of sequence and expectable timetable allows the clinician to recognize what will come next in the child's development and to assess whether a particular capacity is emerging more slowly than might be expected. This kind of analysis is preferable to using a "score" or "quotient" to describe a child's developmental status. It allows the clinician to integrate many sources of information and formulate an intervention plan based on an understanding of the child's next steps in his or her developmental sequence.

The well-trained professional (or team) must have sufficient experience with observing a wide range of infants, toddlers, and their families to make judgments about a child's mastery of certain developmental capacities in terms of the skills the child has acquired, in relation to established or accepted norms; the quality of the child's skills; and the challenges that need to be met to help a child master new skills in the developmental sequence. The point is sometimes made that it is more difficult and time-consuming to train professionals in the skills of building alliances with parents, careful observation of children in spontaneous interaction, systematic organization of data from multiple sources, and clinical decision-making, than to train them to conduct a standardized test. This is true. However, we take a very strong position that only professionals with an excellent understanding of early development and demonstrated competence in the skills listed above should be given responsibility for assessments that will lead to a determination of a child's developmental status and/or a plan for intervention.

The assessment should emphasize attention to the child's level and pattern of organizing experience and to functional capacities, which represent an integration of emotional and cognitive abilities.

The child's functional capacities involve such basic abilities as:

- attending;
- relating and engaging;
- entering into reciprocal, intentional interactions;
- organizing, engaging in, and recognizing patterns of behavior, in terms of purpose and function;
- constructing symbolic (representational) understanding of the world, including affects, wishes and intentions; and
- learning to construct and observe relationships within this symbolic world (symbolic problem-solving).

These functional capacities can be described in detail. Each functional capacity, in addition to representing an integration of emotional and cognitive capacities, also builds on the child's language, motor and sensory abilities (Greenspan, 1992).

The child's level and pattern of organizing experience must be understood within the cultural context of the child and family. Most cultures support the child's development of the basic functional capacities of relating, interacting, and thinking. Yet specific ways of relating and interacting, as well as the content of what is communicated with behavior or play and words, may vary considerably from culture to culture.

Specific areas of functioning should always be assessed and understood in the context of the child's broad functional capacities. For example, a desire to learn more about a young child's apparent difficulty in comprehending certain sequences of words may be addressed first through observation and then, if necessary, through use of specialized assessment tools and approaches. It is essential to understand the impact of the specific difficulty on the child's core functional capacities. For example, one child with auditory processing difficulties may use cues from adults' facial expressions and gestures, and observation of other children's behavior, to organize his behavior purposefully and thereby conform his behavior to group expectations in a child care setting. Another child with similar auditory processing difficulties may have less well-developed functional capacities and be unable to organize his behavior and make it purposeful, thereby becoming impulsive and disorganized in a group care setting.

The assessment process should identify the child's current competencies and strengths, as well as the competencies the child needs to develop to attain landmarks further along the developmental road map.

Children's development proceeds in a stepwise fashion; one capacity builds on another. Consider, for example, a 30-month-old child who relates to her caregiver, but only with one or two simple gestures at a time. The child may be able to play peek-a-boo for 10 seconds, but cannot yet sustain a long pattern of interaction or use words or pretend play. Our knowledge of developmental landmarks tells us that the child now needs to learn how to sustain a longer pattern of reciprocal interactions, and then how to progress to complex, interactive social patterns, followed by pretend play and words.

Our knowledge of typical development tells us that most children develop the skills of the child in our example by the age of seven to nine months. This is important and useful information. It can never be useful, however, to describe the 30-month-old child as "21 months behind."

Assessment is a collaborative process.

Assessment involves ongoing collaboration between clinicians and parents, together understanding the child and family. Participation in the process of assessment should be open to everyone who is substantially involved in supporting the development of the child and family. Parents and other significant caregivers of the child, members of families' informal and formal support networks, and professionals with special expertise all have important roles to play. The working alliances that they create will vary in composition and assignment of responsibility, depending upon the purpose of the assessment, the questions to be explored, and the extent of involvement that families choose.

The process of assessment should always be viewed as the first step in a potential intervention process.

Creating a working alliance with parents and reaching consensus on a shared view of the child's strengths, vulnerabilities and new learning challenges are essential steps in identifying and planning ways to support the child's continuing development. Any assessment should contribute positively to this process.

Reassessment of a child's developmental status should occur in the context of day-to-day family and/or early intervention activities.

The rapid changes in growth and development that typically occur in the first three years of life make ongoing monitoring and frequent reassessment of a child's capacities important. Careful observation of the child's behavior in multiple but familiar contexts and on multiple occasions will provide a rich picture of the child's current strengths and challenges and needed next steps.

If the child is involved in early intervention, the team that is working with the child and the parents should come together regularly to compare observations. Once a child is involved in early intervention, the multiple sources of information available include the child's, family's, and early intervention staff's observations of their individual and common day-to-day experiences. This discussion will also identify new developmental goals and the most promising ways of approaching them.

This approach avoids wasting scarce resources on a formal structured assessment conducted outside of the child's day-to-day context of family and community. For administrative purposes, periodic descriptions of the child's capacities in relation to age expectations will reflect the child's experience of intervention and provide a way of looking at the effectiveness of the intervention approach.

Some current practices have no place in an assessment process that is conceptualized as an ongoing, collaborative effort to understand an infant or young child's competencies and resources. We believe that the following "don'ts" are as important as the preceding positive guidelines for developmental assessment.

Young children should never be challenged during assessment by separation from their parents or familiar caregivers.

A number of children have been diagnosed as having severe relationship disorders because they were extremely aloof and aimless in the context of assessment by a relative stranger and in a new setting. In these situations, the examiners only minimally observed interactions with parents, and based their mistaken conclusions on their own interactions with the child, which occurred in only one meeting.

Observation of these children in interaction with their parents revealed that the children had extraordinarily intimate and warm ways of relating to their parents. These observations revealed the error of the earlier diagnoses and have suggested more appropriate approaches to helping the children overcome the developmental challenges that they do face.

Young children should never be challenged by assessment by a strange examiner.

Unfortunately, in many settings where assessments take place, very young children are introduced to strangers and expected, after only a brief "warm-up" period, to demonstrate their highest level of functioning to one or more of these examiners. This practice represents an unnecessary challenge to the child and is highly unlikely to yield meaningful information about the child's true capacities.

Assessment by an unfamiliar examiner with the parent restricted to the role of passive observer also represents an unnecessary challenge to the child.

Assessments that are limited to areas that are easily measurable, such as certain motor or cognitive skills, should not be considered complete.

Many assessments of infants and young children are conducted using only tools that have been chosen simply because they are available, or because available staff are trained to use them. Such assessments cannot be considered adequate, since they do not provide an integrated understanding of the child's development and do not include information from caregivers or direct observation of the child's functional capacities as they are manifested in spontaneous interactions with caregivers.

Formal tests or tools should not be the cornerstone of the assessment of an infant or young child.

Structured test approaches look at what an infant can and cannot do in relationship to a defined set of stimuli or test procedures. The data produced by formal tests tend as discussed earlier, to be only approximations of real-world functional capacities, and, in this sense, are less useful than observations of natural behavior.

Many widely available formal tests were developed and standardized with infants and young children who were not experiencing unusual developmental challenges or special needs. Consequently, these tests are not designed to bring out the unique ability and potential of children with atypical or challenging developmental patterns. Yet it is the child with special needs who requires early, appropriate assessment and intervention.

In addition, many infants and young children have difficulty in attending, relating, and conforming to formal tests' most basic expectations. Skilled examiners who are aware of these factors may use the child's behavior around the test situation as a general, but not definitive indicator of his or her abilities. The less experienced examiner, however, often mistakenly attempts to draw conclusions from whatever numerical score the child "achieved." In any case, a formal test situation is not the best context in which to observe the functional capacities of an infant or young child.

For too long, we have borrowed an assessment methodology devised for older children (a methodology that is highly limited in its usefulness for them as well) seeing testing children in a totally standardized fashion as the psychometric ideal — in some respects, sealing off children hermetically from the "invasion" of the clinician. Reliability took precedence over validity. We assumed that test scores represented meaningful information about children's capacities.

Conclusions drawn from misleading scores on standardized tests may lead to inappropriate recommendations for services and educational placements and programs. Compared to complete clinical assessments of infants and toddlers with disabilities or at risk for developmental difficulties, test results not infrequently underestimate substantially children's true capacities. Unfortunately, as states and communities assess and offer services to more and more infants and young children in need of appropriate special services, incorrect service recommendations based on inappropriate assessment may increase.

Therefore, assessments of infants and young children that are intended to guide the planning of possible intervention approaches should use structured tests (however reliable, valid, and easy to administer) only as needed and as only one part of an integrated approach.

Summary

The developmental assessment of infants and young children should build on our current understanding of young children's development. The cornerstone of assessment should be the observation of the child in interaction with trusted caregivers and appreciation of the child's core functional capacities. Assessment involves multiple sources of information, organized and integrated in a landmark-based model of development. These approaches should assist parents and professionals to deepen their shared understanding of children's competencies and resources, and of the caregiving and learning environments most likely to help children make fullest use of their developmental potential.

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Thoughts on the Assessment of Young Children Whose Sociocultural Background Is Unfamiliar to the Assessor

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Competent assessment of young children's development is a complex process. When assessors and families bring different world views, expectations, values, and behaviors to the assessment arena, that complexity is magnified (Anderson & Fenichel, 1989; Anderson & Goldberg, 1991; Baca & Cervantes, 1989; Lynch & Hanson, 1990). To conduct assessment competently when this is the case (as well as when it is not), assessors must appreciate the complexity of their task and avoid the temptations of oversimplification. The "new vision" for the developmental assessment of infants and young children generated by ZERO TO THREE's Work Group on Developmental Assessment (see page 1), of which I am a member, recognizes both the impact of culture on development and the importance of responsivity to that impact within a meaningful assessment process. This article elaborates the "new vision" by exploring dimensions of sociocultural diversity, particularly as these relate to families with young children and professionals with responsibility for assessing young children's development. This article also defines the important role of the "culture-language mediator" in interpreting across sociocultural differences.

Perceptions and mindsets

The development of socioculturally competent assessment necessitates a paradigm shift of sorts. It is not sufficient simply to learn a new procedure or instrument; perceptions and mindsets must also be informed. Revised procedures without revised perceptions and mindsets will remain unresponsive to the complexities presented by individual families. Though the problems that often underlie nonresponsive assessment cannot be fully discussed in this article, a brief discussion of the most common issues will provide a foundation for examining the steps that are proposed as a culturally responsive assessment.

Assumption of objectivity. Assessment, even when not norm-referenced, often carries an assumption of an "objective" reality that can be observed and documented in a reliable fashion. Yet even "hard science" is now recognizing that no such thing as objective observation exists. All observation changes what is being observed in some way. **Every observer brings particular lenses (both personal and sociocultural) through which he or she views and evaluates what is observed.** It is this subjective aspect of observation that is particularly relevant to socioculturally competent assessment. The goal of such assessment is to come to recognize and respect a family's subjective world as it affects the behavior and development of a particular child — rather than to fit that world into what the assessor's professional community identifies as "objective" and "valid" reality.

Subjects and Predicates

Ethnicity and race as primary determinants of "cultural diversity." Culture is composed of the range of ways of perceiving, believing, evaluating, and behaving common to communities (Banks, 1994; King, Chipman & Cruz-Janzen, 1994). Because every individual is a member of one or more communities, every individual's perceptions, beliefs, values, and behavior are to some extent influenced by the culture of those communities. It is important to remember, however, that some groups recognize and value their culture more strongly than others, and some individuals identify more strongly than others with their community and its culture.

While ethnic and racial affiliations have been taken as the major markers of diversity, they are in fact only one way of identifying culture. And they are not always the best way, since ethnic and racial affiliations do not always determine ways of perceiving, believing, evaluating or behaving (i.e., being Hispanic does not automatically determine how one behaves; one may be Hispanic and choose behaviors or beliefs not typically associated with that culture). **The perception that group membership is the primary or even sole determinant of culture often generates stereotypes.**

Diversity between an assessor and a child cannot be judged solely by the child's apparent group membership. Rather, diversity must be judged reciprocally and relationally. **Diversity, therefore, is deemed to be present whenever there is the probability that, in interaction with a particular child or family, the assessor might attribute different meanings or values to behaviors or events than would the family or someone from that family's environment.** By this definition, diversity is present when the family and assessor are of different ethnicity, but can also be an issue when the family and assessor share a common ethnicity but differ in other important group affiliations (for example, when the family are new immigrants from Mexico, with little or no schooling and the assessor is Central American, with professional education).

Competent assessment requires a sensitivity to the ways children and their families perceive, believe, evaluate, and behave. Group membership provides strong, but not absolute, clues to these. Assessors need to go beyond the simple recognition of group membership to an examination of their own ways of perceiving, believing, evaluating, and behaving (whether or not these are linked to specific ethnic or racial affiliations) and to an examination of the interaction between these, and those of the individual children and families with whom they work.

Polarization of options. The ability to perceive, and consequently assess, reality in a multi-faceted fashion is key to socioculturally competent assessment. Yet professional training in the United States has had a tendency to teach an approach to reality and problem-solving that encourages not multi-faceted perceptions but, rather, dualistic, either-or choices. The conceptualization of a polarized reality leads to decision making in which the selection of one choice means the automatic elimination of any other possibilities. In supporting such singular choices, dualistic perceptions invariably limit the parameters of assessment. For example, once a child is identified as Hispanic, aspects of that child's culture that spring from association with an Asian grandparent may be overlooked. Determination of relative language proficiency, a concept which includes the full assessment of proficiency in both English and the child's non-English home language(s), is typically given less weight than the identification of language "dominance." Parents are seldom asked, "What languages do you speak at home with your children?"; rather, they tend to be asked, "Is English spoken at home?" The complexity of sociocultural reality cannot be captured by such yes/no choices. Rather, rich "essay" questions must be posed — both explicitly, in interactions with families, and implicitly, through the assessment situations we structure.

Polarization of "individuality" and group identity(s). One area in which polarized perceptions can be particularly troublesome is the area of identity. The behaviors, values, attitudes, and other aspects of identity developed by any particular child result from a unique synergy of both individual factors (e.g., personality, genetic endowment) and sociocultural factors (e.g., behaviors modeled and reinforced by the particular group(s) of people with which the child affiliates). To view a child's individuality with no consideration of his or her group affiliation is to deny the reality of culture. On the other hand, to see only group membership is to deny the rich variability among human beings — that is, to stereotype. Socioculturally competent assessment requires the integration of **both** perspectives.

Some groups with which a child is affiliated may have a name with a specific meaning (e.g., Navajo, first-generation German-American); others may not (e.g., middle-class, suburbanite). In any case, there are always groups or communities of people in the life of every child that influence and shape the ways in which that child learns to express his or her individual identity. In getting to know a child, the assessor must consider both individual and communal or sociocultural factors. The assessor must also understand that communities themselves vary in the way they value group membership and identity in relation to "individuality." Without these basic understandings, the assessor will have difficulty in both getting and interpreting information.

Neglect of mediation as a planned part of the assessment process. Assessment has traditionally focused on the appropriate use of specific procedures or instruments. Yet the core of any assessment is communication — the transfer or extraction of information and meaning between two or more persons. When the realities represented by these persons are diverse (that is, they are likely to attribute different meanings or values to the same behaviors), a conscious bridging process must precede the use of any procedure or instrument.

Mediation is proposed here as such a process — as a **pre-conflict** strategy that involves the identification and development of optimal social, cognitive and linguistic contexts for the purpose of maximizing the transfer of information (Tikunoff, 1987). An assessor's understanding of mediation in this sense is, ultimately, a better guide to the appropriate application and interpretation of assessment strategies than the assessor's membership in a particular group or knowledge of behaviors associated with such membership.

A focus on the need for **language** translators or interpreters oversimplifies the challenge of communication across diverse sociocultural contexts. The **words** used in any situation are only a small part of the communication taking place. Underlying the words we speak is our "real language" — a language of values, beliefs, world views, perceptions, and feelings. It is this deeper language that must be understood.

Diversity that springs from varied sociocultural affiliations is a complex and seldom explicit phenomenon. Much of anyone's competent participation in a particular group comes from unconscious and intuitive (rather than conscious and explicit) knowledge. Thus an assessor's guide to an unfamiliar sociocultural environment should be someone who is familiar with both the child and family's environment and the environment of the educational, caregiving, or therapeutic setting(s) into which the child being assessed may be placed.

The term "culture-language mediator" has been developed to describe such a person (Barrera, 1989). The culture-language mediator has a dual responsibility: 1) to assist the service provider(s) in becoming aware of any unfamiliar values, behaviors, language, and rules that are part of the family's environment; and 2) to assist the family and child in becoming familiar with any unfamiliar values, beliefs, language, and rules that are part of the assessment and intervention environment. Culture-language mediators are "bilingual" not only in that they speak and understand the words used in the child's home and those used in the assessment setting; they are also bilingual in their ability to understand and interpret the contexts, values, and meanings underlying those words (and behaviors). They can, for example correctly interpret a missed appointment, or a mother saying that she cannot come to meet her child's teacher "because my husband won't let me." They can also interpret the protocol and behaviors peculiar to assessment interactions.

Steps in culturally responsive assessment

The steps involved in carrying out a culturally responsive assessment are not, in themselves, significantly different from those required by any assessment. The goal of all assessment is to capture a child's abilities and needs in an optimum fashion. There are aspects of each step, however, that are especially critical when assessing young children from sociocultural backgrounds unfamiliar to the assessor(s). The key aspects of each step are discussed below. For further detail, readers should consult the reference list.

Step 1: Gather background information. The child being assessed is only the "foreground" of the total picture. It is, therefore, important to identify the background against which that foreground is framed. If it is a background similar to that which frames the assessor's reality, his/her perception and interpretation of the child's development and behavior will, in all likelihood, be consonant with the child's reality as it exists outside the assessment process. If, however, the child's background is different or even dissonant from the assessor's, the assessor must learn as much as possible about its components **before** starting to observe and judge the child's behavior and development.

Gathering information on a child's individual and developmental context is fairly routine in all assessments. It is much less common, however, to also obtain information on the child and family's sociocultural context (that is, features shared by the family with their community or group of affiliation). Yet it is this context that forms the environment within which individual and developmental features acquire particular interpretations and weights. It is, in fact, this context, as defined by the education and special education community, that has given assessment items their standardized interpretations and weights.

At least three dimensions of sociocultural context are of significance for service providers seeking to assess the needs and strengths of young children and their families:

1. **The communicative-linguistic dimension** — rules and patterns for appropriate and valued communication, including, but not limited to, the specific language used;
2. **The personal-social dimension** — rules and patterns for developing and expressing one's identity and for interacting with others; and
3. **The sensory-cognitive dimension** — preferred and valued ways of identifying and processing information about the world (for example, multiple intelligences, learning strategies).

The first step in a culturally responsive assessment involves getting information about how these three dimensions have been structured in the child's environment and about how the child has, in turn, learned to structure them for himself or herself. Typical assessment items and procedures reflect certain assumptions about each of these three dimensions — assumptions that do not typically hold true for children and families from identified diverse populations. While individuals all have particular dispositions, talents, and personalities, their social group(s) reinforce, value, and reward them for some choices over others. Without knowing about the child's experience, it is not possible to understand whether observed behavior indicates a need or a strength.

Much of the available information about identified diverse populations (see, for example, Lynch & Hanson, 1992) addresses these three dimensions. It is important to carefully evaluate such information before applying it to individual children and families.

Step 2: Hypotheses formulation. Once initial information — both individual and sociocultural — is gathered, the next step is to formulate hypotheses about what changes in typical assessment procedures and materials may be necessary. The following questions must be answered explicitly, rather than implicitly through the use of pre-set procedures and materials:

1. What is the optimum communicative-linguistic system to use for assessment in order to elicit strongest responses (e.g., English? Tewa? Close distance and touch or greater distance and no touch? Questioning? Modeling?)

2. What should the content of assessment include (e.g., manipulatives? interpersonal behavior? functional behavior?) What content will elicit the truest picture of the child's and family's strengths and needs (e.g., Will using blocks give the truest picture of eye-hand coordination?) ?
3. What context(s) would be optimum? What environmental or situational features would be most appropriate (e.g., indoors or outdoors? At home?)? What relational and temporal features (e.g., with caregivers presenting tasks? Timed? Unfamiliar adults?)?

Step 3. Active assessment. Following the formulation of initial hypotheses, more structured interactions with the child and family can be started. These interactions are primarily aimed at obtaining two types of information: 1) identifying what the child knows and can do within his/her current environment; and 2) identifying learning abilities, strengths, and needs vis-a-vis new sociocultural environments (e.g., an intervention setting). Typically, assessments tend to focus primarily or exclusively on the first, with the assumption that it closely resembles the second.

During these interactions, information is gathered and hypotheses about how to best support and stimulate development are refined as necessary. It is especially important to distinguish observations from inferences during this process of information gathering and hypothesis formulation. The process of this step can be likened to a "clues and guesses" process: clues are yielded by the data and lead to certain guesses about strengths and needs; then additional clues are sought to confirm or deny the validity of the guesses. While all assessment follows this clinical process to some extent, the need to recognize its tenuous nature is especially important when diversity is present between assessor and family.

Step 4: Analysis and interpretation of information. Interpreting observational data involves making informed judgments. An observation such as "The child, who was two years old, preferred to work with mother and seldom initiated activities independently" can be interpreted in various ways, depending on sociocultural variables and expectations. A typical inference (e.g., the child lacks independent exploration skills) may or may not be accurate, depending on these variables and expectations. It is only when such inferences are reviewed critically that correct judgments can be made about whether the child's behavior is appropriate within his/her most familiar environment(s) (and thus probably reflects intact learning abilities) or is not (and thus may indicate limited abilities to learn).

It is not enough simply to note the presence or absence of behaviors; it is also critical to identify what such absence or presence reflects. Questions such as the following need to be addressed:

1. Is the child exhibiting age-expected behavior and skills for his/her community and peer group, thus indicating learning abilities on a par with peers (though perhaps below norms and expectations used by the assessor)?
2. If so, are these behaviors and skills adaptive for the environments the child will be entering as he/she leaves home (e.g., will they serve the child well in these new environments?)? If not, how can they be used as resources for developing the additional behaviors and skills needed for competent participation in the new setting?
3. If the child is not exhibiting age-expected behaviors and skills, has there been an opportunity to learn them? Has the child had opportunity and been unable to benefit from it? Does this inability indicate inherent learning impairment(s) or "temporary" impairments resulting from trauma or abuse?

Step 5: Reporting findings. How the results of the assessment are reported can be very significant. Many times, the greatest bias lies not in the actual assessment but in how the data is reported (i.e., standardized scores are reported without mention of correct responses obtained outside of the standardized procedure; language levels are reported with indication that a translator was used, without mention of the fact that the translator was an older sibling unfamiliar with the assessment process or with the tasks presented). All too often, data such as that in the examples above is omitted and insufficient information for valid judgments given. Beyond a child's performance, it is important to report how that performance was elicited and measured (e.g., what items were presented? How familiar or unfamiliar were they to the child?). Information about community behavioral expectations — for both children and adults — is also important (e.g., are children in this community expected to attempt responses in a trial and error format?). Only with this kind of information can the service provider make judgments about what represents a behavior typical for a particular group or community and what represents an individual difference which, even within the group or community, may be considered limited. In general, a child who is developmentally on a par with peers in his or her community has intact learning and language abilities.

Step 6: Program/intervention development. The cycle of assessment is completed with the development of specific goals, objectives, and strategies. In thinking about sociocultural diversity and young children, the goal is to help children learn to function in as many settings as their developmental capacities allow — to give them the choice of competent participation in multiple settings. Both the child's relationships within home and community and his or her broader life options must be weighed (but not in a polarized fashion!). Are monolingual English-speaking classrooms or medical settings likely to be a major part of the child's future? If so, how can one prepare the child for those settings while maintaining and strengthening current connections to quite different home and community environments?

Early childhood assessment is an awesome task, with life-changing implications for those assessed. We can literally step into and radically change lives. This aspect of assessment dictates that we be as competent as possible, especially in relation to social worlds different from our own.

Conclusion

Assessment procedures, materials, instruments, and interactions are all embedded in particular world views, expectations, values, and behaviors in mind. When these world views, expectations, values, and behaviors reflect those of both assessor and family, the likelihood that valid information will be obtained and accurately interpreted is high. When they do not, the potential for error is equally high. Careful thought must, therefore, be given to the use of assessment procedures in the context of diversity. Children and families identified as culturally/linguistically diverse challenge the basic premise of much of current assessment — that the behaviors of individual children can be meaningfully elicited and interpreted according to preset, group-referenced expectations and criteria. This challenge is a gift. May we all receive it with reverence.

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New Visions for the Developmental Assessment of Infants and Young Children: A Parent's Perspective

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This essay is adapted from a plenary presentation at ZERO TO THREE's Eighth Biennial National Training Institute, held in Washington, D.C. in December, 1993.

I'm Jason's mom.

My job is to talk about the assessment process from a parent's point of view — what it feels like, what we hear, and what would make it better from our perspective. I'm a battle-scared veteran of twelve years, but I can remember those assessment days in early intervention as if they were yesterday. After the first disappointing assessment, when Jason was nine months old, I'd face each new evaluation with a mixture of hope and dread. Would Jason have caught up? Had we "fixed him" yet?

Despite the smiles and warmth of the early intervention staff, I'd be tense. The protocol was that I would be asked to sit directly behind Jason's chair (so as not to distract him from the task at hand). As he graduated from one intervention program to another, I was asked to watch from behind a two-way mirror. My preference, of course, was to be in the same room with Jason so that I could at least reassure him with my presence — maybe sneak in a little pat on the back.

In or out of the room, I was always assigned the role of observer. I guess I was lucky, though. Some of my friends whose kids went to other programs were not allowed even to observe the assessment process. We parents decided that the team was afraid we'd learn the assessment protocol and cheat by teaching our child the specific skills required by the assessment. They were right, you know. I spent fruitless hours between evaluations trying to get Jason to stack four blocks or to point to the flashcard with the red wagon. It didn't dawn on me to tell the assessment team that there were no red wagons in our real life.

The timing for the assessments was fixed — they were scheduled for Jason's normal therapy times with little flexibility, and it was nearly impossible to reschedule. What little flexibility we did have faded by the time he was a preschooler. Assessment teams set a date and kept to as strict a schedule as possible. Never mind that he had a seizure the day before. So what if it was past his naptime? Since I was tuned in to his moods and needs I remember mentally assigning "discount points" so that I could later rationalize his poor test scores to myself and my husband.

My biggest frustration was that Jason's therapists would not allow the use of motivators during the assessment process. As I'd sit behind him and watch him ignore command after command, I used to yearn for a box of mints so that Jason could show them what he really knew. Just one measly mint in exchange for his best work! But somehow that was never allowed.

My reassurances that Jason could perform some of these tasks at home (like being able to pluck a tiny candy out of a shag rug with a neat little pincer grasp) or that he was a whiz at some skill that the assessment never covered (like humming the tunes to 40 or 50 songs) never seemed to be incorporated into the assessment results. If the testers didn't witness a skill with their own eyes, then my evidence was considered merely "hearsay."

Sound like Old Paradigm? Absolutely! Have we made tremendous strides in the assessment process over the last decade. You bet! Do we have a way to go? You bet!

Sometimes it seems as if the label swallows the kid whole.

But if you will indulge me for a minute, I'd like to get past the history taking, past the observations, past the recollection of performance data, and talk about how the results of the assessment are communicated to families. I'd like to focus on what parents hear in the assessment process, and how that message affects their short and long range goals for their children.

Certainly when Jason was evaluated (and all too often today), evaluation results tend to focus on deficits and ignore strengths. What is Jason not doing that he should be doing? Or conversely, what is Jason doing (behavior-wise) that no "normal" kid his age would do? My friend, Joyce Metzger, still calls her son's evaluations Glen's "Can't Do Reports."

Often clinicians talk to families about "how far a child is behind" in meeting a developmental milestone. The whole concept of developmental **delay** was confusing to me. I took it to mean that Jason was behind in many areas but had the potential to catch up and be "normal." I began to place inordinate attention on helping him "catch up." When the next evaluation showed him even further "behind," I took that as an indictment against my parenting skills. I figured that if Jason was scoring the equivalent of D's and F's on his assessments, then I was clearly flunking early intervention, too! After all, I was his main caregiver.

Sometimes the deficit is portrayed as the lack of some ability — a lack of attention, a lack of speech, a lack of fine motor coordination. There is an ancient Yogic expression — "what you put attention on grows in your life." When we parents focus totally on what's wrong with our children, that's all we see.

Which brings me to the issue of labels. Most parents who have not had much exposure to disability before their child is diagnosed react at first to a particular disability label based on the negative stereotypes and imagery they have seen portrayed in the media. Sometimes it seems as if the label swallows the kid whole. Jason had acquired a number of labels by the time he started preschool — speech delay, epilepsy, cerebral palsy, pulmonary stenosis, Transposition of the Great Vessels, severe mental retardation. I was only marginally depressed by all these negative labels until we were sent for a psychiatric consult by our diagnostic team. A letter sent by the psychiatrist (a month later) to Jason's school contained the most crushing label of all —Atypical Pervasive Developmental Disorder. The letter came without any explanation or practical information about what kind of support would be the most helpful.

With such an emphasis on deficits and diminished expectations for future success, we parents generally begin to look for a way to thwart these negative prognostications. At the very best, we want a miracle cure. At the least, we want professionals to fix our kids to the best of your ability. If our toddler isn't walking, then how about physical therapy five times a week? We begin a frantic search for programs, and treatments and experts. We're putty in the hands of the traditional treatment-focused, top-down approach to intervention. We believe implicitly that professionals have all the answers and, therefore, all the power. We are powerless, except in our ability to manipulate the system.

I was never more powerless than when Jason was at Columbia Presbyterian Hospital as an infant recuperating from heart surgery. We spent three months there, fighting off one life-threatening complication after another, watching other people provide all of Jason's care. I quickly took on little tasks that I could do to help out the nursing staff — scout out blue baby blankets, run for coffee, keep track of Jason's "numbers" for the next shift. As time crawled on, I became more assertive. I was the watchdog perched at Jason's cribside, asking questions, making sure that each new shift of nurses and medical students and residents were aware of his needs and priorities of the moment. I used to sneak a look at his chart when no one was looking and memorize his blood gases. But despite these small attempts to gain back some of the control over Jason's care, I knew who had the Real Power.

Thereafter, whenever a new label was placed on Jason, I'd get a resurgence of that feeling of powerlessness. It was as if suddenly we'd been transplanted to a foreign world where I knew none of the language or customs. We were dependent on professionals and special programs to lead us out of the Wilderness.

Often we parents never stop to think of the price we pay for this over-emphasis on therapeutic interventions and specialized programming. We forget about our children's social-emotional needs — since they typically are not a focus of the assessment. We overlook our children's fundamental need to belong — working instead to place them in segregated facilities with special treatments and low staffing ratios.

How can professionals re-phrase messages to families to present a more positive expectation? How can we all make the assessment process an important opportunity to find out what children **can** do and what they are ready to learn.?

Well, we can begin with an emphasis on strengths and abilities.

Then we can de-mystify and de-magnify labels. We can sit down with families and tell them exactly what a particular diagnosis means in practical terms without reinforcing negative stereotypes or expectations. (A recent study by the Beach Center found that parents of children with Down Syndrome gave high marks to physicians who "avoided making predictions that limited their baby's potential or future quality of life.")

I applaud the American Academy of Mental Retardation for its recent reclassification of mental retardation, which recognizes strengths and goes on to define a system of support for each individual. They have also done away with the traditional pecking order of retardation — no more "severe" or "profound" labels. We all know how negatively weighted these subcategories are. Reflecting that awareness, Assistant Secretary of Education Judith Heumann has issued a call to the field to gain comments on whether the word "severe" should be replaced with the word "significant" in reference to disabilities. I look forward to a day when labels become irrelevant.

We need to help families see that the disability or the label is just one small piece of who the child is. We need to stress that these are ordinary children with somewhat extraordinary needs for support. It's up to us to plant these positive visions until the rest of mainstreamed society catches up. Until one mother's dream is realized that the birth of every child be celebrated.

These are ordinary children with somewhat extraordinary needs for support.

Judy Walker, the director of Pilot Parent Partnerships in Arizona, says that it isn't always true that parents are devastated by the fact that their child has a disability or even by the label itself. Rather many are devastated by all the negative things that people say or by the condolences they offer. Believe me, you can make a difference by emphasizing abilities and by acknowledging the family's expertise.

My friend and guru, Norman Kunc, said something about expertise that was very empowering to me. He said that expertise has a lot to do with experience. Often parents look to professional experts to diagnose a problem or to offer advice on behavior, and they fail to realize that they possess rich expertise of their own, because they are experts on the children. And the child is always bigger than his disability label or his behavior at one point in time. It is in the new vision of developmental assessments that parents and professionals truly share their expertise.

Above all, we need to focus on the supports needed to live a quality life in the community. There's a great quote I read somewhere that says, "the emphasis in early intervention must not be on creating nearly normal children but on enabling children and their families to have normal life opportunities." It is time that all children share in the embrace of relationships and experiences which lead to enhanced quality of life.

I'm beginning to see the potential of early intervention to reverse the negative, tragic, deficit-fixing mindset that parents may fall into when they find out their kid is different. If we could start right there convincing parents that different is O.K. — that we truly value diversity and do not just tolerate it — then we could restore a sense of normalcy to families. If we could show parents that their child's disability is just one small part of who they are, then we could get away from the perception that quality of life is inversely related to degree of disability. We wouldn't have to take away parents' dreams for their children. Well, maybe we could help restructure them a little, but they would have fine dreams intact.

You know, my dreams for Jason have taken on a whole new flavor since he has been included with children his own age in regular education classes. I used to think the best we could hope for was a loving caretaker after I was gone and some extra frills to supplement his SSI checks. But you know, kids don't have the hang-ups we adults do when it comes to disability. Jason's classmates are able to see Jason's gifts and overlook his disabilities. Their dreams for Jason are that he have a normal life, that he has a job that he enjoys, that he has friends who accept him for who he is, that he gets rich!...oh, and they want him to get a lowrider with hydraulics and learn to drive.

We need to listen to what these kids are saying. We need also to listen to what many people with disabilities are telling us — there is no pity or tragedy in disability.

What we're talking about here is planting the seeds of **hope**. An old Chinese proverb says: Hope is like a path in the country; there never was a road, but when many people walk on it, it comes into existence.

Family-directed Evaluation and Assessment under the Individuals with Disabilities Education Act (IDEA): Lessons learned from experiences of programs and parents

Carol Berman (ZERO TO THREE/NCCIP) with major contributions from Betsy Ayankoya, Jo Shackelford, Evelyn Shaw, Mary Shields, Janie Ward-Newton (Frank Porter Graham Child Development Center, University of North Carolina at Chapel Hill) and Joan Melner (ZERO TO THREE/NCCIP)

The first experience of a family with an infant or toddler who may need early intervention services typically involves a process of identification, evaluation, and assessment, in which the need for services is established and defined. Ongoing evaluation and assessments continue to help us understand the strengths and developmental needs of the child and family, and help to guide the direction of intervention. Such opportunities are highly significant to the family, and to the service provider as well. Depending on the program and the degree of a child's disability, the initial evaluation to determine eligibility for services and subsequent re-evaluations for that purpose may be seen as a "rite of passage" into early intervention or as a "threat" to entitlement. The degree to which families are active in the assessment process is likely to influence the performance of the child, the extent of follow-up, and the relevance of the assessment in guiding the child's developmental program. Evaluation or assessment is a part of a continuing process, linked to early intervention or other recommendations. There should be some useful element in each and every encounter.

Family-directed evaluation and assessment under IDEA

Part H and Section 619 of Part B of IDEA both address family involvement in evaluation and assessment processes, but with different emphases. Child assessment under Part H includes identification of the "resources, priorities, and concerns of the family" (20 U.S.C. 1477 (d)(1)). Family assessment under Part H is defined as "family-directed and designed to determine the resources, priorities, and concerns of the family related to enhancing the development of the child" (20 U.S.C. 1477 (d)(1)). Family assessment is voluntary and, if carried out, must be "based on information provided by the family through a personal interview" (20 U.S.C. 1477 (d)(2)(3)).

When the NEC*TAS staff began interviewing parents and professionals for this paper, it quickly became apparent that many terms are used to describe how families are involved in the assessment process. The terms "family-focused," "family-friendly," "family-driven," "family-directed," and "family-guided" tend to be used interchangeably by some people, and used with specific meaning by others. All of these terms convey to some degree the general philosophy of family-centered care which recognizes the family's constant, central role in the child's life and places family priorities and values over those of the professional or the agency. Although the differences in terminology may appear to be minor, each term does suggest a difference in emphasis and in the family's role.

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*The following article is an adaptation of a lengthier report by the same title, to be released by the National Early Childhood Technical Assistance Center (NEC*TAS). The report and this article were a team effort, developed from contributions by many staff of NEC*TAS under U.S. Department of Education contract # HS-91-01-1001, projects supported under the Early Education Program for Children with Disabilities (EEPCD), and parents of young children with disabilities. A team of NEC*TAS staff convened to plan an approach to helping state and project grantees learn from one another around the topic of family-directed assessments. Several EEPCD outreach projects with activities or models that are particularly relevant to the topic were selected because of their proven models and dissemination responsibility. Questions were reviewed by the team, who then paired off to conduct interviews of project directors or coordinators, and of parents known to these projects. NEC*TAS staff who planned, conducted, and summarized interviews are cited above as contributors. Special thanks also to other NEC*TAS staff involved in planning, reviewing drafts, or both: Joan Danaher, Nancy Guadagno, Evelyn Hausslein, Joicey Hurth, Trish Isbell, and Pascal Trohanis. Projects and their leaders included ACTT Outreach: Activating Children Through Technology, Patricia Hutinger, Carol Schneider and Linda Robinson (Macomb, IL); AEPS Linked System of Assessment, Intervention and Evaluation for Early Intervention, Diane Bricker (Eugene, OR); Family, Infant, and Preschool Project (FIPP), Angela G. Deal (Morganton, NC); Medically Fragile Inservice for Related Services Team (M-First), Pat Haley and Janet Valuzzi (Portland, OR); NICU Follow-Through Project, Rodd Hedlund (Seattle, WA); Project Continuity Outreach, Barbara Jackson and Joanie Dinsmore (Omaha, NE); Project Dakota, Linda Kjerland (Eagan, MN); Project Vision, Lawrence Ingalls and Helen Hammond (Moscow, ID); and Trans/Team Outreach, Corinne Garland at (Child Development Resources in Lightfoot, VA). Parents who contributed to this study were: Lisa & Roger Bailey, Denise Booth, Renee Dulin, Ken and Lynn Gillies, John and Teresa Guthman, Kelly Perron, Barbie Perry, Michael and Nelda Thompson, and Glenda Witt. All were generous of their time, knowledgeable, and immensely interested in sharing what they know with the field. Their contributions greatly enriched our thinking and understanding by providing tangible experiences and recommendations.*

The NEC*TAS team elected to use the term "family-directed" because it suggests an active role for the family throughout the evaluation and assessment processes. Parents and project staff whom we interviewed emphasized that if professionals relate to families in a way that is friendly and supportive, but fail to allow families to determine the outcomes they desire, then evaluation and assessment will fall far short of meeting the needs of the child, of the family, and, ultimately, of the agency. Effective evaluation and assessment practices are respectful of parents and the primacy of their role in their child's care and education. The term "family-directed" offers a suitable expression of appropriate parent participation in the process.

Throughout the interviews with project personnel and parents, a number of key concepts emerged relating to assessment and evaluation practices, many of which have policy implications.

Characteristics of successful family-directed assessments

Child assessments that are family-directed value parents as experts, respect their time, and show respect for individual differences; values; and preferences, including cultural and linguistic differences. Family-directed child assessments provide information to families in a timely way, and offer written materials with careful explanation, opportunity for their input, and follow-up. Family-directed evaluations and assessments take place in the setting and at the time that works best for the family and child. This is sometimes the family's home, where developmental assessments may capitalize on such daily activities as play and mealtime. Virtually every family member who talked about good assessment experiences had been interviewed beforehand and had known what to expect.

Assessments that are family-directed integrate the health assessment into the process. Even for children who are not medically "involved," the medical/pediatric interview may uncover insights that can be very useful, or a health need (such as allergies) that has an impact on learning. Hence, effective communication between early intervention and health care personnel during the evaluation and assessment processes is important.

For many children and adults with conditions that are disabling, technology makes evaluation and assessment possible. For some severely involved children, technology may be the *only* means by which their abilities can be accurately assessed, and by which they can reach their potential. In these circumstances, assistive technology (AT) is an inseparable part of the evaluation and assessment process, both in terms of obtaining optimal information about the child, and in planning appropriate interventions.

Key concepts brought to the attention of the NEC*TAS team are summarized below, and have been clustered into issues affecting: (1) families; (2) processes or procedures; (3) personnel qualifications; and (4) the service system.

The Individuals with Disabilities Education Act (IDEA, Public Law 102-119, 1991) provides grants to states and jurisdictions to support the planning of service systems and the delivery of services, including evaluation and assessment, for young children who have or are at risk for developing disabling conditions. Funds are provided through the Infants and Toddlers Program (known as Part H of the IDEA) for services to children birth through two years of age and through the Preschool Program (known as Section 619 of Part B of the IDEA) for services to children three through five years of age. To assist states and jurisdictions in meeting the challenges of implementing IDEA, the U.S. Department of Education's Early Education Program for Children with Disabilities (EEPCD) sponsors a wide variety of research institutes and model demonstration, inservice training, data system, and outreach projects. Outreach projects specifically are funded to assist states in identifying and implementing system and service delivery models, model components, and personnel training approaches. The National Early Childhood Technical Assistance System (NEC*TAS) promotes IDEA implementation in its role as a national technical assistance provider. Part of the mission of NEC*TAS is to facilitate the linkage between states and jurisdictions and EEPCD projects.

Family issues

1. *Valuing parents as experts.* Programs with family-directed assessments see that parents have input at every step. An environment is created in which parents are made to feel comfortable about contributing as extraordinarily important members of the team. Effort is taken to give parents background information about procedures that they have observed. At Child Development Resources in Lightfoot, Virginia, assessment reports are stamped "Draft" and mailed to parents for review and comment. In this way, the program emphasizes that input is still being sought, especially when a report has been typed for readability and therefore looks more final than intended. **Roger and Lisa Bailey** told us why they were satisfied with services at the AEPS in Eugene, Oregon headed by **Diane Bricker**: "Testers tell us how they are going to test, what they will be looking for, information about the test, what to *expect*. They did their own testing, made their own observations, and asked us what (our child) did at home. There is no way one individual can figure out a child. We feel it's very important to take information from parents." **Ken Gillies**, whose child was seen at Project Dakota in Eagan, Minnesota, said: The professionals in

any family's case need to be the *listener*. It's hard for people in our structure of society to take on that role. Unless you have gleaned significant information from the family, you aren't in a position to offer any opinion."

2. ***Nature of family involvement.*** There is considerable variability as to the role and degree of control families want to assume in evaluation and assessment, and for that matter, throughout early intervention.

Some parents may want to be more active than others in making decisions and in service coordination. **John Guthman**, a Minnesota parent told us: "We asked questions; not all families do. Especially for the initial assessment, when they don't know what to expect. They are not in a comfortable place, or they may [expect to] hear bad news....Parents should not be sitting in the bleachers." Even if parents choose to do no more than observe, the process of engaging them as "active" observers is still a step in figuring out the *family's* desired outcome for the child. **Glenda Witt**, who had experienced family-directed assessments at Child Development Resources in Lightfoot, Virginia, put it this way: "If the family doesn't feel involved, nothing will change."

By and large, professionals and parents we interviewed strongly favored a very active role for families, participating in every aspect of evaluation and assessment.

3. ***Presence of parents and other family members during evaluation and assessment.*** It is inappropriate to evaluate a young child without the presence of someone who knows the child very well, particularly if eligibility for services is at stake. Most parents want and need to be present, particularly when the child is an infant. Macomb, Illinois parent, **Denise Booth**, who liked the fact that a sibling was included in the assessment process, mentioned the use of videotape to capture the interaction between the sibling and the child whose development is being assessed. This has implications for assessments scheduled in child care programs or other community settings, which can be convenient for families and professionals alike. **Renee Dulin**, a parent with the Family, Infant, and Preschool Program (FIPP) in North Carolina, speaking of both the need for preliminary home visits and a parent presence, said: "A family with a special needs child spends a lot of time with medical strangers. It is so important for the parents as well as the child to have a familiar face present on assessment day. Personally, I can't imagine having to endure an assessment with a child younger than school age without being allowed to be present. I would not allow my child to be put into a room with strangers and be expected to perform (optimally). An assessment of this type is unfair to the child and to the team members."

4. ***The term "family assessment".*** Reflecting the shared view of everyone we interviewed, that families and professionals work together in partnership, **Linda Kjerland** of Project Dakota in Eagan, Minnesota, prefers "family information gathering" to "family assessment," a term that is often misunderstood. She highlighted the need to clarify that professionals in early intervention are not being asked to intrude upon the privacy of families, but instead to provide opportunities for families to choose to share challenges for which they want help and support. An interest in determining "the resources, priorities and concerns of the family related to enhancing the development of the child" (20 U.S.C. 1477 (d)(1)) does not mean that it is appropriate to inquire about intimacies of family life. Further, many parents object to the use of a family assessment form which emphasizes them, rather than the child.

If there is to be respect for the individuality of families, and the differences among them, a system should not be set up which meets the requirement for family-directed assessments by simply adding a form for the family to complete. **Linda Kjerland** put it this way: "The worst mistake we can make is to think we have met the intent of the law by having families fill out a form instead of shaping the whole process. Project Dakota suggests tools at every step, so there are constant reminders to be responsive to the family."

Process issues:

5. ***Appreciation for the process leading to a plan.*** Families have a right to expect to be part of planning an assessment process that culminates in a report that is honest and presents what the team knows, and which steers them toward solutions and resources. **Ken Gillies** thought the term "discover" might better describe what the process should be, rather than "evaluation and assessment." He said: "When I hear the word `discover' sunshine pops into my mind. But `assessment' and `evaluation'—you think of piles of paper and raised eyebrows. That's not the purpose. It's to get good things for our child." **John and Teresa Guthman** said, "Assessment is part of an ongoing process of setting goals." This emphasis on learning about the child in a way that will help plan for desired *outcomes*, rather than merely arriving at a label or score, was a common theme gleaned from our interviews.

6. ***Importance and impact of every interaction.*** Every interaction that occurs between parents and professionals is an important event. We affirmed in our interviews that those contacts can be warm, exhilarating, fearsome, or devastating. Parents often dread an experience in which they feel their child is being judged, and for that matter, so are they. Evaluations and assessments by professionals or teams who fail to express any positive findings can be demoralizing and can un-

dermine relationships between parents, between parent and child, between parent and professional.

Attention should be paid to nonverbal and situational cues. Behaviors of professionals — the way a child is held, gestures, smiles, openness, even the way the appointment is made, or the staff's preparedness for the child and family — can be as illuminating as what is said. **Barbie Perry**, whose child had been followed by CDR in Lightfoot, Virginia, described a family-directed experience this way: "(My child's) name was on the paperwork when I got there. I knew this was where she was supposed to be."

7. *Providing necessary information at the most opportune time.* The goals and purposes of assessment should be articulated from the beginning, before the actual assessment, so parents know what to expect. This "pre-assessment" communication allays fears as well.

Nelda Thompson, a parent satisfied with family-directed assessments at FIPP in North Carolina, talked about the need to periodically check with parents to see what they need in terms of materials or information. Neither written materials without follow-up, nor discussion without written materials is sufficient. To the extent possible, materials should be individually tailored for a particular family.

Parents want to have the same kinds of information that is available to the professionals on the team. Information about test scores or a diagnosis should be provided with explanations. Fact and opinion should be clearly distinguished. Available options for resources are needed if the parent is to be able to participate fully in team decisions. **Roger and Lisa Bailey** said: "Parents may not know what questions to ask. It helped us when someone said, `These are the options' and `Here's what I think I see' and fed us questions....It's important to have a multidisciplinary team assess the child. You get an amazingly complete and accurate picture and it helps you to come up with appropriate goals."

Parent-to-parent support was particularly helpful to some of the parents we interviewed, including **Ken and Lynn Gillies**, who suggested that programs may need to overcome the attitude of "we know what's best" to connect parents to someone who has "been there."

8. *Flexibility and timing.* Virtually every family member who talked about good assessment experiences had been contacted before the assessment, perhaps through a home visit. Because they had been prepared beforehand, they had known what to expect. In contrast, parents who were dissatisfied with evaluation and assessment procedures feel that they had little say in the arrangements. The system needs to allow for an evaluation or assessment to be conducted in a setting and time that works best for a family and child. **Renee Dulin** said: Trust is very important. You can't do that 'til you are comfortable....If it was naptime, nursing time, whatever (my child's) needs were, they came first." In contrast to her family-directed evaluation at the AEPS program, Oregon parent **Kelly Perron** characterized a less positive experience elsewhere: "We were there from 8:30 a.m. until 12:15 p.m. We had no preparation. I didn't bring a snack. As a result, I had a cranky, tired and hungry baby."

Corinne Garland of the Trans/Team Outreach Project housed at Williamsburg Area Child Development Resources (CDR) in Lightfoot, Virginia, stressed flexibility as a cornerstone of family-directed assessments, noting that families differ widely, and that every assessment team may require a different level of preparation, composition, and level of support to engage parents as active participants. In her program, transdisciplinary arena assessments often are used, a technique which typically involves a facilitator (*serving as primary interactor/contact with the child and family during the assessment process*), coach (*serving as support to facilitator, reminding them of possibly missed items or reflecting on what could be done to enhance the assessment*), observers (*serving as multidisciplinary "eyes and ears," each bringing with them experience from a variety of backgrounds and training to this process*), and parent(s) (*serving as additional evaluators, givers of input and observers*) in a planned observation process.

9. *Instrumentation and informal measures.* With respect to use of standardized and informal measures, the shortcomings of current instrumentation should be acknowledged. When we use formal measures, we need to be fully familiar with them, and with their standardization. Further guidance on these concepts is available in other NEC*TAS reports (*See* Meisels and Provence, 1989; and Biro, et al., 1991).

Corinne Garland emphasized that we may be asking the wrong questions when we restrict ourselves to the parameters of standardized instruments. Important questions that should be asked include: What is the child capable of doing? What is the best we can elicit from this child? Would assistive technology help in drawing out optimal performance? What kinds of help might this child need?

A common theme we heard was the need to recognize and respect the accuracy of parent reporting, the information that can be gleaned from observation of play, and the difficulty in eliciting a representative sample of a young child's behavior. We need to check with parents to know whether we saw a representative sample of the child's abilities. Consideration of the child's health, medication, fatigue, and other factors is important, and family members are likely the best informant as to the caliber of a child's performance. Professionals need to verify their observations with parents.

One method of assuring that staff and family perceptions are blended is the use of a collaborative description of the child. Project Dakota adapted transdisciplinary post-assessment discussion methodology and integrated elements of the McGill Action Planning System (MAPS) by Marsha Forest into a functional team activity. In this collaborative description, families and staff cite child abilities, interests, motivators, and things to celebrate, as well as concerns, frustrations, worries and desired next steps. From this, the team draws conclusions and key priorities for planning.

10. *Integrating health evaluations into the total evaluation*. Good information about a child's medical diagnosis and health status is of vital interest to developmental programs, including how health status influences the child's development and what, if any, restrictions health status places on the child. Information from the health evaluation can lead to more appropriate programming for a child and may uncover a physical basis for learning difficulties or lack of progress. Health professionals also want information from developmental assessments. The importance of integrating health assessments into the evaluation process for children with special health care needs, and for children who are not medically involved as well, was emphasized in our interviews with **Barbara Jackson** and **Joan Dinsmore**, of Project Continuity in Nebraska, and with Pat Haley and Jan Valuzzi, of the M-FIRST Project in Oregon and Washington. Child assessment must include an assessment of health needs. Information from health evaluations should be interpreted and integrated in a child's daily program.

Project Continuity staff members emphasized that families are often the conduit of information from health care professionals to other professionals. Similarly, **Rodd Hedlund** of the NICU Fellow-Through Project in Seattle, stressed the importance of making developmental assessment information available to medical/health personnel in hospital settings. In any case, it is important that information be written in language that is easily understood by everyone.

11. *Technology in assessment and evaluation.* Technology makes things easier for most people. One parent, **Denise Booth**, said, "Technology will open the door for my child." **Patti Hutinger**, **Carol Schneider**, and **Linda Robinson** from Project ACTT (Activating Children Through Technology), in Macomb, Illinois, emphasized that assistive technology (AT) should be an inseparable part of the assessment and evaluation processes, both in terms of obtaining optimal information about the child and in planning appropriate interventions. In the same way that the concerns and priorities of family members cannot be an "add-on," assistive technology must be an automatic consideration in the Individualized Family Service Plan (IFSP) or Individualized Education Plan (IEP) for young children with moderate to severe disabilities.

The range of assistive technology is wide; while factors related to its use are complex (such as a child's mobility and the length of time it takes to learn to use a device or system), many AT needs are met with relatively low technology and low-cost solutions. Attitudinal, personnel, and finance issues associated with new advances in technology and evaluation and assessment processes include, for example, overcoming "tech-phobia," system-wide awareness of resources, and allocations for specific devices, repairs, adaptations, and training of children, families and personnel.

Families are most often the initiators of and advocates for technology assessment and intervention. ACTT staff confirm that the majority of referrals for AT assessment come from families. The determination of the purpose of the evaluation should be made according to the families' preferences.

Personnel preparation issues

12. *Qualifications of personnel.* The person who conducts the assessment should be the one who knows the child best, and should be well-trained and experienced. Skills of professionals need to be fine-tuned, to change with the nature of the team, as well as the nature of families. Personnel preparation for early intervention work requires a myriad of experiences. Training should equip professionals: to work with young children and their families; to work with teams that include many disciplines and agency perspectives; to understand and appreciate family-centered, culturally appropriate approaches; to be knowledgeable and skilled in the use of instruments, and yet to understand normal development and recognize when development is compromised so that overreliance on instruments is unnecessary and clinical judgment can be applied; and to understand how to access community resources, including services for children and families, technology or technology training.

Parents were attuned to the level of experience of personnel, and it was important to them. In one instance reported to us, a preschool professional was so inexperienced with assessment practices that it was obvious to the parent, **Barbie Perry**, who then took matters into her own hands and showed the professional which toys from the kit to use and what to do with them. "She didn't know how to pick up babies....I bared my child's soul to a total stranger. We wanted to learn from this. We wanted someone with experience."

In contrast, she described a better experience: "In the hands of trained professionals at CDR, they were prepared and knew what they were doing....I knew the assessment would be fine."

Families' earliest contact with professionals tends to be with health professionals, including nurses, physicians, particularly general practitioners, pediatricians, and local health department personnel. They, and others who have early contact with a child with disabling conditions, need to be aware of the resources available to families. This is particularly critical in remote areas, where there are likely to be few, if any, community providers. One mother, **Denise Booth**, stated that the staff who provided an assessment (far from home) directed her to services she had not known were available in her own community.

13. *Respect for individual differences, values, and preferences.* Enlightened preservice and inservice training programs recognize the significance of understanding and respecting cultural differences when working with families. According to **Helen Hammond** and **Lawrence Ingalls** of Project Vision at the Idaho Center on Developmental Disabilities, University of Idaho, unless professionals understand and acknowledge their own values and biases, judgmental attitudes and prejudices can interfere with family-directed assessment and evaluation processes.

Not everyone shares the same values about what constitutes appropriate child development. Some of the milestones that professionals have come to regard as universal, based on standardized instruments and child development literature, may conflict with what some families expect and want for their child.

Programs that are responsive and sensitive to cultural differences should focus on what constitutes thorough assessments and evaluations and on how to conduct them, rather than on developing a list of traits for a given population. Doing so acknowledges the dynamic nature of culture and its influences in our lives.

Service system issues

14. *Cost in relation to benefit.* **Angela Deal** of the Family Enablement Project (FIPP) in Morganton, North Carolina, pointed out that it is penny-wise and pound foolish to economize by not taking time to understand what the family's questions are and what it is that they hope will happen for their child through assessment and early intervention. Without family "buy-in," teams of professionals may spend time and dollars working toward outcomes that are less likely to be attained or less meaningful to the family. This was illustrated by **Michael and Nelda Thompson's** contrasting of a greatly valued experience at FIPP to one that had been frustrating: "In (one) evaluation, we had no idea what was in store for us....They told us what we already knew....The *reason* for the evaluation needs to be understood." "FIPP was a godsend to us. We don't know how we made it without them. Linda came to our house and established rapport. She was there at the center. Everyone was tuned in. The team watched him play, eat lunch, and be himself, instead of making him perform."

There may be increased costs to assessment when processes are family-directed, associated with the need for flexibility on the part of professionals in conducting evaluations and assessments that will elicit the child's optimal performance and the family's questions, expectations and hopes for their child. In order to make the experience of evaluation and assessment convenient, informative, and supportive of the family-child relationship, such costs might involve staff travel, hours of operation, and other means for adapting to family needs. Such expenditures are relatively modest, yet immensely important (Bennett and Escobar, 1990).

15. *Realistic expectations for policy application.* Just because those who write law and regulations *want* something to happen in terms of practice, and develop a written policy, does not mean that the practice will actually occur. The experience at the grassroots level is not always possible to control by writing a policy.

It was obvious from our interviews with parents that evaluations and assessments are not always family-directed. **Nelda Thompson,** who contrasted her evaluation at FIPP with an experience she characterized as "at the bottom," was aware that family-directed practices are not yet universal. In contrast to what the law and policies would lead her to expect, the evaluation's purpose, in her view, was not for the family, but rather to satisfy the program's own need to fill in some numbers. She needed encouragement and received none. She needed emotional support and got none. Professionals in the program did not believe her personal reports. They did not respect her knowledge. She felt defensive about her child. She saw no purpose in the evaluation and assessment.

Our interviews confirmed what therefore might be expected but which offers a goal for the future direction: there is wide variation in practice, even within a community. Parents, practitioners, and policymakers need to encourage family-directed evaluation and assessment in all programs.

16. *Managing conflicting opinions.* An outcome of an evaluation and assessment should be a common definition of the problem, and common expectations of the course of assessment and treatment.

Professionals and parents we interviewed indicated that families do not want to "drive" themselves through a process that is unnecessary. They do not want to spend more time in evaluation, assessment, or programs than their child needs. It is important for teams to strive for agreement as to service needs, and this is most likely to occur when families have participated in each step of the process.

Denise Booth emphasized that she wanted her views valued, but also respected those of the professionals. She said, "Consider my opinion, and if we see things differently, we can discuss it." Parents stressed the importance of listening and valuing parents' knowledge, expertise and concerns and goals for their child.

Recommendations for policymakers

Following are overarching considerations for those who legislate and administer policy:

- Be realistic about what happens once a law is written. This means that policymakers need to remain vigilant about its application to families. The leap from policy to practice is made difficult when interpretations and nuances are added to legislation or regulation, which then take on a life of their own. To the degree that policymakers are clear as to the *intent* of various aspects of the law, this will provide the guidance that administrators, service providers, advocates and families need.
- Listen to parents. Parents provide a reality check for which there can be no substitute. Federal, state and local Interagency Coordinating Councils might be a useful forum for parents to provide information about their evaluation and assessment experiences. This will help to determine the extent to which practices are widespread and seek to broaden the availability of family-directed evaluation and assessment processes. Invariably, some programs will be better able to conduct family-directed assessments and evaluations than others. Some programs may lack the capacity to conduct evaluations and assessments in a way that is likely to capture the young child's best performance and address the family's priorities. If that is the program a family reaches, then the child and family will not receive the benefits intended.
- Appreciate the value of family-directed approaches, and support costs associated with this very basic aspect of the IDEA. If it is determined by listening to families that evaluations and assessments are not family-directed, it is well worth the effort to take steps to ensure that they are.

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Journey to a Desirable Future: A Values-based Model of Infant and Toddler Assessment

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What is Colorado's vision of a "desirable future" in relation to child identification and assessment? In the desirable future envisioned by the state's Interagency Coordinating Council and the Lead Agency for implementing Part H of the IDEA, **all children** will have full access to periodic, community-based screening services on a timely basis. In our desirable future, there will be enough resources so that every child who has a delay or is **at-risk** of developing a delay will have access to a comprehensive assessment process and appropriate remediation, utilizing existing natural resources within the "new" services and supports model that we are creating. The Assessment Process Model in our desirable future will include parents in key evaluative and decision making roles; will assure that every child is evaluated for his or her strengths and competencies; and will result in a service and support plan which highlights utilization of the child's strengths in a compensatory manner, rather than remediating the child's deficits.

Where is Colorado in its journey to a desirable future? In 1993, the state of Colorado adopted guidelines that defined "preferred practices" for the identification and assessment of young children (Colorado Department of Education, 1993). These guidelines are, we believe, remarkable for two reasons. First, they translate the family-centered principles of Part H of the Individuals with Disabilities Education Act (IDEA) (20 U.S.C. 1400 Et. Seq.)into specific procedural guidelines for the day-to-day interactions that affect the lives of young children and their families so profoundly. Secondly, they are one of the products of our unique approach to the implementation of Part H — a multi-year statewide endeavor that engages parents, state agency personnel, community representatives, university faculty, and clinical practitioners in value-based decisionmaking, leading to the development of a comprehensive vision of long-term systems change, designed to move Colorado to a "Desirable Future."

The development of a values-oriented model

Beginning with its initial meeting in 1987, the Colorado State Interagency Coordinating Council (CICC) has used a "value-based decision making model" (McNulty, 1989) to implement the legislative intent of Part H — "**to enhance the capacity of families** to meet the special needs of their infants and toddlers with handicaps"(EHA Amendments, 1986). Using this model, the Council chose to clearly delineate its values, and then to fund *only* those local community initiatives which were directed toward actualizing this vision. While the vision and values have been clarified by the CICC over time, they have invariably reflected the primacy of the family, focusing on competencies instead of deficits, and valuing diversity.

The CICC values include:

- Children and families are valued for their unique capacities, experiences, and potential;
- Families have the right and responsibility to make decisions on behalf of their children and themselves;
- Communities are enhanced by recognizing and honoring the diversity among all people;
- Families make the best choices when they have comprehensive information about the full range of formal and natural resources in their communities; and
- Creative, flexible, and collaborative approaches to services allow for individual child, family, and community differences.

In actualizing these values, the Council has said that it will fund projects which:

- Use natural settings as the primary location for providing services and supports;
- Provide options for families in terms of the types of services and supports to be rendered;
- With families, develop Individualized Family Services Plans (IFSP) which reflect more than just the services and supports available through the providing agency;
- Demonstrate service coordination which occurs across agency lines;
- Demonstrate innovative ways to use current funding to access generic services; and
- Demonstrate linkages with informal supports.

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The CICC envisions a systems change which over time will impact all **agencies** dealing with young children in Colorado, not just agencies related to Part H activities. By expanding both formal and informal systems, our goal is to identify eligible children earlier, while providing families with more natural supports and services that are specifically geared to their individual resources, concerns and priorities.

Importance of community-based strategies

In the first two years of Part H planning, Colorado focused on **developing the values** which were to serve as a blueprint for all activities in subsequent years. This was a massive effort, incorporating families, a variety of direct service providers, key representatives of all State agencies which provide services to young children and their families, and individuals representing numerous and diverse communities on an ongoing basis. The focus in the early years was on developing **conceptual models** for each of the required 14 components of Part H, including identification and assessment which were consistent with the CICC values.

In the next two years, Colorado concentrated resources on numerous pilot projects in all parts of the state, so that the conceptual models developed in the early years could be implemented and evaluated. In the current two year period, Colorado has adopted a "Community Development Model," funding all communities to develop local ICCs and to engage in thoughtful, change-oriented systems planning. At no point in this six-year process was the provision of direct services to young children and their families the focus of the funding, although along the way children and families have received services. The focus was on creating a system which would be **flexible** enough to deal with individual differences, and **creative** enough to stretch existing funding resources so that more children and families could receive supports and services. This strategy of community-based implementation has allowed us to observe and evaluate a variety of models of implementation, as communities are encouraged to have a wide range of approaches, determined on a local level.

The child identification and assessment process

Because the identification and assessment of children eligible for services and supports represent the beginning of a long road for many children and families, it is crucial that in the assessment process the family is supported and validated for their concerns and perceptions of the child's **abilities**. The child must be viewed within a **competency model** and the parents must be perceived as **capable and responsible**, thus setting the stage for all future interactions with the system. How, then, can a process of child identification and assessment embrace the spirit and intent of IDEA?

The development of a **Child Identification and Assessment Process** consistent with CICC values was undertaken in the first four years of Part H planning and is continuing currently. A large number of focus groups were conducted in Spanish and English for parents of children with disabilities to elucidate the concerns of parents whose children had been through a process of screening or assessment. This information was synthesized and fed back to the "Guidelines Committee," a group of parents, state agency personnel, community representatives, university faculty, and clinical practitioners. The committee studied information from the focus groups, reviewed current "best practices" literature, and consulted with experts in the field in our state. The Guidelines Committee then developed a conceptual model for implementation of identification and assessment consistent with the spirit of IDEA, with active participation and careful review by groups of parents at each stage of the process.

In 1993, Colorado adopted guidelines that defined "preferred practices" for the identification and assessment of young children (Colorado Department of Education, 1993). The **values base** for the process was developed first, followed by specific procedural guidelines. The values for child identification and assessment are apparent throughout the document in the wording chosen and the emphasis on parent-driven choices and options. The values embedded in the document are summarized below, and brief examples of the parent-centered emphasis are provided for each value.

- **Focusing on the process of evaluation rather than the final product (i.e. score, delineation of strengths and "weaknesses" etc.);**

The process must ensure minimal intrusiveness for the child and family, and careful consideration of whether the information requested by professionals is actually needed by the child and family. Ultimately the choice of which information to obtain is made by the family, not the provider of service.

- **Recognizing the value of *parent driven* choices;**

The importance of family priorities, resources, concerns and goals must be kept paramount at all times. Families are encouraged and supported to be the primary decision-makers throughout the screening or assessment process. Families' choice to provide or not to provide information will be respected at all times.

- **Honoring diversity in terms of language, ethnicity, culture, family structure and preference;**

Diverse family values must be thoughtfully considered, particularly typical culture-bound conventions and child-rearing practices. All evaluations are be conducted in the primary language of the child and family. Before a decision is made to administer a norm-referenced standardized scale, the normative sample must be carefully considered with regard to its representation of the cultural group in which the child is being raised.

- **Recognizing that partnerships encompass families, interdisciplinary teams and community members from many agencies;**

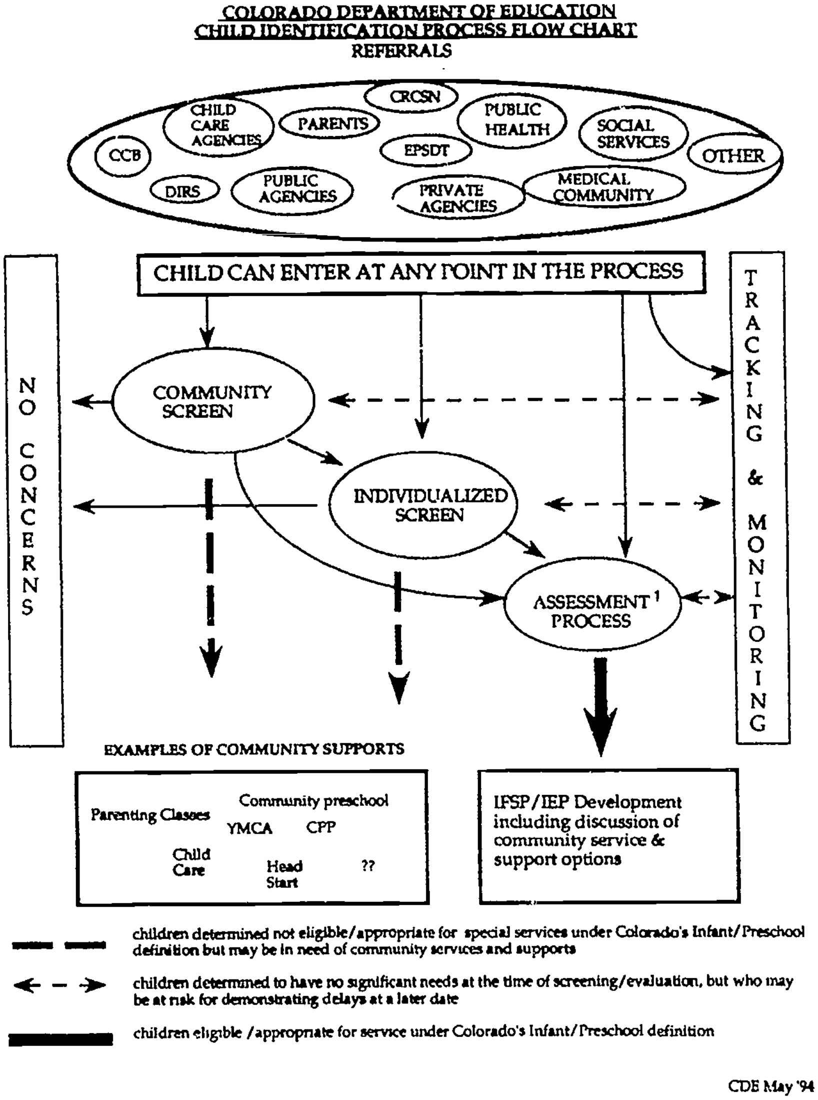
An atmosphere of mutual trust must be created in which respect is generated and rapport developed. This will facilitate informed decision making, and planning together so families can choose the extent of their involvement.

- **Individualizing the process for the child, family, and community; and**

The holistic, multi-faceted needs of the child, both in developmental domains and in their environmental context, will be considered at all times. The team making decisions about which processes are appropriate for the child must include the parent and professionals from a variety of disciplines which represent the parents' areas of concern. Multiple evaluation strategies must be used, based primarily on an arena-style process.

- **Obtaining family feedback for accountability.**

Feedback is elicited from the parents regarding the strengths and needs of the child, and the existing naturalistic community services and supports they feel comfortable accessing. In addition, parents are asked to fill out a questionnaire to obtain feedback about **their perception** of the entire process of the screening or assessment. At that time the parent gives reactions to whether the process was **family-centered**, occurred in a **timely** manner, met their expectations, was driven by **their** choices of personnel and procedures, and the like.



The process itself was delineated into three Levels as represented by Figure 1: 1) the community screen, 2) the individual screen, and 3) the assessment process[1]. The information presented in the Guidelines represents our Vision for a "Desirable Future" with regard to each of the Levels. The vision has been made available to as many children and families throughout our state through our public awareness efforts, and communities are at various stages of implementation of the Vision.

The Colorado Child Identification Process: Birth-Five Years: Screening and Evaluation Process Guidelines (Colorado Department of Education, 1993 define the three Levels as:

*Level One: **The Community Screen*** is a child-centered process that encourages family involvement. The process is open and easily accessible to all members of the community and screens children in all areas of development to:

1. Enhance information-sharing related to child development and parenting practices for **all families.**
2. Enhance child and family linkages with public and private community services and supports.
3. Identify children with potential delays/disabilities for whom re-screening or an assessment process is a reasonable step.

The Community Screening process is planned and implemented by an interagency group to maximize the utilization of local community resources and to ensure non-duplication of screening efforts. The screening process respects the family and the family's cultural background. A variety of screening strategies are used for implementation (i.e. children come to a screening; personnel go to a preschool/child care setting; screenings are done as part of a health fair; etc.)

*Level Two: **The Individualized Screening*** is available whenever requested by the family or deemed useful by the screening team. It is a family-centered process including both the child and the family and focused on children who are at higher risk for having a delay/disability, or are believed to have a delay/disability but who have not been previously evaluated. The individual families participate, and children are given a more comprehensive screening than that available during the community screening process. All domains of development are screened to:

1. Obtain a more complete picture of child and family *strengths* and concerns in each domain of development and functioning.
2. Enhance information sharing related to child development and parenting practices.
3. Enhance child and family linkages with public and private community services and supports.
4. Determine the child's need for a complete Assessment Process.

The Individualized Screen is more comprehensive than a Community Screening but not as detailed or as time-consuming as the Assessment Process, in terms of instruments used and numbers of professionals involved. The Individualized Screening process utilizes a team approach and respects the family and the family's cultural background.

Three: The Assessment Process[1] is used by the family and the team to:

1. Determine the child's current *strengths*, level of functioning, and needs in all domains of development;
2. Identify the family's resources, priorities, and concerns;
3. Establish the child's eligibility for Part H supports and services, and whether other services such as SSI, Medicaid, etc. should be investigated further;
4. Identify an array of public and private community service and support *options* for the child and family that will enhance the development of the child.

It is important for parents and professionals to recognize that the Assessment Process is much more than administration of tests. In fact, in some instances it is not necessary to use norm-referenced standardized scales.[2] During the Assessment Process, it is essential to gather information from multiple sources using a variety of procedures over time. No single test or procedure is sufficient, and whenever possible the information is gathered over several sessions and in several different settings (home, school, clinic, etc.) The synthesis and analysis of all information gathered will then contribute to an accurate **holistic** view of the child, **within the context of the family**. The family is involved **as a participant and decision maker**, not just as an observer and recipient of services. Parents knowledge of their child and their own priorities are paramount in deciding what the next steps will be.

The three Levels described above are not radically different from a traditional model of identification and assessment. What is different is **the role of the family**. The shift from "child-centered" assessment to "family centered" practices is a major transformation. Parents are seen as key team players who are actively involved in the process and are viewed as informed decision makers. The process assumes that the families' concerns, priorities, and resources are critical to developing appropriate outcomes for their children. Beginning with identification, the process places **families in the center of decision making** and find new ways to provide the services and supports that **they decide** are important.

Child identification in context

Anytime we see systems in apparent chaos, our training urges us to interfere, to stabilize and shore things up. But...the dominant shape of our organizations can be maintained if we retain clarity about the purpose and direction of the organization. If we succeed in maintaining focus, rather than hands-on control, we also create the flexibility and responsiveness that every organization craves. What leaders are called upon to do in a chaotic world is to shape their organizations through concepts, not through elaborate rules or structures (Wheatley, p. 133).

Systems change is a complex process. Rather than ignore this complexity, Colorado has chosen to embrace the inconsistencies associated with establishing a new system of services and supports, and to find new ways to manage change. In Colorado, there are daily examples of inconsistent and traditional assessment and service delivery models, as well as inadequate services and supports in some areas. Services and support systems are uneven from community to community, depending on the priorities and history of the community and the level at which the community can actualize the CICC vision.

Nevertheless, rather than rushing to spend our limited resources helping a few more children get direct services, Colorado has made a commitment to move ahead with its vision of a "value-based" service delivery system which honors and respects the unique needs and talents of each family. The Colorado Interagency Coordinating Council has maintained this leadership vision even amidst obvious statewide inconsistencies in services and supports.

As we face the close of the millennium, we are forced to choose a path. With major health and social welfare policies under scrutiny, Part H in Colorado is seen as a part of the whole debate. In fact, we may find that the Colorado strategy of determinedly pursuing the vision of a radically changed service and support delivery system may be well timed. In fact, a time like the present, when so much is in flux, may be an excellent time to ask tough policy questions. When the "new order" emerges from the chaos surrounding health care in general and early intervention in particular, we may find our **Desirable Futures** realized. In Colorado we are working hard to realize a future which reflects the primacy of the family and focuses on the **competencies** and **potentials** of all our children.

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Conference Call:

September, 1994

September 22-26: The *Society for Behavioral Pediatrics* will hold its 12th annual meeting in Minneapolis, Minnesota. Speakers will include Morris Green, L. Alan Sroufe, Marvin Gottlieb, and Mark Wolraich, among others. Contact Noreen Spota, tel: (215) 248-9168.

October, 1994

October 5-9: *The Council for Exceptional Children's Division for Early Childhood* will hold its Tenth Annual International Early Childhood Conference on Children with Special Needs in St. Louis, Missouri, on the theme, "Into the 21st Century: Creating Inclusive Communities Together." Missy Lohr and Jeff Moyer will address general sessions. Contact DEC Conference, 3 Church Circle, Suite 194, Annapolis, MD 21401.

October 6-8: The *National Black Child Development Institute* will hold its 1994 annual conference in Seattle, Washington. Keynote speakers will include Mona Bailey, Ronald Herndon, Charlayne Hunter-Gault, Julianne Malveaux, Wade Nobles, and Susan Taylor, among others. Contact NBCDI, 1023 15th Street, N.W., Suite 600, Washington, DC 20005, tel: (202) 387-1281 or 1-800-556-2234.

October 28: The *Illinois Association for Infant Mental Health* will hold its annual conference in Chicago, Illinois, with the theme, "Intimate Connections: Young Children and Their Caregivers." Alicia Lieberman will be the keynote speaker. Call Nancy Segall or Lorraine Perman, tel: (312) 761-4550.

October 30-November 1: The *Infant-Parent Institute* will offer its seventh annual fall seminar on loss and separation in infancy in Urbana, Illinois. Michael Trout will teach the seminar; enrollment is limited to 20. Contact Michael Trout, Director, The Infant Parent Institute, 328 North Neil, Champaign, IL 61820, tel: (217) 352-4060.

November, 1994

November 5: *Boston Institute for the Development of Infants and Parents, Inc.* will hold its 19th annual conference at Tufts University in Medford, Massachusetts, with the theme "Infant/Parent Assessment and Evaluation: New Directions for the Nineties, Part II." Emily Fenichel and Sarah Birss will be featured speakers. Other presentations will address NCAST as a way to assess parent-child interaction and play-based assessment. Contact BIDIP, 26 Trapelo Road, Belmont, MA 02178, tel: (617) 484-6603.

November 17-20: The *National Perinatal Association* will hold its annual clinical conference and exposition in San Diego, California. Contact NPA at tel: (813) 971-1008 or Contemporary Forums Conference Management, tel: (510) 828-7100, x3.

[1] Please note that in the original document developed by the Colorado Department of Education, the third level is referred to as "Evaluation Process." The committee chose the word *evaluation*, to make clear that the process included more depth than possible through the administration of a single assessment test. However, we have chosen to use the word "Assessment" throughout this article, since we wanted to be as consistent as possible with previous literature on the topic (see for example, Meisels and Provence, 1989).

[2] Children who have categorical disabilities, such as significant hearing or vision disabilities, physical disabilities, or diagnosed conditions associated with significant developmental delay are eligible for services and supports without the use of a norm-referenced instrument, although evaluation procedures to determine level of child's functioning are needed to assist with program planning. Standardized testing is required only when children are suspected of having a developmental delay or disability, but do not have a categorical disability.

Assessment of Adaptive Competence

G. Gordon Williamson, PhD, OTR, COPING Project, Pediatric Rehabilitation Department, John F. Kennedy Medical Center, Edison, New Jersey

Adapted from: Zeitlin, S., & Williamson, G. G.(1994). Coping in Young Children: ***Early Intervention Practices to Enhance Adaptive Behavior and Resilience.*** *Baltimore: Paul H. Brookes.*

Many clinicians ask: How do I collect and synthesize assessment information so that it results in a meaningful understanding of the child's daily functioning? And how does the assessment lead to relevant intervention practices? This article presents an assessment protocol that makes such connections — assessment based on the model of the coping process. Because the coping strategies of many infants and toddlers who are at risk, developmentally delayed, or disabled are erratic, rigidly repetitious, or restricted, an assessment process that focuses on coping directly facilitates intervention that promotes adaptive behavior and resilience in these young children.

Coping is the integration and application of developmental skills in the context of everyday living. It is the process of making adaptations in order to meet personal needs and to respond to the demands of the environment. An infant has to cope with the complexities of family life, changes related to physical growth, and innumerable novel experiences — such as learning to drink from a cup, excursions to a shopping mall, and enrollment in a child care center. The goal of coping is to increase feelings of well-being in situations interpreted as threatening or challenging. That is, children cope with situations in order to feel good about themselves and their place in the world.

In this frame of reference, coping is broadly defined and not restricted to the child dealing with adverse circumstances. Although stress interpreted as threat tends to have a negative inference, stress perceived as challenge is often associated with positive, energizing emotions.

The more effectively a child copes, the more effectively a child learns. A child's adaptive competence is determined by the match between needs (demands) and the availability of resources to manage them. Successful coping reflects sufficient resources for handling the demands of daily life. Effective coping fosters the acquisition of developmental skills, a self-affirming identity, and the capacity for intimate social relationships. A four-step model of the coping process is the foundation for assessment and later intervention.

The coping process

Although in young children coping is predominately emotionally driven and reflects rudimentary cognitive processing, it is useful to consider each interrelated step in the coping process:

1. Determine the meaning of an event.
2. Develop an action plan.
3. Implement a coping effort.
4. Evaluate the outcome (see Figure 1).

The coping process may be initiated by an event occurring in the environment (e.g., a demand by the caregiver, the approach of a rambunctious puppy) or within the child (e.g., a thought, emotion, physical sensation). The child gives meaning to the event based upon personal perceptions of whether it is threatening or challenging to his or her sense of well-being.

Based upon this interpretation, the child then decides what to do. The child's internal and external resources influence this decision. Key *internal resources* are the child's emerging beliefs, physical and affective states, developmental skills, and coping style. The essential *external resources* involve human supports and material/environmental supports. As a result of this decision-making, the child implements a coping effort (coping strategy) to deal with the situation. The result of this effort is then evaluated to determine whether it was successful or not.

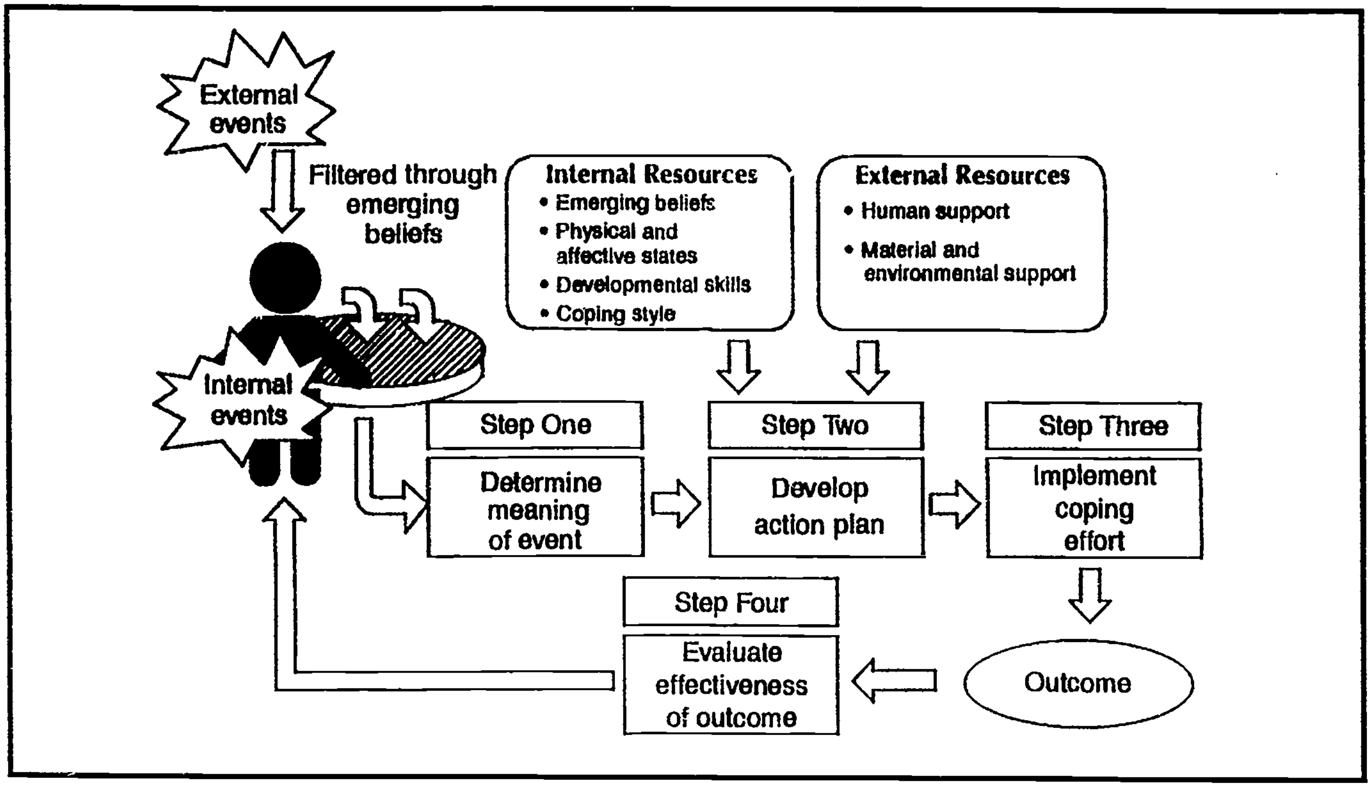
In the assessment protocol the clinician is concerned with identifying the demands (stressors) experienced by the child, the adequacy of the internal and external coping resources that determine the child's coping efforts, and the environmental feedback the child receives in response to these efforts. This information can be gathered through parent interview, assessment of coping resources, and observation of the child's transactions. The following discussion highlights ways to assess a child's resources and coping transactions.

Coping resources

Emerging beliefs. This coping resource influences the meaning a child gives to events (e.g., threat, harm, and/or challenge) and helps to determine the nature and type of coping efforts to be initiated. Beliefs are initially very primitive, global, and emotionally grounded. They are probably less of an influence in infancy than at later ages, when they become more complex and focused as the child's experience and cognitive ability increase.

Emerging beliefs are intimately related to the development of a sense of self. They involve issues related to trust, security, expectation of success or failure, and predictability of events.

Information about emerging beliefs can be inferred through observation of the child's transactions in a variety of situations, including free play, social in-



teraction, and goal-directed activities. Of particular relevance to coping is the child's evolving sense of efficacy — the perceived ability to produce an effect, control events, and trust in others to be responsive to needs. These critical beliefs may be reflected in an "I can" or "I can't" orientation to the demands of daily living. That is, they influence the child's self-esteem, motivation, persistence, and autonomy. By observing these attributes, the practitioner can develop a better understanding of the child's beliefs and how they influence adaptive functioning.

Assessment of the following coping-related attributes are particularly useful in clarifying the nature of the child's emerging belief system: willingness to engage in activities and to accept or create challenges, as well as the ability to manage feelings and to demonstrate pleasure in successful accomplishments. In typical clinical practice, information regarding beliefs is acquired sequentially over time but begins in the initial assessment of the child's development and coping style.

Another indicator of beliefs is the quality of the child's attachment to caregivers. It suggests whether the child perceives the world as safe and secure or threatening and dangerous. An appreciation of the infant-parent attachment helps to identify relevant beliefs that contribute to a child's coping performance. Clinical impressions of an infant's beliefs and their impact may be speculative or rather tentative. However, an understanding of the emerging belief system is integral to a comprehensive assessment of a child's adaptive competence.

Physical and affective states. Relevant information regarding the child's physical and affective states can be gathered through a combination of sources, such as parent interview, the child's medical records, contact with the primary health care providers, and direct assessment by the early intervention team. Particular issues related to the child's physical state include general health, physical appearance, endurance, alertness, past illnesses and hospitalizations, and pertinent medical conditions of the family.

Assessment of the child's affective state includes observation of moods, the range and expression of emotions, and responses to a variety of activities and demands. Particular attention needs to be paid to analyzing the coping transactions between the child and primary caregivers, especially the parents. Difficulty in regulation of affect may be noted by the following manifestations: irritability, poor impulse control, marked mood swings, unhappy or depressed expression, hypo- or hyperarousal, fussiness, and distractibility. These variations in affect undermine the child's ability to cope.

Developmental skills. Another coping resource that needs to be assessed is the child's developmental status. The important issue from a coping perspective is to relate the developmental and coping assessments in such a way that the focus is not only on **what** the child can do but also on **how** the child functionally applies skills as integrated coping efforts within situations.

The acquisition of developmental skills does not automatically lead to effective coping. A process-oriented approach to comprehensive assessment includes identification of the circumstances in which skills are demonstrated, the degree to which the child uses skills in a self-initiated manner, the approach to and organization of structured and unstructured tasks, and the ability to solve problems. Table 1 provides guidelines for behavioral observation that link assessment of developmental skills to their functional significance in daily living.

Coping style. Coping style refers to the child's characteristic way of behaving in situations viewed as threatening or challenging to one's sense of well-being. It includes the repertoire of behavioral attributes that a child draws on to manage the opportunities, demands, and frustrations encountered in daily living. Coping style is most effectively assessed through observation of the child in a variety of situations. Observations can be conducted informally or through the use of an instrument.

The Early Coping Inventory, developed by the author and his colleagues (Zeitlin, Williamson, & Szczepanski, 1988), is useful for assessing the coping styles of young children. This observational instrument evaluates the behavioral characteristics of infants and toddlers that are most relevant for effective coping and therefore should be targeted for intervention. These attributes are clustered into three descriptive categories—**Sensorimotor Organization**, **Reactive Behavior**, and **Self-Initiated Behavior**.

Sensorimotor organization refers to the child's regulation of psycho-physiological functions and the ability to integrate the sensory and motor systems. These sensorimotor characteristics involve such factors as the child's ability to attend, to self comfort, to control activity level, to manage the intensity and variety of sensory stimuli, and to adapt to physical handling.

Reactive behaviors are used to respond to external demands of the physical and social environment. They reflect the ability to accommodate to daily routines, to accept warmth and support from familiar persons, to respond to vocal and gestural direction, and to adapt to changes in the environment.

Self-initiated behaviors are autonomously generated actions used to meet personal needs and to interact with objects and people. Whereas reactive coping behaviors are closely contingent on environmental cues, self-initiated behaviors are more spontaneous and intrinsically motivated. They include, for example, the ability to express a range of feelings, to anticipate events, to express likes and dislikes, to initiate action to communicate a need, to demonstrate persistence during activities, and to generalize learned behaviors to new situations.

The Early Coping Inventory provides a structured, systematic approach to assessing a child's unique coping style. Additional assessment information can be acquired through interviewing the parents. Questions to guide the discussion may include: Are there any situations that are particularly stressful for your child? What does your child do in these situations? How does your child respond to change? Does your child like to explore and try new things? How does your child play with adults and other children?

Table 1. Linking Developmental Skills to Adaptive Outcomes

- Under what conditions does the child demonstrate specific developmental skills?
- Does the child use the skills spontaneously or primarily in a reactive manner?
- What compensatory strategies does the child use to perform a requested task?
- Are there maladaptive behaviors which interfere with the acquisition of particular developmental skills?
- Is there a characteristic pattern for learning new skills?
- Is there a discrepancy in achievement among developmental domains that influences the child's adaptive functioning?

Whether assessment of the child's coping style is conducted formally or informally, several issues need to be considered.

1. To what extent does the child engage in self-initiated behaviors, and are these coping behaviors productive?
2. Is the child able to use coping strategies flexibly across a variety of situations?
3. Is there a difference between the ability of the child to cope with self, in contrast to coping with the environment?
4. How does the child seem to evaluate the effectiveness of coping efforts? The answer to this last question often indicates the status of the child's self-esteem.

Human supports. Most is learned about the child's human supports by getting to know the family and their coping resources. This information is best generated through a continuing dialogue between the family and the assessment team. This exchange addresses the concerns and priorities of the family, beliefs about their child and family, their coping style, the demands they have to manage, and the availability of their personal resources. Parents and other caregivers are also observed in their interactions with the child. Such information contributes to understanding the human support available to the child and the caregivers' needs in relation to parenting. In addition, it is important for the practitioner to assess his or her relationship with the child and family, since professionals also serve as their human supports.

When a family is involved in an assessment process, it is important to gather enough information to facilitate intervention planning and a mutually supportive relationship between the family and practitioners. Attempts to gather too much information too quickly can result in excessive demands on the parents as well as generating unnecessary discomfort and wariness. Practitioners need to monitor their requests for information. They should ask themselves the following questions:

1. What information do I really need to know in order to collaborate with the family in designing a meaningful service plan?
2. When do I need to know it? and
3. What is the best way for gathering this information?

Material and environmental supports. These supports can be identified through discussions with the parents or by offering an opportunity for them to complete a needs assessment survey. The practitioner can also visit the home and child care program to gain additional information. Of particular note in the area of material supports is the availability of sufficient financial resources, food, shelter, clothing, transportation, and developmentally appropriate toys for the child. Environmental supports are identified through observations of the physical surroundings that influence development, comfort, and safe exploration. Relevant characteristics include organization of space, levels of noise and light, and quality and temperature of the air.

A child's needs relative to material and environmental supports vary, based on age, developmental capability, and the presence of a disability. Clinical impressions are made as to whether the environment offers a variety of motivating toys, is organized, and is accessible to the child. Particularly when the child has a physical disability, the material supports required to function optimally should be carefully examined. These supports may include mobility and positioning equipment, adapted toys, communication aids, and architectural modifications.

Coping transactions

In addition to assessing the availability and quality of coping resources, the clinician should appreciate the nature of the child's transactions. During the initial assessment phase and ongoing participation in a program, there are numerous opportunities to observe the child coping with adults, other children, activities, and the physical environment. For instance, transactions can be observed in the following situations: during caregiving, free play, instructional and small group activities, periods of transition, and other typical daily encounters. Analysis of these transactions provides useful information for understanding family dynamics and planning intervention services. It gives insights regarding stressors or demands on the child and family, the availability and use of resources, the effectiveness of coping strategies, and guidance for establishing goals and activities for intervention. It also gives practitioners an opportunity to clarify the impact of their own behavior on reciprocal interactions.

Coping transactions have four components, all of which contribute to the outcome of the **coping** process. They include an internal or external demand that initiates the transaction, the **coping effort the child** uses to manage the demand, the **environment's response** to that effort, and the **child's reaction to the response**. This feedback influences the child's perception of the effectiveness of his or her coping effort. In other words, when observing and analyzing transactions the practitioner needs to ask: What was the demand? What did the child do to manage the demand? How did the adult respond to the child's action? How did the child then react?

Events which are perceived as threatening, harmful, or challenging generate a demand for a coping effort. These events predominately stem from needs and expectations within the child, from expectations of the family and other caregivers, and from specific aspects of the child's physical environment. In assessing de-

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mands, the clinician must identify what they are and determine their relevance and developmental appropriateness.

Examples of inner demands include the child's physical and emotional needs for food, rest and comfort, personal preferences and desires, and expectations for success or failure. The internal needs and expectations of young children can only be inferred through observation of their actions; older children may be able to express internal demands verbally.

Adults' demands of the child stem from their expectations for the child's social behavior, performance, and management of daily activity, as well as from their own emotional needs. These expectations come from their personal and cultural background, their knowledge and experience as caregivers, and related factors. Awareness of these expectations and the demands that they generate may be determined through interviewing the adult or through observing social transactions. Expectations that generate demands that are particularly relevant for children with special needs include expectations for developmental achievement, independence in self-care, and participation in social and community activities.

The physical environment imposes a unique set of spatial and temporal demands that the child must negotiate — for example, ambulating in a crowded store, reacting to a thrown ball, and obtaining toys and materials in an often inaccessible setting. Physical demands are best identified through direct observation of the child in typical surroundings.

Assessment of the **child's coping efforts** in response to demands involves considering the repertoire of available coping strategies, flexibility in their use, the circumstances under which they are applied, and their success in managing specific stressors.

The next component of coping transactions is the **environment's response to the child's efforts**. This feedback, particularly from the primary caregivers, is critical for helping the child learn to cope and for the development of a personal identity. In assessing the nature of the feedback, one needs to determine how it is provided (e.g., physically, verbally), whether it gives accurate information regarding the child's performance, and whether it is offered in a timely, contingent, and emotionally supportive manner.

The last transactional component to be assessed is the **child's reaction to the feedback**. The practitioner observes the child's affect and subsequent actions to infer how the child interprets the effectiveness of his or her efforts. This process helps the practitioner to appreciate how the child internalized the meaning and quality of the transaction.

Analysis of numerous transactions enables the practitioner to describe the child's characteristic coping pattern as well as the coping of those who interact with the child. The following questions help the clinician to synthesize and integrate information gained from observing transactions. These questions are particularly relevant to understanding the reciprocal relationship between the child and the parents. They help the clinician to determine which components of the coping transactions may need to be addressed in intervention.

- **Are the expectations evidenced in the adult's demands appropriate for the child's developmental age?** If not, are they too high, too low, inconsistent, or unclear?
- **How do the child's resources influence his or her coping efforts?** (Consider emerging beliefs, physical and affective states, developmental skills, coping style, human supports, and material/environmental supports).
- **What are the characteristic coping strategies that the child and adult tend to use?**
- **What are the quality and nature of the adult or physical environment's response to the child's coping efforts?** Is the feedback timely, appropriate, and contingent?
- **Does the feedback contribute to the child's perception of personal adequacy and well-being?** (Consider positive and negative influences).
- **What changes could enhance the effectiveness of the coping transactions for the child and adult?**

Linking assessment to intervention

The assessment of the child's coping resources and transactions leads directly to intervention that targets promoting the effectiveness of the child's adaptive functioning. Children cope most successfully when there is a congruence between their coping resources and environmental demands and expectations. A goal of intervention is to encourage a "goodness-of-fit" between resources and demands so that the infant can manage daily living with a positive sense of self. In this process, the child modifies previously learned coping strategies and develops new ones.

There are three primary intervention options that address the components of the coping process. Each option is targeted to establish a better fit between the child and the environment. One can **modify demands** to be congruent with the child's capabilities, enhance **the child's coping resources,** or **provide appropriate, contingent feedback** to the child's efforts. Due to the transactional nature of the coping process, all three intervention options are frequently used simultaneously.

Modifying demands

The first intervention option, modifying demands, requires active collaboration of parents and practitioners to ensure they have an adequate understanding of the child. This knowledge enables them to set appropriate goals and expectations, which match the child's ability to meet them. Over-expectation may lead to unrealistic demands being placed on the child and, therefore, structured failure. Under-expectation may result in low demands that do not motivate the child for optimal learning. Inconsistent demands may foster feelings of confusion and insecurity. Children with a minimally effective coping style are in particular need of a consistent, focused approach.

Both the social and physical environments should be considered when modifying demands during intervention or parenting. The following examples illustrate a variety of ways to change demands so that they are developmentally appropriate:

1. Adapt the pace of intervention to the child's attention span and energy level.
2. Grade sensory experiences according to tolerance.
3. Use gestures and speech at the proper level of comprehension.
4. Provide specialized seating to decrease motoric demands.
5. Personalize teaching techniques based on the child's learning preferences (e.g., verbal cuing, physical prompting, modeling).

Enhancing coping resources

The second intervention option involves enhancing the child's internal and external coping resources—emerging beliefs, physical and affective states, coping style, developmental skills, human supports, and material/environmental supports. For example, based upon an assessment of the strengths and vulnerabilities of a child's coping style, intervention can be targeted to facilitate coping behaviors related to such attributes as flexibility, independent problem-solving, attending, generalization of learning, and self initiation.

Intervention activities should help parents and professionals deal with common coping-related difficulties of children with special needs — for example, low frustration tolerance and task persistence, hyper- or hypo-responsiveness to sensory stimulation, depressed or excessive activity level, inability to manage the range and expression of emotions, separation problems, and patterns of aggression or withdrawal. The emphasis is on ways to decrease maladaptive patterns and to increase the development and generalization of effective coping strategies. It is often necessary to teach the child specific strategies to manage concrete circumstances (e.g., coping with a babysitter, a car seat, bed time, or new foods).

Providing contingent feedback

The third intervention option is to support coping by providing contingent responses to the child's coping efforts. Appropriate feedback reinforces desired or newly acquired coping strategies, whereas inappropriate feedback perpetuates maladaptive behavior. When an effective coping effort receives positive, timely, and accurate feedback, both the infant and adult feel successful and experience pleasure in the interaction. Such reinforcement leads to a sense of mastery that is usually reflected in subsequent coping efforts.

Some professionals may tend to implement intervention that is highly structured and adult-directed with an emphasis on eliciting responses from the child which are then reinforced by the practitioner. In such cases there is little opportunity for the young child to learn self-directed, purposeful behavior. This interactional pattern may unintentionally reinforce the tendency of many infants with disabilities to be passive and lack self initiation. It is important to support child-initiated activity and provide feedback that invites the child to explore, problem-solve, and try new coping strategies.

Conclusion

This assessment approach is designed to determine the component strengths and vulnerabilities of the child and environment that influence daily functioning. It is particularly targeted for children who have limited coping abilities or live in high-stress environments. The transactional model of the coping process identifies the child's demands/stressors, coping resources, available coping strategies, and the responsiveness of the environment to the child's efforts. This information serves as a framework for the intervention options—modifying demands and expectations, enhancing coping resources, and providing contingent feedback. The goal is for assessment to lead to intervention that empowers young children to cope with self and their environment in ways that foster personal well-being.

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Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood

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ZERO TO THREE/National Center for Clinical Infant Programs is about to publish *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood* (*Diagnostic Classification: 0-3*), the product of the organization's multidisciplinary Diagnostic Classification Task Force, which was established in 1987. *Diagnostic Classification: 0-3* offers a systematic, developmentally-based approach to the classification of mental health and developmental difficulties in the first four years of life. Its diagnostic framework categorizes emotional and behavioral patterns that represent significant deviations from normative development in the earliest years of life.

Diagnostic Classification: 0-3 is designed to complement existing medical and developmental frameworks for understanding mental health and developmental problems. Because they have not focused in depth on the first three to four years of life, many existing frameworks for classifying mental health and developmental problems have not included a comprehensive system for classifying problems in this early age range. This is in part due to the pioneering nature of clinical work with infants, young children and families. *Diagnostic Classification: 0-3*, therefore, describes: 1) types of problems or behaviors not addressed in other classification approaches, and 2) the earliest manifestations of problems and behavior that are described in other systems for somewhat older children and adults. In infancy and early childhood, these problems may have different characteristics, and prognosis may be more optimistic if effective early intervention can occur.

This article describes the process that led to the development of *Diagnostic Classification: 0-3* and provides an overview of its system.

The development of *Diagnostic Classification: 0-3*

Knowledge of infant mental health and development has grown exponentially in the last two decades. Through systematic observation, research and clinical intervention, a more sophisticated understanding has emerged of the factors that contribute to adaptive and maladaptive patterns of development and of the meaning of individual differences in infancy. This knowledge has led to an increasing awareness of the importance of prevention and early treatment in creating or restoring favorable conditions for the young child's development and mental health. Timely assessment and accurate diagnosis can provide the foundation for effective intervention before early deviations become consolidated into maladaptive patterns of functioning.

Formulating categories for the classification of mental health and developmental disorders manifested early in life serves a number of purposes:

- A classification system provides a way for clinicians and researchers to organize their observations.
- Experience with a classification system assists clinicians in assessment and in formulating recommendations for intervention or further monitoring.
- A classification system provides a common language that clinicians and researchers can use to communicate with one another, to collect systematic data on various disorders, and, over time, to improve understanding of types of disorders, the factors that influence their course, and the components and effectiveness of interventions.
- A classification system provides an initial framework that can be refined and changed as a result of further observations.

Discussions of diagnostic categories can be most helpful if they identify challenges to be overcome in the context of an understanding of adaptive coping and development. Understanding both adaptive capacities and challenges is part of the essential foundation for planning and implementing effective interventions. Diagnostic categories should not be used to "label" a child or to distract attention from positive, coping capacities and the inherent capacity of human beings to grow and develop. Diagnostic categories, rather, should encourage greater precision in describing a child's challenges and abilities; this precision will guide potentially more effective intervention strategies.

Clinical approaches to assessment and diagnosis

Many different assumptions and theories contribute to our approach to diagnosis and treatment. These assumptions come from both clinical practice and research. Psychodynamic, family systems, relationship, and attachment theory inform our work, as do observations of the ways infants organize their experience, infant/caregiver interaction patterns, temperament, regulatory patterns, and individual differences in many domains of development.

Assessment and diagnosis must be guided by the awareness that all infants are participants in relationships. These relationships exist, usually, within families, and families themselves are part of the larger community and culture. At the same time, all infants have their own developmental progression and show individual differences in their motor, sensory, language, cognitive, affective and interactive patterns.

While self-evident, these facts are hard to take into account simultaneously. Regardless of their desire to be balanced, most clinicians will favor one or another theory or approach, or concentrate their attention on particular developmental domains or aspects of the caregiving environment. For example, one clinician may focus her attention primarily on the mother's projection of feelings about herself, or from an earlier relationship, onto her infant, even though the clinician's assessment may also describe how the infant's constitutional-maturational pattern in part inspires the mother's projections. Another clinician may focus on how the infant's over-reactivity to sensation sets up an interactive pattern in which the parent feels rejected and vacillates between intrusiveness and withdrawal. A third clinician may see the relationship between caregiver and infant as primary, considering the constitutional-maturational and family patterns as secondary. Still other clinicians will see the family system, or a particular aspect of the caregiver-child interaction, or environmental stressors as most critical.

In conducting research, we may occasionally have the luxury of studying single variables in a systematic effort to determine their relationship to a particular aspect of development. In clinical practice, however, a systematic approach must be a comprehensive approach. Each child and each family is different. The clinician cannot know in advance which variables are exerting a dominant influence on development, or how relationships between and among variables are affecting the child and family.

Any intervention or treatment program should be based on as complete an understanding of the child and family's circumstances as is possible to achieve. However, it is not uncommon for clinicians to give lip service to the importance of a comprehensive approach to diagnosis, but then to address "favorite" variables in great detail, while giving only cursory regard to other

The ZERO TO THREE/National Center for Clinical Infant Programs

Diagnostic Classification Task Force

Members of ZERO TO THREE/National Center for Clinical Infant Programs' Diagnostic Classification Task Force include clinicians and researchers from infant centers throughout the United States and Canada. The goal of the Task Force has been to collect information about infants and toddlers with clinical problems requiring diagnosis and intervention. During the past six years, the Task Force has built a data base through systematic reporting of cases from various centers working with infants and families. The data base served as the foundation for case discussion and for the identification of recurring patterns of behavioral problems. Descriptive categories were developed as a result of these discussions, and each category became progressively more refined through consideration of new cases that presented challenges to the initial formulation.

From 1987 to 1990, Task Force members, meeting twice a year in Washington, D.C. and communicating throughout the year by telephone, fax, and mail, formulated an initial set of diagnostic categories through expert consensus. In 1990, the Task Force expanded to include additional participants, representing a variety of disciplines, who helped to further refine the diagnostic categories and to broaden the number and types of settings in which cases were collected for the Diagnostic Classification Task Force data base. The Task Force continues to meet and collects descriptive and clinical data on infants and families who come for services, the types of problems they are experiencing, and the services they receive. The data collection form used by Task Force members and guidelines for its use are available for clinicians interested in participating in the ongoing data collection which will provide an expanding empirical base for further refinement of this diagnostic system.

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The ZERO TO THREE/National Center for Clinical Infant Programs Diagnostic Classification Task Force welcomes communication about *Diagnostic Classification: 0-3*, including case studies that support or challenge the classifications presented here, and indications of a wish to participate in the ongoing data collection and dialogue to refine and revise the classification system. Send communications to Emily Fenichel, Associate Director, ZERO TO THREE, 2000 14th Street North, Suite 380, Arlington, VA 22201, fax: (703) 528-6848.

influences on development (e.g., an evaluation consisting of a six-page description of the family system and a single sentence categorizing the infant's pattern of interaction with his caregiver). Clinicians may also be tempted to avoid assessing those areas of functioning where the constructs or research tools are less well developed, or which represent gaps in their own training.

Although these temptations are understandable, it is the responsibility of any clinician who is charged with doing a full diagnostic work-up and planning an appropriate intervention program to take into account all the relevant areas of a child's functioning, using state-of-the-art knowledge in each area. These areas include:

- presenting symptoms and behaviors;
- developmental history - past and current affective, language, cognitive, motor, sensory, family, and interactive functioning;
- family functioning and cultural and community patterns;
- parents as individuals;
- caregiver-infant (child) relationship and interactive patterns;
- the infant's constitutional-maturational characteristics; and
- affective, language, cognitive, motor and sensory patterns.

In addition, it is important to consider the family's psychosocial and medical history, the history of the pregnancy and delivery, and current environmental conditions and stressors.

The process of gaining an understanding of how each area of functioning is developing for an infant or toddler usually requires a number of sessions. A few questions to parents or caregiver about each area may be appropriate for screening, but not for a full evaluation. A full evaluation usually requires a minimum of three to five sessions of 45 or more minutes each. A complete evaluation will usually involve taking the history, direct observation of functioning (i.e., of family and parental dynamics, caregiver-infant relationship and interaction patterns, the infant's constitutional-maturational characteristics, and language, cognitive and affective patterns), and hands-on interactive assessment of the infant, including assessment of sensory reactivity and processing, motor tone and planning, language, cognition, and affective patterns. Standardized developmental assessments may be indicated when they are the most effective way to answer specific questions and when the child is sufficiently interactive and can respond to the requirements of the test.

The result of such a comprehensive evaluation should lead to preliminary notions about:

1. The nature of the infant's or child's difficulties, as well as her or his strengths; the level of the child's overall adaptive capacity; and functioning in the major areas of development, including social-emotional, relationships, cognitive, language, sensory and motor abilities in comparison to age-expected developmental patterns.
2. The relative contribution of the different areas assessed (family relationships, interactive patterns, constitutional-maturational patterns, stress, etc.) to the child's difficulties and competencies.
3. A comprehensive treatment or preventive intervention plan to deal with 1) and 2) above.

A clinician conducting a diagnostic evaluation and formulating an intervention plan should have considerable experience in assessing all the areas of functioning described above and in integrating the assessment findings into a cohesive formulation. Colleagues with the expertise to help assess specific areas of functioning should be called upon as needed. When a team, rather than a single clinician, is conducting an assessment and formulating the diagnosis and intervention plan, at least one member of the team should have considerable experience in integrating the different elements of the assessment into an integrated understanding of the nature of the difficulty and the type of intervention(s) most likely to be helpful.

Part of this expertise involves understanding infant/caregiver interaction patterns and the relationship between the interaction patterns and adaptive and maladaptive emotional and developmental patterns. In addition, this expertise involves understanding how constitutional and maturational variations — including individual differences in motor, sensory, language, cognitive and affective patterns — influence infant/caregiver interaction patters and related adaptive and maladaptive emotional and developmental patterns. It also involves understanding the influence of parental, family, cultural and community patterns on infant/caregiver patterns and related emotional developmental patterns.

A comprehensive assessment as described above may occur in many different settings. Settings that are strong in only some areas of assessment and intervention should obtain additional expertise through engaging additional staff or consultation, or through training existing staff. In this way a variety of settings may be able to conduct truly comprehensive approaches to assessment and intervention with infants and young children.

An overview of the classification system

Diagnostic Classification: 0-3 is a multiaxial system, designed to focus the clinician's attention on the various factors that are contributing to the infant's difficulties as well as on areas in which intervention may be needed. We refer to the multiaxial classification system as provisional because we assume that categories may change as more knowledge accumulates. The current diagnostic framework consists of the following axes:

Axis I: Primary Diagnosis

Axis II:	Relationship Disorder Classification
Axis III:	Medical and Developmental Disorders and Conditions
Axis IV:	Psychosocial Stressors
Axis V:	Functional Emotional Developmental Level

It should be noted that these axes were created to facilitate a broader understanding of the infant and young child's adaptation in the context of his or her family and environment. The focus on the infant's relationships with caregivers (Axis II), on psychosocial stressors as they affect very young children (Axis IV), and on the functional emotional developmental level as a reflection of the infant's capacity to organize experience (Axis V) directs the clinician's attention to key aspects of early experience. It is important for clinicians to use all the axes in creating a diagnostic profile of an infant or toddler.

Axis I: The primary diagnosis

The primary diagnosis should reflect the most prominent features of the disorder. Primary diagnoses in *Diagnostic Classification: 0-3* include:

- **Traumatic Stress Disorder** — This category represents a continuum of symptoms which may be shown by children who have experienced a single event, a series of connected traumatic events, or chronic, enduring stress.
- **Disorders of Affect** — This group of disorders is related to the infant or young child's affective experience and behavioral expressiveness. Included in the group are anxiety disorders, mood disorders, a mixed disorder of emotional expressiveness, childhood gender identity disorder, and reactive attachment disorder. This category focuses on the infant's interactional experience and on affective and behavioral symptoms.
- **Adjustment Disorder** — The diagnosis of adjustment disorder should be considered for mild, transient situational disturbances that are tied to a clear environmental event or change. As a result of the child's developmental age, unique constitutional characteristics, and family circumstances, the infant or toddler experiences a temporary reaction, lasting days or weeks but no longer than four months.
- **Regulatory Disorders** — These disorders are characterized by the infant or young child's difficulties in regulating physiological, sensory, attentional, motor or affective processes, and in organizing a calm, alert, or affectively positive state. The preliminary classification includes four types of regulatory disorders (hypersensitive, under-reactive, impulsive and motorically disorganized, and other), each with a distinct behavioral pattern, **coupled with** a sensory, sensory-motor, or organizational processing difficulty which affects the child's daily adaptation and interaction/relationships.
- **Sleep Behavior Disorder** — The diagnosis of sleep disorder should be considered when a sleep disturbance is the only presenting problem in an infant or toddler under three years of age who has no accompanying sensory reactivity or sensory processing difficulties.
- **Eating Behavior Disorder** — The diagnosis of eating behavior disorder, which may become evident at different stages of infancy and early childhood, should be considered when an infant or young child shows difficulties in establishing regular feeding patterns with adequate or appropriate food intake. (Specific feeding disorders of infancy and early childhood such as pica and rumination can be found in DSM IV.)
- **Disorders of Relating and Communicating** — This group of disorders, first evident in infancy and early childhood, involves severe difficulties in relating and communicating, combined with difficulties in the regulation and processing of physiological, sensory, attentional, motor, cognitive, and affective experience. Traditionally these difficulties have been seen as constituting a group of disorders under the umbrella Pervasive Developmental Disorder (including Autistic Disorder and Pervasive Developmental Disorder Not Otherwise Specified), in which deficits in relating are primary and relatively permanent. ZERO TO THREE's Diagnostic Classification Task Force recognizes the need to obtain more experience with, and further understanding of, children with a range of relationship and communication difficulties. It therefore introduced the category Multisystem Developmental Disorder, to describe a range of difficulties in relating and communicating which are seen as secondary to underlying processing difficulties, and as more responsive to change, with appropriate intervention. The clinician may either use the DSM-IV conceptualization, Pervasive Developmental Disorder, or use Multisystem Developmental Disorder.

Axis II: Relationship Disorder Classification

Understanding the quality of the parent-infant relationship is an important part of developing a diagnostic profile for infants and young children. The primary relationships of infants and young children contribute not only to the development of children's personality, structure of psychological defenses, and coping strategies, but also to young children's beliefs about what is possible to expect in relationships with others. Clinicians can be assisted in systematically understanding the meaning of behaviors within the young child's primary relationship(s). Interventions can then be formulated and focused on both individual and relationship levels.

The relationship disorders described in Axis II of *Diagnostic Classification: 0-3* have been set forth to characterize the nature of the disturbances seen in the specific relationships and interactions of infants and young children and their parents when things go awry. Parent-child relationship disorders are characterized by perceptions, attitudes, behaviors, and affects of the parent, the child, or both, which result in disturbed parent-child interactions. The parent may relate to the infant from the beginning in light of his or her own personality dynamics, including projections and defenses. These may interact with distinct infant patterns and lead to relationship difficulties or disorders. In *Diagnostic Classification: 0-3*, Axis II is intended for use only in diagnosing **significant** relationship difficulties.

Diagnoses of relationship disturbances or disorders should be based not only on observed behavior but also on the parent's subjective experience of the child as expressed during a clinical interview. Difficulties in the relationship can be characterized according to **intensity, frequency** and **duration**. These dimensions will guide the clinician to classify the relationship problem as a **perturbation**, a **disturbance**, or a **disorder**.

Clinicians consider three aspects of a relationship. These include:

- **Behavioral quality of the interaction**, reflected in the behavior of each member of the parent-infant dyad. The behavior of the parent, the child, or both may be disturbed. Sensitivity or insensitivity in responding to infant's cues, contingent or non-contingent responsivity, genuineness of involvement or concern, regulation, predictability, and the quality of structuring and mediating of the environment are parental behaviors that contribute to the quality of the interaction. Averting, avoiding, arching, lethargy, nonresponsiveness, and negativism are examples of behaviors which infants may bring to the interaction. At times it is not clear which behaviors of concern are initiated and which behaviors are reactive. For instance, a mother or father may look depressed, uninvolved or unresponsive with the infant. However, this may in part be a result of the unfocused gaze and other unresponsive, non-reinforcing behavior of a medically ill infant. At times what may appear as a developmental delay in the child may be associated with a disturbed relationship pattern.
- **Affective tone**, referring to the emotional tone characteristic of a dyad. Intense anxious/tense or negative affect (i.e.,irritable, angry, hostile) on the part of either member of the dyad or both may contribute to the characteristic affect tone of the dyad.
- **Psychological involvement**, referring to parental attitudes and perceptions of the child (i.e., the meaning of the child's behavior to the parents). Parents' perceptions of a particular child and what can be expected in a relationship are influenced by both past and current experiences. Disturbing or adverse past experiences may result in a parent's misinterpreting infant behaviors (for example, perceiving them as excessively demanding, rejecting, or attacking).

Axis III: Medical and Developmental Disorders and Conditions

This axis should be used to note any physical (including medical and neurological), mental health, and/or developmental diagnoses made using other diagnostic and classification systems. These systems include the American Psychiatric Association's *Diagnostic and Statistical Manual* (DSM IV), *International Classification of Diseases* (ICD-9 or ICD-10), and specific classifications used by speech/language pathologists, occupational therapists, physical therapists, and special educators. A diagnostic and statistical manual for primary care providers (child version) is under development; the American Academy of Pediatrics' Task Force on Coding for Mental Health in Children is coordinating this effort.

Axis IV: Psychosocial Stressors

This axis is included to help clinicians take into account various forms and severity of psychosocial stress that are **influencing** factors in a variety of disorders in infancy and early childhood. (In contrast, in traumatic stress disorders described in Axis I, acute or chronic stress is the **critical** factor responsible for the disorder.)

Psychosocial stress may be present in the life of an infant or young child either directly (for example, an illness in the child requiring hospitalization) or indirectly (for example, a sudden illness in the parent that results in separation). Psychosocial stress may be acute or enduring; it may have a single source or involve multiple and cumulative events. Events and transitions that are part of normal experience in the culture may be stressful for an individual infant or young child — for example, the birth of a sibling, a family move, a parent returning to work after being at home, or entry into child care or preschool. Some children will experience these transitions as stressful while others make transitions smoothly and adapt to new circumstances easily. Some sources of stress are pervasive and enduring; these include poverty, violence in the environment, and abuse in the home.

In considering the impact of direct and indirect psychosocial stress on infants and young children, it is useful to think in terms of the child's loss of basic safety, security, and comfort —that is, the protective, supportive "envelope" that should constitute an infant's immediate caregiving environment. Thus the clinician must distinguish the severity of a specific type of stressor from its ultimate impact on the child, which will be modified by the response of the environment. The caregiving environment may shield and protect the child from the stressor, thus lessening its impact; it may compound the impact by failing to offer protection; or it may reinforce the impact of the stressor through the effect of anxiety and/or other negative attitudes.

The ultimate impact of a stressful event or enduring stress depends on three factors:

- the severity of the stressor (its intensity and duration at that level of intensity; the suddenness of the initial stress; and the frequency and unpredictability of its recurrence);
- the developmental level of the child (chronological age, endowment, and ego strength); and
- the availability and capacity of adults in the caregiving environment to serve as a protective buffer and help the child understand and deal with the stressor.

Axis V: Functional Emotional Developmental Level

This axis addresses the way in which an infant or young child organizes affective, interactive, communicative, cognitive, motor, and sensory experience. "Developmental level" is seen as constituting a number of basic, interrelated processes which emerge sequentially and continue to develop and become more complex over time. These processes are:

a. Mutual attention (expected in children at all ages) — the capacity to show interest in the world when provided with appropriate visual, auditory, movement, and tactile experiences;

b. Mutual engagement (readily observed in infants over three months) — the ability for joint emotional involvement;

c. Interactive intentionality and reciprocity (readily observed in infants over six months) — the ability to act in a purposeful, intentional, and reciprocal manner, initiating communication and responding to another's signals;

d. Representational/affective communication (readily observed in children over 18 months) — the capacity, demonstrated in language or pretend play, to use mental representations to communicate emotional themes and ideas;

d. Representational elaboration (readily observed in children over 30 months) — the capacity to elaborate in both make-believe and symbolic communication, in order to convey more complex intentions, wishes, and feelings;

e. Representational differentiation I (readily observed in children over 36 months) — the capacity to use pretend play or other symbolic communication to express two or more logically connected ideas, as well as complex intentions, wishes, and feelings;

f. Representational differentiation II (readily observed in children over 42 months) — the capacity for pretend play and symbolic communication which: deals with complex intentions, wishes, or feelings; can involve three or more logically connected ideas; distinguishes reality from fantasy; and takes into account concepts of causality, time, and space.

Axis V assists the clinician in evaluating whether a child has reached the functional emotional developmental level expected at his or her chronological age and in identifying the conditions under which a child can show mastery of the capacities associated with this level. The assessment of this axis should always be based on direct observations of the infant or young child in interaction with each of his or her parents or other significant caretakers. The clinician should also evaluate the quality of his or her own interaction with the child. In addition, the clinician should ask about or observe the child's functioning at home and in other familiar environments.

The information obtained from these observations and reports will help the clinician categorize the child's functional emotional developmental level as one of the following:

1. Has fully reached expected levels;

2. Is at the expected level, but with constrictions (for example, does not function at this level in the full range of affect or under stress, or functions at this level only with exceptional support);

3. Has not achieved the level expected for his or her current age, but has fully achieved prior levels;

4. Has not achieved the level expected for his or her current age and has not achieved certain prior levels (levels a-e above to be specified as appropriate).

Case vignettes

Diagnostic Classification: 0-3 contains 17 case vignettes that illustrate a range of primary diagnoses and multiaxial ratings. Three of these vignettes are included below. Each includes a brief narrative by the clinician, a discussion of the reasoning used to formulate the diagnostic impression, and a summary of the diagnostic impression, with a conclusion for each of the five axes.

Each case vignette also includes a brief discussion of the implications of the diagnostic profile for intervention planning.

Jimmy

Narrative: " He doesn't look at me; he cries whenever I touch him or hold him. There's something wrong with him or something wrong with me." These were the first words expressed by the mother of four-month-old Jimmy. She felt he related better to his father and did not cry with him, but there was still no pleasure, enthusiasm, smiles, or positive emotion. Jimmy had given his nanny occasional faint pleasurable looks and perhaps a smile or two. Mother held him stiffly and looked anxious and worried. Her vocalizations were in a whispering, depressive-like monotone, followed by long silences. The baby looked past her with an expressionless, vague quality and began crying and twisting after ten minutes. There were no looks, smiles, frowns, or motor gestures, only an indifferent, flat, vague stare.

The history revealed an unremarkable pregnancy and delivery. As a newborn, Jimmy had good motor control and was able to be both alert and calm, responding to sights and sounds as well as touch and movement in the first weeks after birth. By the second month, Mother noticed he became less responsive — "He learned to hate me." Mother had a history of chronic depression beginning in late adolescence and had been treated with medications, electroshock therapy, and psychotherapy over the years. She had become an accountant and worked long days. Father was also a busy accountant and presented as a person who liked things done in an orderly fashion, on time, and on his schedule. He was frustrated that his son was "hard to warm up." He also wanted his wife to be a "better mother." He would not go into detail about how she disappointed him or about his own background.

The examiner was able to catch the baby's attention fleetingly, and elicited a faint look and quick smile, suggesting a sense of relatedness and connection. Jimmy appeared sensitive to high-pitched noises, loud noises, and overly animated facial expressions. His motor planning and muscle tone seemed fine, and he enjoyed robust movement in space. It was hard to assess visual-spatial or auditory processing as his looks and engagement were so fleeting. Jimmy showed the same fleeting engagement with his nanny. As the clinician worked with Jimmy, his attention and sense of engagement increased a little, suggesting that persistent wooing could have a positive effort.

Discussion: The parent-family components, i.e., the mother's depression and the interactive component, are primary contributing components. The infant also presented constitutional and maturational patterns which made it more and more difficult to pull him into a greater sense of relatedness as time went on, though he did fairly well in the beginning, before the parent and interactive components began to impinge on his development. Because of the presence of a good nanny and mother's physical availability and attempts (although these were unsuccessful) to engage her baby, Jimmy did not experience the massive environmental deprivation characteristic of reactive attachment-deprivation disorder of infancy. Since he presented with a clear pattern of depressed and irritable mood, with diminished interest and pleasure in the human world, and the interaction with his caregiver evidenced a number of challenges, a primary diagnosis of depression seems indicated.

Diagnostic Impression:

Axis I:	Affect Disorder - Depression
Axis II:	Underinvolved Relationship
Axis III:	Monitor Sensory Processing
Axis IV:	Psychosocial Stress - Severe effects
Axis V:	Functional Emotional Developmental Level - Has not achieved expected levels (mutual attention and engagement)

Implications for intervention: The primary diagnosis would direct the intervention to interactive work before addressing the developmental delays with occupational and speech therapy. The regulatory component (hypersensitivities) would need to be taken into account in order to woo this child back, and may turn out to have a more significant impact on development. At present, however, hypersensitivities appear less prominent than the interactive features and the child's depression. This infant needs to be wooed and given help in focusing his attention as he is reengaged emotionally. The clinician would need to understand the regulatory as well as emotional components required to get Jimmy "back on track." Intervention should involve both parents and the nanny. Work with Jimmy's mother would help her read his cues and recognize emotional signalling; this would help mother and child rebuild their relationship.

Jasmine

Narrative: Jasmine was a healthy, emotionally and developmentally age-appropriate 19-month-old when she witnessed her mother being assaulted and raped by an acquaintance. After Jasmine's mother fought with the man for several minutes, he grabbed Jasmine and held a gun to her head in order to get her mother to obey his commands. Jasmine was not physically injured during the attack.

Immediately after the rape, mother and daughter moved a short distance away to live with a relative. Several weeks later, they moved back into the apartment where the rape had occurred, and Jasmine became obviously symptomatic. Immediately on returning to the apartment, she exhibited great distress and remained quite fearful until her mother rearranged the furniture. Afterwards, she was somewhat calmer, but she displayed a number of persistent symptoms.

Her sleep was quite disturbed. Although she would fall asleep without protest, she cried out three to four times per night, unresponsive and inconsolable until she fell back asleep again. She would also wake up screaming for her mother, or screaming at her mother's assailant to leave her alone. At these times, Jasmine could be comforted, although it took some time before she fell asleep again. On at least three occasions following the rape, she slept through the entire day without awakening, although in general Jasmine did not appear to her mother to be more tired than usual.

After the rape, aggressive behavior dominated Jasmine's interactions with younger children, although aggressive behavior had not been apparent before the rape. At the same time, Jasmine tended to avoid interacting with older children. She was noted to be more stubborn and defiant with her mother, but also to be more sensitive, and to cry more readily than before the rape. She became "more attached" to her pacifier after the trauma. After the rape, Jasmine tended to avoid contact with men, except for her mother's boyfriend. Once when her mother and the boyfriend were playfully wrestling together, Jasmine came over to him, hit him, and cursed him. Jasmine also developed staring spells that lasted for two to three minutes and occurred about two or three times per week. Her mother was unaware of any obvious precipitant for these episodes. During the spells, Jasmine was mute and unresponsive; she tended to "stare" without any seeming focus or recognition.

In her play, Jasmine developed a repetitive sequence in which she threw dolls down on the floor and hit them. She tended to repeat this over and over, without elaboration and without obvious affect, according to her mother. She did not demonstrate this play in the examiner's office, but only at home with her mother.

Discussion: The diagnosis of traumatic stress disorder is self-evident. This child presents many of the indications characteristic of this disorder, including "staring" spells, which may possibly be some form of early dissociation.

Diagnostic Impression:

Axis I: Traumatic Stress Disorder

Axis II: No Relationship Diagnosis

Axis III: None

Axis IV: Psychosocial Stressor - Extreme Effects

Axis V: Functional Emotional Developmental Level - Has reached expected levels with constrictions.

Implications for intervention: Jasmine and her mother require play psychotherapy, which would involve both direct play and parent guidance to help Jasmine regain the security she lost as a result of the trauma. Since Jasmine's language was just emerging, it would be important for her mother to learn how to use unstructured play to help her daughter work through the trauma, and to be comfortable following her lead with whatever Jasmine expresses, including anger and aggression toward her. Frequent therapy sessions initially might support the mother in playing with Jasmine every day and help her learn to recognize signals which would be upsetting to her daughter in their daily lives and to respond to them. Jasmine's mother might also benefit from individual counseling if she had not already received such services. If Jasmine's "staring" spells (which may possibly be some form of psychological dissociation) persisted, further neurological evaluation might be needed.

Videotapes:

Transdisciplinary Arena Assessment Process: A Resource for Teams. Produced and distributed by Child Development Resources, 6325 Centerville Road, Lightfoot, VA 23090, tel. (804) 565-0303. 43 minutes. Accompanying viewing guide. $149.95.

The purpose of this video is to illustrate the process of the Transdisciplinary (TD) Arena Assessment. The TD process requires a high level of team interaction. The team views family members as primary decision makers. TD team members need to be more than experts in their own disciplines; they need to be willing and able to share their skills and experiences with other team members. The tape demonstrates the six-part family-centered transdisciplinary approach to arena assessment. Following each part of the process, individual team members talk about their initial concerns and difficulties with the TD model. They discuss conflict resolution and the important benefits of the model.

Pre-assessment home visit. One team member meets with the family to share information about the assessment procedure and to gather information regarding the family's priorities for the assessment. The family helps plan by sharing concerns. Family members are asked what role they would like to play in the assessment and to consider their goals and services they might need. Preparation and careful planning assure participation of all team members and a smooth and accurate assessment.

Pre-assessment planning meeting. The team meets to share information from the family and to plan assessment strategies and procedures. Team members play various roles in the assessment and rotate roles for different assessments. Roles include:

- Facilitator-interacts with child and parent.
- Coach - monitors space, activities and time.
- Observer - records behaviors across disciplinary boundaries.

From the perspective of their specialized expertise, each person must let the team know what behaviors she would like to observe during the assessment. Team members suggest strategies in which desired behaviors can occur. They discuss assessment space and modifications needed to encourage exploration and play.

Arena assessment. TD assessment is an arena model with the parent, child and facilitator in the center of the room, with the observers in a circle around them. Only the facilitator interacts with the child and family. The coach assists the facilitator as needed. Each team member observes the child's play from a different angle. Play continues for 45 to 60 minutes. When this information is combined with information from home, a more complete picture of the child is formed. Each team member records information across disciplines. They also refer to criterion-referenced instruments and developmental check lists from their own disciplines. Standardized instruments are not used in the arena process.

Post-assessment review meeting. The team, with the parent(s) as a member, meets to share information from the assessment and information gathered at home. The purpose is to discuss what the child is doing and to identify strengths. It is important that all team members share their observations. This is followed by a discussion of identified needs and concerns about the child. The team writes child outcomes, family outcomes and services available, and the family is given a summary of the information.

Report writing. The team works together to develop a single narrative that summarizes the child's strengths and developmental concerns and current level of development. Information from each team member contributes to a report and is integrated across disciplines. Final components are child outcomes and other outcomes desired by the family. The team works on designing activities that will lead to desired outcomes and build on child's skills.

Debriefing. This is a staff development opportunity, not a time to discuss child and family issues. It is important for staff to feel comfortable sharing perceptions and sharing feedback in a supportive way. This sets the stage for behavior change. Teams discuss space, roles during the assessment, and how comfortable they felt carrying out their roles and missed activities during assessment.

Conducting an Infant Mental Health Assessment. Produced by Michael Trout, the Infant-Parent Institute, Champaign, IL, and distributed by Child Health and Development Educational Media, 5632 Van Nuys Blvd., Suite 286, Van Nuys, CA 91401, tel. (818) 994-0933. 60 minutes. $150.

This video is from the series **Awakening and Growth of the Human Infant: Studies in infant Mental Health**, and defines infant mental health as an interdisciplinary field concerned with the optimal physical, social and cognitive development of the human infant in the context of his family. Part One of the tape focuses on the process of clinical infant mental health assessment, with particular emphasis on the subtleties of communication often used by families to speak of their difficulties. A discussion is presented of the methods used to elicit material from families regarding the nature of their relationship with the baby and the etiology of the breakdown in their bond with the baby.

The tape notes that parents typically come to a clinical assessment with psychological and cultural barriers that limit their ability to talk about difficulties with their baby. Feelings about parenting that are peculiar, uneasy or negative are not tolerated well by parents because culturally and socially these feelings are unacceptable. Or the problems with the baby may be related to feelings from the past that are painful, and if parents talk about the problems they may be forced to remember the past and feel the pain. These issues must be addressed before beginning the assessment of the infant; a range of methods can be helpful to allow families to tell their stories.

With the method of infant mental health assessment described in the tape, most families are seen in their homes. Vignettes of assessment sessions with families are used to demonstrate how information is sometimes offered by way of parent-infant interaction or by way of stories or behaviors that may appear unrelated to the questions at hand. Careful attention is paid to what parents say about their child, to the child (or children), about other people, eye contact or aversion of gaze, to touch or lack of physical contact. Such communications may be more important than overtly conscious offerings. Becoming immersed in the family's life, with their special communication styles and struggles to cope with each other and with what each has brought from the past, supports the process of evaluation, diagnosis and the design of an intervention that will truly aid the family and the development of their baby.

Part Two of the tape continues with a review of the particular behaviors that constitute an infant mental health assessment. The full assessment will require four or five sessions.

Detailed information is offered about questions to ask families that will help them to talk about their child and suggestions are offered about how to organize the material for a report. This tape is intended for use in professional training.

Publications:

DEC Recommended Practices: Indicators of Quality in Programs for Infants and Young Children with Special Needs and Their Families (1993) - DEC Task Force on Recommended Practices (The Council for Exceptional Children, 1920 Association Drive, Dept. K3012, Reston, Virginia 22091-1589) $20.00 plus $2.50 postage and handling.

The purpose of this document is to describe a set of indicators that the Division for Early Childhood (DEC) recommends for early intervention and early childhood special education programs for infants with infants and young children with special needs and their families. The indicators are designed to be useful for professionals in reflecting on their practice, for program designers, and for families selecting services for their child with special needs. The document covers family participation, IFSPs and IEPs, service delivery models, general and specific intervention strategies, transition, personnel competence, program evaluation, early intervention with children who are gifted, and assessment.

Five **preassessment activities** are recommended: 1) Professionals contact families and share information about the assessment process. 2) Professionals solicit and review existing information from families and agencies. 3) Professionals and families identify the questions and concerns that will drive the choice of assessment materials and procedures. 4) Professionals and families identify pertinent agencies, team members, and team approaches to be employed. 5) Professionals and families identify a mode of teaming that fits individual children's needs and families' desires to collaborate.

Thirteen **procedures for determining eligibility, program placement, program planning, and monitoring** are recommended: 6) Professionals gather information from multiple sources and use multiple measures. 7) Professionals gather information on multiple occasions. 8) Team members discuss qualitative and quantitative information and negotiate consensus in a collaborative decision-making process. 9) Team members select assessment instruments and procedures that have been field-tested with children similar to those assessed for the purposes intended. 10) Assessment approaches and instruments are culturally appropriate and non-biased. 11) Professionals employ individualized, developmentally compatible assessment procedures and materials that capitalize on children's interests, interactions, and communication styles. 12) Materials and procedures, or their adaptations, accommodate the child's sensory and response capacities. 13) Professionals assess strengths as well as problems across developmental or functional areas. 14) Measures and procedures facilitate education and treatment rather than only diagnosis and classification. 15) Measures are sensitive to child and family change. 16) Professionals assess not only skill acquisition, but also fluency, generalization, and quality of progress. 17) Professionals maintain confidentiality and discretion when sharing information. 18) Curriculum-based assessment procedures are the foundation or "mutual language" for team assessment.

Six recommended practices deal with **assessment reports**: 19) Professionals report assessment results in a manner that is immediately useful for planning program goals and objectives. 20) Professionals report assessment results so that they are understandable to and useful for families. 21) Professionals report strengths as well as priorities for promoting optimal development. 22) Professionals report limitations of assessments. 23) Reports contain findings and interpretations regarding the interrelatedness of developmental areas. 24) Professionals organize reports by developmental/functional domains or concerns rather than by assessment device.

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) (1994) -American Psychiatric Association (American Psychiatric Association Press, Inc., 1400 K Street, N.W., Washington, D.C. 20005-2403) $54.95, hardcover; $42.95, paperback.

This 912-page volume represents the first complete change in the American Psychiatric Association's *Diagnostic and Statistical Manual* in 13 years. DSM-IV was the product of 13 Work Groups, each composed of 5 or more members whose reviews were critiqued by between 50 and 100 advisers, chosen to represent diverse clinical and research expertise, disciplines, backgrounds, and settings. A Task Force provided oversight and also maintained liaison with more than 60 associations and organizations. The editors note: "It is our belief that the major innovation of DSM-IV lies not in any of its specific content changes but rather in the systematic and explicit process by which it was constructed and documented. More than any other nomenclature of mental disorders, DSM-IV is grounded in empirical evidence."

DSM-IV includes a chapter on disorders usually first diagnosed in infancy, childhood, or adolescence (but stresses that this grouping is for convenience only and is not meant to suggest that there is any clear distinction between "childhood" and "adult" disorders.) In this section are included mental retardation, learning disorders, motor skills disorder, communication disorders, pervasive developmental disorders, attention-deficit and disruptive behavior disorders, feeding and eating disorders o infancy or early childhood, tic disorders, elimination disorders, and other disorders, including separation anxiety disorder, selective mutism, reactive attachment disorder of infancy or early childhood, and stereotypic movement disorder.

Mental Retardation: Definition, Classification, and Systems of Supports, Ninth Edition (1992) -American Association on Mental Retardation (American Association on Mental Retardation, 1719 Kalorama Road, N.W., Washington, D.C. 20009-2683) **$65.00**

This edition of the regularly published manual by the AAMR is based on an evolving understanding of the concept of mental retardation and how it can be best defined and classified. Changes in this edition reflect a changing paradigm, a more functional definition, and a focus on the interaction between the person, the environment, and the needed supports. Four dimensions are used in a three-step process to diagnose mental retardation, evaluate strengths and weaknesses, and identify a personal profile of supports and their levels of intensity. Based on the theoretical background of the definition, the manual shows how to operationalize the three-step process and provides case studies and sample information form to assist implementation. A list of resources and references is also included.

Children with Disabilities: A Medical Primer (1992) - Mark L. Batshaw and Yvonne, M. Perret, editors (Paul H. Brookes Publishing Company, P.O. Box 10624, Baltimore, MD 21285-0624) **$29.00**

This third edition of *Children with Disabilities* is designed for use by professionals, parents, and students. Discussion of the causes of disabilities before, during, and after birth is followed by information about medical and scientific advances; specific developmental disabilities; and medical, rehabilitative, and educational interventions. Individual chapters address the threat to child development posed by alcohol, cocaine, and AIDS; the technology-related child; dual diagnosis; psychiatric disorders and mental retardation; neural tube defects; spina bifida and myelomeningocele; and traumatic brain injury. The final chapters examine the ethical and moral issues most families face as they work with their children with disabilities.

The editors assist the reader by including succinct summaries of information in each chapter; using bold type to indicate terms listed in the glossary; and providing a comprehensive reference list at the end of each chapter. Graphics and other visual aids are designed to make the primer understandable to any interested reader.

Assessment of Young Children (1994) - Libby G. Cohen and Loraine J. Spenciner (Longman Publishing Group, 10 Bank Street, White Plains, New York, 10606.**$49.50**

This volume is designed as an introductory guide to the assessment of infants, toddlers, and young children from birth to eight years of age. It aims to provide the reader with a basic understanding of the assessment process, assist in the development of assessment skills, and show how the results of assessment are linked to planning for intervention. Written to reflect recent changes in the field of early intervention, the book reviews the requirements of the IDEA and includes separate chapters on the family's role in the assessment process, observing young children in their environment, assessing play, using alternative assessment instruments, program evaluation, and report writing. Individual chapters include a set of goals for the reader, definitions of key terms, discussion of best professional practices, and questions for reflection. Many chapters include case illustrations. An Instructor's Manual is available, which includes chapter outlines, transparency masters, class activities, discussion questions, and a test blank.

Normal Development of Functional Motor Skills: The First Year of Life (1993) - Rona Alexander, Regi Boehme, and Barbara Cupps (Therapy Skill Builders, P.O. Box 42050, Tucson, Arizona 85733-7500)**$49.00**

This volume provides a clinical, anatomically specific description of the development of a baby's motor skills in the first year of life. The book discusses milestones usually achieved during the first year of normal development, with the expressed purpose of assisting those in the pediatric field in understanding how children develop functional skills. That understanding, the authors suggest, can be used to assess the functional motor levels of children in their care and to guide treatment of children with neurological involvement and developmental disabilities.

Each chapter of the book describes a different level of development related to postural control, gross motor development, fine motor development, oral motor development and respiratory functions, and speech and language. A summary chart and list of reference materials ends each chapter.

Multiple Intelligences: The Theory in Practice (1993) - Howard Gardner (Basic Books, 10 East 53rd Street, New York, NY 10022-5299) $30.00, hardcover; $15.00, paperback.

In his 1983 work, *Frames of Mind*, developmental psychologist Howard Gardner identified seven distinct intelligences — linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal — which he believes are manifest to a greater or lesser extent in each individual. In this new volume, Gardner discusses the practical applications of Multiple Intelligence (MI) theory and argues for "individual-centered learning," designed to maximize the strengths and circumvent the weaknesses of each student. Gardner maintains that as a society we place an inordinate value on linguistic and logical-mathematic intelligences. By recognizing and nurturing all of the varied human intelligences, asserts Gardner, "not only will people feel better about themselves, (but) I think we will have at least a better chance of dealing appropriately with the many problems that we face in the world."

Brain Development and Cognition: A Reader (1993) - Mark H. Johnson, editor (Blackwell Publishers, 238 Main Street, Suite 501, Cambridge, Massachusetts 02142). $64.95 hardcover; $26.95, paperback.

This comprehensive "reader" includes essays and theses that focus on the relationship between the developing brain and mind. Admitting to past uncertainties about whether he should call himself a "cognitive neuroscientist" or a "developmentalist," the editor notes that each field is crucially dependent on the other and argues that significant progress in either field will depend on interaction between them. Aimed at the serious student or researcher/teacher in cognitive science, neuroscience, or neuropsychology, the reader addresses such topics as brain maturation, brain maturation and cognition, brain plasticity, brain plasticity and cognition, constraints on plasticity, and self-organization.

Infant Cognition: Predicting Later Intellectual Functioning (1993) - John Colombo, editor (SAGE Publications, 2455 Teller Road, Newbury Park, California 91320) $17.50.

As Volume 5 of the Sage Series on Individual Differences and Development, this book studies those measures that have been confirmed as accurate indicators of predictability on attention and learning aspects of information processing during infancy, with the hope that the measures might give a better prediction of later intellectual functioning. Four specific measures have been identified: fixation duration, novelty preference in the paired-comparison paradigm; operant retention; and reaction time. By reviewing the history of the development of these measures, data collection, their psychometric properties, and the evidence of predictive validity, the authors of this volume explore the idea that continuity in intellectual development from infancy exists. The book reviews past and present work in the field and considers a range of theoretical perspectives on infant behavior and development.

Supporting and Strengthening Families: Vol. 1, Methods, Strategies, and Outcomes (1994) - Carl J. Dunst, Carol Trivette, and Angela Deal, editors (Brookline Books, P.O. Box 1046, Cambridge, Massachusetts 02238) $25.00.

This collection of papers updates the thinking and practices described in the editors' 1987 volume, *Enabling and Empowering Families*, for which it is intended as a companion text. The book addresses theory, practice, and outcomes of adopting an empowerment and family resource approach to supporting families and strengthening individual and family functioning. For readers interested in assessment, individual chapters address issues of measuring the adequacy of resources in households with young children, assessing family strengths and capabilities, and measuring social support in families with young children with disabilities. The editors note that "needs identified by a family constitute a particular kind of strength, and...intervention practices that are responsive to what a family establishes as its priorities and goals will have more positive influences and consequences on child, parent and family functioning because the family is more likely to embrace them."

Contributors include Kimberly Boyd, Jeffri Brookfield, Janet Cornwell, Michelle Davis, Angela G. Deal, Hope Leet Dittmeier, Carl J. Dunst, Deborah W. Hamby, Charlie Johanson, Nancy LaPointe, Donald W. Mott, David Sexton, Rebekah B. Thompson, and Carol M. Trivette.

Zero to Three: A Topical Index for Volume 14

This index groups by topic the articles and reviews of publications and videos that have appeared in *Zero to Three* from August/September, 1993 through June/July, 1994. When an item is listed as "review of," this means that a brief summary of the publication or video appears in the issue of *Zero to Three* indicated.

The special themes for each issue of Volume 14 have been as follows:

August/September, 1993	Training approaches for infant/family practitioners
October/November, 1993	The sensory experiences of infants and toddlers
Dec.,1993/Jan.,1994*	Caring for infants and toddlers in violent environments
February/March, 1994	Parent/professional relationships
April/May, 1994	Infant/toddler child care
June/July, 1994	Developmental assessment of infants and young children

Back issues of *Zero to Three* are available for $6 each from ZERO TO THREE, 2000 14th Street North, Suite 380, Arlington, VA 22201-2500 or by calling 1-800-899-4301 (in the District of Columbia, Northern Virginia, and Southern Maryland, 703-528-4300). Shipping and handling charges are $2.50 for orders under $10.00, $4.00 for orders over $10.00. Payment may be by check or credit card (for phone orders). *Zero to Three* reserves the right to supply photocopies of issues no longer in print.

* Note: The December, 1993/January, 1994 issue of *Zero to Three* contained the complete text of the publication, *Caring for Infants and Toddlers in Violent Environments: Hurt, Healing, and Hope*, developed by the ZERO TO THREE Study Group on Violence. This publication was edited by Joy D. Osofsky and Emily Fenichel. Contributors included James Garbarino, Betsy McAlister Groves, Beverly Roberson Jackson, J. Ronald Lally, Alicia Lieberman, Steven Marans, Dolores G. Norton, Joy D. Osofsky, Marilyn M. Segal, and Charles H. Zeanah. *Caring for Infants and Toddlers in Violent Environments* is available for $4.95 plus $2.50 shipping and handling.

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