

**ADDRESSING MISSED OPPORTUNITIES FOR
EARLY CHILDHOOD MENTAL HEALTH INTERVENTION:
CURRENT KNOWLEDGE AND POLICY IMPLICATIONS**

Report of the Task Force on Early Mental Health Intervention

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Introduction

The Surgeon General's Conference on Children's Mental Health in September 2000 was a landmark for national administrative leadership in recognizing the importance of and need for addressing mental health problems of children and adolescents. It was the intent of Dr. Satcher, the Surgeon General, that our country work to ensure that every child has a healthy start in life. While this commonly refers to physical health, Dr. Satcher viewed mental health as just as fundamental to well-being as physical health. Yet, the report notes that we have no mental health equivalent to the federal government's commitment to childhood immunization. The conference participants pointed to missed opportunities for prevention and early identification of mental health problems and fragmented mental health services. The stigma that is associated with being diagnosed with mental illness may hinder families' and care providers' willingness to pursue mental health services. The Surgeon General's Report describes the following as its overarching vision: "Mental health is a critical component of children's learning and general health. Fostering the social and emotional health in children as a part of healthy child development must therefore be a national priority. Both the promotion of mental health in children and the treatment of mental disorders should be major public health goals." To achieve these goals, the Surgeon General's National Action Agenda for Children's Mental Health takes as its guiding principles a commitment to:

1. Promoting the recognition of mental health as an essential part of child health;
2. Integrating family, child and youth-centered mental health services into all systems that serve children and youth;
3. Engaging families and incorporating the perspectives of children and youth in the development of all mental healthcare planning; and
4. Developing and enhancing a public-private health infrastructure to support these efforts to the fullest extent possible. (U.S. Public Health Service, 2000).

Early identification is a theme that runs through much of the conference report. This is appropriate in that research shows that brain development and experience in early childhood may set the course for many future behavior patterns (Shore, 1997). The following report focuses on

the current knowledge and gaps in understanding that must guide the needed policy directions to improve mental health service delivery in early childhood.

What We Know About Early Risks for Mental Health Disability

Research on the etiology of mental health problems in young children has benefited from a variety of technological advances in recent years that have provided greater knowledge about neurobiological factors related to emotional disturbance. Use of electroencephalograms (EEG), measurement of autonomic nervous system responses, and magnetic imaging have begun, and will continue, to expand our knowledge of typical and atypical brain response to various environmental conditions.

An additional research strategy has been longitudinal studies of young children into adolescence to evaluate the impact of risk and protective factors on later behavior and development. These studies may follow children from specific high-risk groups, such as children of depressed or schizophrenic parents, or evaluate young children with early behavior problems to identify those factors that may serve as etiological contributors to their difficulties. Research on etiology of mental health problems in young children, from a developmental psychobiological perspective, falls into five major categories: (a) biological risk, (b) genetic risk, (c) family relationship risks, (d) experiential risks, and (e) social environmental risks and their impact on brain development and psychosocial functioning. The following discussion will highlight major research in each of these areas.

Biological Risks for Emotional Disability

A number of specific biological factors are associated with behavioral and developmental problems. Premature birth may result in neuropsychological insults that can contribute to behavioral and emotional difficulties (Hack et al., 2002). Prenatal exposure to alcohol, tobacco smoke, and drugs also has been found to have an impact on neurocognitive processes and is associated with a variety of behavioral problems (Cornelius, Ryan, Day, Goldschmidt, & Willford, 2001; Mattson & Riley, 1998; Bandstra, Morrow, Anthony, Accornero, & Fried, 2001). A particularly strong contributor to later adjustment from both a risk and protective factor standpoint is individual temperament. Temperament refers to biologically based differences in the

individual's capacity to adapt behavior in response to the environment. Studies of temperament suggest considerable stability in temperament classification for the individual through the early years, with a tendency for children with difficult temperament to have an increased prevalence of emotional and behavioral difficulties, while easy temperament seems to contribute to resilience for good behavioral outcomes, even in the face of dysfunctional family factors (Tschann et al., 1996; Blackson, 1995).

Hyperactivity and externalizing behaviors seen in children as young as 3 years old serve as significant predictive factors for later behavioral disturbance both in home and school settings (Campbell & Ewing, 1990; Pierce, Ewing, & Campbell, 1999). A biological basis is suspected for where children fall on the continuum of activity level. However, psychosocial factors may serve as mediators to activity level and many of the other biologically based risk factors described above. Thus, children with similar biological risk factors may have better or worse outcomes, depending on the nature of the psychosocial environment in which they are reared (McCormick, McCarton, Brooks-Gunn, Belt, & Gross, 1998; Bendersky & Lewis, 1994).

Genetic Risks

Understanding of the genetic basis of several mental health disorders has increased in the past decade. Chief among these disorders are schizophrenia and depression. Children of a schizophrenic parent show a disproportionate prevalence of poor neurobehavioral functioning at an early age as compared to offspring of nonpsychotic parents (Hans et al., 1999). Nearly three quarters of a sample of school-age children of schizophrenic parents were found to have a psychiatric disorder, with 9% showing a psychotic disorder. Other common diagnoses for this population included Attention-Deficit/Hyperactivity Disorder (ADHD) and anxiety disorder (Ross & Compagnon, 2001).

Infants of depressed mothers also show early evidence of neurobehavioral abnormalities. They show abnormalities in EEG profiles, in vagal tone responses, and in levels of epinephrine and norepinephrine (Dawson et al., 1999; Field et al., 1995). These biological markers may be associated with the infants' tendencies to show more negative affective states. The contribution of the depressed mother to the mother–infant relationship must also be considered, in that infants of

depressed mothers have been shown to interact more positively with nondepressed caregivers (Pelaez-Nogueras et al., 1994). Both genetic and social factors could be implicated in the finding that at early school age, children whose mothers had been depressed when they were three months to 3 years old had more aggression and antisocial behaviors and poorer academic performance than children of non-depressed mothers (Wright, George, Burke, Gelfand, & Teti, 2000).

Family Interaction Risks

Family interactions have a strong association with behavior problems in young children. Family influences include both parenting style factors and psychosocial factors, such as low parental education level. Low family cohesion is associated with disruptive disorders and emotional disorders within a primary care pediatric sample of young children (Lavigne et al., 1999). High levels of maternal rejection are associated with externalizing behaviors in young children in low-income families (Shaw et al., 1998).

Mothers who show negative dominance in interaction with their 2-year-old sons had boys with more externalizing problems and aggression with peers than boys of mothers who used warmth (Rubin, Hastings, Chen, Stewart, & McNichol, 1998). Similarly, an intrusive style of caretaking in infancy was found to be associated with poor social–emotional functioning at early school age (Egeland, Pianta, & O'Brien, 1993).

A significant body of literature has focused on attachment behaviors of young children and their mothers, and their concurrent and predictive association with behavior problems. In a sample of preschool boys with early onset conduct problems, more than half of the group exhibited insecure attachments with their mothers, as opposed to 18% of the comparison group. Attachment was not predictive of diagnostic status in this clinic sample 1-2 years later (Speltz, DeKlyen, & Greenberg, 1999). Insecure and atypical attachment measures at 24 months were found to be predictive of internalizing and externalizing behaviors at 3.5 years, although the 12- and 18-month assessment measures were not (Vondra, Shaw, Swearingen, Cohen, & Owens, 2001). Both avoidant and disorganized attachments in association with maternal depression in

preschoolers were predictive of externalizing behaviors at age 9 (Munson, McMahon, & Spieker, 2001).

Risk pathways may differ for boys and girls. Mother–child interaction predicted toddler social–emotional problems for girls, while depressive symptomatology predicted problem behaviors for boys (Carter, Garrity-Rokous, Chazen-Cohen, Little, & Briggs-Gowen, 2001). Fathers may also play a role. Negative aspects of fathering, such as harsh punishment, and positive aspects, such as secure attachment to father, have an association with whether or not the sons show early conduct problems (DeKlyen, Speltz, & Greenberg, 1998). Shaw, Owens, Giovannelli, and Winslow (2001) found support for social learning and attachment models, and conclude that severe conduct problems in early childhood are the result of deficits in the caregiving environment.

The majority of the above studies have focused on American child-rearing styles at different socio-economic levels. A number have addressed disadvantaged parents, some of whom are members of racial/ethnic minority populations. The impact of parenting styles on social-emotional functioning of young children must take into consideration racial/ethnic and cultural differences. Racial/ethnic differences in the relation of parenting strategies to mental health outcomes among specific minority populations are well covered by Wilson (1995), McAdoo (1997), Hill (1999), and Booth and Crouter (2001). A few exemplary studies are described here.

An examination of disciplinary practices in working- and middle-class African American mothers who were part of a preschool program in middle- and lower-class neighborhoods found that more educated mothers were more interactive and responsive in discipline, more child-oriented, and less restrictive than were less educated mothers. Older, more educated mothers were less punitive than were young mothers with less education. Further, older, more educated, married mothers were more democratic, autonomy encouraging, and child-oriented than were young, single mothers with less education. Religiosity was also indicative of a more child-oriented approach. Conversely, young, single mothers with less education were more likely to emphasize obedience, use physical punishment, and employ a more parent-oriented approach (Kelley, Power, & Wimbaugh, 1992; Kelley, Sanchez Hucles, & Walker, 1993).

Luster and McAdoo (1996) examined the differing social contexts of African American youth and how the contexts play a role in the behavioral, socioemotional, and cognitive outcomes of the children. The factors predicted to play a role in child outcome were maternal intelligence, quality of the home environment, family size, maternal education, poverty, maternal adjustment, presence or absence of a father, school-age childbearing, and urban residence. Participants were African American children between the ages of 6 and 9. Children with the highest scores on competence came from homes with relatively more intelligent mothers, a supportive environment, and a small family size. Mothers who delayed childbearing had higher scores on maternal intellectual ability tests, had more education, were less likely to live in poverty, provided more supportive home environments, and had fewer children. Larger numbers of children seemed to lead to a more authoritarian approach, and to increased conflict in the home. Maternal school involvement in early childhood was found to be associated with child competence.

Although there are other studies that questioned whether the common conceptualization of authoritative parenting generalized across racial/ethnic groups, Luster and McAdoo (1996) found some support for protective aspects of authoritative parenting in African American families as well. Uninvolved parenting, along with racial discrimination and criminal victimization, have been associated with childhood depressive symptoms (Simons et al., 2002).

Koenig, Ialongo, Wagner, Poduska, and Kellam (2002) found child aggression to be associated with African American caregivers' high use of negative strategies. High negative caregiver strategies were associated with psychopathology in adulthood and a doubled rate of suicidal ideation. In a contrary finding, Deater-Deckard, Dodge, Bates, and Pettit (1996) found harsh, but non-abusing disciplining to be associated with aggression in school for European American children but not African American children.

In a study of Latino preschool children, Weiss, Goebel, Page, Wilson, and Warda (1999) found that children in immigrant families from Central America whose families had internal coping strategies and dissatisfaction with family interactions, had more depression and social withdrawal.

Studies with Chinese American families also suggest parenting practices specific to that ethnic group. Chinese families may put an emphasis on formal educational goals even in

preschool. Huntsinger, Jose, and Larson (1998) found this approach not to have an effect on social emotional adjustment of the children. Immigrant Chinese mothers use an authoritarian style with their preschool children that is associated with greater cognitive competence (Wang & Phinney, 1998). Child resilience was found to be related to a parenting style combining Chinese and American elements in middle class immigrant families (Honig & Wang, 1997).

Parenting interactions are regarded as important factors in the development of psychopathology in the offspring. Maladaptive parenting behaviors would include harsh punishment, inconsistent rule enforcement, poor parental anger control, verbal abuse, low maternal warmth, and poor parental communication. Johnson, Cohen, Kasen, Smailes, and Brook (2001) found that maladaptive parenting in early childhood contributed to psychopathology in the offspring, independent of whether the parents themselves had psychiatric disorders. This study offers strong support for the contribution of family interactions over even biological predisposition in the etiology of psychopathology.

With increasing numbers of children in home- and group-based day care, there is interest in the potential impact of nonparental caregiving on children's psychological functioning. Some studies have suggested that more time in nonmaternal care is associated with less positive mother-child engagement (National Institutes of Child and Human Development Early Child Care Research Network, 1999). Other studies have found day care to be unrelated to aggression (Rubin, Hastings, Chen, Stewart, & McNichol, 1998) and that children with early day care experience have higher levels of competence than those in home care (Schuetze, Lewis, & DiMartino, 1999). An important variable for outcome seems to be the quality of the day care setting (Burchinal, Peisner-Feinberg, Bryant, & Clifford, 2000).

Deater-Deckard, Pinkerton, and Scarr (1996) found that behavior of 4-year-old children who had been in early full-time child care was related to home environment factors but not to indicators of day care quality. Moderating influences of family characteristics are observed for some outcomes related to early child care, with stronger positive effects of child care quality for children from more at-risk backgrounds (Peisner-Feinberg et al., 2001).

Quality early childhood programs would appear to offer a productive avenue for promoting mental health in young children, and serving as a point of early identification and service delivery. However, many programs lack the infrastructure and professional support to provide this role (Task Force on Psychology in Early Education and Care, 2003)

Experiential Risk Factors

Traumatic stressors in the living environment are hypothesized to be factors in the development of psychopathology in young children. Post traumatic stress disorder (PTSD) describes a state of emotional disturbance resulting from an event or series of events. Child sexual abuse and exposure to violence are situations that may serve as sources of PTSD. Children with early physical and sexual abuse show increased rates of major depression and hyperactivity. Circadian dysregulation was found in these abused children, but was more common when abuse occurred at later age in the prepubertal period (Glod & Teicher, 1996). Other physiological features of PTSD resulting from child abuse are expressions of chronic hyperarousal. These include depression, which is associated with high levels of cortisol, and irritable bowel syndrome (Kendall-Tackett, 2000).

Children who witness violence are at increased risk of displaying PTSD, depression, aggression, and externalizing behavior disturbance (Buka, Stichick, Birdthistle, & Earls, 2001). Ethnic minority children growing up in resource-poor communities are at increased risk for depression as a complex response to the environmental stressors (Barreto & McManus, 1997).

Environmental disasters can also serve as causes of PTSD. Children affected by Hurricane Hugo were found to experience PTSD, but the children's trait anxiety and emotional reactivity were more strongly related to symptoms of PTSD than was their exposure to damage and displacement (Lonigan et al., 1994). Immigrant children, especially those with refugee status, may experience stresses that contribute to psychopathology. PTSD, depression, and somatization were common among these children (Weiss, Goebel, Page, Wilson, & Warda, 1999; Hodes, 2000).

Social Environmental Risk Factors

Some studies have found social environmental risk factors to have a large effect on behavior outcomes for young children, at times outweighing many biological risk factors (Greenberg, Domitrovich, & Bumbarger, 2001). Family composition also has a strong relationship to child mental health outcomes. Children in divorced families and those raised in single-parent homes have increased levels of emotional dysfunction. Even children living with a remarried parent showing increased levels of aggression and disobedience as compared to children in intact families (Pagani, Boulerice, Tremblay, & Vitaro, 1997). Children under 3 years of age in two-parent families perform better on measures of attachment, social behavior, and behavior problems than children in one-parent families. However, controlling for mothers' education and income reduced these differences, suggesting that psychological development was not affected as much by parental separation as by mothers' income and education (Clarke-Stewart, Vandell, McCartney, Owen, & Booth, 2000).

Disadvantaged mothers with unstable primary social relationships have young sons with more hyperactivity, aggression, and self-destructiveness than mothers in less chaotic relationships (Pianta, Egeland, & Hyatt, 1986). Chaotic relationship history is also associated with more general family disorganization and low social support.

Community risk factors, particularly those associated with poverty and discrimination against particular racial/ethnic groups, represent a significant factor for young children's mental health outcomes (Booth & Crouter, 2001).

It would appear that a combination of risk factors has the highest predictive value for early social-emotional problems in young children. These would include vulnerable child characteristics, poor parenting practices, attachment, and social environmental risk (Greenberg, Speltz, DeKlyen, & Jones, 2001). Early conduct problems seem to be a function of child, family, and sociodemographic factors. The quality of the caregiving environment during the child's second year of life appears to make an important contribution to later conduct problems (Shaw, Bell, & Gilliom, 2000). Further research is needed to determine the relative contribution of specific risk factors to the development of emotional disturbance.

Prevalence of Mental Health Disorders in Early Childhood

Attempts at determining prevalence of Diagnostic and Statistical Manual of Mental Disorders (DSM) diagnoses have been conducted on both clinically referred and non-referred populations. In a review of the prevalence of psychopathology in children, Roberts, Attkisson, and Rosenblatt (1998) found median rates for preschoolers at 8%. Rates of DSM-III-R disorders among preschool children from low income families were higher than those reported in the community, but similar to those for low income school age children (Keenan et al., 1997). In a primary care preschool sample, the prevalence of behavior problems was 8.3% (Lavigne et al., 1996).

Among preschoolers referred for psychiatric evaluation, the most common psychopathology was Attention-Deficit/Hyperactivity Disorder (ADHD) (86%), followed by disruptive behavioral disorder (61%), mood disorders (43%), and anxiety disorders (28%). Coexisting disorders were common (Wilens et al., 2002). In another recent study of preschool children seen for mental health services, the following diagnoses were given: disruptive behavior disorder (34%), adjustment disorder (26%), and developmental or pervasive developmental disorder (13%). Nearly 15% were not diagnosed with mental illness, having either no assigned diagnosis or environmentally-based problems (Pottick & Warner, 2002). Social phobia is also seen in young children, characterized by a high level of general emotional responsiveness, social fear, dysphoria, and poor social skills. There are few differences in the disorder based on gender or race (Beidel, Turner, & Morris, 1999). Having a parent with social phobia increases a child's risk for psychiatric disorder. Prevalence rates for disorders in these offspring were: overanxious disorder, 30%, social phobia, 23%, and separation anxiety disorder 19%. Sixty-five percent had more than 1 anxiety disorder diagnosis (Mancini et al., 1996).

Diagnosis of oppositional defiant disorder (ODD) in 2-5 year olds showed considerable stability over time but is also associated with later comorbid ODD and ADHD, ODD and anxiety disorder, and ODD and mood disorder (Lavigne et al., 2001).

Screening prevalence rates for ADHD have been found to be 15.8%, with inattention types relatively uncommon among preschoolers (3.9%). Clinically referred preschoolers were

similar to school age children in the quality of ADHD and in comorbidity (Wilens et al., 2002).

Racial disparities exist in teacher ratings of ADHD symptomatology, with African American students showing a higher prevalence than white students (39.5% vs. 14.2%), but ratings did not vary by socioeconomic status (Nolan, Gadow, & Sprafkin, 2001).

In comparing Head Start children for Anxious-Fearful Behavior versus Aggressive-Hyperactive-distractible behavior, White children scored higher on the anxious subtest, but no other racial/ethnic subscale differences were found for White, African American, Latino, and Asian children (Johnson, Gomez, & Sanders-Phillips, 1999). Other studies have found psychopathology by teacher ratings to be proportionately distributed across race and class (McDermott & Spencer, 1997).

Obsessive compulsive disorder (OCD) is relatively infrequent in young children but increases with age. In a British sample, children with OCD tended to have lower socioeconomic status and IQ (Heyman et al., 2001).

Both internalizing and externalizing disorders can be observed at an early age and show a considerable amount of stability with later psychiatric disorder.

Early Identification of Emotional Disturbance

Positive and Negative Aspects of Early Diagnosis

One of the barriers cited as contributing to underidentification of early childhood emotional disorders is a concern about the reliability of diagnosing emotional disorders from behaviors demonstrated in early childhood (Campbell & Ewing, 1990; Sanson, Oberklaid, Pedlow, & Prior, 1991). Negative consequences may result from identifying transient behaviors that are reflective of developmental phases as pathological. Looking at prevalence of antisocial behavior in a normative sample of preschool children, Willoughby, Kupersmidt, and Bryant (2001) found that 40% of preschoolers exhibit at least one antisocial behavior each day. Some behaviors seen as troublesome in the preschool period may no longer be seen at school age (Campbell & Ewing, 1990). Evidence exists that family factors, such as stress or cohesion, strongly contribute to persistence of early behavior problems (Lavigne et al., 1998a; Sanson, Smart, Prior, &

Oberklaid, 1993). Critics suggest that giving a child a diagnosis may result in a focus on treating the child, rather than on treating problems of caregiver management or family stress.

Further concern about diagnosing psychopathology in young children has to do with stigmatizing a child with a negative label that may affect how that child is treated by care providers. Differential treatment might contribute to a self-fulfilling prophecy of a child who ends up different because he has been viewed as such.

Knowledge about what constitutes normal and abnormal behavior in specific cultural groups is necessary in order to determine if a child's behavior is atypical. There is the risk of identifying a child as deviant even though the behavior may be normal for that child's cultural group (Johnson-Powell & Yamamoto, 1997).

Despite these concerns about the impact of giving a child an early diagnosis, there is increasing evidence that some behaviors seen in young children do persist and are predictive of later disturbance (Pierce, Ewing, & Campbell, 1999; Lavigne et al., 1998b). Early diagnosis could result in these children receiving early intervention and in reducing the likelihood of later disturbance.

Strategies for Diagnostic Classification

The most widely used classification schema for identifying emotional disorders in adults and older children has been the *Diagnostic and Statistical Manual of Mental Disorders 4th Edition* (DSM-IV) (American Psychiatric Association, 1994). Some research exists showing this system (along with its predecessor, *DSM-III Revised*) can be useful in providing differentiation in diagnostic categories of emotional disturbance for 2–5-year-olds, with moderate stability for all groups of disorders (Lavigne et al., 1994; Lavigne et al., 1998). Concern exists, however, that because it was not developed with young children in mind, the system does not give adequate distinction for young children on factors such as whether particular behaviors represent a normal perturbation in development as opposed to a diagnosable disorder. Early childhood is a period of rapid growth and development, so that observations over time may be necessary to determine if a behavior is transient. Further, infant and child behaviors need to be seen within a context of family and cultural expectations so their deviation from those that are typical may be better

understood. A modification of the *DSM-IV, The Classification of Child and Adolescent Mental Diagnoses in Primary Care: Diagnostic and Statistical Manual for Primary Care (DSM-PC) Child and Adolescent Version*, was designed to be used by providers in pediatric primary care settings. The intent of this modification was to assist primary health care providers in identifying children whose behavior difficulties would be amenable to pediatric guidance and those whose behaviors might suggest more serious disturbance and need referral to a mental health provider (Drotar, 1999). This system suffers from many of the pitfalls of the full *DSM-IV* when one attempts to diagnose disorders at one point in time and not necessarily in a broader context of contributing factors. Further research is needed in determining its reliability when used in the field by professionals without a mental health background and across varying socioeconomic and racial/ethnic groups.

In an effort to provide strategies for determining early diagnoses specifically for young children, a number of recent attempts have been made to develop diagnostic classification systems for identifying early childhood emotional difficulty. The most ambitious of these is a diagnostic classification system for disorders of infants and young children. The *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood (Diagnostic Classification: 0–3)* (Zero to Three–National Center for Clinical Infant Program, 1994) provides a greater developmental approach to classifying emotional disturbance in young children. Like the *DSM-IV*, the *Diagnostic Classification: 0–3* (DC: 0–3) is a multiaxis system. The axes range from one for a primary diagnosis to others that reflect parent–child relationships and psychosocial stressors. Use of other assessment tools and techniques is necessary for gathering information to support classification on the different axes. A strength in the utility of this system is that it may provide a more consistent definition of particular disturbed behavior constellations that will enable researchers to better understand the course of and treatment effects for these disorders. In use of the system with a group of children under age 5 referred for disruptive behavior, Axis I and Axis II and the Parent–Infant Relationship Global Assessment Scale helped to identify specific biopsychosocial risk factors especially in the parent–child relationship (Thomas & Clark, 1998).

Concerns about the DC: 0–3 particularly focus on the limited empirical evidence to support a number of the primary diagnostic categories. Some of the behaviors that supposedly characterize a disorder are overly general and not clearly defined. No quantifiable guidance is provided on how many characteristics are necessary to diagnose a particular disorder. While the authors envisioned field use of the new system as a way to stimulate expanded research and refinement of diagnostic categories in young children, other strategies to support research, such as National Institute of Mental Health (NIMH) initiatives, may result in more substantive research efforts. Wide circulation and use of the system by frontline service personnel from a variety of non-mental health disciplines also place young children at risk for overdiagnosis of emotional disorders, particularly in an era of managed care requirements for specific diagnoses. More research is needed on the validity of the diagnostic categories, the course of diagnosed disorders over time, and the training necessary for an individual to make reliable diagnoses. A revision and standardization is currently in progress that will address many of these concerns.

Measurement of Disordered Behavior

Specific measures of social–emotional behaviors in young children range from direct observations of child behavior to parent and caregiver behavior checklists. The following provides a brief overview of available measures.

Observational Measures of Interaction

Perhaps because they are time consuming and require a high level of training, observational rating systems of caregiver–infant interaction are not widely used in clinical diagnoses. Yet behavior observed in the "Strange Situation" (Ainsworth, 1979) shows strong correlation with later behavior disorders. Anxious attached infants at 12–18 months old have more behavior problems at ages 4–5 years (Erickson, Sroufe, & Egeland, 1985). Infants with disorganized/disoriented classification at 18 months show more hostile/aggressive behaviors in preschool (Lyons-Ruth, Alpern, & Repacholi, 1993; Shaw, Owens, Vondra, & Keenan, 1996), however, early attachment behaviors can be mediated by maternal child-rearing strategies. Infants who show early insecure attachment were found to show good competence at early school age if their mothers were emotionally supportive and set consistent limits and routines.

Infants who had had early secure attachments but whose mothers were less confident in setting limits had more behavior problems at early school age (Egeland, Kalkoske, Gottesman, & Erickson, 1990).

The Nursing Child Assessment by Satellite Training (NCAST) Feeding Scale and the NCAST Teaching Scale have been used in numbers of research studies to identify disordered interaction in high-risk mothers and infants (Barnard, 1978a; Barnard, 1978b). The Feeding Scale in particular has been found to effectively differentiate infants and mothers at risk (Farel, Freeman, Keenan, & Huber, 1991).

The Home Observation Measurement of the Environment Inventory (HOME) (Caldwell & Bradley, 1984) is one observational rating scale that has been used more widely in clinical, as well as research, situations. This observational checklist assesses the quality of the environment provided by the parent in the home, daily family caregiving routines, and observed mother–child interactions. An abbreviated parent-completed version, the Home Screening Questionnaire (HSQ) (Coons, Gay, Fandal, Ker, & Frankenburg, 1981) is also available and has been found to be able to identify homes inadequate in their support of child development (Camp & Headley, 1994).

The above measures have been tested across a variety of socioeconomic and racial/ethnic groups.

Behavioral Ratings

Behavioral ratings provided by parents and other care providers, such as day care staff, are the most frequently used method of assessing behavior in young children. These ratings generally focus on caregivers' observations of a child's interactions with adults, peers, and the environment. As a whole, coping with these skills reflects a child's social competence. Other measures focus on more specific child traits, such as temperament. Concern exists about the validity of these measures across racial/ethnic groups. Interestingly, no parent cultural differences were found in a study of parental ratings of 10 empirically derived problem syndromes in relation to their children's behavior (Weisz & McCarty, 1999).

Temperament measurement

Temperament has been explored extensively for its association with disturbed behavior and its reliability as a predictor. Temperament is often measured by a scale developed by Carey and McDevitt (1981), the Revised Infant Temperament Questionnaire, and a newer revision, the Early Infancy Temperament Questionnaire (Medoff-Cooper, Carey, & McDevitt, 1993). The scale has also been extended to preschoolers in the Toddler Temperament Questionnaire (Fullard, McDevitt, & Carey, 1984). A more recent temperament measure that shows ease of administration, but good predictive validity, is the Pictorial Assessment of Temperament (Clarke-Stewart, Fitzpatrick, Allhusen, & Goldberg, 2000).

The majority of interest in temperament research has focused on difficult temperament. While difficult temperament has been found in numbers of studies to be associated with later behavior difficulties, as a single factor it shows only modest predictive validity (Sanson, Oberklaid, Pedlow, & Prior, 1991). Among temperament classifications, difficult temperament does not even show the greatest stability. Approach, rhythmicity, and inflexibility show the greatest continuity from infancy to age 8 years (Pedlow, Sanson, Prior, & Oberklaid, 1993). Another recently developed temperament measure is the Temperament and Atypical Behavior Scale (TABS) (Bagnato, Neisworth, Salvia, & Hunt, 1999). This tool looks at regulatory behaviors and temperament behaviors in children ages 11–71 months. Evidence points to a transactional view of temperament as a factor in the development of behavior problems. While it is an important variable, it must be considered within a contextual framework. Cumulative risks, including perinatal factors, maternal mental health, and the organization of the home environment must be considered along with temperament variables, with the presence of two or more risks a stronger predictor than any single risk (Sanson et al., 1991).

Other early childhood behavior rating scales

Other measures are available to rate infant behavior even in the first weeks of life. The Brazelton Neonatal Assessment Scale (NBAS) (Brazelton & Nugent, 1995) and an abbreviated version, the Clinical Newborn Behavioral Assessment Scale (CLNBAS) (Nugent & Brazelton, 2001), look at the infant's response to environmental stimuli, including caregiver interactive

responses. The scales were designed to assess the intactness of these responses in infants at biological risk. The NBAS has also been used to assess interactive quality of infants with mothers, such as substance-abusing mothers, who are at risk (Britt & Myers, 1994).

A number of measures have been recently released that allow for assessment of early childhood social–emotional functioning through behavior ratings. The Infant–Toddler Social and Emotional Assessment (ITSEA) (Briggs-Gowan & Carter, 1998) is a parent-report measure for infants ages 12–36 months. The rather lengthy ITSEA looks at externalizing and internalizing behaviors, dysregulation, and competence. The scale is undergoing revisions to increase its utility, validity, and reliability. The Devereux Early Childhood Assessment program (DECA) (LeBuffe & Naglieri, 1998) assesses child competence and attachment in children ages 2–5 years. Psychometric properties of the measure appear to be adequate (LeBuffe & Naglieri, 1999). The Ages and Stages Questionnaires—Social–Emotional (ASQ–SE) screening for social–emotional problems was recently released in a field test version as an addition to the previously developed parent-completed developmental progress questionnaire, the ASQ. Separate questionnaires are available for screening children at six-month intervals from 6 months to 3 years and also at ages 4 and 5 years (Squires, 2000).

The Early Screening Project is a preschool-based project to identify early emotional and behavioral problems. The program has developed a battery that has been used in screening more than 2,500 children nationally for internalizing and externalizing behaviors through teacher ratings and observations (Feil, Severson, & Walker, 1998; Feil, Walker, Severson, & Ball, 2000).

The most widely used measure of behavior for preschool and school-age children is the Child Behavior Checklist (CBCL) (Achenbach, 2002). Most recently, the scale has been extended downward from its previous basal age of 2 years to 1 1/2 years. The preschool form now spans from 1 1/2 to 5 years. The newest version includes a few changes in items. The behavior items cluster into empirically based scales, which include emotionally reactive, anxious/depressed, somatic complaints, withdrawn, attention problems, and aggressive behavior. Separate forms are available for ratings by parents and by caregivers or teachers. Measurement of behavior in two different settings, such as home and day care, is an important element in determining some of the

factors that may be associated with a disturbed behavior pattern in a child. Using the CBCL for prediction of later behavior, researchers found that those children demonstrating aggression at an early age continued to show this over time. Attention problems also showed high stability, though with different implications for boys than for girls. Inattentive young boys continued to show problems specifically with attention, but young inattentive girls went on to show more diverse behavior problems (Achenbach, Howell, McConaughy, & Stanger, 1995). Gender differences in outcomes for young children showing similar early emotional disturbance is an issue that has rarely been addressed in early diagnostic tools and has received only limited exploration in research.

Use of the CBCL with African American and Latina mothers of preschoolers have found significant correlations of CBCL ratings and maternal depression, social support, and life stress (Leadbeater & Bishop, 1994). African American children in Head Start Centers in violent neighborhoods show similar scores to the standardization sample on some problem scales of the measure, but not others (Randolph, Koblinsky, Beemer, Roberts, & Letiecq, 2000). Another study by Lambert, Rowan, Lyubansky, and Russ (2002) compared the problem behaviors of a clinically referred group of African American children to items on the CBCL. They found some agreement, but other problems did not match CBCL items. These authors suggested that some of the content and cultural validity of the CBCL for African American children 4 to 18 years may be questioned.

Summary of Issues in Diagnosis

An expanding variety of measures are now available to assist in identifying children with atypical social–emotional development. Recent tools have improved upon earlier measures in using empirically derived diagnostic categories and in demonstrating psychometric strengths. Because problems in emotional adjustment of young children appear to be affected by many factors, careful assessment must be made of family stressors, maternal emotional status, perinatal risks, and cultural expectations in addition to child behavior itself in making a diagnosis of emotional disturbance in early childhood.

Danger remains in overdiagnosis of pathology in children whose symptomatology may reflect transient behaviors, normal developmental variation, or normal response to stress.

Particular caution must be addressed in assumptions that disorder resides in the child, when in fact the problem lies in the family system or caregiving environment, or reflects particular racial/ethnic variations.

Effective Models for Treatment and Intervention

Approaches to Treatment in Early Childhood

With early identification of mental health problems in young children, there is the hope that treatment will result in healthy long-term outcomes. There is the belief that young children in their formative years may show even greater benefits from intervention than that demonstrated by adolescents and adults whose mental health problems are more firmly established. There is recent research on neurological development that lends support to this philosophy. Investigations of the maturation of neurological pathways suggest that early childhood is an important, if not critical period for development and refinement of brain behavior. These pathways are responsible for the individual's control of thoughts and impulses. Intervention directed at instilling healthy behavior patterns may have long-term impact when implemented in early childhood (Shore, 1997).

Intervention approaches can follow several avenues. The treatment may focus on the child, on the parent, on the interaction of the child and parent, or through the teacher in the group setting in which the child participates. The following discussion highlights several early mental health interventions.

Parent-focused and parent–child focused interventions

Many of the programs targeting infants and their families are preventative approaches focused on reduction of risk factors rather than specific disorders. Among those programs providing preventative intervention at a very early point in the child's life is that of Olds and colleagues (1998) and Eckenrode et al. (2001). This program was developed to improve parenting skills of young, disadvantaged, primarily White and African American mothers, through a home visiting program that began in the prenatal period and continued through the first 2 years of the child's life. This program was successful in reducing incidence of child maltreatment and later antisocial behaviors of the children. In contrast, the Comprehensive Child Development

program, which involved home visiting and case management for multirisk low-income preschoolers and their families at 21 sites, found no effect of the program on child or parent outcomes (Goodson, Layzer, St. Pierre, Bernstein, & Lopez, 2000).

The parent-infant model of Lieberman and colleagues (1991) focuses particularly on attachment issues in a birth to age 3 population. The model has been successful in improving both mother and child interactive behaviors in Spanish speaking families of low SES after a 1-year intervention (Lieberman, Weston, & Pawl, 1991; Lieberman, 1992).

The Toddler-Parent Psychotherapy Program has been used as a preventative program for infants and their depressed mothers. It was found to prevent the decline in IQ seen in children of depressed mothers by age 3 years (Cicchetti, Rogosch, & Toth, 2000).

Parent-Child Interaction Therapy is a treatment for conduct-disordered young children that trains parents in child-directed interaction and parent-directed interaction. The model has proven successful in reduction of conduct problems even at two-year follow up (Eyberg et al., 2001).

An intervention for depressed mothers of preschoolers with disruptive behaviors compared a behavioral family therapy intervention with a cognitive behavioral family intervention. Treatments were equally effective in reducing disruptive behaviors, but at six-month follow up, the cognitive behavioral participants maintained lower rates of maternal depression and child disruptive behaviors (Sanders & McFarland, 2000).

One of the most common problems families of young children experience is noncompliance (Barkley, 1987). While noncompliance and oppositional behavior are normal parts of child development, persistent noncompliance is a significant predictor of later behavioral difficulties. A recommended early intervention strategy to prevent establishment of more aggressive behavior is to train parents of young children to reinforce routine obedience (Forgatch & DeGarmo, 1999). Focusing on noncompliance may not be the best approach for older children (Cavell, 2001).

Child-focused interventions

These models tend to focus on children already exhibiting high-risk behaviors and deliver intervention either individually to the child or to small groups of children. The Primary Mental Health Project (PMHP) (Cowen et al., 1996) identified early school-age children with social-emotional or learning difficulties. The children received individual or small group sessions with a paraprofessional under supervision of a school psychologist. The focus of the intervention is the ongoing interaction of the child and the counselor during expressive play. While the model has not been tested by randomized design, the evaluations of its effectiveness suggest it is successful in reducing internalizing symptoms and acting-out behavior (Greenberg, Domitrovich, & Bumbarger, 2001).

A review of child-focused outpatient cognitive behavioral treatment of children with oppositional aggressive and antisocial behavior found that the greatest improvement was in child outcomes and smaller though significant improvement in parent and family functioning (Kazdin & Wassell, 2000).

The Coping Cat program is a manual-based treatment for children with anxiety disorders (Hudson, Krain, & Kendall, 2001). The approach has been successfully adapted to deal with comorbid diagnoses with anxiety, including ADHD, depression, and behavior disorders.

Group-Based Interventions

Group-based programs are usually implemented at the prevention/early intervention level through classroom-based approaches. Many of these programs are for school-age children, but recently have been adapted for preschool and early school-age children. The I Can Problem Solve (ICPS) model is derived from the excellent work of Shure and Spivack (1988) on cognitive problem-solving skills. The program for young children has demonstrated success in reducing inhibition and impulsivity, but there is no report of reduction of specific psychiatric problems (Shure, 1997). The Promoting Alternate Thinking Strategies (PATHS) program emphasizes identification and self-regulation of emotions (Greenberg & Kusche, 1997). It has successfully reduced conduct problems even at 2-year follow-up. Another first-grade based program is the Good Behavior Game (Barrish, Saunders, & Wolfe, 1969; Dolan et al., 1993). This model divides

students into teams to compete for rewards requiring specific standards for behavior. The program produced reductions in aggression and shy behavior (Dolan et al., 1993).

A Head Start based classroom program for children at risk for emotional and behavioral disorders was successful in improving adaptive behavior, social interaction, and attention measures. The program involved two weekly sessions for a 12-week period and focused on direction following, sharing, and problem solving (Serna, Nielsen, Lambros, & Forness, 2000; Forness et al., 2000).

Children with aggressive behaviors have been treated with the Anger Coping program developed by Lochman (Lochman & Wells, 1996). The children are taught self-control and problem-solving skills through small group role-playing activities. The program was found to show immediate effects in reducing disruptive classroom behavior, although these findings were not maintained at 7 months or 3 years after treatment. On-task behavior did show improvement at follow-up.

Group-based programs show particular promise for early intervention as at-risk children increasingly attend day care and formal preschool settings. These enable early screening, identification, and treatment delivery to large groups of children in a potentially cost effective manner.

Multicomponent interventions

Some studies have suggested that single-component interventions, such as home visiting, alone, may be not be as effective as combined interventions, such as home visiting with quality day care setting participation, to offset the risks of a high-risk environment (Ramey & Ramey, 1998). Studies have found improved psychosocial outcomes for children from high-risk environments who received both a home-visiting program and center-based day care in the early years of life (Campbell & Ramey, 1994). Generally, prevention programs that target children alone or parents alone have shown modest effectiveness. A comparison of the relative effectiveness of parent versus group versus combined approaches was conducted for disruptive preschoolers by Barkley and his colleagues (Barkley et al., 2000; Shelton et al., 2000). The parent-training component showed no significant effects, and the group component showed some

efficacy at initial follow-up. At 2-year follow up, there were no differences between those who received classroom intervention and those who did not.

To improve outcomes, multicomponent programs show greater promise (Greenberg, Domitrovich, & Bumbarger, 2000). These effective programs have a variety of combined features. Webster-Stratton and her colleagues (Webster-Stratton, 1998; Webster-Stratton, Reid, & Hammond, 2001) provided a parenting-group component and a teacher-training component designed to reduce conduct problems among Head Start preschoolers at school and at home. The program was successful in significantly reducing aggressive and noncompliant behaviors in children who were at high risk at baseline, with effects maintained at 1-year follow up.

A multiyear, multicomponent, early school-age intervention model that includes the PATHS program is being tested in a randomized study called Fast Track. The components include a classroom curriculum social skills training, tutoring, parent training, and home visiting. First grade results indicate a reduction in aggression and disruptive behavior (Greenberg, Domitrovich, & Bumbarger, 2001).

The Montreal Prevention Experiment targeted aggressive and disruptive boys and provided group-based social skills training for the boys and parent training in positive discipline techniques for their families. Although short-term improvement was limited at 3-year follow up, the intervention group was reported as less involved in fighting than controls and less likely to be classified as having serious adjustment problems (Tremblay et al., 1996).

The First Step to Success program targeted at-risk kindergarteners with a school-based component involving teachers and peers and a home-based parent-training component. Students who showed early signs of antisocial behavior were selected. The program was successful in reducing problem behaviors, and gains were maintained into the primary years (Walker et al., 1998).

Pharmacotherapeutic interventions

Use of medication to manage difficult behaviors in young children has increased dramatically in the last decade. This has occurred despite the fact that many of the medications used for these problems are "off-label," that is, they do not have approval for pediatric use (Zito et

al., 2000). Medication is most widely used for children with Attention-Deficit/Hyperactivity Disorder. Pharmacological interventions have in fact proven to be effective, although not without negative side effects (Connor, 2002; McGoeey et al., 2002; Monteiro et al., 1997). More efficacy and drug safety studies are required before clinicians should use these agents for psychiatric disorders in preschool-age groups (Greenhill, 1998).

Racial disparities exist in which children receive pharmacotherapy among those referred for mental health services. Among a Medicaid population, African American children were 2.5% less likely to receive methylphenidate medication for ADHD than were White children (Zito, Safer, dosReis, & Riddle, 1998). A similar rate was found for school-age children in Virginia. Twice as many White as African American students were receiving medication for ADHD (LeFever, Dawson, & Morrow, 1999). This finding was true for antidepressant treatment as well, with White children more than twice as likely to receive antidepressant medication as African American children (Zito & Safer, 2001).

Summary of Significant Factors in Intervention Program Effectiveness

The above discussion describes a variety of single and multicomponent models that offer either early prevention or intervention for children with difficult behaviors. Greenberg, Domitrovich, & Bumbarger (2000) summarize aspects of these programs that reflect best practices:

- multiyear programs are more likely than short-term programs to have sustained benefits;
- ongoing intervention in early childhood—preferably at the preschool level—may be necessary to prevent serious conduct problems from occurring;
- prevention is best aimed at reducing risk factors and enhancing protective factors, rather than on focusing on the negative behaviors;
- effective programs focus on making positive changes in the spheres in which the child exists—both home and school—rather than on the child alone; and

- prevention programs must be integrated with treatment programs and other community care systems. Educational settings may be the best settings for development of integrated models of community care systems.

Further research remains to be done on which interventions work best for which groups. A number of the above studies have focused on low-income populations that include children of diverse racial/ethnic populations. Further discussion of treatment issues with culturally diverse populations can be found in Taylor-Gibbs (2003) and Johnson-Powell & Yamamoto (1997).

Access to Services

Despite the availability of a number of appropriate identification and intervention strategies to address mental health problems in young children, many children are underserved. The lack of delivery of services to children in need stems from a variety of causes. Those cited above in terms of concern about stigma and hesitation to label young children are among the causes. Others have to do with insurance reimbursement that rarely offers parity for mental health problems services in the same way as it does for physical health. Lack of professionals with particular expertise in early childhood further impedes accessibility to services. Fragmentation of services, in which services are rarely co-located, also interferes with families' ability to utilize mental health services. It appears that there are also disparities in utilization of child mental health services among particular racial/ethnic and socio-economic groups. African American and Latino youth in foster care are less likely to receive services compared to White children (Garland et al., 2000). Only 3-5% of 3-5 year old children identified as needing services actually receive them. The rate of unmet need is greater for Latino children than for White children and greater for uninsured children than for those with public insurance (Kataoka, Zhan, & Wells, 2002).

Implications for Policy in Early Childhood Mental Health Intervention

The above discussion suggests a variety of policy initiatives that are needed to adequately provide for effective early mental health services for young children and their families. These initiatives are necessary in the variety of service systems in which children present. Action

must also address the fields of research and professional training if gaps in knowledge of how best to improve child outcomes are to be overcome.

Enhanced Awareness of Mental Health Issues and Points of Service Access

The focus in recent years on optimizing child development has been with an emphasis on cognitive skills. While strong cognitive abilities are necessary for academic success, there is a growing awareness that young children must also develop social–emotional competencies for them to succeed in school and ultimately in society. Child caregivers, both parents and nonparental caregivers, must be aware of the need and learn strategies for fostering the nurturing adult–child relationships that lead to social competence in young children. Public awareness campaigns that carry this message to the various care providers of young children are a clear need. Public information materials about social–emotional competence available in supermarkets, convenience stores, and Laundromats, in addition to the more traditional locations of health clinics, libraries, and social service agencies, would be one way to expand awareness.

In addition, public attitudes toward mental health difficulties must be destigmatized. Because of shame or fears of negative consequences, many families fail to seek help around emotional needs. Social–emotional functioning in young children and their families must be equated in our culture with physical health status and be addressed as would most other health problems, without fear of negative consequences.

Integrating information and screening for social–emotional warning signs within the various points of service contact for young children is an important identification strategy. Public and private primary health settings should have expanded screening strategies for young children, with best practice guidelines similar to those for immunization schedules. Social service agencies, such as substance abuse, mental health, and domestic violence intervention providers, would be other avenues for identification of young children at risk. While these agencies typically focus on the needs of the adults they serve, there is a need for broadening services to encompass needs of children and family as well. Juvenile and family court systems may also be an access point for identifying young children and other family members demonstrating risk. Interagency collaboration may be necessary to assure that identified needs for early childhood

mental health services can be met through the system. Some communities have established interagency coordinating committees made up of representatives from relevant agencies to assure that families receive the supports that they need. The Starting Early Starting Smart program is an example of such a collaboration. This public–private partnership, funded by the federal Substance Abuse and Mental Health Services Administration (SAMHSA) and the Casey Family program, is designed to deliver integrated behavioral health services in early child care and primary health care settings. The Vermont Children's Upstream Services (CUPS) is another model that expands existing community partnerships serving school-age children with emotional disturbance and their families into early childhood settings. Challenges to such community interagency collaborations include maintaining confidentiality of family records, while at the same time, sharing needed information.

Educational and child care settings for young children are important additional access points for identifying and addressing child and family mental health needs. Educators in these facilities need greater knowledge about normal and atypical aspects of social–emotional functioning and tools for identifying risk behaviors. Consultation from mental health providers familiar with early childhood emotional development may assist in early identification and supportive interventions within the early education settings. Some early childhood educational agencies, such as Head Start, already have mandates to provide this type of service, but resources toward meeting mental health service needs through Head Start have been underutilized. In general, mental health services that are co-located at the point of access provide the best opportunity for the family to use the recommended service. Further recommendations on the role early education settings may play in identification and remediation of mental health needs are found in the American Psychological Association (APA) Board of Educational Affairs Report of the Task Force on Psychology in Early Education and Care (2003).

An overriding principle in the development and expansion of early childhood mental health services is that families themselves must play a primary role in the development of policies for service provision. These services need to be acceptable across families of varying socioeconomic levels and race/ethnicity. A second important principle is that interventions should

be provided as much as possible in settings in which young children spend their time, such as at home or in day care.

Development of Effective Techniques for Identification and Intervention

If identification activities are to be increased for young children at risk for social–emotional problems, there must be well-validated, reliable tools for diagnosis. Development of additional reliable tools will depend on expanded research to fill gaps in our knowledge about early prediction. Improved tools must take into account cultural differences in child-rearing expectations and what are normal, transient behaviors in young children. Reliable tools must be available for use by mental health professionals and also by child service providers from other professional backgrounds.

Other research agendas need to be addressed toward expanding our knowledge about effective early mental health intervention strategies. Again, interventions need to be sensitive and acceptable to a range of racial/ethnic groups. Providers in the field need to be aware of which treatment models have relevance for particular populations, and be encouraged to use those that are effective and test others of promise. Additional research is needed to evaluate current practice that reflects the varied contexts in which practitioners serve. A range of services of different levels of intensity of proven utility must be available for dealing with children and families at different stages of risk.

Preparing Psychologists for Collaborative Roles in Early Childhood Mental Health Services

Roles of mental health professionals have evolved in recent years, and this is particularly true for providers treating young children and their families. Work with this population may best be served by a collaborative relationship with other relevant service providers. This means understanding the skills offered by other professionals and formulating a plan for division and sharing of responsibility.

Consultative service delivery models are of great importance in effective early intervention for young children. Psychologists need to know more about the settings in which young children spend their time, be culturally competent with the child and care provider populations, and develop intervention plans that are in keeping with the nature of the setting and

the skills of the persons who will carry over the plan. These persons may be parents, but they may also be day care providers or special education teachers. Training models for psychologists and other mental health providers will need to be revised to adapt to these new roles. New competencies necessary for fulfilling consultative and collaborative roles need to be part of both graduate and continuing education.

Assuring Funding for Early Childhood Mental Health Service Needs

Although public policy must move toward mental health needs for young children receiving the same level of attention as physical health needs, there is not yet equal parity in the funding resources to support these needs. Reforms are needed in both public and private financing of early mental health services if these are to be available to the majority of families in need. Ways to classify services for reimbursement have been developed with older children and adults in mind. These sometimes preclude being able to provide reimbursable services for young children.

Some funding streams currently exist that could be redirected to support mental health services for young children and their families. Some resources exist through Head Start that are as yet underutilized. Use of funding appropriated for welfare reform could also be directed to provide support for behavioral and developmental services for disadvantaged families under stress. These types of support may be necessary to enable families at risk to move into the workforce and reduce the chance that their children will continue the cycle of economic dependency. Funding designed for welfare reform could perhaps also go toward support of research to identify cost-effective early intervention strategies that would promote social–emotional competence in young children.

Conclusion

Social–emotional competence in young children needs to be recognized as a critically important aspect of development and equal in importance to physical health. A variety of social policy agendas are necessary to assure that young children at risk and their families are identified early and receive intervention. These include:

- public information campaigns about the importance of social–emotional competence in development;
- destigmatization of mental health problems;
- integration of social–emotional health screening and intervention services into primary health care and early education settings;
- coordination and collaboration among relevant service agencies;
- family involvement in determination of service needs and policies;
- research aimed at broadening the range of effective diagnostic and intervention strategies;
- expanded training of mental health professionals to prepare them to serve young children, their families, and caregivers; and
- parity of funding for mental health screening and intervention at the level provided for primary health care.

Reforms are needed in service delivery, research, and training in mental health if services offered are to be of high quality and effectiveness and the needs of young children adequately met. With research pointing to the stability of disturbed behavior observed in early childhood, the societal and economic costs of failure to provide early childhood intervention are enormous.

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