# Social-emotional Development in Early Childhood

*What Every Policymaker Should Know*

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Rachel Masi
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August 2009

**NCCP**

**National Center for Children in Poverty**
Mailman School of Public Health
Columbia University

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## SOCIAL-EMOTIONAL DEVELOPMENT IN EARLY CHILDHOOD
### What Every Policymaker Should Know

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The early years of a child's life present a unique opportunity to foster healthy development, and research has underscored the importance of the first five years of life – both positive and negative experiences – in shaping children's cognitive, behavioral, social, and emotional development. This brief outlines the risks faced by young children with social, emotional, and behavioral problems, as well as barriers to eligibility, access to services, and service utilization. The authors conclude by recommending policy improvements needed by young children and their families.

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# Social-emotional Development in Early Childhood

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The early years of life present a unique opportunity to lay the foundation for healthy development. It is a time of great growth and of vulnerability. Research on early childhood has underscored the impact of the first five years of a child's life on his/her social-emotional development. Negative early experiences can impair children's mental health and effect their cognitive, behavioral, social-emotional development.[2]

*"The infant is embedded in relationships with others who provide the nutrition for both physical and psychological growth."*[1]
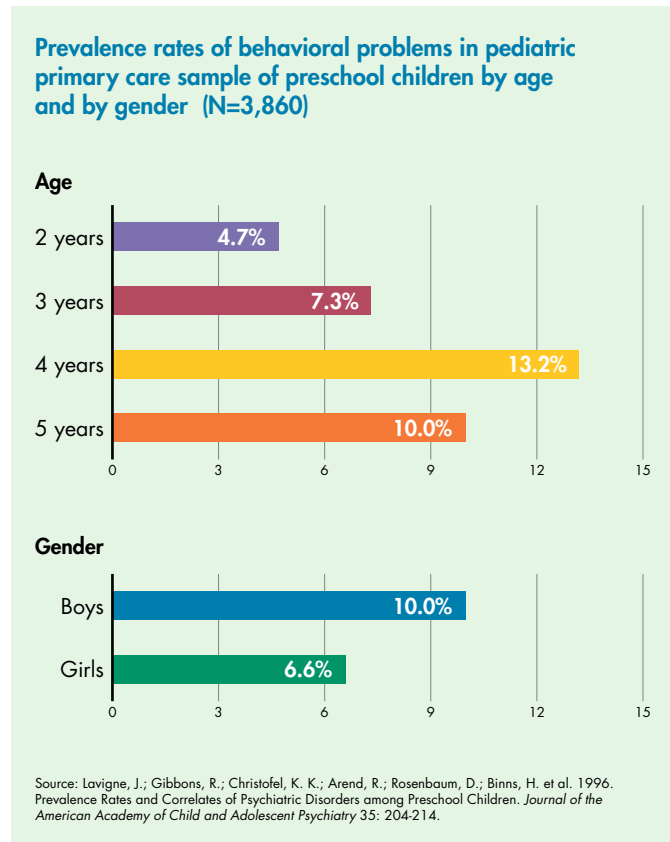
## The Needs of Young Children

### Social-emotional problems among young children[*] are common.

♦ Between 9.5 and 14.2 percent of children between birth and five years old experience social-emotional problems that negatively impact their functioning, development and school-readiness.[3]

♦ Approximately 9 percent of children who receive specialty mental health services in the United States are younger than 6 years old.[4]

♦ Boys show a greater prevalence of behavior problems than girls.[5]

### Some young children have more severe mental health disorders.[6]

**Mental health disorders in young children**

| Disorder | Prevalence |
| --- | --- |
| Anxiety Disorders | 1 to 11% |
| Simple Phobias | 1 to 11% |
| Oppositional Defiant Disorder | 1 to 26% |
| Conduct Disorder | 1 to 5% |
| Attention Deficit/Hyperactivity Disorder | 1 to 7% |

**Prevalence rates of behavioral problems in pediatric primary care sample of preschool children by age and by gender  (N=3,860)**



**Age**
- 2 years: 4.7%
- 3 years: 7.3%
- 4 years: 13.2%
- 5 years: 10.0%

**Gender**
- Boys: 10.0%
- Girls: 6.6%

Source: Lavigne, J.; Gibbons, R.; Christofel, K. K.; Arend, R.; Rosenbaum, D.; Binns, H. et al. 1996. Prevalence Rates and Correlates of Psychiatric Disorders among Preschool Children. *Journal of the American Academy of Child and Adolescent Psychiatry* 35: 204-214.

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[*] Young children are defined as birth through age 5 for the purpose of this brief unless otherwise noted.

# Family and Environmental Risk Factors

**Specific family and environmental factors can make a child more vulnerable to social, emotional and behavioral problems.**

Neighborhood characteristics and family income can be risk factors that impact young children's social-emotional health and development.

♦ Young children in low-income neighborhoods are more likely to experience behavioral problems than children living in moderate or affluent neighborhoods.[7]

♦ Young children from households with lower levels of family income are more likely to experience behavioral problems that negatively impact their development.[8]

Research suggests that up to 50 percent of the impact of income on children's development can be mediated by interventions that target parenting.[9]

Parents and caregivers play an important role in supporting children's healthy development. Research shows that family risk factors, particularly maternal risk factors such as substance use, mental health conditions and domestic violence exposure, can impact parents' ability to support children's development, and may contribute to behavioral problems among young children as early as age 3.[10]

♦ Young children with these family risks factors have been found to be two to three times more likely than children without these family risk factors to experience problems with aggression (19% vs. 7%) anxiety and depression (27% vs. 9%) and hyperactivity (19% vs. 7%).[11]

Attachment is an important marker for social-emotional development. Poor attachment, *especially* maternal attachment, can negatively impact children's social-emotional health, and development.

♦ Almost two-fifths of two-year-olds in early care and learning settings had insecure attachment relationships with their mothers. In particular, research shows that African-American and Latino young children experience lower levels of secure attachment than Asian-American and White children.[12]

Children of parents with mental illness are at a greater risk for psychosocial problems.

♦ More than two-thirds of adults with mental illness are parents.[13]

♦ Between 30 and 50 percent of children with parents who are mentally ill have a psychiatric diagnosis, compared to 20 percent of children in the general population.[14]

♦ Children of parents with a mental illness may also show higher rates of difficulties with regulating their emotions, relationship problems and developmental delays.[15]

Even the mental health problems of non-relative caregivers affect the quality of children's early experiences in their care.

♦ Adults who work in childcare centers have higher rates of depression than found in the general population.[16] Caregivers who report depressive symptoms are more likely to be detached, insensitive and interact less with children in their care than non-familial caregivers who are not depressed.[17]
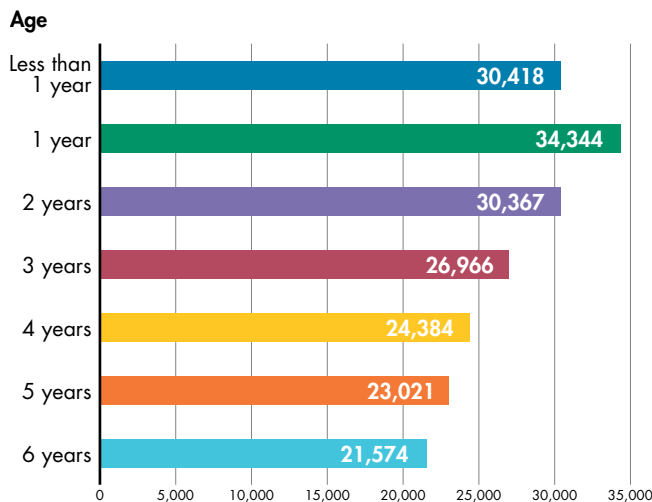
# The Role of Foster Care and Child Welfare

**Young children in child welfare settings have greater need and are less likely to receive services.**

Thirty-eight percent of children in foster care are younger than age 6.[18] Children, ages two- to five-years-old, in child welfare (including those in foster care) have 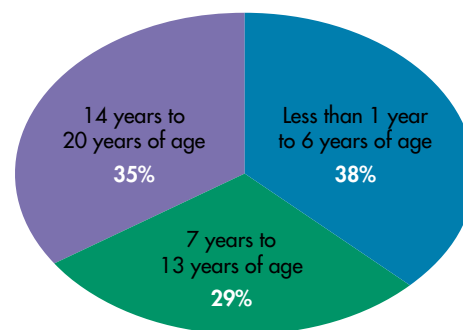a greater proportion of social, emotional, and behavioral problems than children in the general population, and within child welfare, compared to older children, young children are less likely to receive mental health services.[19]

♦ One-third of children ages 2 to 5 in child welfare need mental health services and related interventions.[20]

**Children under 6 in foster care, FY 2006**

**Age**

| | |
|---|---|
| Less than 1 year | 30,418 |
| 1 year | 34,344 |
| 2 years | 30,367 |
| 3 years | 26,966 |
| 4 years | 24,384 |
| 5 years | 23,021 |
| 6 years | 21,574 |

**Percentage of children in foster care by age, FY 2006**

- 14 years to 20 years of age: 35%
- Less than 1 year to 6 years of age: 38%
- 7 years to 13 years of age: 29%

Source: Children's Bureau, Administration on Children, Youth and Families, Administration for Children and Families, U.S. Department of Health and Human Services. 2008. *Adoption and Foster Care Analysis and Reporting System.* Ithaca, NY: Cornell University, National Data Archive on Child Abuse and Neglect.

# Race and Ethnicity Matter

**Young children of color are more likely to experience key risk factors.**

Young children of color are more likely to experience factors that put them at risk for poor social, emotional, and behavioral development. These children are also over-represented in child welfare, and make up the largest proportion of children expelled from preschool and in specialty mental health care.

♦ Among young children victimized in 2007, 49 percent were children of color (African-American – 21%, Latino – 22%, Asian-Pacific Islanders – 1%, Multi-racial – 3% and American Indian/Alaska Natives – 1%).[21]

♦ African-Americans are overrepresented in the population of maltreated children age 0 to 5 (21% vs. 14% in the general population).[22]

♦ Forty percent of the preschoolers in specialty mental health services are children of color (African-American – 24.8% and Latino – 13.6%).[23]

♦ In early care and learning settings, African-American young children are between three and five times more likely to be expelled than their peers.[24]

♦ African-American children are 8.5 times more likely to have a parent incarcerated than white children (overall nearly 25 percent of children under age 5 had an incarcerated parent).[25]

# The Failure of Current Service Delivery and Support Systems

Despite research that supports identification, early intervention and treatment, many young children do not receive screening, services, or supports.

## Inadequate screening prevents recognition of social, emotional, and behavioral problems.

♦ Less than one percent of young children with emotional behavioral problems are identified.[26]

♦ Nearly 55 percent of family practitioners and pediatricians report that they did not use a standardized tool to screen for developmental delays during routine well-child visits for two-year olds.[27]

♦ Nearly two to three times more preschool age children exhibit symptoms of trauma-related impairment than are diagnosed.[28]

♦ Only 11 percent of young children who receive services and supports under Individuals with Disabilities Act (IDEA) Part B are 3 to 5 years old.[29] Of those, only one to three percent are children with emotional disturbance. By age nine, however, the proportion of children as receiving services for emotional disturbance increases significantly (5-15%).[30]

♦ Only four percent of young children receiving early intervention (EI) services through IDEA Part C are identified as having social-emotional problems by EI providers. Yet, parents of up to 25 percent of children receiving EI services reported that their children were over anxious, hyperactive, exhibited signs of depression and/or problems with social interactions.[31]

♦ More than 30 percent of parents of children receiving EI services report problems managing their children's behaviors.[32]

## Lack of access to treatment

Studies show that many young children with identified needs and their parents do not receive services.

♦ Between 80 and 97 percent of children ages 3 to 5 with identified behavioral health needs did not receive services.[33]

♦ Even in structured early learning settings such as Head Start 80 percent of parents needing mental health services did not receive them.[34]

More vulnerable young children in child welfare face obstacles accessing services.

♦ Children ages birth to five in child welfare are more likely to have developmental delays than school-aged children despite higher rates of developmental delays. [35]

♦ Compared to school-age children, young children in child welfare (0-5 years) are less likely to receive services (35% vs. 13%). Very young children (0 to 2 years) are the least likely group to receive developmental services.[36]

♦ Children ages 6 to 10 years old were four times more likely to access developmental services than children birth to two years old.[37]

# Practice Barriers Due to Medicaid and Other State Policies

**The policy and practice environments for young children often fail to incorporate evidence from research about effective strategies.**

Despite research that validates the importance of screening:

♦ forty percent of state Medicaid agencies do not permit reimbursement for the use of standardized screening tools to identify emotional behavioral problems in very young children;[38]

♦ only 11 percent of pediatricians and eight percent of family practitioners report that reimbursement for developmental screenings during well-child visits was sufficient. When reimbursement is available, it rarely covers the cost of screening;[39] and

♦ eighty percent of primary care physicians and 96 percent of pediatricians do not formally screen for maternal depression, in spite of its proven impact on caring for young children.[40]

Even proven programs like Early Periodic Screening Diagnostic and Treatment (EPSDT) and the Early Intervention Program for Infants and Toddlers with Disabilities of The Individuals with Disabilities Education Act (IDEA-Part C) with the core philosophy of timely screenings and treatment for young children have been inadequate, plagued by meager resources and weak enforcement. Specifically:

♦ fifty-five percent of states recommend or require behavioral health screening tools or components in their EPSDT programs, but in only 33 percent of these states were these screening tools standardized;[41]

♦ only 10 states meet the national benchmark that 80 percent of children on Medicaid receive an annual health screening under EPSDT;[42] and

♦ fewer than 15 percent of state Medicaid agencies reimburse pediatricians for screening for maternal depression.[43]

## Barriers for Parents with Mental Illness

♦ Few state mental health authorities (SMHAs) report policies that improve systems' ability to identify adults with mental illness as parents and provide the types of supports they need to enhance parenting skills.[44] Specifically, of SMHAs reporting on adults with mental illness served in their systems:[45]

  – only 23 percent report that they routinely identify them as parents;

  – only 21 percent report that they formally assess their parenting skills; and

  – only 23 percent report that they provide services and supports that also focus on their parenting skills.

## Barriers to Treatment by Medicaid and Other Policies

♦ Thirty-one percent of state Medicaid agencies do not permit reimbursement for some types of treatment of children at-risk for social-emotional delay.[46]

♦ Forty-four percent of state Medicaid agencies do not permit reimbursement for non-physician providers with early childhood expertise.[47]

♦ Seventy-two percent of state Medicaid agencies report that they permit reimbursement for treatment of maternal depression only if the mother is Medicaid eligible, regardless of the child's Medicaid eligibility.[48]

♦ Only four states use the Diagnostic Classification of Mental Health and Development Disorders of Infancy and Early Childhood (DC:0-3R), a classification of mental health and related disorders in children birth to age 3, with Medicaid support.[49]

♦ Only half of state Medicaid agencies permit treatment reimbursement without diagnosis for young children.[50]

♦ Only eight states include at-risk children in the definition of eligibility for IDEA Part C.[51]

♦ Twenty-seven states have no written policies to guide referrals for infants and children who are "at-risk" in terms of social-emotional development, but not eligible for Part C.[52]

♦ Fewer than half of the states report funding specific early childhood related services. See table below.[53]

**Number of states funding early childhood services by service type**

| Service type | Number of states |
|---|---|
| Mental health services | 22 |
| Screening | 18 |
| Mental health consultation | 15 |
| Treatment | 21 |
| Family treatment | 19 |
| Parent depression | 8 |

## Practice barriers are caused by stigma and lack of knowledge.

♦ Parents of children with social, emotional and behavioral problems were less likely to discuss these problems with a health care professional than parents of children with other developmental problems (20% vs. 80%).[54]

– When these parents did report problems to their health care providers, they were still less likely to access needed services than parents of children with other developmental problems (38% vs. 91%).[55]

## Practice barriers are caused by low provider confidence and competency.

♦ Many primary care physicians report that they lack the confidence to manage children identified with developmental delay (29 percent of pediatricians and 54 percent of family practitioners).[56]

## Currently access to services that lead to positive outcomes for young children are hampered by multiple factors.

♦ Diagnosis-focused eligibility criteria ignore the research on the strong association between risk and poor child outcomes.

♦ Decision-makers ignore the importance of assessing children's development within the context of their home and early care and learning environments.

♦ Eligibility criteria for assessing developmental delays currently miss many children at risk for emotional problems.

♦ Trained providers are often unavailable.

♦ There are restrictions on funding services in diverse service settings, and family focused strategies are lacking.

♦ Children with greatest needs may be stigmatized.

♦ Services lack family, developmentally appropriate and culturally competent focus.

# The Adverse Impact of Unmet Needs on Young Children

## Early childhood problems can impair early school success.

♦ Young children with multiple risk factors are more likely to fare poorly in achieving benchmarks for early school success.[57]

♦ Expulsion rates for young children in preschool are three times higher than children and youth in K-12 grade.[58]

– Among young children, 4-year-olds' expulsion rates were 50 percent greater than for three year olds.[59]

– Boys were four times more likely to be expelled than girls.[60]

## Early childhood problems can affect adolescent behavior and mental health.

Behavioral problems among young children are often predictive of later conduct problems, antisocial behaviors, delinquency and serious mental health problems.[61]

# Recommendations for Policymakers

**Policy action is needed to improve the social-emotional development and mental health for young children and their families.**

♦ **Promote quality child care settings that support social-emotional development and the mental health of young children.** Preschools with access to mental health consultation have lower expulsion rates.[62]

♦ **Prevent severe emotional and behavioral problems among young children by using child or family risk-factors to determine service/supports eligibility and access.** Begin by ensuring that young children who are at-risk are eligible for IDEA-Part C.

♦ **Address the lack of trained providers in health, mental health and early care and education settings.**

– Pediatricians and other providers trained in identification and management of emotional and behavior problems were more likely to accurately identify young children with behavioral problems.[63]

– Brief primary care provider training that focused on communication skills, family engagement and child behavior and development was associated with reduction in parental symptoms and increases in child functioning among Latino and African-American children.[64]

Training programs focused on the helping teachers to promote children's positive social-emotional competence are associated with children's increased social skills and a reduction in problem behaviors.[65]

♦ **Require the use of standardized tools when screening young children and their parents.** A state that required the use of a standardized developmental tool improved screening rates by over 50 percent.[66]

♦ **Implement the use of the DC-03R as a tool for reimbursement for screening and services for Medicaid and other third-party payers.** Communities and states that use developmentally appropriate diagnostic classification tools like the DC-03R provide appropriate fiscal supports for early childhood social-emotional development-related interventions.[67]

♦ **Support and fund the use of developmentally appropriate screening and assessment of very young children.** Comprehensive assessments were associated with significant increases in the number of young children identified and appropriately served.[68]

♦ **Require and fund the consistent and appropriate application of effective intervention strategies for young children and their families.** Use of empirically supported interventions led to positive social, emotional and behavioral health outcomes for young children and their families.[69]

♦ **Establish and put into practice policies to identify parents with mental illness who have young children, and provide parenting supports and treatment as needed.** Screening for parental depression can help reduce its negative impact on young children.[70]

♦ **Ensure that home visiting programs can address the needs of children and their families with social-emotional and behavioral problems.** An effective home visiting program that embeds an evidence-based intervention for parents with depression has demonstrated improved outcomes for children and their parents.[71]

♦ **Create mechanisms, including through Medicaid to support development and reimbursement for onsite mental health consultation in early care and learning settings.** Mental health consultation is associated with significantly fewer preschool expulsions.[72]

## Moving Forward

An agenda for social-emotional development in young children requires:

♦ access to services based on risk factors;

♦ a comprehensive set of screening, assessment and treatment and support services;

♦ use of effective research informed strategies designed to address the child, his/her family and their environment;

♦ a bold training and human resource development initiative that will equip providers for young children across all settings with the appropriate knowledge and skills to meet the needs of young children; and

♦ funding flexibility that supports effective family focused approaches to the delivery of services and supports.

The principles of strong effective public policies must support: a public health framework; a developmentally appropriate focus; family-based strategies; and services and supports in multiple settings including the home and early care and learning settings.

*Empirically supported strategies exist to address the social-emotional needs of young children.*

The box on page 11 outlines selected strategies from prevention to treatment.

| Instrument/Intervention | Age | Description |
|---|---|---|
| **Evidence-based prevention strategies** | | |
| **Triple P Parenting Program**[a] | Birth to 12 years | It is multilevel evidence-based parenting and family support strategy, which helps increase the knowledge, skills and confidence of parents. It is a multilevel program that aims at preventing severe behavioral, emotional and developmental problems in children.[73]<br><br>• Level 1: provides parents with information about parenting<br><br>• Level 2: primary health care intervention providing guidance to parents of children with mild behavior difficulties<br><br>• Level 3: primary care intervention for parents of children with mild to moderate behavior difficulties and provides parents with skills training<br><br>• Level 4: intensive group or self help parenting program for parents of children with more severe behavior difficulties<br><br>• Level 5: advanced behavioral family intervention program for families where other sources of family distress increase parenting challenges |
| **PATHS Preschool**<br><br>Promoting alternative thinking strategies | Birth to 5 years | It is school-based preventive interventions for preschool children.[74]<br><br>PATHS:<br><br>• enhances children's social-emotional development, while reducing aggression and other behavioral problems.<br><br>• presents skills concepts through direct instruction, modeling, story-telling, role playing, writing, signing, drawing, science and math and other activities that promote school readiness.<br><br>• can be adapted to meet the need of individual classrooms. |
| **Evidence-based early recognition and identification strategies** | | |
| **Ages & Stages SE** | 6 months to 60 months | The questionnaire is completed by a parent/caregiver and scored by a professional. ASQ-SE is a comprehensive screening tool for children ages 6 months to 60 months to assess a child's social-emotional development.[75] |
| **ITSEA**<br><br>Infant Toddler Social-Emotional Assessment | 12 months to 36 months | A tool used to assess children in four domains: externalizing, internalizing, dis-regulation and competence to identify developmental delays.[76] |
| **PEC-FAS**<br><br>Preschool Early Childhood Functional Assessment Scale | 4 to 7 years | A multidimensional measure that is used to assess psychosocial functioning.[77] |
| **DECA**<br><br>Devereux Early Childhood Assessment | 2 to 5 years | Used to assess with-in child protective factors. It evaluates the frequency of positive behaviors exhibited by children. DECA identifies children who are low on the protective factors, generates classroom profiles of all children and screens children who maybe exhibiting behavioral concerns.[78] |

a. Prevention and intervention strategy

| Instrument/Intervention | Age | Description |
|---|---|---|
| **Evidence-based intervention strategies** | | |
| **Mental Health Consultation**[a][b] | Birth to 5 years | An intervention strategy associated with reduction in the likelihood of children being excluded from child care settings.[79] Encompasses:[80]<br><br>• a partnership between a mental health clinician with early childhood development expertise, parents and child care providers; and<br><br>• mental health clinician available to consult with child care programs, staff and parents to provide strategies to foster positive learning, healthy development and social-emotional well-being. |
| **Head Start- REDI**<br>(Research-based, Developmentally-informed) Intervention | Preschool age children | An intervention designed to be integrated into the existing framework of Head Start programs. REDI promotes school readiness by targeting social-emotional skills and language/emergent literacy skills.[81]<br><br>• Provides teachers with brief lessons, "hands on" extension activities and training in specific instructional strategies to target social-emotional and cognitive skills.<br><br>• Uses Promoting Alternative Thinking Strategies (PATHS) Curriculum to promote social-emotional skills.<br><br>• Focuses on vocabulary, syntax, phonological awareness and print awareness to promote language/emergent literacy skills. |
| **Incredible Years**[a] | 4 to 8 years | A curriculum-based parenting and psychosocial intervention program designed to promote self competence, reduce, prevent and treat aggression and conduct related behaviors.[82] Focuses on:<br><br>• parent and teacher training and child training programs; and<br><br>• effective prevention intervention with children, parents and teachers in Head Start. |
| **PCIT**<br>Parent-Child Interaction Therapy | 2 to 12 years[c] | An evidence-supported treatment for young children with conduct disorder and other externalizing behaviors. [83] The treatment focuses on improving parent child interactions and teaches parents how to change parent child interaction patterns. Parents are taught specific skills to enhance pro-social skills and reduce negative behaviors.<br><br>The treatment focuses on two interactions:<br><br>• child directed interactions (CDI) – parents engaging their child in a play situation<br><br>• parent directed interactions (PDI) – more clinical sessions, in which parents learn to use specific behavior management techniques as they play with their child. |
| **MDTF-PS**<br>Multi-dimensional Treatment Foster Care for Preschoolers | 3 to 6 year old children in foster care | Delivered through a treatment team, the program emphasizes the use of concrete encouragement for pro-social behavior, consistent, non-abusive limit-setting to address disruptive behavior and close supervision of the child.[84]<br><br>• Foster parents receive training and ongoing consultation/support from programming staff.<br><br>• Children receive individual skills training and therapeutic playgroup.<br><br>• Birth parents (or other permanent placement resources) receive family therapy. |

a. Prevention and intervention strategy
b. Best practice
c. Adapted for children who experience physical abuse ages 4-12

# Endnotes

1. Sameroff, A. J.; Fiese, B. H. 2000. Models of Development and Developmental Risk. In C. Zeanah (Ed.), *Handbook on Infant Mental Health* (pp. 3-19). New York, NY: Guilford Press.

2. Shonkoff, J.; Phillips, D. A.; Council, N. R. (Eds.). 2000. *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, DC: National Academy Press.

3. Brauner, C.B.; Stephens, B. C. 2006. Estimating the Prevalence of Early Childhood Serious Emotional/Behavioral Disorder: Challenges and Recommendations. *Public Health Reports* 121: 303-310.

4. Warner, L. A.; Pottick, K. 2006. Functional Impairment Among Preschoolers using Mental Health Services. *Child and Youth Services Review* 28: 473-486.

5. Lavigne, J.; Gibbons, R.; Christofel, K. K.; Arend, R.; Rosenbaum, D.; Binns, H. et al. 1996. Prevalence Rates and Correlates of Psychiatric Disorders among Preschool Children. *Journal of the American Academy of Child and Adolescent Psychiatry* 35: 204-214.

6. McDonnell, M.; Gold, C. 2003. Prevalence of Psychopathology in Preschool-age Children. *Journal of Child and Adolescent Psychiatric Nursing* 16: 141-154.

7. Duncan, G. J.; Brooks-Gunn, J.; Klebanov, P. K. 1994. Economic Deprivation and Early Childhood Development. *Child Development* 65: 296-318.

8. Knapp, P. E.; Ammen, S.; Arstein-Kerslake, C.; Poulsen, M. K.; Mastergeorge, A. 2007. Feasibility of Expanding Services for Very Young Children in the Public Mental Setting. *Journal of the American Academy of Child and Adolescent Psychiatry* 46(2): 152-161.

9. Duncan, G. J.; Brooks-Gunn, J. 2000. Family Poverty, Welfare Reform, and Child Development. *Child Development* 71: 188-196.

10. Whitaker, R. C.; Orzol, S. M.; Kahn, R. S. 2006. Maternal Mental Health, Substance Use and Domestic Violence in the Year After Delivery and Subsequent Behavior Problems in Children at Age 3 Years. *Archives of General Psychiatry* 63: 551-560.

11. Ibid.

12. Chernoff, J. J.; Flanagan, K. D.; McPhee, C.; Park, J. 2007. *Preschool: First findings from the Third Follow-up of the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B)* (No. NCED 2008-025). Washington, DC: National Center for Educational Statistics, Institute of Education Sciences, U.S. Department of Education.

13. Nicholson, J.; Biebel, K.; Katz-Levy, K.; Williams, V. F. 2004. The Prevalence of Parenthood in Adults with Mental Illness: Implications for State and Federal Policymakers, Programs and Providers. In R. Manderscheid & M. Henderson (Eds.), *Mental Health, United States, 2002*. Rockville, MD: Substance Abuse and Mental Health Services Administration.

14. Hammen, C. 2003. Risk and Protective Factors for Children of Depressed Parents. In S. S. Luthar (Ed.), *Resilience and Vulnerability: Adaptation in the Context of Childhood Adversities*. New York, NY: Cambridge University Press.

Nicholson, J.; Biebel, K.; Hiden, B.; Henry, A.; Steir, L. 2001. *Critical Issues of Parents with Mental Illness and their Families*. Rockville, MD: Center for Mental Health Research, Substance Abuse and Mental Health Services Administration.

15. See Hammen in endnote 14.

16. Whitebook, M.; Phillips, D.; Bellm, D.; Crowell, N.; Almaraz, M.; Jo, J. Y. 2004. *Two Years in Early Care and Education: A Community Portrait of Quality and Workforce Stability*. Berkeley, CA: Center for the Study of Child Care Employment, University of California at Berkeley.

17. Ibid.

Hamre, B. K.; Pianta, R. C. 2004. Self-Reported Depression in Nonfamilial Caregivers: Prevalence and Associations with Caregiver Behavior in Child-care Settings. *Early Childhood Research Quarterly* 19(2): 297-318.

18. Children's Bureau, Administration on Children, Youth and Families, Administration for Children and Families, U.S. Department of Health and Human Services. 2008. *Adoption and Foster Care Analysis and Reporting System*. Ithaca, NY: Cornell University, National Data Archive on Child Abuse and Neglect.

19. Burns, B.; Phillips, S.; Wagner, H.; Barth, R.; Kolko, D.; Campbell, Y.; et al. 2004. Mental Health Need and Access to Mental Health Services by Youths Involved With Child Welfare: A National Survey. *Journal of the American Academy of Child and Adolescent Psychiatry* 43(8): 960-970.

Leslie, Laurel K.; Hurlburt, Michael S.; James, Sigrid; Landsverk, John; Slymen, Donald J.; Zhang, Jinjin. 2005. Relationship Between Entry into Child Welfare and Mental Health Service Use. *Psychiatric Services* 56(8): 981-987.

20. See Burns in endnote 19.

21. National Child Abuse and Neglect Data System Child File, FFY. 2006. Based on NCCP Analysis on unduplicated cases. Cornell University, National Data Archive on Child Abuse and Neglect: Ithaca, NY.

22. Ibid.

23. See endnote 4.

24. Gilliam, W. S. 2005. Prekindergarteners Left Behind: Expulsion Rates in State Prekindergarten Systems. Retrieved February 11, 2006, from http://www.fcd-us.org/PDFs/NationalPreKExpulsionPaper03.02_new.pdf.

25. Wildeman, C. 2007. Parental Imprisonment, the Prison Boom and the Concentration of Childhood Disadvantage. Retrieved February 11, 2008, from http://paa2007.princeton.edu/download.aspx?submissionId=7180

Mumola, C. 2000. *Incarcerated parents and their children* (No. NCJ 182335). Washington, DC: U.S. Department of Justice, Office of Justice Programs.

26. Conroy, M. 2004. Early Identification, Prevention and Early Intervention for Young Children at Risk for Emotional, Behavioral Disorders: Issues, Trends, and a Call to Action. *Behavioral Disorders* 29(3): 224-236.

27. Sices, L.; Feudtner, C.; McLaughlin, J.; Drotar, D.; Williams, M. 2003. How Do Primary Care Physicians Identify Young Children with Developmental Delays? A National Survey. *Developmental and Behavioral Pediatric,* 24(6): 409-417.

28. Scheeringa, M. S.; Zeanah, C. H.; Myers, L.; Putnam, F. W. 2005. Predictive Validity in a Prospective Follow-up of PTSD in Preschool Children. *Journal of the American Academy of Child and Adolescent Psychiatry* 44(9): 899-906.

29. Office of Special Education. 2007. Table 1-1. Children and students served under IDEA, Part B, by age group and state: Fall 2006 *IDEA Part B Child Count.* Retrieved February 11, 2008, from http://www.ideadata.org/arc_toc7.asp.

30. Office of Special Education. 2007. Table 1-7. Children and students served under IDEA, Part B, in the U.S. and outlying areas, by age and disability category:  Fall 2006 *IDEA Part B Child Count.* Retrieved February 11, 2007, from http://www.ideadata.org/arc_toc7.asp.

31. Hebbeler, K.; Spiker, D.; Bailery, D.; Scarborough, A.; Mallik, S.; Simeonsson, 34R.; et al. 2007. *Early Intervention for Infants and Toddlers with Disabilities and their Families: Participants, Services and Outcomes.* Menlo Park, CA: SRI International.

32. Ibid.

33. New, M.; Razzino, B.; Lewin, A.; Schlumpf, K.; Joseph, J. 2002. Mental Health Service use in a Community Head Start Population. *Archives of Pediatrics & Adolescent Medicine* 156: 721-727.

Kataoka, S.; Zhang, L.; & Wells, K. 2002. Unmet Need for Mental Health Care among U.S. Children: Variation by Ethnicity and Insurance Status. *American Journal of Psychiatry* 159: 1548-1555.

34. Razzino, Brian E.; New, Michelle; Lewin, Amy; Joseph, Jill. 2004. Need for and Use of Mental Health Services Among Parents of Children in the Head Start Program. *Psychiatric Services* 55(5): 583-586.

35. Zimmer, M. H.; Panko, L. M. 2006. Developmental Status and Service use among Children in the Child Welfare System: A National Survey. *Archives of Pediatrics & Adolescent Medicine* 160: 183-188.

36. Ibid.

37. Ibid.

38. Rosenthal, J.; Kaye, N. 2005. State Approaches to Promoting Young Children's Healthy Development: A Survey of Medicaid, and Maternal and Child Health, and Mental Health Agencies. Portland, ME: National Academy for State Health Policy.

39. See endnote 27.

40. Olson, A. L.; Kemper, K. J.; Kelleher, K. J.; Hammond, C. S.; Zuckerman, B. S.; Dietrich, A. J. 2002. Primary Care Pediatricians' Roles and Perceived Responsibilities in the Identification and Management of Maternal Depression. *Pediatrics* 110(6): 1169-1176.

41. Semansky, R. M.; Koyanagi, C.; Vandivort-Warren, R. 2003. Behavioral Health Screening Policies in Medicaid Programs Nationwide. *Psychiatric Services* 54(5): 736-730.

42. National Center for Children in Poverty. 2009. Improving the Odds for Young Children, State Profiles. Retrieved on April 3, 2009 from http://www.nccp.org/profiles/early_childhood.html.

43. See endnote 38.

44. Biebel, K.; Nicholson, J.; Geller, J.; Fisher, W. 2006. A National Survey of State Mental Health Authorities Programs and Policies for Clients Who are Parents: A Decade Later. *Psychiatric Quarterly* 77(2): 119-128.

45. Ibid.

46. See endnote 38.

47. Ibid.

48. See endnote 38.

49. Stebbins, H.; Knitzer, J. 2007. United States Health and Nutrition: State Choices to Promote Quality. Improve the Odds: State Early Childhood Profiles. Retrieved September 27, 2007 from http://www.nccp.org/publications/pdf/text_725.pdf.

50. Cooper, J.; Aratani, Y.; Knitzer, J.; Douglass-Hall, A.; Masi, R.; Banghart, P.; et al. 2008. *Unclaimed Children Revisited, The status of children's mental health policy in the United States.* New York, NY: Columbia University, National Center for Children in Poverty.

51. U.S. Department of Education. 2007. *Infants and Toddlers Receiving Early Intervention Services in Accordance with Part C.* (No. OMB #1820-0557). Washington, DC: U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS).

52. National Center for Children in Poverty (in press). *State Report on Part C Screening and Services.* New York, NY: Columbia University, National Center for Children in Poverty.

53. See endnote 50.

54. Horowitz, S. M.; Kelleher, K. J.; Stein, R. K.; Storfer-Isser, A.; Youngstrum, E. A.; Park, E. R.; et al. 2007. Barriers to the Identification and Management of Psychosocial Problems in Children and Maternal Depression. *Pediatrics* 119: e208-e219.

55. Ibid.

56. See endnote 27.

57. United States Department of Education National Center for Educational Statistics. 2001. *Entering Kindergarten: A Portrait of American Children When they Begin School: Findings from the Condition of Education 2000* (No. NCES 2001-035). Washington, DC: U.S. Government Printing Office.

58. See endnote 24.

59. Ibid.

60. Ibid.

61. Caspi, A.; Henry, B.; McGee, R.; Moffitt, T.; Silva, P. 1995. Temperamental Origins of Child and Adolescent Behavior Problems: From Age Three to Age Fifteen. *Child Development* 66: 55-68.

White, J.; Moffitt, T.; Earls, F.; Robins, L.; Silva, P. 1990. How Early Can We Tell?  Predictors of Childhood Conduct Disorder and Adolescent Delinquency. *Criminology* 28: 507-533.

62. See endnote 24.

63. Leaf, P.; Owens, P.; Leventhal, J. M.; Forsyth, B. W. C.; Vaden-Kiernan, M.; Epstein, L. D.; et al. 2004. Pediatricians' Training and Identification and Management of Psychosocial Problems. *Clinical Pediatrics* 43(4): 355-365.

64. Wissow, L. S.; Gadomski, A.; Roter, D.; Larson, S.; Brown, J.; Zachary, C.; et al. 2008. Improving Child and Parent Mental Health in Primary Care: A Cluster-randomized Controlled Trial of Communications Skills Training. *Pediatrics* 121(2): 266-275.

65. Bierman, K. L.; Domitrovich, C. E.; Nix, R. L.; Gest, S. G.; Welsh, J. A.; Greenberg, M. T.; Blair, C.; Nelson, K. E.; Gill, S. 2008. Promoting Academic and Social-Emotional School Readiness: The Head Start REDI Program. *Child Development* 79: 1802-1817.

66. Earls, M.; Shackleford Hay, S. 2006. Setting the Stage for Success: Implementation of Developmental and Behavioral Screening and Surveillance in Primary Care Practice-the North Carolina Assuring Better Child Health and Development (ABCD) Project. *Pediatrics* 118(1): e183-e188.

67. Knapp, P. E.; Ammen, S.; Arstein-Kerslake, C.; Poulsen, M. K.; Mastergeorge, A. 2007. Feasibility of Expanding Services for Very Young Children in the Public Mental Setting. *Journal of the American Academy of Child and Adolescent Psychiatry* 46(2): 152-161.

68. See endnote 16.

69. Masten, A. S.; Powell, J. L. 2003. A Resilience Framework for Research, Policy, and Practice. In S. S. Luthar (Ed.), *Resilience and Vulnerability: Adaptation in the Context of Childhood Adversities*. New York, NY: Cambridge University Press.

70. Knitzer, J.; Theberge, S.; Johnson, K. 2008. *Reducing Maternal Depression and its Impact on Young Children toward a Responsive Early Childhood Policy Framework.* New York, NY: Columbia University, National Center for Children in Poverty.

71. Ammerman, R. T.; Putnam, F. W.; Altaye, M.; Chen, L.; Holleb, L. J.; Stevens, J.; et al. 2009. Changes in Depressive Symptoms in First Time Mothers in Home Visitation. *Child Abuse & Neglect* 33: 127-138.

72. See endnote 24.

73. Triple-P America 2009. Retrieved March 27, 2009 from www.triplep-america.com.

74. PATHS Preschool©. Facts and Frequently Asked Questions. Retrieved July 27, 2009 from http://www.channing-bete.com/prevention-programs/paths-preschool/facts-and-faqs.php.

75. Ages and Stages Questionnaires. 2009. *ASQ, What is ASQ.* Retrieved March 27, 2009 from http://www.agesandstages.com/asq/asqse.html.

76. Pearsons.2009. *Infant and Toddler Social Emotional Assessment*. Retrieved March 27, 2009 from http://pearsonassess.com/HAIWEB/Cultures/en-us/Productdetail.htm?Pid=015-8007-387.

77. Hodges, K. 2003. Preschool and Early Childhood Functional Assessment Scale (Pecfas). In Cafas Manual for Training Coordinators, Clinical Clinical Administrators, and Data Managers (2nd ed.). Ann Arbor, MI.

78. Devereux Early Childhood Initiative. 2009. *Infant & Toddler Assessment.* Retrieved March 27, 2009 from http://www.devereux.org/site/PageServer?pagename=deci_it_assessment.

79. See endnote 24.

80. Johnston, K.; Brinamen, C. 2005. Integrating and Adapting Infant Mental Health Principles in the Training of Consultants to Childcare. *Infants & Young Children* 18(4): 269-281.

81. Bierman, K.; Domitrovich, C.; Nix, S.; Scott, G.; Welsh, J.; Greenberg, M.; et al. 2007. Promoting Academic and Social-Emotional School Readiness: The Head Start REDI Program. *Child Development, Provisionally accepted.*

Bierman, K.; Nix, R.; Greenberg. M.; Blair, C.; Domotrovich, C. 2008. Executive Functions and School Readiness Intervention: Impact, Moderation and Mediation in the Head Start REDI program. *Development and Psychopathology.*

82. Webster-Stratton, C.; Reid, M. J.; Hammond, M. 2001. Preventing Conduct Problems, Promoting Social Competence: A Parent and Teacher Training Partnership in Head Start. *Journal of Clinical Child Psychology* 30(3): 283-302.

83. Parent Child Interaction Therapy. 2009. *What is PCIT?* Retrieved on March 27, 2009 from http://pcit.phhp.ufl.edu/.

84. Multidimensional Treatment Foster Care. 2009. *Multidimensional Treatment Foster Care for Preschoolers - MTFC-P.* Retrieved on March 27, 2009 from http://www.mtfc.com/mtfcp.html.