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# Connecting Science, Policy, and Practice:

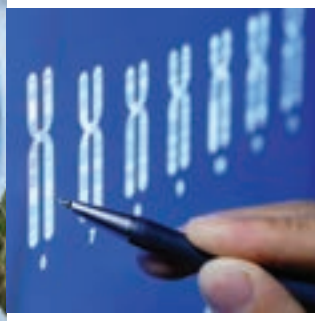
*ZERO TO THREE's National Training Institute, 2014*

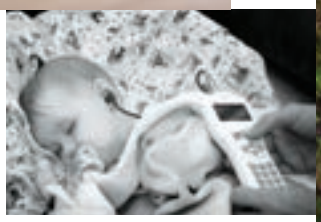
**FEATURED IN THIS ISSUE**:

Epigenetics of the Developing Brain

Policies to Achieve Equity for Infants and Toddlers

Integrating Mindfulness to Support Children, Their Parents, and Providers





**ALSO IN THIS ISSUE**:

*DC:0–3R* to *DC:0–5*: A New Edition

Hearing Screening Follow-up to Identify Hearing Health Needs

**Connecting Science, Policy, and Practice:**
ZERO TO THREE's National Training Institute, 2014

## This Issue and Why It Matters

This issue of *Zero to Three* celebrates ZERO TO THREE's multidisciplinary training event for early childhood professionals by featuring articles from the conference presentations and plenary sessions. The 2014 National Training Institute (NTI) was held December 10–12 in Fort Lauderdale, FL, and brought together more than 2,000 professionals from 47 states and 15 different countries.

Some of the highlights from the plenary presentations that are reflected in this issue include:

- The fascinating new science of epigenetics and the exquisite sensitivity of a developing fetus to its environment. Dr. Champagne shares insights into epigenetic mechanisms that link early life experiences and long-term changes in brain and behavior, and she reveals how epigenetics is changing the way scientists think about the developing brain.
- The urgent need to address the plight of boys of color, specifically Black, Latino, and Native American boys who are at risk for a developmental trajectory that includes a lifetime of adversity beginning from birth. Dr. Barbarin discusses early intervention strategies and the long-term implications for families and the nation.
- The inequities faced by many young children today who experience racial and ethnic disparities in health outcomes, educational achievement, and well-being. Four panelists discuss strengths-based approaches to policies that support equity for children and families.
- The burgeoning interest in mindfulness as an approach to working effectively across disciplines and systems on behalf of young children. Dr. Shamoon-Shanok and Dr. Stevenson reveal how mindfulness, or a regular practice of meditation, contributes to personal and professional development.

This year will mark the 30th NTI, and we hope to see you there December 2–4, 2015, in Seattle, WA. For more information, visit **www.zttnticonference.org**. Presentation and poster proposals are due March 8, 2015.

ZERO TO THREE is continually striving to meet the learning needs of professionals and support parents through high-quality resources that help children thrive. We are pleased to offer a new online video series, *The Magic of Everyday Moments: Seeing Is Believing*, made possible with funding from the MetLife Foundation, that is now available on DVD or digital download at **www.zerotothree.org**.

Stefanie Powers, Editor
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## Index of *Zero To Three* Journal issues, 2001–2014

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# Epigenetics of the Developing Brain

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## ABSTRACT

Advances in understanding of the dynamic molecular interplay between DNA and its surrounding proteins suggest that epigenetic mechanisms are a critical link between early life experiences (e.g., prenatal stress, parent–offspring interactions) and long-term changes in brain and behavior. Although much of this evidence comes from animal studies, there is increasing converging evidence of these epigenetic processes in humans. These new insights into epigenetic pathways highlight the integration of nature and nurture during development and the potential for heritable changes that persist across generations.

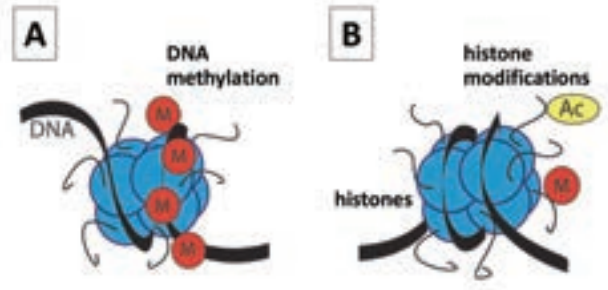
Early experiences create the foundations of individual differences and how each person interacts with the world. Though debate about the relative contributions of nature versus nurture to personality, behavior, and risk of disease has dominated discussions within psychology, biology, and neuroscience, the science is now poised to move beyond this dichotomy. Advances in molecular biology have provided insights into both nature and nurture and suggest that development is a process involving complex interactions between these two inseparable factors. This newfound understanding of gene–environment interplay has significant implications for conceptualizations of the developing brain. Even before birth, brains are changing and refining in response to experiences. At first, these are shared experiences between the mother and fetus, and there is a growing sense that what a mother eats, drinks, or breathes and certainly how she feels during pregnancy can affect the fetus. This sensitivity to the environment continues from birth into childhood and beyond. Both the sensory and the social world around a developing child can have a lasting impact on the brain. The question raised by this phenomenon of developmental and neural plasticity is regarding mechanism: How does this dynamic process take place? Answering this question unites both the classic notions of nature versus nurture with the new and emerging science of epigenetics.

## From Genetics to Epigenetics

Each human's genetic make-up is predictive of both physical and psychological characteristics, and the current ability to sequence genomes and provide individuals with a detailed description of their DNA is truly astounding. In experimental studies in animals, manipulating DNA, even a single gene, can have profound consequences. However, exclusive focus on genetic make-up as an account of an individual's identity has always been at odds with the sense that environments, particularly those experienced during childhood, shape development. Moreover, decades of research has confirmed that "nurture" in the very broad sense, consisting of sensory, social, nutritional, and toxicological experiences, has a profound effect on brain function and behavior. This uncomfortable dichotomy between the role of DNA and the role of the environment as developmental influences may be resolved by taking a closer look at DNA.

Within the DNA sequence is encoded the instructions for creating the building blocks of human anatomy, hence often earning the description "the book of life". However, like all books, the biological book of life must be read for the knowledge within to be realized. This reading is an active process involving the collective efforts of numerous proteins and enzymes that either interact directly with DNA or with the proteins around which DNA is wrapped (Peterson & Laniel, 2004; Razin, 1998). The dilemma of biology is in the compact storage of sufficient DNA to encode all the information needed to create a complex organism; which in the case of humans involves over 20,000 protein-encoding genes and more than 3 billion nucleotide base pairs (adenine, thymine, cytosine, guanine). This is ultimately a space issue. In order to fit this much biological material into each cell, a compact structure is imposed on DNA consisting of a network of histone proteins (see Figure 1). Much like the towering apartment complexes in Manhattan that permit a population density of 70,000 people per square mile, these histones interact directly with the DNA and allow for the dense packaging observed in the nucleus of cells (Peterson & Laniel, 2004; Razin, 1998). However, solving this space issue creates a

FIGURE 1. **Schematic Illustration of Epigenetic Mechanisms**




DNA is wrapped around clusters of histone proteins to promote compact storage of the genome. (A) The DNA can become methylated, by addition of a methyl chemical directly to the DNA sequence. This epigenetic modification typically reduces gene activity. (B) The histones can also be chemically modified, with consequences for gene activity.

Collectively, these epigenetic marks influence the accessibility of DNA to transcription.

second problem. The readability of DNA is entirely dependent on the accessibility of DNA. When DNA is compactly stored it is not readable; much like a book located far from reach or obscured by an adjacent bookshelf. Thus, gene activation, the transcription of DNA, involves significant rearrangements in the architecture of DNA and its surrounding histone proteins (see Figure 1). Once DNA is unwrapped from histones and associated chemicals and proteins, the reading can commence and a chain of events is initiated that can lead to biological changes in the organism. The chemicals and proteins that control gene activity without altering the DNA sequence are collectively referred to as *epigenetic*. These factors can promote both gene expression and gene silencing, with both of these processes being essential for normal development (Taylor & Jones, 1985).

Epigenetic factors create a secondary layer of information within the genome. The elegant DNA sequence provides the instructions of "what" to make, while epigenetics instructs as to the "when" and "how much." Both layers of information are needed for normal development to proceed. Epigenetics also accounts for the diversity of cells that emerge in an organism. Within an individual, each cell has a specific role to play, and there are multiple cell types (e.g., muscle, blood, neurons) that have distinct physical and functional characteristics. However, each of these cells has the same DNA sequence. The unique characteristics of cells are generated from their unique epigenetic patterns (Taylor & Jones, 1985). Thus, in neurons, genes that are needed in muscle cells may be epigenetically silenced and genes that promote neuronal function are epigenetically active. It is important to note that these epigenetic patterns can be highly stable. Cells must "remember" and maintain their characteristics over the lifespan.

Understanding of the importance of epigenetics in controlling the activity of genes emerged in the 1980s, and these molecular mechanisms have been studied extensively within certain disease states, particularly cancer (Jones & Laird, 1999). The new perspective that has emerged in the past decade is regarding the role of these mechanisms in gene–environment interplay. Epigenetic factors, particularly chemical modifications directly to the DNA itself, were initially thought to be resistant to change beyond early embryogenesis. However, in the past 10 years, evidence has emerged supporting the malleability of epigenetic variation in response to a diverse range of experiences occurring across the lifespan. These experiences include classic biological exposures, such as food, toxins, and hormones as well as the quality of the socio-emotional environment, conveyed primarily through parent–infant interactions (Champagne, 2010). Environmentally induced epigenetic variation may be a common mechanism for all aspects of environmental experience to shape and control the genome. The implications of this perspective are profound. While DNA sequence is the result of a slow and methodical evolution, the capacity of the environment to create epigenetic variation suggests that dynamic functional consequences for the genome can arise during development and dramatically alter the characteristics of an individual. Moreover, this epigenetic plasticity may be particularly evident in response to experiences occurring during sensitive periods (i.e., prenatal through to childhood).

## Prenatal Programming

During fetal development, the rapid pace of biological change creates a window of vulnerability to developmental disruption. Prenatal exposure to famine is associated with increased metabolic dysfunction, neurodevelopmental disorder, and schizophrenia in adulthood (Susser, Hoek, & Brown, 1998). Mothers exposed to stress during pregnancy are more likely to experience birth complications and pre-term birth (Coussons-Read et al., 2012). Stress programming is also observed—where the stress response of offspring is heightened when the mother is prenatally stressed (Glover, O'Connor, & O'Donnell, 2010). These correlational findings are complemented by studies examining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The current ability to sequence genomes and provide individuals with a detailed description of their DNA is truly astounding.

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Prenatal exposure may directly impact fetal tissues through physiological changes in the mother during pregnancy.

childhood outcomes following in vitro fertilization where the fetus is genetically related or unrelated to the mother. This study design suggests that there are unique developmental outcomes associated with genetic risk and the environmental risk conferred by maternal prenatal distress. For example, reduced birth weight, reduced gestational length, and antisocial behavior emerge as outcomes of prenatal stress even when there is no genetic relatedness between mother and child (Rice et al., 2009).

An increasing appreciation of the plasticity of epigenetic factors in response to the environment has led to a particular focus on these mechanisms in the context of prenatal adversity. In longitudinal studies of the impact of famine, individuals exposed during the earliest stages of fetal development carry a lasting epigenetic signature. In particular, there is altered DNA methylation—an epigenetic modification directly to DNA that is associated with gene silencing (see Figure 1)—in genes controlling growth and metabolism among individuals exposed in utero to famine (Heijmans et al., 2008). Although famine involves nutritional restriction, this exposure is also a significant physiological and emotional stressor, and there is increasing evidence of epigenetic outcomes as a consequence of prenatal stress. In a recent study, more than 900 genes were found to be altered in their DNA methylation levels in children born to prenatally stressed mothers, with many of these genes being involved in immune function (Cao-Lei et al., 2014). One gene that has emerged in many studies of prenatal stress and distress encodes for the glucocorticoid receptor (Nr3c1)—a protein that plays a role in the stress response system. Epigenetic variation that reduces the activity of the glucocorticoid receptor gene can render individuals hypersensitive to stressors and puts them at risk of numerous neurodevelopmental and physical disorders (Champagne, 2013). Maternal depression and anxiety during pregnancy and exposure to stress are associated with epigenetic suppression of Nr3c1 in infants and children with some indication that these epigenetic shifts are programming the stress response of affected infants (Hompes et al., 2013; Oberlander et al., 2008).

Human studies of prenatal programming are compelling but are necessarily correlational. However, experiments in animals have been used to establish "cause and effect", to examine the impact of prenatal adversity on the brain, and provide support for an epigenetic hypothesis. In mice, offspring of prenatally stressed mothers manifest behavioral, physiological, and neurobiological changes consistent with heightened stress reactivity and anxiety. Within the hippocampus, a brain structure implicated in both the neuroendocrine response to stress and with learning and memory, this early life stress results in decreased expression of glucocorticoid receptors (reduced gene activity) and elevations in DNA methylation within the Nr3c1 gene (Mueller & Bale, 2008). The observation that these epigenetic changes associated with prenatal experiences are sustained into adulthood speaks to the enduring nature of these biological mechanisms. This sustained molecular impact is likewise observed following prenatal exposure to dietary manipulations and exposure to toxins (Champagne, 2010).

A critical question that remains is how these epigenetic marks are triggered. What is it about these prenatal experiences that are capable of inducing an epigenetic change? There are at least three possible routes to consider, which may work in combination to achieve these effects (Monk, Spicer, & Champagne, 2012). First, the prenatal exposure may directly impact fetal tissues through physiological changes in the mother during pregnancy. In the case of prenatal stress, it is hypothesized that the stress the mother experiences increases her release of stress hormones (glucocorticoids) and these hormones either directly or indirectly (i.e., through other physiological pathways like the immune system) act at a molecular level to alter epigenetic patterns within the genome. This explanation certainly makes intuitive sense and there are studies that (a) confirm that increases in maternal glucocorticoids are associated with increases in the levels of these hormones in amniotic fluids, (b) illustrate the epigenetic variation induced by glucocorticoids, and (c) illustrate that maternal glucocorticoid levels are predictive of stress responses in offspring. A second pathway involves prenatal epigenetic disruption to the placenta. The placenta is the interface between the mother and fetus during pregnancy and is essential to growth and development during this period. Epigenetic disruption in the placenta is associated with birth complications and neurodevelopmental problems, and maternal exposure to stress, nutritional variation, and toxins is associated with altered DNA methylation levels in the placenta. Finally, the impact of prenatal environmental conditions may be achieved through alterations in the quality of postnatal mother–infant interactions. For example, stress can trigger depressed mood and reduce the amount of positive affect and physical contact that mothers engage in with the newborn (Monk et al., 2012). Disruptions to the mother–infant relationship as a consequence of prenatal stress have been observed in both humans and animals and may set the stage for long-term developmental disruption in infants. The quality of this relationship can also moderate the impact of prenatal stress. For example, although high maternal glucocorticoid levels during pregnancy can predict deficits in cognitive ability among infants, this effect

is attenuated when there is a secure mother–infant attachment (Bergman, Sarkar, Glover, & O'Connor, 2010).

## Mothering the Newborn Brain

The newborn brain is a biologically sensitive structure that is rapidly changing and refining in response to the sights, sounds, and feelings of the surrounding world. In mammals, this world is dominated by interactions with parents, particularly mothers. Although it is generally accepted that the quality of the mother–infant relationship can exert a profound influence on development, much of the direct evidence confirming this influence comes from animal studies. Classic studies in monkeys conducted by Harry Harlow in the 1950s and 1960s demonstrated that infants deprived of maternal contact during infancy had a heightened reactivity to stress and were impaired in social behavior in later life (Harlow, Dodsworth, & Harlow, 1965). More recent applications of this experimental design indicated that these long-term effects are associated with neurobiological and molecular changes, including decreased brain serotonin neurotransmitter receptors and enlargement in the volume of stress-sensitive brain regions (Spinelli et al., 2010; Spinelli et al., 2009). These detrimental effects of parental deprivation are similarly observed in humans, such as when infants are reared in orphanages and have limited physical or social interactions with caregivers. This form of institutional rearing leads to social and emotional problems in childhood and adolescence, cognitive impairment, decreased total brain volume, and increases in the volume of the amygdala (Hostinar, Stellern, Schaefer, Carlson, & Gunnar, 2012; O'Connor, Rutter, Beckett, Keaveney, & Kreppner, 2000; Tottenham et al., 2010). The amygdala is involved in the processing of fearful stimuli, and enlargement in the size of the amygdala likely contributes to the increased activation of this brain region in response to threat cues that has been observed in institutional-reared children. The serotonin system, which is altered in response to maternal deprivation in primates, may also moderate the effects of maternal deprivation in humans. Among adolescents with a genetic variant of the serotonin transporter, there is a heightened level of emotional impairment observed following institutional rearing, particularly amongst those individuals who experience subsequent stressful life experiences (Kumsta et al., 2010). These gene–environment interactions play a critical role in the development of psychiatric outcomes in response to early life adversity.

Laboratory rodents can also be used to illustrate the effect of maternal deprivation, prolonged separation, and disruption to the quality of mother–infant interactions. These models confirm and expand on what has been learned from humans and non-human primates. Heightened neuroendocrine response to stress, disruptions to the serotonin system, and alterations in brain architecture are all hallmarks of the experience during neonatal development of reduced maternal care (Curley, Jensen, Mashoodh, & Champagne, 2011). However, one does not have to invoke these extreme forms of early life experience to observe neurobiological and behavioral consequences. In all species, there are naturally occurring variations in parental care. In humans,

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The impact of prenatal environmental conditions may be achieved through alterations in the quality of postnatal mother–infant interactions.

variation exists in how sensitive and responsive mothers are to infant cues of distress (Hane & Fox, 2006). In non-human primates, mothers differ in the frequency with which they hold infants (Fairbanks & McGuire, 1988). Even in laboratory rodents, mothers display significant variation in the frequency with which they provide physical contact to offspring. A particular form of contact that is characteristic of maternal rodents is pup licking and grooming. This behavior serves, as the name implies, to groom and clean the pups and is also a source of sensory experience that shapes the developing brain. Offspring that receive more of this form of maternal care during the first week of life are less stress sensitive and perform better on cognitive tasks, and these functional consequences are associated with morphological and molecular changes in the brain that can be observed into adulthood (Meaney, 2001). It is the lasting nature of these changes that suggested the possible involvement of epigenetic variation.

The early assumption that epigenetic variation could be induced only during embryogenesis hindered the application of epigenetic analyses to studies of postnatal environmental influence. However, there is now strong support for the involvement of epigenetic pathways in explaining the long-term impact of maternal care. In rodents, high levels of maternal care lead to decreased DNA methylation within the Nr3c1 gene during infancy and, due to the lasting nature of this chemical mark, reduced Nr3c1 DNA methylation is sustained in these offspring across the lifespan (Weaver et al., 2004). Consequent to these epigenetic changes, offspring that receive high levels of maternal care during infancy have increased levels of glucocorticoid receptors in the hippocampus and are better able to reduce their physiological and behavioral response to stress. Cross-fostering studies, where offspring are transferred from a high or low maternal care biological mother to a high or low maternal care rearing environment confirm that these epigenetic, neuroendocrine, and behavioral effects of maternal care are attributed to the experiences offspring have during development

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The newborn brain is a biologically sensitive structure that is rapidly changing and refining in response to the sights, sounds, and feelings of the surrounding world.

(Weaver et al., 2004). Moreover, these epigenetic changes are reversible in adulthood using pharmacological treatments that target DNA methylation (Weaver et al., 2004; Weaver et al., 2005). Because the experience of high versus low levels of maternal care lead to changes in the transcription of hundreds of genes within the brain, it is likely that early rearing experiences lead to significant shifts in the epigenetic profile of the entire genome—the epigenome.

Evidence for the involvement of epigenetic pathways in the effects of naturally occurring variations in maternal care in rodents has been complemented by many subsequent studies exploring these mechanisms in response to disruptions to mother–infant interactions. Prolonged periods of maternal separation in rodents induces epigenetic variation in the brain of offspring, particularly in genes in involved in the stress response, such as vasopressin, corticotrophin releasing factor receptor (Crfr2), and Nr3c1 (Franklin et al., 2010; Kundakovic, Lim, Gudsnuk, & Champagne, 2013; Murgatroyd et al., 2009). Rodents can also engage in abusive caregiving behavior, and the experience of these interactions during postnatal development can lead to epigenetic changes within the brain-derived neurotrophic factor (Bdnf) gene (Roth, Lubin, Funk, & Sweatt, 2009). Epigenetic silencing of Bdnf can impair neural plasticity and may lead to an increased risk of mood disorder in adulthood. In primates that are deprived of maternal care, epigenetic disruption is observed in both the brain and the blood, suggesting that the blood may carry an epigenetic signature of this early life adversity (Provencal et al., 2012). The translation of animal studies to humans is highly dependent on researchers' ability to measure experience-dependent epigenetic changes in the blood, saliva, or buccal cells. In humans, postmortem brain analyses suggest that increased Nr3c1 DNA methylation is observed in individuals with a history of childhood abuse (McGowan et al., 2009) and this epigenetic shift can similarly be observed in the blood (Perroud et al., 2014). However, it is important to note that genome-wide epigenetic shifts are likely occurring in response to disruption to the quality of the early life social environment, and it is unclear what the brain–blood relationship will be for all genes.

## From One Generation to the Next

The lasting epigenetic impact of mother–infant interactions that occur prenatally or postnatally may account for the emergence of neurobiological and behavioral disruption that has been observed consequent to early life adversity. A question that has emerged is whether these changes could persist to subsequent generations. It is well-established in both humans and animals that patterns of maternal care can be transmitted from mother to daughter and from fathers to sons (in species where males participate in caregiving). In rodents, the experience of high levels of maternal care by female offspring leads to shifts in the developing neuroendocrine circuits that regulated maternal care itself. Consequently, if a rat pup has received high levels of maternal care, it will bestow high levels of maternal care toward its own offspring. This transmission of maternal behavior is associated with epigenetic changes within the gene encoding the estrogen receptor (Esr1; Champagne, 2008). High maternal care leads to decreased DNA methylation and other changes to the histones surrounding the Esr1 gene. These effects emerge during postnatal development and persist into adulthood (Pena,

### Learn More

**Psychobiology, Epigenetics, and Neuroscience Lab**
**http://champagnelab.psych.columbia.edu**

This website provides links to ongoing research publications focused on basic and translational research on the biological impact of early life experiences.

**Columbia Center for Children's Environmental Health**
**http://ccceh.org**

This website provides information for researchers, health professionals, communities, and families on the impact of environmental exposures during development.

**Brain Facts**
**www.brainfacts.org**

The Brain Facts website is a public information initiative developed by global nonprofit organizations working to advance brain research. This site includes descriptions of researchers' current understanding of brain development and epigenetics.

**Ghost in Your Genes**
**www.pbs.org/wgbh/nova/genes/**

NOVA documentary describing key findings that have contributed to researchers' understanding of the role of epigenetics in gene–environment interplay.

**Evolution in Four Dimensions: Genetic, Epigenetic, Behavioral, and Symbolic Variation in the History of Life**

E. Jablonka and M. J. Lamb (2005). Cambridge, MA: MIT Press

**Nature Via Nurture: Genes, Experience, and What Makes Us Human**

M. Ridley (2003). New York, NY: Harper.

Neugut, & Champagne, 2013). A similar epigenetic transmission is observed following the experience of abusive caregiving. Rat pups that have experienced abuse are more likely to engage in abusive caregiving themselves, and this shift in behavior is accompanied by epigenetic changes in the Bdnf gene (Roth et al., 2009). These examples provide support for the role of epigenetic mechanisms in the experience-dependent transmission of variation in behavior across generations that may account for the transgenerational impact of abuse, attachment security, and parental care in humans.

Classic views of inheritance focus on the transmission of genetic information—variation in DNA. Thus, increasing evidence of a behavioral transmission of epigenetic variation via parental care is typically viewed as an example of developmental plasticity rather than of inheritance. However, epigenetic variation may also be inherited in a similar way to the inheritance of DNA—through the germline. The sperm and oocyte are the carriers of an individual's genetic make-up to its descendants. Although these cells can be damaged or the DNA mutated following exposure to radiation or toxins, it has been assumed that these cells otherwise do not carry a lifetime accumulation of "baggage" to the next generation. At the time of conception, there is significant epigenetic reprogramming that occurs. During this time, the epigenome is reset (Feng, Jacobsen, & Reik, 2010). However, there is emerging evidence that this biological "clean slate" retains some remnants from its ancestors. Parental exposure to toxins, dietary extremes, and stress can leave an epigenetic mark within the germline that is inherited by offspring. For example, altered DNA methylation in the Crfr2 gene is observed in the sperm of male mice that experience maternal separation during the postnatal period. This same epigenetic mark is present in the brains of offspring of these males (Franklin et al., 2010). The observation of this inheritance through males is important mechanistically, because male mice do not have any contact with offspring. Although researchers still have much to learn about the mechanisms that account for paternal epigenetic inheritance, this is certainly a phenomenon that challenges current views on the origins of an individual's unique characteristics.

## Future Directions

Epigenetics is in its infancy and will certainly grow and develop as the field moves forward. There are critical questions that have yet to be addressed regarding the process by which the qualities of the environment become encoded into the epigenome and the degree of stability versus plasticity that can be expected from this molecular partner to DNA. However, regardless of where the pursuit of these questions leads, epigenetics has created a new way of thinking. Rather than being constrained by the conventions of nature versus nurture, questions of development and inheritance can be addressed from a truly integrative perspective. The developing brain is the product of this integration, responding and changing in response to variation in DNA sequence, inherited molecular marks, and epigenetic variation that arises through life experience. It is important to note that experience can also be viewed in an integrated way through the lens of epigenetics. What individuals eat, drink, breathe, and how they feel can impact their biology through the same mechanism. The social environments to which individuals are exposed, and perhaps even those of their parents, can shift the readability of their DNA just as profoundly as exposure to drugs, toxins, and pollutants. The implications for policy and practice of the elucidation of these biological pathways may be significant, particularly when considering the potential heritability of environmentally induced epigenetic change. When adults nurture the developing brain they are nurturing the DNA of generations to come—a realization that conjures a growing sense of responsibility and hope.

**Frances A. Champagne, PhD**, is currently an associate professor in the Department of Psychology at Columbia University. Her research and teaching focus on the neurobiological and epigenetic impact of early life experiences and the critical role of mothers and fathers in shaping developmental outcomes.

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# Parental Practices and Developmental Challenges of Boys of Color: Opportunities for Early Intervention

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## ABSTRACT

The "My Brother's Keeper" Initiative (Obama, 2014) has helped to attract public attention to the vulnerabilities faced by many boys of color (BOC). In this article, I review what is known about the developmental status of BOC, identify key family practices that are critical to their development, and consider the implications of both for early intervention. The lack of school readiness skills and early reading competence are seen as the most serious early concerns. BOC struggle with language, literacy, and the regulation of behavior and emotions. These problems are evident at school entry and worsen through the end of middle school. Because these challenges arise before school entry, early intervention to strengthen parental use of facilitative practices—such as the 3 Xs (Expose, Expand, and Explain) and Detect–Connect—and to reduce the use of debilitating strategies—such as Criticism and Control—may improve outcomes for BOC and establish a foundation on which later learning and social competence can be built.

Boys of color (BOC)—specifically, Black, Latino, and Native American boys—are a source of national concern. Those not born prematurely or with low birth weight start off life with a great deal of promise, and they appear typical on most indicators of well-being. From this promising beginning many, though not all, become caught up in a pattern of perilous development. They are thrust onto a developmental trajectory that places them at risk for a lifetime of adversity beginning very early in their lives. Recognition of these problems has given rise to concerns about their long-term implications for welfare of families and the nation. The plight of boys and young men of color has moved from the margins to the center of public discourse, largely as the consequence of President Barack Obama's use of the presidential bully pulpit to galvanize the national will to address the problems. President Obama (2014) set this effort into motion by issuing a memorandum that established the "My Brother's Keeper" Initiative. A task force for this initiative was appointed to develop a coordinated federal effort and to work with external stakeholders to improve significantly the expected life outcomes for boys and young men of color. The My Brother's Keeper Task Force (2014) has portrayed in graphic terms what is at stake for BOC, and it has created a case for public and private partnerships to reverse the downward spiral of the development of BOC. The claims associated with the task force's portrayal of BOC are discussed next.

## Family and Community Poverty Are Common Adversities for BOC

BOC are being raised in poor households and are living in communities with high concentrations of poverty to a greater extent than their White peers. In the United States, there are 5.4 million Black males less than 18 years old; of that group, 1.8 million Black males are growing up in poverty. This compares with 2.1 million of 7.7 million Latino males and 2.2 million of 21.2 million White males growing up in poverty (U.S. Census Bureau, 2007). These numbers tell an important story about the high prevalence of poverty among BOC. Specifically, BOC are more than twice as likely to grow up in impoverished households. The poverty rate for Whites is 11.6%, but it is 23.2% for Latinos, 25.8% for Blacks, and 27% for American Indians and Alaska Natives. BOC are also more likely to have a teenage mother and to live in a household with one or no parents. Poverty affects child development not only by disrupting family life but also by increasing the probability of adverse experiences at school and in the community. For example, poor BOC are more likely than their White peers to have contact with the criminal justice system. They are less likely to advance to higher education, and they are more often trapped in a lifelong pattern of unemployment or underemployment. Over time, this cycle of adversity has consequences for the stability of their marriages that, in turn, diminishes their ability to

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Boys of color are being raised in poor households and are living in communities with high concentrations of poverty to a greater extent than their White peers.

invest in their offspring. They experience poor health and lower life expectancy. Ultimately, they become invisible as they disengage from participation in civic life.

## BOC START SCHOOL ACADEMICALLY BEHIND THEIR PEERS AND REMAIN SO THROUGH HIGH SCHOOL

Black and Hispanic children from low-income families often start kindergarten behind their White peers in early math and prereading skills. Data from the National Assessment of Educational Progress (2013) show that more than half of children of color failed to attain reading proficiency in the fourth grade. The situation of poor reading outcomes for BOC does not improve by the end of high school. For example, almost one third of Black males and one quarter of Latino males graduating from high school in Ohio failed to meet the state performance standard for reading compared with 10% of White males and 7% of Asian American males. Moreover, African American males were 2 times more likely than African American females to fail (Luthy, 2006).

## BOC ATTEND SCHOOLS WITH INADEQUATE AND INEFFICIENT SUPPORTIVE SERVICES

Poor development is likely the outcome of multiple adverse conditions in which BOC are growing up. Children of color are more likely to attend a low-quality school, have fewer opportunities for demanding courses, and be taught by persons who are less experienced and prepared in their subject matter. When BOC have special needs, these are often detected and addressed much later than they are for other children—if they are addressed at all. BOC are less likely to be diagnosed or treated early for intellectual, learning, or emotional disabilities and are more likely to be enrolled in special education for behavior disorders (My Brother's Keeper Task Force, 2014).

## BOC ARE SUBJECTED TO DISPROPORTIONATE AND PUNITIVE DISCIPLINE IN SCHOOL AND IN THE COURTS

From prekindergarten through high school, BOC face significant challenges in school and court settings that culminate in disproportionate discipline, extrusion from typical classroom settings, and severe punishment by the criminal justice system. BOC are more often subjected to disciplinary actions, such as suspensions and expulsion, beginning in preschool. BOC often receive harsher penalties for the same offenses as White males. This trend that begins early on sustains itself through high school: BOC are disciplined more than other groups, particularly for nonviolent offenses that take the form of disrespectful behavior and attitudes, including disregarding and breaking school dress rules, talking back or cursing, and resisting or challenging adults' status as authority figures. Expulsions in early childhood settings—which range from 6.7 per 1,000 preschoolers enrolled in state-funded programs nationally to 27.4 per 1,000 children attending child care programs—are by far the highest for Black Americans, especially boys. Black children are 4 times as likely as their White peers to be suspended from school.

One half of all Black males have at least one arrest by the time they are 23 years old, compared with about 38% of White males in the same age range. In 2012, Black males were 6 times more likely, and Latino males were 2.5 times more likely, to be imprisoned than White males (My Brother's Keeper Task Force, 2014).

## BOC ARE OFTEN EXPOSED TO AND BECOME VICTIMS OF COMMUNITY VIOLENCE

BOC at all income levels are at least 6 times more likely than Whites to grow up in high poverty neighborhoods that place them at risk of trauma and exposure to violence. Homicide is a leading cause of death among adolescent and young adult males of color. Although Black males were only 6% of the overall population in 2011, they were 43% of the murder victims. Most of the fatalities involve altercations with rival peers motivated by protecting reputations and subscribing to a code of honor that dictates fighting as a way to defend family members, status, or neighborhood boundaries (My Brother's Keeper Task Force, 2014).

## BOC SUFFER SOME OF THE HIGHEST RATES OF UNEMPLOYMENT FROM THE TIME THEY ENTER THE LABOR FORCE AS ADOLESCENTS

As adolescents, only 17% of Black males and 28% of Latino males find jobs, compared with 34% of White male adolescents. Among young adults in 2013, only 50% of Black males were employed compared with 66% of White males (My Brother's Keeper Task Force, 2014).

In the My Brother's Keeper Initiative (Obama, 2014), six strategic objectives have been established that, if successful, will help all BOC to

- enter kindergarten with the cognitive, physical, and socioemotional competencies needed for success at school;

- read at grade level by third grade;
- graduate from high school;
- complete postsecondary education or training;
- achieve full employment; and
- remain safe from violent crime.

Achievement of the first two of these objectives, school readiness and development of reading skills, respectively, will rely heavily on the quality of experiences available to the child from birth to 3 years old. The evidence for a link between development from birth to 3 years old and later outcomes is most direct and indisputable in the case of the first two objectives that are related to school readiness and competent reading. Accordingly, early childhood intervention—especially those programs focused on parental practices and family involvement—could contribute greatly to the attainment of these two strategic aims of the My Brother's Keeper Initiative. In the sections that follow, I (a) describe the status of BOC with respect to language, literacy, and socioemotional development; (b) identify family practices that are critical their development; and (c) discuss the implications of both for early intervention.

## Developmental Status: BOC From Birth to 6 Years Old

In considering the early development of BOC, three areas emerge as particularly salient and noteworthy: literacy and language development; conduct or behavior problems, especially aggression; and emotional difficulties, particularly moodiness and depression. In this article, I summarize research on the developmental status of BOC in each of these domains.

### LANGUAGE AND LITERACY DEVELOPMENT

The ability to read by third grade has become a milestone in K–12 education. The period between 4 and 6 years old constitutes an inflection point by which children exhibit the ability to integrate their perception of distinct sounds with knowledge of the symbols used to represent those sounds. Children use this information to decode combinations of letter symbols into words. Although 6 years old represents a critical juncture in literacy development, it represents the denouement of a process that begins in infancy and blossoms in toddlers as they develop receptive and expressive language skills (Neuman & Dickinson, 2001). BOC are disproportionately represented among the group that fails to make this transition before 7 years old or second grade, and as a consequence, they often struggle with reading throughout their time in school (National Household Education Survey, 1995). Their difficulties with reading have their roots in early childhood. BOC enter preschool with more limited vocabularies than their White peers. When BOC are 3 and 4 years old, they are at about the 20th percentile on standardized vocabulary tests (Jencks & Phillips, 1998). Moreover, the National Household Education Survey (1995) revealed that although African American children are identical to White children in the ability to recognize letters and to count to 20, they are less likely than White peers to read or to write their names (U.S. Department of Education, National Center for Education Statistics, 1998). Whereas girls progress over time and make up some of that ground, BOC continue to lag behind academically as they progress through school, particularly in language and literacy.

### CONDUCT OR BEHAVIOR PROBLEMS

Aggression, opposition, and antisocial behaviors are among the most common and serious early childhood disorders, affecting 3%–10% of children in the United States (Lewinsohn, Rohde, Seeley, & Fischer, 1993). Across all ethnic groups, boys are more likely than girls to exhibit problems of conduct. As a group, boys are more likely than girls to break rules and to resolve conflicts through fighting or other aggressive acts (Juliano, Werner, & Cassidy, 2006; Keiley, Bates, Dodge, & Pettit, 2000). For example, Schaeffer, Petras, Ialongo, Poduska, and Kellam (2003) observed rates of externalizing problems among African American boys that were more than twice the national rate for American children. The prevalence of conduct and aggression appears to increase from prekindergarten through middle school. Such rising rates of aggressive and oppositional behavior are especially striking among BOC who are 4–12 years old (Barbarin & Soler, 1993). In one longitudinal study, teachers rated African American boys as higher than European Americans on these externalizing behaviors across the span from kindergarten through third grade (Dodge, Pettit, & Bates, 1994). Similarly, Keiley et al. (2000, as cited in Miner & Clarke-Stewart, 2008) presented data showing that Black boys increased in externalizing behaviors from kindergarten through seventh grade. However, in a longitudinal study, Xie, Dawes, Wurster, and Shi (2013) found that Black boys' aggressive behaviors as rated by peers leveled off after they entered high school and that the gap in conduct problems between BOC and White boys narrowed substantially. Similarly, Barbarin and Soler (1993) reported findings on emotional functioning using a cross-sectional cohort design, namely, male cohorts who were 15 years old declined in aggression and opposition relative to the

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When boys of color have special needs, these are often detected and addressed much later than they are for other children—if they are addressed at all.

younger cohorts and received ratings that were not significantly different than those of the girls.

In a latent growth curve analysis of aggression from first to seventh grade, Schaeffer et al. (2003) identified four trajectories of aggression in an urban sample consisting of a majority of African American boys. Although about one third of the boys were classified as nonaggressive, a majority (52%) fell into a moderate aggression group. Assignment to the moderate aggression group was predicted strongly by early difficulties with self-regulation of attention. Nevertheless, the long-term adverse outcomes for this group were negligible. The boys with the highest probability of adverse outcomes had elevated scores on aggression that was evident as early as the first grade and persisted through seventh grade (9%) or had low but slowly increasing levels of aggression over first through seventh grades (7%). These high-risk groups, representing about 16% of the boys, suffered from measurable environmental risks and biological vulnerabilities that might have been addressed through auspicious environments at home and school.

### EMOTIONAL FUNCTIONING

Boys' difficulties with language, literacy, and conduct problems have been widely studied and well substantiated by the results of studies of children in prekindergarten through high school. However, boys' struggles with emotional development have been less well recognized because, as a group, boys tend to exhibit fewer symptoms of anxiety and depression than girls. Overall, preadolescent boys, irrespective of ethnicity, have been found to have lower levels of separation anxiety than girls (Compton, Nelson, & March, 2000; Foster, Kupermic, & Price, 2004). Boys are more likely to use physical means of regulating their emotions, and girls more likely to express emotions and to communicate openly about them in words (Carlson & Grant, 2008). However, in contrast to this universal advantage that boys have in emotional adjustment, young African American boys (third to fifth grades) have higher levels of depressive symptomatology than White boys and girls of all ethnicities (Kistner, David, & White, 2003; Kistner, David-Ferdon, Lewis, & Dunkin, 2007). Similarly, Barbarin and Soler (1993) reported findings on emotional functioning using cross-sectional data on a nationally representative sample of American children who were 4–17 years old. For five age cohorts of Black children 4, 5, 7, 11, and 12 years old, boys were rated by parents as having more difficulty with emotional regulation. However, male cohorts more than 15 years old declined in emotion dysregulation compared with younger children. Accordingly, young BOC were found to be less hopeful about the future than girls (Stoddard, Henly, Sieving, & Bolland, 2011). Although suicide is still more common among White adolescents than males of color, rates for Black males have been rising (Balis & Postolache, 2008).

*Poverty affects child development not only by disrupting family life but also by increasing the probability of adverse experiences at school and in the community.*

## Developing BOC Facing a Wall of Despair

In making the transition from childhood to adulthood, BOC will face a host of problems that augur poorly for their well-being. The wall of despair is a useful metaphor in capturing the multiple challenges with which boys have to cope in order to survive and thrive. A wall of despair consists of several conditions over the life course that serve as obstacles to the healthy development of BOC. It begins with poor language development, which contributes to difficulties with emergent literacy and subpar academic achievement throughout early development, which contribute to high levels of socioemotional distress that are sometimes expressed in sudden emotional outbursts, disruptive behavior, dark moods, difficulty in calming down once aroused, and hypersensitivity to perceived slights and minor provocations from peers. Adults often interpret these behaviors in terms of noncompliance and challenges to authority that merit punishment. The consequences are that BOC are subjected to disparate discipline that sometimes takes the form of suspensions or expulsion from school. These punitive reactions place boys at greater risk for school dropout and incarceration. The educational deficits that accumulate over time further undermine the capacity of BOC to obtain gainful employment, resulting in a lifelong pattern of underemployment and unemployment. The inability of BOC to secure and maintain employment that offers a wage large enough to contribute to the support of a family leads ultimately to conflict in the relationships with the mother of their children, to failed marriages, and to their disengagement from family and civic life. The poverty that BOC experience as adults contributes to homelessness, poor health, lower life expectancy, and premature death.

The chain of events that unfold over the lifetime of many BOC should not be interpreted as rigidly deterministic or hopelessly unavoidable. These are probabilistic events that rise out of trajectories of a significant number, but not the majority, of BOC. At the same time, these events may shape the life course of a large enough number of BOC that they should not be taken lightly or dismissed as insignificant. Indeed, there is reason to be hopeful. Over the past 30 years, researchers have learned a great deal about how to promote language and social development. This knowledge can be put to use in developing interventions to improve the early academic functioning of BOC. For example, family-based early intervention can be used to strengthen and enhance language development and to establish for BOC a foundation on which later learning can be built. Similarly, in the domains of social and emotional functioning, BOC appear to follow a trajectory of increasing aggression and behavior maladjustment between 5 and 13 years old. This pattern suggests difficulty in adjusting to the demands of school and of interacting with peers. These difficulties may yield to early socioemotional learning interventions that imbue BOC with skills to cope with the social demands of schooling. The challenge of improving the language

and socioemotional development of BOC can be met through interventions that target parental practices that researchers have identified as critical to development during the period from birth to 3 years old. Next, I discuss the key practices that have the potential for strengthening and providing a strong foundation for later language and socioemotional functioning, bringing about positive outcomes for BOC and providing them with the tools to climb over the wall of despair (Olson et al, 2013).

## Parental Practices With BOC

Adults and their interactions with BOC matter a great deal for their development. ZERO TO THREE (2005), building on the theoretical contributions of many researchers, has articulated an important set of ideas about the transactional nature of infant mental health. The level of physiological response that young children experienced in emotionally, socially, or cognitively challenging situations was moderated by the presence and engagement of adult caregivers (Calkins & Dedmon, 2000; Calkins & Keane, 2004). These ideas have transformed the discourse and have reshaped researchers' understanding of infant and toddler well-being and have altered the direction of research concerning the role of parents in children's early development. These ideas have also redirected the focus of interventions and research to the relational exchanges between parent and child. Although revolutionary in their time, these ideas have become widely accepted as the dominant perspective on infant mental health and early intervention. The child's transactions with parents and later with other adults are critical not only for the child's safety and survival but also for the child's acquisition of the capacity to regulate arousal and to organize responses to stress. For example, children who had positive emotional relationships with adult caregivers in early childhood settings evidenced higher levels of learning and showed greater gains on later measures of literacy and math (Mashburn et al., 2008).

### FACILITATIVE PRACTICES

Data from my study, Family and Social Environments of Pre-School Children (Barbarin, 2005), were useful in identifying parental practices that were related to the academic and social development of BOC. Some of these practices facilitate cognitive, language, and socioemotional development, whereas others were found to be inversely related to positive development and well-being of young BOC.

#### Dialogic practices

The first three facilitative practices go by the mnemonic of the 3 Xs—Expose, Expand, and Explain. They are sometimes grouped together under the rubric of *dialogic practices* that refers to a class of practices, such as explaining and elaborating, that involves narrative exchange between the parent and child describing cause–effect relations, discussion of events that have or will happen, or connecting events or ideas in ways that help children understand and draw conclusions (Powell, 2004; Tabors, Beals, & Weizman, 2001). At the core of dialogic practices are developmentally sensitive and supportive responses from adults that help children to stretch beyond their present skills and understanding but not so far as to cause frustration (Plumert & Nichols-Whitehead, 1996). Key to the impact of these practices is the ability of parents to follow the child's focus of attention, to comment on the child's activity, and to expand on the theme of the child's conversation or play (Murray & Hornbaker, 1997). This requires a child-centered, rather than adult-directed, approach in which adult actions arise in response to signals from the child during mundane activities or joint reading (Lonigan, 1994).

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The poverty that boys of color experience as adults contributes to homelessness, poor health, lower life expectancy, and premature death.

#### *Expose (enrichment) practices*

*Expose* is sometimes conceptualized simply as enrichment, but it is more than that. Expose strategies involve efforts on the part of the parent to provide the child with learning opportunities by exposing the child to new information and experiences. These practices are based on the premise of intense or concerted cultivation of children's skills by enrolling them in classes or clubs or placing them in settings where they are likely to acquire new and specific skills, such as dancing, playing chess, or playing a musical instrument (Lareau, 2003). It is an intensive and intentional effort to develop children's talents and abilities, and it can represent an effort to make every aspect of their lives an opportunity for teaching and learning as parents push their children to use every available tool and resource to their advantage, whether they be encyclopedias, organized activities, social connections, or apps on tablet computers or smart phones (Pienik, 2008).

Expose practices may be academic or social in nature and may include trips to museums or libraries, attendance at a dramatic or musical performance, or storybook reading time at the library. Employing enrichment strategies often entails costs related to materials, transportation, and entrance and participation fees. Consequently, financial resources are highly correlated with the use of enrichment strategies. For example, Lee and Burkam (2002) showed that parents of high socioeconomic status (SES), compared with parents of low SES, more often arranged for their children to participate in enrichment activities—such as visits to zoos, museums, and libraries as well as dance, music, and art lessons—and organized clubs. However, financial resources

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The chain of events that unfold over the lifetime of many boys of color should not be interpreted as rigidly deterministic or hopelessly unavoidable.

alone do not account for differences in enrichment practices. Not only do parents of high SES purchase more books but they also report reading to their young children more consistently and more often, encouraging children to read to themselves (Bianchi & Robinson, 1977). Lee and Burkam also found that parents of high SES engaged more often than parents of low SES in low-cost, at-home activities—such as talking about nature, watching educational television, playing games, and doing art. Ethnic/racial differences have also been found in the use of enrichment strategies (Llagas, 2003). Controlling for income, Whites own more books and tapes than Blacks and Latinos, and Blacks report watching *Sesame Street* and singing more frequently with their children than Whites and Latinos (Lee & Burkam, 2002).

### *Expand*

*Expand* refers to parents' use of verbal comments to augment, build on, and advance the child's existing knowledge, often with the goal of facilitating effective problem solving by the child. In early childhood circles, this practice is sometimes referred to as scaffolding. Examples of this practice include restating; referring verbally to what the child knows, says, or is doing; commenting on or adding to what the child is already doing; and drawing out or verbalizing solutions to reinforce what the child is doing correctly. In using the Expand practice, parents provide prompts indirectly by building and elaborating on the child's current knowledge in contrast to telling the child directly or taking over and performing the task for the child. Facilitative actions include informing, commenting, demonstrating, or questioning to allow the child to solve a problem with a minimum of direct assistance. Parents high in the use of the Expand strategy facilitate the child's performance indirectly, are actively engaged, reinforce when the child is successful, and encourage with hints and suggestions when the child is not successful. When the child is successful, parents narrate and underscore the child's success by restating and praising what the child is doing. When the child is having difficulty or is frustrated or confused, parents scaffold by posing questions or providing cues or hints that lead a child toward effective problem solving and allow the child to do the tasks without assistance. The Expand strategy, when the child is successful, includes restating; referring verbally to what the child knows, says, or is doing; commenting on or adding to what the child is already doing; drawing out; and verbalizing solutions to reinforce what the child is doing that is correct.

### *Explain*

*Explain* refers to parents' use of verbal instruction to enhance understanding of a phenomenon and to provide clear directions to the child about what is expected. Central to the Explain practice is the use of spoken language. Parents use verbal prompts to direct the problem-solving behavior of their children. They use words to delineate the meaning, intent, or purpose of something. They orient the child to the context and to their expectations of the child's behavior. When performance is expected, they describe a task simply and clearly, and they structure the situations so that the child knows what their desires are and how to approach doing it. Their directions to the child are simple and straightforward, not tinged with criticism even when correcting the child. They make sure the child understands what the child is being asked to do by repeating if necessary. When demonstrating, the parent labels and describes actions with words the child understands. The parent checks to make sure that the child grasps the goals of the tasks and how to proceed, repeats the directions when the child does not seem to understand, restates in different words if the child does not understand after repeating, and gives reasons why an approach will or will not work. Parents who do not use this practice give little feedback to the child and rarely suggest what might be done to be successful. The Explain practice seems similar to the Expand practice. The distinction is sometimes elusive. Whereas Expand strategies use the child's knowledge as the starting point, the Explain strategy conveys information without regard to building on the child's current knowledge. Explain involves direct telling or demonstrating; Expand involves indirect and facilitative feedback (Barbarin & Jean-Baptiste, 2013).

### Detect–Connect

Behaviorally, the *Detect–Connect* practice refers to the parent attending and responding appropriately to the emotional signals sent by the child. This practice involves, to the capacity of the parent, being sensitive to the child's emotional state and connecting with the child empathically, whether the child's mood state is positive, upbeat, and calm or is negative, distressed, and dysphoric. Behavioral examples of this practice include providing affirmation, praise, information, direction, reassurance (especially when the child is distressed, bored, or uncertain), and corrective feedback in a positive way; saying things to help the child savor his accomplishment; and intervening preemptively to avoid or to de-escalate anger, fear, frustration, or disengagement in the child. Parents who are high in the use of Detect–Connect are apt to recognize and respond to the child's need for reassurance and assistance to maintain focus and motivation around learning tasks. They do so by creating a climate of sensitivity and conveying acceptance of the child as he is. These parents are

attuned to the child's motivation and emotional state, imbue the child with a sense of security, and are able to move the child easily from a state of frustration to active engagement with a task. They anticipate the child's emotional response to situational difficulty and respond in a way that is helpful. These parents are also readily able to assist the child in dealing with potentially negative affect. Parents who readily use Detect–Connect convey positive regard for the child. They may do this by acknowledging how smart the child is and how competent the child is at tasks. If the child is having difficulty meeting parental expectations or performing to the child's internalized standard, the parent is reassuring and calm, providing an affectively positive "secure base" for the child. The parent who has become skilled at Detect–Connect has developed an awareness of how the child signals positive and negative internal states and has learned to respond sensitively, with the result that the child can savor positive affect and manage the expression of negative affect. Conversely, insensitive connecting is signaled by improper timing of support, mismatch of verbal and bodily cues, and failure to have the child's attention in delivering the message. Parents who use this practice sparingly, if at all, are typically passive, uninvolved, aloof, or otherwise inattentive to the child's behavior or unaware of the child's mood.

### DEBILITATING STRATEGIES

In addition to the practices described earlier, which are thought to facilitate children's development, there exist two practices—Control and Criticism—that are likely to be counterproductive and to establish such an aversive environment that children fail to develop the desired skills and capacity to cope. Control refers to the extent that the parents control the mundane aspects of a child's life, such as what the child eats, what time the child goes to bed, the hair style and clothes the child wears, and the friendships that the child cultivates. It also refers to the extent to which the parents adopt an authoritarian stance and make decisions about aspects of the child's life without discussion, shared decision making with the child, or permitting the child to make decisions autonomously about these aspects of life. Parents who are in control dictate most aspects of the child's life without discussing or considering the child's wishes and preferences. High levels of parental control reflect an overinvolved style and unilateral parental decision making that leaves little room for child autonomy. Although high parental control may seem appropriate for children less than 4 years old, providing opportunities for the child to express and gain recognition for personal preferences lays the groundwork for the development of autonomy and mature decision making later in the child's life. The practice of Criticism refers to the extent to which parents respond to a child's behavior or emotional expression by providing negative statements, sarcasm, or negative evaluations and by harping on mistakes rather than providing support and guidance. It may also refer to global pejorative comments about the child that are out of context and unrelated to current behavior. It can take the form of feedback that is overtly intended to be corrective but is tinged with expression of negative emotions and impatience and sometimes suggestive of overt or preconscious anger toward the child. This practice may be associated with harsh discipline and the use of corporal punishment (Barbarin & Jean-Baptiste, 2013). Questions about the relevance and relation of these practices to the developmental outcomes of BOC are addressed in the next section of this article.

*Boys' difficulties with language, literacy, and conduct problems have been widely studied and well substantiated by the results of studies of children in prekindergarten through high school.*

## Empirical Findings on Parental Practices From the National Center for Early Development and Learning Family and Social Environment Study

The data reported here were collected as part of the multistate Family and Social Environments of Pre-School Children study (Barbarin, 2005), in which I studied parental practices that were used with a randomly selected group of 4-year-old children enrolled in public-sponsored prekindergarten in five states: California, Georgia, New York, Illinois, and Ohio. Parents were interviewed in their homes. Videotaped observations were made of parents interacting with their children around a teaching task, a puzzle, and free play with toys and puppets. The videotape observations were later coded for parental practices. The overwhelming majority of the parents were mothers. Using data analyses, I compared the practices of parents with their Black, White, or Latino sons. In addition, parents completed questionnaires about their beliefs regarding discipline and on the quality of their relationships with their sons. Data on Expand, Explain, Detect–Connect, and Criticism practices were based on observations of parent–child interaction. Information on Expand and Control practices was obtained with a self-report questionnaire completed during the home visit.

In the analyses, I examined the differences in the practices used by Black, White, and Latino parents of boys in the multistate Family and Social Environments of Pre-School Children study. Overall, there were significant differences in the practices used by Black, Latino, and White parents. Expose was the one practice on which parents did not differ. Parents of Black boys were significantly lower than parents of White boys in the use of Expand, Explain, and Detect–Connect. Parents of Black boys were higher than parents of both Latino and White boys on use of Control and Criticism practices. The specific configuration of practices on which the parents of Black boys differed is one that is related to lower academic performance and social competence (Barbarin & Jean-Baptiste, 2013). Specifically, Expand and Explain were related to vocabulary, emergent literacy, math skill, and ability to get along

with peers. In addition, BOC whose parents used Expand and Explain were less likely to be rated by teachers as having emotional or behavioral problems. Expose was unrelated to the outcomes of BOC. However, other studies have shown that Detect–Connect is related to positive development in Black boys, but Control and Criticism are related to impaired development (Clincy, Mills-Koonce, & Family Life Project Key Investigators, 2013).

## PARENTAL BELIEFS AND RELATIONSHIPS WITH CHILDREN

Additional analyses were conducted to test ethnic differences in three parental beliefs: belief in the need (a) for absolute obedience to parents and (b) for absolute obedience to authority figures, and (c) to keep children busy. Ethnic differences were significant for each of these beliefs. Parents of Black and Latino boys endorsed each of these beliefs to a greater extent than parents of White boys, but they did not differ from one another.

## PARENT–CHILD RELATIONSHIP QUALITY

Data on the relationship between parents and boys were also examined to determine whether parents of BOC differed from parents of White boys. Four aspects of the relationship were examined: a constant struggle between parent and child, physical touch uncomfortable for the child, child is easily angered, and child stays angry. Again, there was a significant ethnic difference on two aspects of the quality of parent–child relationships. African American parents rated their sons as more easily angered to a greater extent than Latino and White parents did for their sons. Compared with Black and White boys, Latino boys were rated lower by their parents on remaining angry.

## IMPLICATIONS

On the face of it, Black parents engaged in practices that were likely to be inauspicious for their sons' linguistic, social, and emotional development. However, it would be a mistake to conclude from these data that a majority of Black parents use practices or espouse dysfunctional beliefs that have adverse effects on their sons. In fact, the majority of Black parents do not—just as the majority of Black and other BOC are adaptive and competent (Barbarin et al., 2013). The data are best interpreted as indicators of tendencies that point to possible targets of intervention either to address observed problems of development or to design population-based preventive interventions. By supporting parents and families to use the facilitative strategies and to minimize the debilitating ones, early interventionists can make important contributions to the healthy development of BOC. To do this will require more than good intentions. Any effort to transform Black and Latino families to make them look and behave more like White middle-class families is destined to fail. Instead, a more nuanced approach will be required, one in which early interventionists respect the differences, problematize the current situation, and offer as alternatives strategies that families might add to the armamentarium of approaches they use to raise their children. This will require an appreciation and understanding of the beliefs and a respect for the attitudes that underlie parents' current practices and the cultural dispositions that maintain them. With a working knowledge of families, existing practices, and respect for cultural differences, early interventionists can do much to interrupt this chain of adversity surrounding the development of BOC and to provide for more positive outcomes.

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His research and professional work has been driven by a concern for the development and well-being of poor children, particularly children of color. His research has focused on children's mental health generally, on the effects of chronic and life-threatening illness on children, the quality of early childhood education, effects of parental and teacher practices on children's cognitive and emotional development, and family- and school-based interventions to reduce achievement gaps. Much of this work has been undertaken with an eye to understanding familial, social, and cultural influences on children's development.

Dr. Barbarin chaired the U.S. National committee for Psychology (National Academies of Science) and was elected by the Assembly of International Scholars to serve on the executive committee of International Union of Psychological Sciences. He chaired the Black Caucus in Society for Research in Child Development (SRCD), served on and later chaired the SRCD International Committee, and served on the Governing Council of SRCD.

Dr. Barbarin collaborated on a longitudinal study of child development in South Africa, including publishing a book in 2001, *Mandela's Children: Child Development in Post-Apartheid South Africa*. He has been an editor of the *American Journal of Orthopsychiatry*. Other publications include the *Handbook of Child Development and Early Education*, an edited volume of translating developmental research into educational practice.

On behalf of the International Union of Psychological Sciences, he is helping to train and lead a cross-cultural network of psychologists from the Caribbean, South America, Asia, India, and Africa to collaborate on research addressing the psychological impact of globalization on health and well-being.

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# Calmness Fosters Compassionate Connections: Integrating Mindfulness to Support Diverse Parents, Their Young Children, and the Providers Who Serve Them

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## ABSTRACT

This article introduces and recommends mindfulness as a significant resource for earliest childhood practice, especially for parents and providers. Mindfulness is defined as it is coming to be understood and used by increasing numbers of people and systems in North America. The article also addresses how mindfulness is sometimes expressed and experienced differently within different cultural, religious, and racial contexts, with the specific example of Black church spiritual moments and during interventions with people of color. This essay includes case vignettes as well as selected highlights of the authors' own journeys.

*. . . since there is no right way to cultivate and deepen our capacity for mindfulness, each one of us could influence the world by taking a degree of personal responsibility for developing our own unique ways to embody mindful awareness. This may well be one of the most profound ways we could contribute to the well–being of the larger society and the planet itself* (Jon Kabat-Zinn, quoted in Ryan, 2012, p. xiv).

Kabat-Zinn's open-hearted recognition that each individual and group can—needs to—create a personal and culture-specific portal through which to meet mindfulness provides a robust welcome to readers of this article. Kabat-Zinn offers a warm invitation to consider how mindfulness or a regular practice of meditation contributes to one's professional and personal evolution and learning. It is with this spirit that we share this essay, our invitation to compassionate contemplation for our own well-being and that of the children, parents, and the planet to whom we all dedicate and rededicate ourselves.

## Introduction to Mindfulness

In a book and companion CD about mindfulness created for parents, the author, a mother in Holland, describes mindfulness this way:

> *[Mindfulness is] nothing more than present-moment awareness, an open and friendly willingness to understand what is going on in and around you. It means living in the present moment (which is not the same thing as* thinking about *the present moment) without judging or ignoring anything or getting carried away by the pressures of everyday life. . . . Mindfulness is experiencing both joy and misery as and when they occur, without having to do something about it or having an immediate reaction. Mindfulness is directing your friendly awareness to the here and now, at every moment. But mindfulness practice involves some effort and intentionality* (Snel, 2013, pp. 2–3).

Mindfulness can also become a generative resource for professional growth and attuned practice. Mindfulness is intending and developing capacity to come back to center, to pay close attention to the internal experience of sensations, thoughts, and emotions with engaged curiosity, equanimity, deep compassion, and acceptance. Thus, mindfulness is defined as moment-by-moment awareness of thoughts, feelings, bodily sensations, and surrounding environment, characterized mainly by "acceptance"—paying attention to thoughts and feelings without trying to distinguish whether they are right or wrong. The idea is to refrain from judging good or bad, or worthy or worthless, for having a thought, emotion, or sensation, while still preserving the understanding that some thoughts or emotions may be wholesome or unwholesome, skillful or unskillful, or may lead to happiness or unhappiness. "When we practice Mindfulness, our thoughts tune into what we're sensing in the

present moment rather than rehashing the past or imagining the future" (The Greater Good Science Center, n.d., para 2.).

Although mindfulness has its varied roots in several religious traditions, primarily Buddhism, it is not a religion. One can practice mindfulness regularly and frequently without doing it religiously. Instead, it may be thought of as a wisdom tradition. Mindfulness has come to be seen as a mode of being (Israel, 2013) that can be practiced and maintained outside a formal setting (Bernhard, 2011). Mindfulness is achieved through the practice of meditation—and there are diverse approaches to meditation—or through mindfulness-based stress reduction (MBSR).

But why integrate the sage practices of mindfulness within a field that seeks to promote the robust emotional, social, cognitive, and moral development of our nation's youngest citizens and compassion for and support of their parents? Why would a national prevention home visiting program (Fussy Baby Program) include mindfulness as a key staff capacity (Gilkerson & Hofherr, 2012) and a university-based certificate program in infant mental health (University of Wisconsin) include mindfulness as part of its core curriculum for "stress reduction and self-compassion for infant-mental health professionals and their clients" (Clark, R., personal communication, October 16, 2014)?

In this article, we articulate the natural way that mindfulness supports both relationship and reflection, basic keys that, turned loyally over time, unlock the soft underparts of even challenging, seemingly hardened human beings, for example certain parents and even an occasional child. We begin by sharing the health benefits of mindfulness practice, then present the variety of systems in which mindfulness has been integrated, especially those systems serving very young children and their families. After discussing the role of mindfulness in secure attachment, repair of relationship ruptures, and the brain neuroscience in mind–behavior connections, we describe our different journeys with mindfulness. We include two reminder aids that help providers and can help parents do what they need to do to calm down and deal with what is before them, along with brief examples of how one might use the strategies during a particularly stressful parenting or professional moment.

## Healthy Body, Robust Mind, Superb Spirit

"Mindfulness can literally change our brains, improve our capacity for perspective taking and decision making, and our ability to act with clarity and wisdom, alone and in concert with others" (Kabat-Zinn, quoted in Ryan, 2012, p. xi). These words, "improve our ability for perspective taking … and our ability to act with and wisdom," are both a promise and an articulation of what babies, young and even older children, and adolescents need from their parent(s) and what parents need from the providers who are reaching out to or already working with them. A young child, for example, benefits from a parent who can see from the child's viewpoint during discipline or daily routines. The parent who can murmur, "I know it would feel lovely to wear pajamas all day. But (*sad, sympathetic voice*) when we go out we cannot wear pajamas, so (*brightly*) I'll help you change. Want your green monster tee shirt or the orange truck one?" is a parent who can empathize with his child without giving up his position, viewpoint, and leadership. Of course a mindfulness practice is not required to arrive at this father's position with his child, but such practice does lead to the compassion inherent and apparent in the interaction.

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Mindfulness can become a generative resource for professional growth and attuned practice.

According to Kabat-Zinn (2000), the practice of mindfulness may be beneficial to many people in Western society who might be unwilling to adopt Buddhist traditions or vocabulary. Western researchers and clinicians who have introduced mindfulness practice into mental health treatment programs usually teach these skills independent of the religious and cultural traditions of their origins (Baer, 2003). Thus, some see mindfulness as a mode of being (Israel, 2013), rather than as a formal meditation exercise to be practiced and maintained outside a formal setting (Bernhard, 2011). For some, the formal practice is absorbed into daily activities and influences the practitioner's relationship to life experiences.

In the United States and Europe, the "mindfulness movement" (Wilson, 2014) has entered the mainstream, mainly through the work of Kabat-Zinn (Pickert, 2014) and the MBSR program, which he launched at the University of Massachusetts Medical School in 1979. The MBSR program documented remarkable health effects including lowering blood pressure, preventing recurrences in cardiovascular disease, increasing immune system responsiveness, and contributing to curbing addictions (Kabat-Zinn, 2003). Mindfulness meditation, the engagement of attention in and to the present moment, has also been documented in numerous studies to increase equanimity and to ease emotional stress in widely varying manifestations (e.g., Farb et. al, 2010; Goleman, 1997) Programs based on MBSR and similar models have been widely adapted in schools, prisons, hospitals, veterans' centers, and other environments.

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Mindfulness-based stress reduction and related practices provide strategies to use in edgy or distressing situations with babies, young children, and parents.

Individually and in organizations large and small, hierarchical or peer-centered, with adults or children, mindful practice assists people with health and emotional wellness. There are programs for children in schools and many excellent books to guide families with preschool-aged children (Klein, 2013; and see Learn More box).

## The Significance of Mindfulness for All Human Services

Whereas Westerners understand mindfulness as a means to reduce stress, in a Buddhist context mindfulness is part of an ethical mindset that cultivates "wise action, social harmony, and compassion" (Purser & Loy, 2013, para. 7). These guiding principles, which could be termed *ethical ideals*, *tenets*, or *beliefs*, are, or should be, at the core of any human service delivery system. They are the frames of mind that cultivate the most secure attachment. They lie at the heart of strong families even as they bind groups, families, and individuals into robust communities. Those in society who hold responsibility for young life in their arms and in their service-systems and programs—from parents to policymakers and program directors to personal assistants—would do well to return to this guiding mind-set over and over again, through regular, repeated rehearsals, as in meditation. The aim is to cultivate a culture of person- and family-centeredness that manifests patience, kindness, gratitude, and mutual respect within and outside each. These qualities help maintain a sense of humanity in the midst of financial pressures which, increasingly, seem to influence a corporate-like leadership that many systems and agencies are adopting to stay afloat. "...the word *mindfulness* equally implies *heartfulness*. Without that visceral understanding and embodiment, the power of this approach would be lost" (Kabat-Zinn & Kabat-Zinn, quoted in Bögels & Restifo, 2014 p. vi).

Research about attachment conducted in the last 35 years has confirmed that the children most likely to succeed in school, in friendships, then in work, and in life are those fortunate to have key caregivers capable of fostering secure relationship (Sroufe, Egeland, Carlson, & Collins, 2005). These caregivers could be described as embodying *namaste*, a greeting commonly heard in South and Southeast Asia and also in countless yoga classes around the world, meaning "the Spirit within me salutes and cherishes the Spirit in you." Children develop within relationships, and the quality of those relationships leaves patterns that endure throughout life. But there is reason to believe that less-positive attachment patterns can be modified—they can be improved through reflection and compassion for self and other (see, e.g., Siegel, 2013). A young child's robust mental health or wellness manifests in the child's capacity to experience, regulate, and express emotions; to form close and secure relationships; and to explore the environment that includes family, community, and cultural expectations for young children (ZERO TO THREE Infant Mental Health Task Force, 2001). Developing these capacities is synonymous with healthy social and emotional development. In the birth-through-3 and preschool fields, developing self-regulation, self- and other-awareness, focused attention, and reflective capacity are familiar aspects of both reflective supervision and of intervention with parents and children. There are many reasons to believe that the practice of mindfulness improves all these capacities (Clark, Gilkerson, & Shahmoon-Shanok, 2013).

MBSR and related practices provide strategies to use in edgy or distressing situations with babies, young children, and parents. Some mindfulness tools can be shared with parents who, in turn, can learn to share them with their young children. A vignette illustrates this: An exhausted parent living in a shelter with her three children, each of whom had a different disability, sobbed bitterly each time her early intervention (EI) social worker came for her weekly visit. An immigrant from Mexico here in the U.S. without proper papers, the parent could not see her longed-for mother, sisters, brothers, or cousins. Even phone calls were expensive, and the time difference made them tough to attain. She wept about how alone she felt. The father of her kids came by intermittently but never helped and sometimes mocked her and teased the children, especially 2-year-old Jose, whose eyes appeared to be crossed. Jose would cry and she would get agitated, but she felt unable to defend him or herself.

After discussion with a mindfulness-informed mental health consultant, the EI worker stopped asking the mother for more information about her various complaints. Instead, at the next appointment, as soon as the mother began lamenting her many problems, the worker asked the mother to notice where she felt the tension in her body, to describe her sensations, and then to let them go. Soothingly and with slow deep breaths herself, the worker suggested that the mother breathe deeply and follow her breath. The mother seemed visibly relieved. The worker then used a visualization technique called "safe place" (Parnell, 2008): She asked the mother to recall a time when she felt safe, good about herself, and optimistic about the future. The mother smiled as she readily recalled relaxing cozily in her grandmother's lap, hearing

lullabies. The social worker went on with questions designed to help the mother anchor her memory by underscoring its specific properties.

> *"What did you call your grandma?"*
>
> *"Yaya."*
>
> *"What did her body feel like to yours?"*
>
> *"Warm. Soft. Cozy. Big. She surrounded me. I was against her chest."*
>
> *"How did she smell?"*
>
> *"Good, like onions, cumin, and oregano all mixed and sizzling."*

Once the mother elaborated these sensory details, the worker said, "Let's tap this in" (Parnell, 2008, pp. 48–49), alternating tapping her feet on the floor, or her hands on her thighs. The worker smiled and said, "When you tap one side of your body and then the other, you make this happy memory of your yaya even stronger. This is a good place to go when you're upset. She's right there to help you calm down and feel better. You can practice this coming week and when I come next time, we'll practice some more."

The example shows how mindfulness can help a person in distress to direct her thoughts toward comfort, to cultivate thoughts that lift rather than pull down. "Your worst enemy cannot harm you as much as your own thoughts, unguarded.... We are what we think. All that we are arises with our thoughts. With our thoughts we make the world." This quotation, which Jack Kornfield brought to the West in his book, *Teachings of the Buddha* (1996, p. 4), brings attention to what fills the mind and suggests that one may become a victim of one's own thoughts—or not. When the worker returned the following week, the mother said that she had remembered a different circumstance in which she felt safe, good about herself, and optimistic about the future and she asked to practice it, and also the first one, again. The worker was gratified (and amazed!). As they were finishing up that part of their time together, the worker remarked, "I'll bet your kids would love to sit on your lap, just like you did with your yaya. Do you remember some of the lullabies she sang to you?" The mother smiled and hummed a bit of one, whereupon the worker gently whispered, "I'll bet Jose would love that one." A mother who had little serenity to offer her needy children just 2 weeks prior had been enabled to tap into an angel in her nursery (Lieberman, Padron, Van Horn, & Harris, 2005) and now could sometimes offer them the safe, loving kindness of her lap.

## Reflective Supervision, State, and Interpersonal Relations

Mindfulness can also help with interpersonal repairs. From the many gaping discrepancies separating people to the smaller gaps between them, ruptures between children and parents and among adults are inevitable, perhaps especially in the rush-rush intensity of daily life. The practice of meditation, of grounding attention in the present moment, enhances awareness not only of self and other, but also of state. People learn to notice what their experience *is* rather than *become* what they experience. They can realize that a thought, feeling, or memory is an activity of their mind. Rather than being in it, like flying into a rage or stewing in fury, a person can think, "I notice that what so-and-so said and how he said it enraged me. I see it." The person might then remember this and think it over, later, after meditating. Others might go further within their meditation, "I follow this for a bit, think about why, reflect on what I might do about it, and then remember to return to my breathing." For example, the memory of an argument might bubble up during meditation. The person might recall feeling confident before the argument and how, in rehearsing the position, it seemed sound, reasonable, and fairly foolproof, only to find that solid defense crumbling at the first retort from the partner-opponent. A thought might arise, "This ugly dance keeps happening." By noticing, the person might become aware of the feeling, "I was sure I could win." And "I wanted to win very badly." This example offers a glimpse of the person and what is being noticed: "I see how I think and feel before and during an argument." Through meditation, the person becomes conscious of and thinks about the self thinking and feeling.

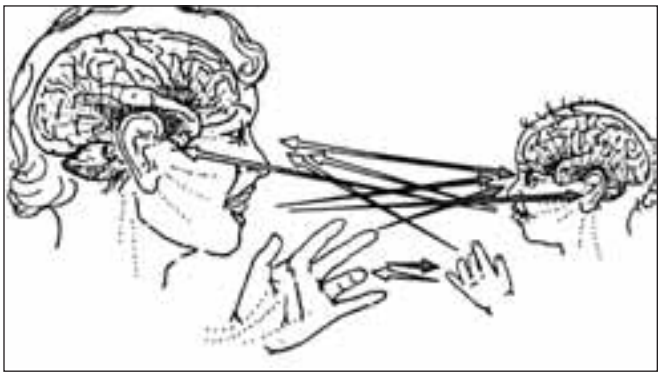
Doing this kind of meditative process, people become their own witnesses. They can better see what happened or is still happening, and now can choose what to do next, if anything. One could "respond wisely instead of acting reflexively" (Davidson & Harris, 2014,) Just as when the parental partner "sees the mind of the child and reveals this in reflective communication in their relationship, the child will develop the neural circuitry enabling her to see her own mind" (Siegel & Shahmoon-Shanok, 2010, p. 9), so, too, can the individual do so for her- or himself through meditation, and thus simultaneously become more adept at perceiving the minds of others. That is, empathic understandings flourish as part of the self. By extension,

> *In reflective supervision, as in any teacher–student, parent–child, provider–client relationship, nurturing is done with purpose: to assist in the growth and sustenance of compassionate human beings. However, in the case of reflective supervisor–supervisee, specific teaching of the clinical process of helping others to develop their own mindsight skills can be taken even further. In that special relationship, whether the supervisee is an educator, an occupational therapist, physical therapist or speech-language pathologist, a mental health or medical practitioner, an arts therapist, or a paraprofessional, these providers are cultivating enhanced emotional intelligence as a precise set of skills to meld with their disciplinary knowledge and dexterity. This increasing awareness and mounting social-emotional strength enables providers to sustain a kind of mellowness, a balanced sense that by practicing reflective thinking together, they will uncover the path of progress with and for their clients.* (Siegel & Shahmoon-Shanok, 2010, p. 10

Figure 1 appeared in an article by Colwyn Trevarthen back in 1989 and anticipated the ideas of interpersonal neurobiology (IPNB), a term coined by Daniel Siegel in *The Developing Mind* (1999) and implications of the mirror neural system. The figure catches the lively multidimensional communication between people in relationship. They are communicating across sensory dimensions, brain-to-brain; they are resonating with one another.

For better or worse, good or ill, between people, state is a "pass-it-on" condition, most especially from parents to children. When, for example, a father comes to understand his state rather than being totally "in" it, the father's children do not have to ricochet to one extreme and then boomerang to another as they would if he keeps "freaking out" while in their company. This is why self-regulation is so important: state is catchy. Meditation and mindfulness help to reduce emotional reactivity and offer calmness in its stead. The practice helps people to know the difference between urgent and important. In parent–child relationships, such reductions contribute to generativity, wherein parents manage to check their frustration and refocus their attentiveness onto their child's perspective in spite of their exhaustion, frustration, and the several other stresses that may impinge. It may be obvious that people behave differently when they are in a tired state, but becoming aware is essential. A brief report in the Science section of the *New York Times* noted a study that showed that physicians prescribe more medicines when they are fatigued (Bakalar, 2014). Perhaps readers will come to prefer doctors who meditate regularly!

FIGURE 1. **State Exchange**

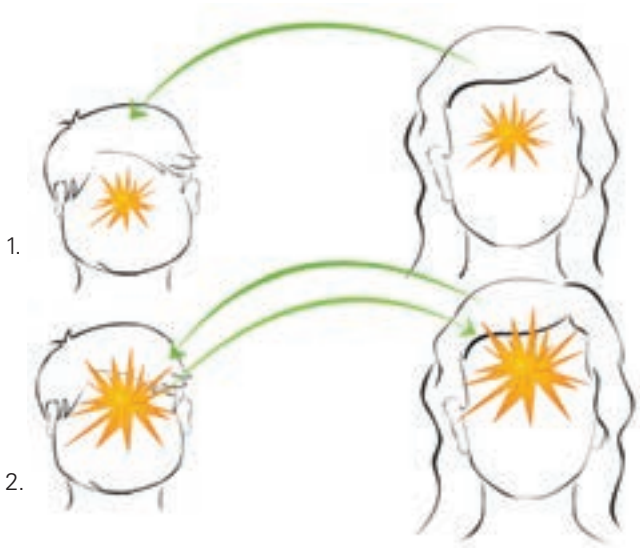


Relationships are created by the sharing of energy and information flow. Encapsulating what is coming to be widely known as interpersonal neurobiology, this figure appeared in a 1989 article by Colwyn Trevarthen at virtually the same time that ideas about reflective supervision were taking shape. Entitled "The modalities of mother-infant bidirectional exchange" in a chapter called the "Development of Early Social Interactions and the Affective Regulation of Brain Growth," the drawing suggests the lively engagement of all sensory-perceptual domains in and by both parties. The impact upon brain development is suggested, particularly in the younger, more vulnerable partner. Each prompts an effect upon the other, whether the dyad includes parent and child, as suggested in this drawing, or two adults including, for example, a reflective supervisor and supervisee.

Sources: Figure from C. Trevarthan (1989). The modalities of mother–infant bidirectional exchange. In Curt von Euler, Hans Forssberg and Hugo Lagercrantz, *Neurobiology of Early Infant Behaviour*, published 1989, reproduced with permission of Palgrave Macmillan. Caption reproduced from Siegel, D. J., & Shahmoon-Shanok, R., (2010). Reflective communication: Cultivating mindsight through nurturing relationships. *Zero to Three, 31*(2), 6–14

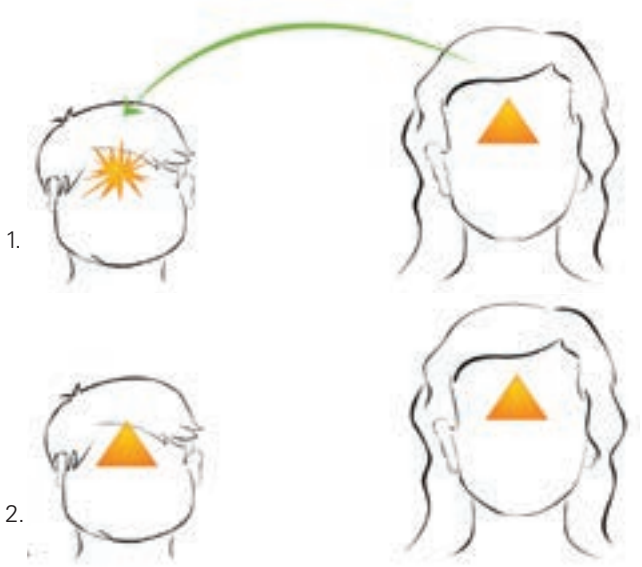
Figure 2 shows an upset parent aggravating her already unsettled child, which quickly escalates into an obstinate impasse or a stormy interchange. Figure 3 suggests an attuned adult who accurately selects the child's probable emotional state and mirrors it to the child. In this process, *mentalization*, the child feels understood, calms, and receives emotion-definition from the empathizing parent. With a secure parent, this typically occurs many times a day. Mentalization refers to the awareness and understanding of "mental" states of one's self and of others, as well as the making of accurate connections between them and observable actions (Allen, 2006; Sharp & Fonagy, 2007). Other terms for the ability to conceive of one's own and others' minds include *intersubjectivity*, *mind-mindedness*, *theory of mind*, *reflective function*, and *mindsight*.

FIGURE 2. **Disorganizing States**




Source: Bekar, O., & Shahmoon-Shanok, R. (2012). Unpublished figures.

FIGURE 3. **Organizing States**




Source: Bekar, O., Fried, E., Guadalupe, Z., Logan, M., Shahmoon-Shanok, R., Steele, H., & Steele, M. (2012). Peers helping peers in the face of trauma and developmental challenge: The relationships for growth and learning program. *Zero to Three, 32*(6), p. 46.

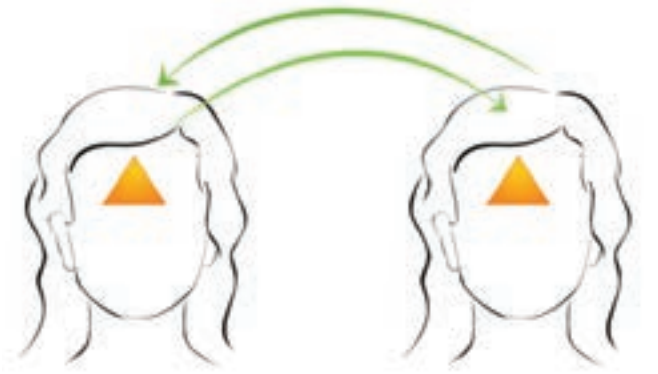
These are related theoretical constructs as well as observable, evidence-based capacities associated with the development of secure attachment in the first 2 or 3 years of life (Fonagy, Steele, Moran, Steele, & Higgitt, 1991; Steele & Steele, 2008). This facility of compassion in interpersonal exchanges helps children (and adults) think about their feelings rather than becoming overwhelmed.

Figure 4 demonstrates how more relaxed states get passed between people. Parents are the grownups, the people who need to quiet themselves even in the face of escalating children. Similarly, professionals are in the lead and need to simmer down with prefrontal cortexes operating, as they respond to a triggering parent or child. William Shafer (2007) writes about immensely challenging situations, like a young child dying of cancer, or a parent whose judgment deteriorates as their cocaine addiction worsens over weeks and days. Meditation practice helps providers be "conscientious, creative, and contemplative" (Siegel, 2010, p. XXV) all *c*-words that contribute to *calm*. Meditative practice may be integrated within reflective supervision. Shafer continues,

> *Mindfulness practice can offer a much-needed balance to our Western emphasis on prediction and control… "Many of today's infant-toddler services are offered to families who live at the margins of life. Impermanence in the form of illness, loss, and death haunt all families, even the psychologically healthy and materially well off. For other families, grinding poverty, mental illness, drug abuse, domestic violence, racism, and social apathy add further negative weight. In the face of such physical, social, and psychological damage, it is inevitable that some of our work will seem, in our eyes, to fail. . . . It is to this sense of powerlessness and failure that the mindfulness tradition speaks most eloquently, for it teaches that presence itself is the ultimate healing power. Presence is the experience of being internally still without resistance or judgement and, hence, completely accepting and open, regardless of the experience. It is not easily achieved.* (p. 7)

How this could begin to work may be glimpsed in a vignette of mental health consultation. Some years ago, a mental health consultant (MHC) who was beginning to make weekly visits in her assignment at an Early Head Start center noticed an assistant teacher with a tough, brusque attitude toward the children and often to her coworkers as well. Her voice, even during naptime was loud, even shrill. Though new to the center, the MHC talked with the veteran director, who reported that she had spoken with the teacher about it on several occasions but, although the teacher seemed to understand and modified the offending behaviors a little for an hour or two, they always returned. The teacher's overall pattern had remained unchanged over some years. The director was concerned, but she underplayed the problem because she was convinced of the assistant's underlying commitment to the children and was distracted by many other concerns that seemed more urgent. Still, in discussing it with the MHC, she kept her focus on the teacher's grating, startling ways as a challenge. Together, they hatched an idea: They planned a staff meeting, the first of several that the MHC would lead and the director would attend. At the first one, after the director introduced her, the MHC began by initiating discussion of open communication. She talked about being helpful and kindly honest with one another, about helping one another create a sense of safety as they embarked on discussions in which they could share ideas for the challenges they all faced. In response to her question, staff members began to list challenges as they saw them.

FIGURE 4. **Organizing States**



Source: Bekar, O., & Shahmoon-Shanok, R. (2012). Unpublished figures.

Not one to be reticent, the brusque staff member—let's call her Julie—soon volunteered that parents don't seem to care enough about their children and can sometimes be hard on them. When asked how she handles those parents, Julie said that she was not sure what to do. "How would you prefer them to be with their kids?" asked the MHC. Julie readily responded, "I want them to listen to their kids, to act like they respect them." The MHC then asked, "Julie, if you were a parent who was having a hard time slowing down, what do you think might help you?" And Julie replied, "I do need help slowing down, and I don't know what to do." "Wow," the MHC replied, "Thank you for being straightforward. Changing behavior in ourselves or in others is hard. But some exercises might help. Has anyone heard of meditation?" Most nodded. "It's an approach to stress relief, not religious. We have just enough time to do a few minutes of it before we end today. Are people up for trying?" Nods all around initiated beginning and ending MHC-led staff meetings with a few minutes of mindful visualization. As they wound up, the consultant offered information about some free apps that would support meditation practice. As they all ate snack following the meeting, Julie came up to the MHC with the words, "I need this to calm down. It's hard." Although she was surprised at Julie's nondefensive self-awareness, the MHC nevertheless realized that this was just a small portal to any actual shift of behavior. But Julie's self-awareness had been both touched and shared through a discussion of something neutral and calming, meditation—and it had potentiated further shared work on behalf of the children and of Julie.

## CULTIVATING AND KEEPING A MINDFUL ATTITUDE

One helpful tool for cultivating self-awareness with parents and caregivers is the "Pocket Card for Mindfulness" (see box). Maria, a teacher who worked with Julie, told the meditation-minded MHC, "Thank you for giving us that card. I was about to blow my stack at a boy for spilling the paint all over, but then I remembered that quote about me being the weather. I stopped

## Pocket Card for Mindfulness

Instructions: Copy this page, paste each side of the pocket card to the front and back of an index card, and laminate to create a pocket card. Or post pages on the refrigerator or wall.

**Front of card:**

***In this moment of crisis with a child or parent, I know that I can…***

- Become aware of myself—my sensations, thoughts, feelings, actions and reactions
- Calm myself
- Step in and create a safe space
- Regulate behaviors with calm responses
- Tune in and observe
- Commit to my relationship with the parent–caregiver and the child
- Reflect on what I know about development
- Be sure that I am taken care of, too
- Remain connected and invested even if a referral is needed and possible

**Reverse side of the card:**

**POCKET CALM FOR CHILDREN, PARENTS, AND ME**

"I've come to a frightening conclusion that I am the decisive element. . . . It's my personal approach that creates the climate. It's my daily mood that makes the weather. As a teacher (or worker of any kind with parents and children), I possess a tremendous power to make a child's (or parent's) life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or heal. In all situations, it is my response that decides whether a crisis will be escalated or de-escalated and a (parent or) child humanized or dehumanized." *Haim G. Ginott*

***To relax, some people sing or hum a beloved melody to themselves or to their child…***

Source: Shahmoon-Shanok & Beckwith, 2012

myself. When I asked him what happened, he said, 'I'm sorry, Miss Maria,' and began to tremble. And that was his reaction *without* me yelling! (*Pause, whispering.*) I don't want to scare kids!"

Along similar lines, a parent reported, "I used to get upset with my 3-year-old. She would wake up so grouchy and then I would quickly get crabby, too. But when I looked at that card and saw the bit about humming, it gave me an idea. I gave my daughter two choices of dance music tapes to choose from for wake-up. Now I put on the music quietly, give her a little massage in tune to the music and pretty soon, we sort of dance awake. It's not perfect, but it's better." As Richard Davidson, the renowned mindfulness researcher and, recently, the developer of a curriculum for children 3 to 5 years old called the "Kindness Curriculum" has said, "Meditation is like sports: it comes in many sizes and designs" (Davidson & Harris, 2014). The examples above are not meditation but they result from a frame of increasing awareness, one which considers the mind of the other.

In these instances both child and adult benefited. The child was assisted by a more sensitive, in-sync grownup, and the adult not only had an easier child with whom to deal but also came closer to being the teacher and parent they wanted to be. It is essential that adults who care for children learn and take time to take care of themselves.

## Our Own Stories

In this section the authors relate some of our own experiences with mindfulness.

### SLOW DAWN: REBECCA'S JOURNEY OF MINDFUL (SELF) DISCOVERY

Years ago, I joined a dear friend in my new neighborhood—or did she join me?—in walking to monthly group meditations led by two gentle souls just 15 blocks from our apartments. Something urged me onward. Curiosity and spiritual longing, ingested—literally—from my religious forebears on both parents' sides. Each of my parents was born and raised in Baghdad. We trace our heritage back 2,500 years to the Babylonian Jews. It was intergenerational transmission; whenever my sisters and I were about to bite a fruit or vegetable that was new in the season, our mother demanded that we say blessings over them first. We *had* to pause and, only much later, it dawned on me that by saying the required prayers, we were creating a space to become aware of the miracle we were about to pop in our mouths. Even today, I still take several seconds to behold everyday marvels, say, the glistening insides of a juicy nectarine that I alone will see and taste; moist, dark beetroot slices; variegated beige-olive of brussel sprouts; stars; sunsets; my breath. And I went on some meditation retreats mostly because I love hiking, kayaking, and camping, peaceful pastimes gifted to me some years ago by my just-grown children.

What I recall from those few years of monthly Saturday afternoons is peace of mind and of being inhabited by a familiar but penetrating sense of being utterly connected with all creatures, everything. Alice Walker put it perfectly: "I knew that if I cut a tree, my arm would bleed" (1982, p. 120). This was in contrast to my childhood experiences of being in synagogue without understanding, bored. Yet those experiences, prayers at home, holidays observed, frequent family synagogue attendance, created a category within me, a place for spiritual life.

Gradually, I became closer with one of the group's leaders who had previously been an admired pal. One evening in late June, she and I went to a Turkish outdoor cafe and over stuffed dolmas and fish kebab, she mentioned an 8-day kayaking-camping meditation trip in Alaska that she was about to co-lead. Without a moment, I asked if there was still room and jumped at the one and only unfilled spot. What I thought I wanted was the camping adventure. What I got instead was the internal struggle of a lifetime. Those 8 unseasonably grey, chilly, wet days—kayaking next to sea otters and whales, sleeping in a tent below eagles and ravens on a teensy island dot in the wilderness of Tebenkoff Bay, Alaska[1]—

[1] Tebenkoff Bay is in the Tongass National Forest, which, at 17 million acres, is the largest intact temperate rainforest left on our planet.

being (okay, *feeling*) forced to meditate in the frigid dawn mist every morning by 6:00, eating meals in silence, kayaking without a word, somehow led me to become aware that my tendency to be expressive was a burden to my children. At the same time, a huge challenge one of them was encountering was on my mind and what came up over and over was what I confidently knew about him. I emerged from that initial voyage with a sense of serenity, an improved ability to see things as they were without having to do anything. I could also see that my new capacity to be "zen," as I called it to myself, was better for me and for those closest to me, and that any messages I might have would be easier for them to hear when they didn't feel—because I didn't possess and was not possessed by—my former internal pressure. My grown son dates a major generative turning point in his life to several conversations we had just following my inner and outer Alaskan adventures. My recollection of those heartfelt exchanges between us is that I could invite him to see what I saw utterly without investment in the outcome, except my deep wish for him to discover the path that would become meaningfully his own.

Simultaneously, my work in the area of trauma with both adults and children was swelling, both in cases I supervised as well as in those clients I saw directly. As an antidote to the gripping character of such cases, I found help in the ideas and practices drawn from the more reposeful world of mindfulness. As my own supervisor said recently when I was describing this article, "When the nervous system is not under threat, it can be curious. When a person possesses (compassionate) equanimity, s/he can become open" (N. Napier, personal communication, October 8, 2014). I also began to study an approach to the treatment of trauma, Eye Movement Desensitization and Reprocessing, better known simply as EMDR with Laurell Parnell, PhD, who has a deep background in meditation (although I was not aware of that at the time). When I recognized the significance of physiological–emotional state—of helping people perceive their catastrophic states and chart a way out of them—my work became more effective in helping them tune into themselves and their children. Clients with trauma carry their wounds in their bodies, usually not in their thinking-feeling, talking minds, even when they recall the facts of what happened (van der Kolk, 2014). They need help to symbolize and communicate their story nonverbally, and only gradually to think about what happened to them instead of relive repeated states of engulfment, drowning over and over and over again. I also came to see how useful these approaches are for explosive child–parent dyads.

I live in New York City. Eight or 9 days after the terrorist attacks on the World Trade Center, I was hurrying toward a building where I was to co-lead a group of people who had lost a friend in the attacks. As it happened, I ran into my meditation teacher. We embraced and assured one another that we were okay, as people—even strangers—did in the city for weeks afterward. When I told her what I was about to do, she responded with: "I once asked the Ram Dass[2] how he managed to stay in sunshine while hearing vast caverns of pain from innumerable people. He replied, 'When I am with a person I am with that person. And when I leave that person, I say a prayer for them, and then I leave them.' " My precious teacher and cherished friend, Rabbi Rachel Cowan plucked that piece of guiding grace out of the air that pristine day. It was the grounding I needed for the broken hearts I was about to encounter, and I am grateful to her for that and much more.

A couple of years later, Dr. Roseanne Clark asked me to come to Madison several times in a single year to help prepare potential supervisors across Wisconsin to be reflective supervisors within the program she was planning (with Dr. Linda Tuchman-Ginsberg of the Waisman Center), for certification in infant mental health at the University of Wisconsin. It was in the heart of that assignment, feeling deeply welcomed and supported by Roseanne and inspired by what the program promised to achieve for Wisconsin's young children and their families, that I discovered myself increasingly interweaving relaxation, visualization, and mindfulness ideas into the reflective supervision principles I was teaching. Actually, they may have been there all along, but by then I could better understand and give them names. By now, mindfulness and related ideas have become like connective tissue, integrative in all domains of my practice and teaching.

Kornfield teaches: meditation is "not about self-improvement. It's a process, less a goal. It's an invitation to come into the present and to sit like a mountain or a butterfly and then you begin to notice and feel what you have been stuffing down before" (Kornfield, 2014). I thought, "watching my breath" and "clearing my mind" are way-stations. They are places to pause and allow the dramas and dilemmas of my inner life to arise, the shames, rages, and all other nonlovely emotions that might otherwise take over my waking thoughts, what Howard Stevenson calls "chaos" in his story, which follows. Still, it sometimes is hard for me to watch breath and clear mind for stretches of time. But when I learned not to yell at myself for thinking during meditation, but instead to kindly notice the thought, possibly choose to pursue it for a bit, and then dismiss it with self-compassion, I noticed a reduction in the frequency and severity of those inner voices that had been longtime companions. Alongside these shifts in practice and in my inner life, I often become aware of uncountable everyday wonders with a bottomless sense of gratitude.

## MOVEMENT AND STILL: THE BOTH-AND OF BLACK PRAYING AND MINDFULNESS—HOWARD'S STORY

In my Black church growing up, there was and remains an all-important mindfulness reality. It is embodied in that one praying man, praying woman, or praying child who through their sincerity, voice, and inspiration are able to call on the Creator in such a way as to put everyone in the church in a place of spiritual innocence. And through that interaction, I witnessed Black folks being able to engage a unique awareness, not only of themselves, not only of each other, but of the awesome power of being still in the presence of God. Now some think of this as "God" and that's ok, but what I'm talking about is the awareness of one's being still in that presence.

[2] An American spiritual teacher and author, someone who had begun his career as a psychologist.

There was a praying woman in my church who was a powerful person kneeling at the altar but a quiet woman in life. Her demeanor was one of a single woman with a sensitivity to nature, sensitivity to children, sensitivity to other families in the church. Mrs. Warrington, a widow of pleasantly plump stature, would not appear to you to be the kind of person who would bring both thunder and lightning in the middle of a praying moment.

And yet that calm surrounded her when she walked and talked and shopped at the local Acme grocery store.

And so in some Black church praying moments, an emotional storm might erupt. The benefit of a collective moment that reaches the souls, hearts, and mind of each individual is that it is often full of calm and chaos. Without chaos, how else might one come to know "still?" That is one unique aspect about a Black spiritual noisy prayerful mindfulness—where one is able to be self-aware in the middle of a life gone wrong, of one's less strong, in the middle of praying about your child who you worry may not make it to his 18th birthday. There is something about being mindful while the very pain sensors of your skin on the inside are on red alert and life for you is not peaceful on the outside. So it is being aware of the chaos that makes the calm much more salient, much more stark, that much more powerful.

We long for that quiet. Black parents long for that quiet. There is a phrase in the Bible, "Be still and know that I am God." (Psalm 46:10, *New International Version*) I don't think there is a better image or frame for mindfulness than being still. And also being at one with the Creator collectively defined as a healing Creator, not as Western positivism might claim, a failure to embrace oneself or hide behind an imaginary reality so as to not face one's own truth. No. This collective mindfulness can be just as both-and. When *we* pray, *I* can also become more self-aware.

I will never forget Mrs. Warrington because she seemed so at peace with herself before she prayed but was so amazingly thunderous during her praying; in many respects she called on the storms in everyone's life during her prayer. She "prayed the House down." And there was no one in the room left unscathed. It didn't matter if you were 5 years old or 95 years old, you felt the power of the Lord in those moments when she prayed. It was up to you to process that power. And when she got up from the altar, she was no more chaotic, she was no less peaceful than when she had kneeled down. She prayed the Lord down and brought everyone in the church to their emotional knees. But it was up to you to figure out what to do with that thunder and lightning. It was still left up to you.

When I was a clinical psychologist postdoctoral fellow at the Philadelphia Child Guidance Clinic in 1985, considered the Mecca of family therapy training, I was seeing hordes of families from the culturally rich racial and ethnic neighborhoods of West and South Philadelphia. From morning to night, children and families from impoverished neighborhoods and schools across the developmental, cultural, and racial spectrums come in.

As a family therapist, I received one-on-one live supervision training from Jorge Colapinto, a protégé of Salvador Minuchin and heir apparent to his work at the time, during a training session for a class of about 20 other interns and postdocs.

So I was seeing an Islamic family of eight members, mostly young children ranging from 2 to 15 years old. The parents were comfortable with the children moving around in the therapy room and so was I. Growing up in southern Delaware, my cultural experience was full of movement, noise, music, and energy expressed in social spaces, living rooms, and homes. It didn't bother me at all. Within the style of Philadelphia Child Guidance live supervision training, it was not uncommon for supervisors to call their supervisees out of the room several times during a session.

So Jorge called me out using the phone to try and help me deal with the noise and chaos from the children. The noise was obviously bothersome to Jorge at a level that I didn't fully understand, so I was prepared for criticism even though I wasn't sure exactly what that criticism would be about. He said to me, "You seemed to be okay with the chaos?" And I replied, "Yes, and I'm not finished yet and I will be happy to get to the point once I go back into the therapy room." Instead of instructing me to go into a direction that he was most comfortable with, he withheld his feedback to let me return. At that point, I demonstrated that not only was the chaos functional and that I was able to hear them through the chaos, the family was still able, despite the movement, to communicate their challenges and struggles, their family dynamics and dances to me verbally and nonverbally.

Rather than ridiculing and confronting me as not being sure of what I was doing, in front of the other trainees, Jorge called me out within the next 15 minutes, understood my way and praised me for working through the "chaos."

I attribute this ability to being calm in the storm of the church service moments, to experience the chaos when "God was prayed down"—no matter how long it took to endure. In a Black church, it could be a long time for the storms, but there was always going to be a calm if you waited for it. My church family often quoted a biblical phrase for enduring difficult moments in life, "Weeping may endure for a night, but joy comes in the morning" (Psalm 30:5, *American King James Version*).

I will never forget in that family's chaos, that the mother, dressed in Muslim garb, was not dismayed by her children's comings and goings. It was as if her "seeming inattention" to their movement was not a sign of her overwhelm or stressed-out parental disengagement. No. What I read from her was that her children might be noisy, but they were not loud. While to outsiders it may appear chaotic, the family did not see each other as in chaos—instead, it was rhythmic.

The mother and the father were not denying or neglecting or deluding themselves into not seeing their children in disarray. No. We were watching an appreciation of child development in real time without being overly critical or diagnostic. Unfortunately, "helpers" sometimes get distracted by our cultural countertransference about movement and noise, such that we can't separate noise from loudness, movement from

chaos, rhythm from dancing. The family was in its own dance. That is the essence of therapeutic work, in that you want to give feedback to people, but only after being honorably invited into their meaning-making of the world, their rhythm and dance within the world. Then we can only hope and "pray" to have the presence of mind to ask them ever so gently, with their permission, which part of that rhythm and dance is no longer working for them—which is the reason they might have come to see you in the first place. Therapists who are not at peace with themselves may be blinded to this calm in the midst of a cultural or racial chaos (Stevenson, Winn, Walker-Barnes & Coard, 2005) or blinded to the awareness that, for many, staying in rhythm with one's family, one's culture, one's Creator is healing.

What a parent can do is to be with himself or herself, which in turn allows children to be at peace with himself and herself. By doing so, we hope as therapists not to get in the way of that dance or insert ourselves out of some misguided morality or naïve paternalism. There is still room for child development to raise its head in these "chaotic moments," to reveal itself. From this safety of being who you are, some calm can come through the chaos, but therapists have to be present to see it (See box, Calculate, Locate, and Communicate).

There is a quote from my book on Black parenting: "Parenting is a life-long acquaintance with helplessness" (Stevenson, Davis, & Abdul-Kabir, 2001, p. 161). Parenting young children involves embracing and engaging this helplessness, not running from it. For many parents of children of color, they look into their infant's eyes and become immediately stressed at how to parent, knowing the world may reject their child's difference—this fear paralyzes them from the cradle to the grave. Not all parents have to worry about racial helplessness, only those of us who are not of the dominant culture do (Stevenson, 2014). Trying to breathe freely for mindfulness sake while the world around us is dehumanizing the very breaths of our children, our babies, our loved ones, is very hard. Without a cultural bridge, many of us find it too hard to breathe. From a cultural standpoint, I've tried to make the case that prayer can be mindfulness that requires a relevant context to be engaged; Black cultural, stormy, bringing the House down praying is one context some use to integrate their cultural style, our racial oppressions and barriers to overcome, while still gaining access to a mindfulness that is both collective and individual, rapid and slow, loud and quiet, moving and still.

So prayer as mindfulness is less about the act of praying, the content of the prayer, the words of eloquence or stumbling. It is the emotional and cultural safe place in which I find myself while praying and how mindful I can be of that place. It is a choice. The biblical phrase, "Be still and know that I am God" is a statement of mindfulness if you consider how God is a creative spiritual space to strive towards and find peace. For me, praying and mindfulness are not distinct. Movement and still can be one. Ironic isn't it that our culture can make it possible for us to breathe fully? Movement and still can be One.

### Calculate, Locate, and Communicate (CLC)

An approach to slow people down to communicate with themselves and one another is called "calculate, locate, and communicate." After asking family members or a group of parents to take risks and tell stories of their parenting or racial encounters, they are asked to *calculate* on a scale of 1–10 how intense their emotion is right now, to *locate* where they feel that emotion somewhere on their body, and then to take notice of any *self-statements* they made during that risk-taking. Afterwards, they are asked to practice slow breathing and exhaling while taking mental notes on the experience. This has proved useful in helping families discuss painful, difficult, and vexing topics.

1. Tell a story about parenting/racial conflict about your infant or child.
2. Say what you feel about your story **(CLC)**:
   a. **C**alculate stress: On a scale of 1–10, how stressful was it?
   b. **L**ocate stress: Where in your body do you feel the stress?
   c. **C**ommunicate stress: Tell a trusted person or take a note on what's disturbing.
3. Come up with an **unhealthy** comeback line.
4. Come up with a **healthy** comeback line.
5. Say what you feel about your comeback lines using CLC.
6. Repeat Steps 3–5 until your comeback line ***protects your dignity***.
7. Decide whether you want to use your comeback line.

Source: Adapted from Stevenson, H. C., (2014). *Promoting racial literacy in schools: Differences that make a difference.* New York, NY: Teachers College Press, p. 126.

## Discussion: Self-Care, and the Gift of Calming Cards

Mindfulness is not a given. It is a choice, and practice makes it stronger. Mindfulness—engaging calmness, witnessing internal chaos, and developing an observing self—can take place within the spirited spiritual life of a passionate church or in silence over days next to whales or under eagles, or sitting on cushions with others in a retreat center, or by oneself at home.

Self-care for therapists involves recurring engagement with calmness during the chaos of our clients' experiences. What worked for the woman in the shelter also provided respite for the therapist. While knowing how to be mindful is helpful, there remain for many therapists stressors that bring heavy burdens to their psyches and their souls. We have witnessed the burden of working with young children—especially those who are economically poor with parents who have difficulty parenting—to be one of those types of stressors and working with families who are racially different as another. Therapists who have not had experience with racial stress may find a mindful approach

lacking if the particular fears that are raised in racial encounters are not identified and their resolution practiced. The fears of racial incompetence too often bring a host of critical self-statements and avoidant social coping strategies. The practice of mindfulness may contribute to awareness and authenticity in the ability to recognize and become responsible for one's actions and behaviors.

Some people, including the authors, experience mindfulness as repeated intimate connections with our deepest moral selves, our most authentic, aspirational selves, both as individuals and communally. Davidson, the renowned neuropsychology researcher, to whom the Dalai Lama turned when he wanted meditation to be studied by brain science said recently in a public forum (Davidson & Harris, 2014) that the topic in his work currently that interests him most is his belief that all humans have the impulse to be good (Flook, Goldberg, Pinger, & Davidson, in press). While the practice of mindfulness is the intentional, non-judging focus of one's attention on emotions, thoughts and sensations occurring in the present moment

## Learn More

### Readings and Books

***8 Minute Meditation: Quiet Your Mind, Change Your Life.***
V. Davich (2004). New York, NY: Perigee.

***Baby Buddhas: A Guide for Teaching Meditation to Children***
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**Fussy Babies: Early Challenges in Regulation, Impact on the Dyad and Family, and Longer-Term Implications.**
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***The Mindful Child: How to Help Your Kid Manage Stress and Become Happier, Kinder, and More Compassionate***
S. K. Greenfield (2010). New York, NY: Free Press.

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***Planting Seeds: Practicing Mindfulness With Children***
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***The Power of Now: A Guide to Spiritual Enlightenment***
E. Tolle (1999). Novato, CA: Namaste.

### Books for Children

***Moody Cow Meditates***
K. MacLean (2009)
Boston, MA: Wisdom Publications.

***Peaceful Piggy Meditation***
K. MacLean (2004)
Morton Grove, Ill.: Albert Whitman.

### Websites

**Center for Investigating Healthy Minds**
**www.investigatinghealthyminds.org**

**Daniel Siegel, MD**
**http://drdansiegel.com**

**Greater Good: The Science of a Meaningful Life**
**http://greatergood.berkeley.edu**
e-newsletter
**http://greatergood.berkeley.edu/get_involved/sign_up**

**The Hawn Foundation**
**http://thehawnfoundation.org/mindup**

**Plum Village**
**www.plumvillage.org**

**Meditation Oasis**
**https://itunes.apple.com/us/app/simply-being-guided-meditation/id347418999**

**Spirit Rock Meditation Center**
**www.spiritrock.org**

**Insight Meditation Society**
**www.dharma.org**

**Inner Kids**
**www.susankaisergreenland.com**
**www.mindfulschools.org**
**www.dharmaseed.org**

### Free or Inexpensive Apps

- Insight Timer
- Simply Being
- I Zen Lite 2
- Rhythm
- Breathe2Relax

("Mindfulness", n.d., para. 1) it helps people discern and choose their behavior and, in so doing, become whom they yearn to become, to make meaning in and of their lives.

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**Rebecca Shahmoon-Shanok, LCSW, PhD,** is founding director of the Institute for Infants, Children & Families, JBFCS, in NYC, which reaches young, underserved children and their families with transdisciplinary, model services, post-degree training for providers of all disciplines and state-of-the-science consultation to government, systems, and agencies. A pioneer in integrating mental health consultation and services in child care and Head Start, Rebecca has established peer play psychotherapy in community settings as a successful intervention for young children with widely varied challenges. An experienced author and energetic leader, she has trained professionals from all relevant disciplines together since 1976; helped to define reflective supervision since its early use in the late 1980s; has been part of a national workgroup addressing Tenets for Diversity-Informed Practice; and has integrated mindfulness to assist with trauma, developmental and relational challenges. Founder and past co-president of the New York Zero-to-Three Network, she has been an active board member of ZERO TO THREE for more than 30 years. With degrees and experience in clinical psychology, social work, and early childhood education and extensive experience in psychoanalysis and infant mental health, Rebecca lectures and consults throughout North America and abroad and has been widely published. She is featured in a recent Early Head Start National Resource Center Webinar on reflective supervision available for free public viewing.

**Howard C. Stevenson, PhD,** is the Constance Clayton Professor of Urban Education, professor of Africana Studies, and former chair of the Applied Psychology and Human Development Division in the Graduate School of Education at the University of Pennsylvania. Dr. Stevenson has 30 years of experience as a clinical supervisor and therapist in family and child psychotherapy and has served as an administrator of residential treatment centers for emotionally disturbed youth with Delaware's Division of Child Mental Health.

He is also a nationally recognized researcher in independent and public K–12 schools and teaches how children can develop healthy racial identities through racial stress management. The PLAAY (Preventing Long-term Anger and Aggression in Youth) Project uses basketball and racial socialization to help youth and parents cope with stress from violence and social rejection. With Penn professors Loretta and John Jemmott and Christopher Coleman, Dr. Stevenson co-leads the SHAPE-UP: Barbers Building Better Brothers Project, which trains Black barbers to be health educators of HIV/STDs and violence risk reduction and negotiation skills to Black 18–24-year-old males while they are cutting hair. His most recent book, *Promoting Racial Literacy in Schools,* shifts a focus on race relations away from "colorblindness" toward *racial literacy:* the ability to read, recast, and resolve racially stressful encounters when they happen.

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# Changing Policy to Achieve Equity for Infants and Toddlers

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Harnessing community and cultural strengths helps boost young children's social network, self-esteem, and resilience and also promotes intergenerational equity within and across families. Unfortunately, research shows that young children born today face deep inequities, with many racial and ethnic disparities in health outcomes, educational achievement, and well-being.

ZERO TO THREE's (ZTT) mission is to ensure that all babies have a strong start in life. The mission is intentionally inclusive of "all babies," because ZTT envisions a society with the knowledge and will to support *all* infants and toddlers in reaching their full potential. In recognition of a "strong start", ZTT strives to ensure that each and every child has good health, strong families, and positive early learning experiences (ZERO TO THREE, 2009). It is essential that children experience these from the very beginning because these experiences will lay the foundation for success throughout their lives and will help either perpetuate or dissipate inequities that humans face, even before they are born.

## Key Questions About Equity and Cultural Competence

In the quest to fulfill its mission, ZTT continuously strives to become more culturally competent, inclusive, and equitable. ZTT staff members use a shared definition of equity and cultural competence which informs our shared understanding of these goals and guides our priorities and partnerships. Below are the definitions and key questions which guide ZTT's approach in this area.

### HOW DOES ZTT DEFINE EQUITY?

ZTT defines *equity* as "something that is just, impartial and fair; justice based upon need and ability." Whereas *equality* translates into every person having the same opportunity to reach their full potential, *equity* is everyone having what they need to achieve their potential. This might vary by individual and community. In order to promote equity, ZTT provides resources and support that match the needs and abilities of individuals and communities. This match creates an environment that encourages the fullest participation of its members through the celebration, recognition, and acceptance of differences. Equity is more than equality. It is more than access. Equity is developmental and systemic and is the responsibility of the entire community and society at large (Dennis, Cross, Bazron, & Isaacs, 1991; Olsen, Bhattacharya, & Scharf, 2006).

### HOW DOES ZTT DEFINE CULTURAL COMPETENCE?

*Cultural competence* is defined differently for individuals versus organizations. For individuals, cultural competence is an approach to learning, communicating, and working respectfully with people different from oneself. For organizations, cultural competence is creating the practices and policies that will make services more accessible to diverse populations and that provide for appropriate and effective services in cross-cultural and transcultural situations. The development of cultural competency may be best thought of not as arriving at a set of skills and knowledge, but rather as a journey and a way of being (Dennis et al., 1991; Olsen et al., 2006).

## HOW DO EQUITY AND CULTURAL COMPETENCE TRANSLATE INTO INCLUSION?

In order to fully implement the notions of equity and cultural competence, ZTT embraces and practices inclusion, both within the organization and as we engage with external stakeholders. *Inclusion* is a sense of belonging, of feeling respected, valued, and seen for who we are as individuals. Inclusive organizations are those in which there is full access and participation of all stakeholders at "the table." An organization is inclusive when everyone has a sense of belonging; feels respected, valued, and seen for who they are as individuals; and feels a level of supportive energy and commitment from leaders, colleagues, and others so that all people—individually and collectively—can do their best work (Dennis et al., 1991; Olsen et al., 2006).

## HOW DOES ZTT PRIORITIZE EQUITY IN ITS WORK?

ZTT was founded in 1977 by experts in child development, health, and mental health. Today, ZTT plays a critical leadership role in promoting understanding around key issues affecting young children and their families, including child care, infant mental health, early language and literacy development, early intervention, and the impact of culture on early childhood development. As part of this vision of supporting all infants and toddlers in reaching their full potential, staff members focus on actively and intentionally promoting equity and cultural competence in and through our work.

## HOW DO PARTNERSHIPS HELP TO STRENGTHEN ZTT'S WORK?

Most recently, ZTT has partnered with the W. K. Kellogg Foundation and called upon a panel of national experts to explore policy solutions that recognize the early years of life as a pivotal period in the lifespan in which to experience equity. This panel presented at ZTT's 2014 National Training Institute and discussed how to emphasize the strengths of families and communities, so that services can be designed to empower them; how to identify and address the factors that perpetuate disparities; and how to create innovative approaches to shaping policies to promote culturally and linguistically competent services.

Photo: © iStockphoto.com/monkeybusinessimages

Cultural competence is an approach to learning, communicating, and working respectfully with people different from oneself.

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# Achieving Equity for Infants and Toddlers: Questions and Responses

Below, each of the participants in the policy plenary panel responds to questions about the role of equity in his or her work.

## Questions for Pedro Antonio Noguera, PhD, New York University

**How does the research that you do apply to infants and toddlers, and how does it help to shape policies and practices that promote equity? How do professionals close the preparation gap by developing policies and conditions to support early childhood education for every child?**

***Noguera's response:***

The term *achievement gap* is commonly used to describe the disparities in academic outcomes and variations on measures of academic performance that tend to correspond to the race and class backgrounds of students. Ironically, whereas closing the achievement gap receives considerable attention, closing the preparation gap receives relatively little. The term *preparation gap* refers to the widely known fact that many children, particularly those from poor and disadvantaged families, frequently do not receive adequate learning support at home and lack access to high-quality preschool. Although some cities, most notably Seattle, Boston, Tulsa, and New York City have gone to great lengths to expand access, the vast majority of American cities have not. In rural and many suburban

communities, access to high-quality preschool (not babysitting) is even more limited.

For many years, educators have understood that environmental influences, including family, peer groups, and neighborhood environmental factors, influence the health, nutrition, safety, and overall psychological and emotional well-being of young children, as well as their development and learning (Rothstein, 2004). As poverty rates have risen in recent years, a growing number of researchers has drawn attention to the ways in which food insecurity, poor heath, lack of safety, housing instability, violence, and pervasive and persistent stress negatively influence the welfare and well-being of children (Adelman & Taylor, 1999; Eccles & Gootman, 2002; Noguera & Wells, 2011; Rothstein, 2004; Syme, 2004).

Education reforms typically have not addressed the ways in which poverty influences child development and student learning. For example, poor prenatal care for mothers can have lasting effects on students' cognitive development (Adelman & Taylor 1999). Several researchers have pointed out that greater progress in improving American schools has not been achieved for the major reason that although childhood poverty rates have risen since the 1980s, federal and state education policies have not yet rebuilt what has become an increasingly tattered safety net (Barton & Coley, 2010). Indeed, in a large-scale study on child health and well-being conducted by UNICEF in 2007, the United States was ranked 24th out of the 25 wealthiest nations.

Social scientists and urban planners who have studied poverty alleviation have argued that poverty and the variety of the social issues that frequently accompany it (e.g., housing instability, substance abuse, crime, unemployment) have an impact not only on student achievement but also on the character of schools in low-income communities (Adelman & Taylor, 1999; Noguera, 2003; Payne, 2008; Rothstein, 2004). This is especially the case in communities where poverty is concentrated (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010). Numerous studies have shown that family income and parental education are two of the strongest predictors of student achievement and educational attainment (Coleman et al., 1966; Jencks, 1972; Jencks & Phillips, 1998) and that children in schools where poverty is concentrated do even less well than their counterparts in more economically mixed settings.

Poverty limits the amount and quality of academic and social support students receive outside of school, because poor parents and their relatives typically lack the education and resources to provide them. Whereas middle-class parents are generally able to provide their children with a broad assortment of advantages including quality preschool, summer camp, early reading support, music lessons, and other opportunities that support healthy development and enhance the likelihood of academic success (Lareau, 2003), poor parents are typically not. More recent studies confirm the findings first offered by James Coleman and his colleagues (1966) that family and community are powerful influences on student achievement.

This does not mean that "demography is destiny" or that children from low-income communities cannot be expected to achieve. However, it does mean that professionals cannot continue to ignore the ways in which poverty negatively influences academic outcomes. If they do, they are unlikely to reduce the race and class disparities that are common among schools throughout American society.

An equity agenda that is committed to providing greater access to high-quality preschool must address disparities in quality and funding, and provide schools with the resources to counter the effects of stress, trauma, and poor nutrition on children. Although it would be helpful, a piecemeal approach such as simply expanding access to preschool will not be sufficient. Several studies on federally funded Head Start programs have shown that the benefits of early childhood education are often undermined when children do not receive ongoing support, both within and outside of school, after they enter kindergarten (Early Childhood Longitudinal Study 2004; Karoly, Kilburn, & Cannon, 2005).

Many children from low-income families are far behind their peers in language development and other experiences that support academic learning when they start kindergarten. Studies have found that the size of the working vocabulary of 4-year-old children from low-income families is approximately one third that of children from middle-income families (Early Childhood Longitudinal Study, 2004), which makes it much more difficult for them to read with comprehension or to engage in academic learning relying on that vocabulary, even when they can decode text. By first grade, only half as many first graders from poor families are proficient at understanding words in context and engaging in basic mathematics as are first-graders from more affluent families.

These differences in early-year experiences among young children often lead schools to organize a remedial curriculum focused on rote skill development for these students. Rather than create an enriched environment providing rich linguistic and hands-on learning experiences that could develop higher-order thinking and performance, schools subject students to a series of drills and rote learning experiences designed to develop skills. The problem is often exacerbated by the prevalence of unskilled teachers who frequently depart within the first few years of teaching. To compensate for teacher turnover and a lack of skilled teachers, many districts have adopted highly scripted, "teacher-proof" curricula. Such approaches generally fail to develop the capacity of teachers to teach the more sophisticated curricula needed to develop deeper learning skills in students.

With the enactment of the No Child Left Behind Act (NCLB) in 2001 and its requirement that states collect data on student achievement and disaggregate test scores by race and other demographic and educational characteristics, awareness about pervasive academic disparities has grown. As a consequence, achievement data in schools and districts throughout the nation have been publicly revealed and discussed. Thus far, public discussions about racial disparities in achievement have done little to actually close the gap or prompt widespread improvement in the nation's schools.

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## Questions for Aisha Ray, Erikson Institute

**How does the research that you do apply to infants and toddlers, and how does it help shape policies and practices that promote equity? How do we close the preparation gap by developing policies and conditions to support early childhood education for every child?**

***Ray's response:***

The United States has a complex, violent, and tortured history in applying its democratic ideals of fairness, equity, and equality to all, especially to racial/ethnic minorities, the poor, immigrants of color, and individuals with diverse abilities. Regrettably racial and economic inequality is a legacy we, as a nation, bequeath even to our youngest children—infants and toddlers. Significant numbers of very young children are born into and grow up in economically impoverished communities with limited services and supports for optimal developmental and educational outcomes. While poverty may be an accident of birth, allowing children to be reared in circumstances that early childhood science has shown may threaten their development is a choice that we can address as a society, if we choose to do so. We have the power and resources to significantly alter negative child outcomes but to unleash these we have to intentionally place racial and economic equity at the center of the development of policies and programs intended to improve child outcomes. The national challenge regarding racial and economic equity for young children is to ensure three things: (a) that very young children of color and in poverty have everything they need to develop optimally; (b) that resources, burdens, and rewards are distributed fairly across groups and communities so that those with the greatest challenges are adequately maintained and not further disadvantaged; and (c) that policies designed to support young children and their families are fair and just (Falk et al., 1993). To meet this challenge it will not be sufficient to only make sure that every infant and toddler has access to high-quality child care, although that is an important goal. It will also not be sufficient to ensure that every family with an infant or toddler has comprehensive services and supports including health, mental health, nutrition, housing, and economic security—although these too are necessary components of a racially and economically equitable society. To address racial and economic equity we have to be courageous, willing, and able to confront racial and class privilege, dismantle segregation, initiate policies that are fair and just, break down barriers that isolate the poor, and provide and sustain

opportunities across the life course of children (birth to early adulthood). Addressing early development is critical but not sufficient—our approach has to be comprehensive, developmentally appropriate, culturally responsive, and intentionally designed to meet the needs of children as they develop from infancy through adolescence.

The importance of equity to children birth to 3 years old is associated with four issues: (a) early childhood science, poverty, and trauma; (b) the quality of infant–toddler care; (c) demographics and deep racial and class inequities; and (d) the capacity of the early childhood field to address equity, compensation, and professional development.

Early childhood science has consistently demonstrated that brain development during the first 3 years of life is dependent on children's early experiences. The quality of care infants and toddlers receive, including caregiver responsiveness, is associated with improved developmental outcomes. Adverse early experiences including poverty, violence, trauma, and maltreatment can derail brain development. Almost half (48%) of children birth to 3 years old live in low-income households. Poverty, especially deep poverty, is related to additional factors that threaten early development and family functioning, including limited access to the social, economic, and political resources and institutions that contribute to economic well-being and civic engagement. African American, American Indian/Alaskan Native, and Latino children are more likely than other groups to live in urban, suburban, and rural communities with high rates of crime and unemployment; poor quality early care and education; under-resourced schools; and limited access to nutritious food, transportation, health care, and mental health services (Annie E. Casey Foundation, 2014).

High-quality early childhood programs improve developmental and educational outcomes for children of color and in poverty, and access to these programs is an equity issue. Although early childhood programs are not a panacea for every social and economic problem facing families and young children, they do have the potential to contribute to significantly improving the developmental and educational outcomes of children, especially those in poverty. Robust early childhood science has demonstrated that high-quality early childhood programs (e.g., Chicago Child-Parent Centers, Perry Preschool, Abecedarian Project) that combine a recognized set of components (e.g., well-trained and well-compensated staff, small adult–child ratios, consistency of adult caregivers, enriched age-appropriate curriculum, safe and stimulating environments, comprehensive family services, and staff who are culturally and linguistically competent; National Research Council & Institute of Medicine, 2000; Ray, Aytch, & Ritchie, 2007; Reynolds, 2000) can significantly improve developmental and educational outcomes during childhood as well as economic, educational and social well-being in adulthood

Photo: Kiwi Street Studios

Early childhood science has consistently demonstrated that brain development during the first 3 years of life is dependent on children's early experiences.

(Heckman, Moon, Pinto, Savalyev, & Yavitz, 2010; Reynolds, 2000). Although these exemplary early childhood programs have become models in national discussions of what is meant by the phrase *high quality*, they do not represent typical early care and education programs in the United States. Most young children, including the most economically marginalized infants and toddlers, are in average- to poor-quality care settings (Ackerman & Barnett, 2009). Poor-quality programs hurt young children because they may fail to provide the rich experiences early childhood science associates with optimal brain development.

The demand for high-quality programs has grown with the increase of mothers in the workforce. Sixty-three percent of mothers with infants are employed outside the home. In 2011, employed mothers used a variety of infant–toddler care arrangements including a relative (31%), a parent (26%), a center-based program (23%), and a nonrelative at home (16%; ZERO TO THREE, 2012). Armed with the knowledge that early infant–toddler experiences matter to optimal child development, the public, the early childhood field, policymakers, and others have questioned the quality of these experiences. In 2014 a national survey conducted by the First Five Years Fund found strong bipartisan support for early childhood programs and services for children birth to 5 years old—the quality of those programs mattered to respondents (Early Edge California, 2014). Ninety-one percent of voters wanted to make early care and education affordable; 86% wanted to fund programs that met quality standards; and 79% agreed that it is important to make high-quality early

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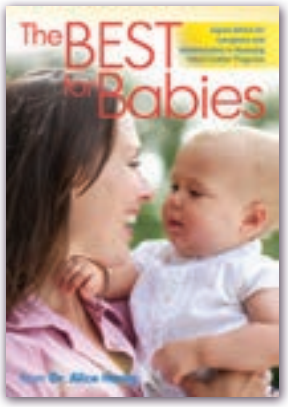


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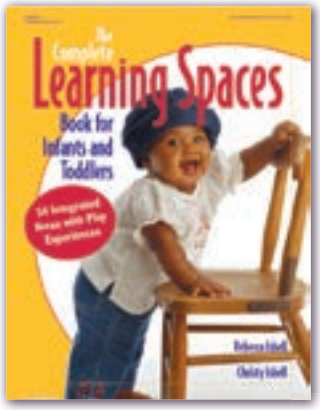



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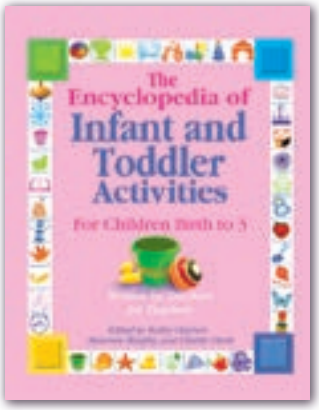


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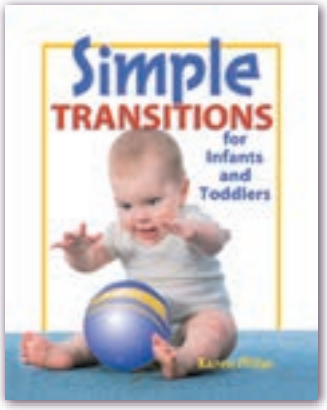


learning programs available to infants and toddlers (Early Edge California, 2014). This consensus is unprecedented and has been reflected in federal and state efforts to improve the quality of early care, education, services, and family supports.

Infant and toddlers represent a profound demographic shift in the United States associated with issues of equity and social justice. The nation is becoming more diverse in terms of race/ethnicity, language, nation of origin, and family configurations. It is also experiencing widening gaps in income and opportunity. Young children are the most economically disadvantaged population in the United States and are poorer than children were 25 years ago (National Research Council & Institute of Medicine, 2000). Forty-eight percent of infants and toddlers in the United States live in low-income families (meaning their incomes are less than twice the poverty line); and one in eight (13%) live in deep, concentrated poverty. Race and ethnicity matter: 66% of infants and toddlers (African Americans, Latinos, and American Indians/Alaskan Natives) live in economically marginalized families; and African American and American Indian/Alaskan Native children are 3 times more likely than their white peers to live in deep, concentrated poverty. This type of poverty is particularly pernicious in part because it is resistant to social mobility—children born into deep poverty live most of their lives in these economically disadvantaged circumstances. One in 8 infants and toddlers lived in neighborhoods described by their parents as unsafe; African American and Latino children and all children in poverty were two thirds more likely to live in unsafe communities than their white peers (Murphey, Cooper, & Forry, 2013). Poverty in infancy and toddlerhood may also jeopardize long-term national prosperity by reducing the capacity of those reared in poverty to contribute fully as adult workers and engaged community members (Heckman, 2011). The reasons for inequality in American childhoods are not just the happenstance of birth, but the result of complex economic and political factors, including social stratification that makes socially constructed categories such as race, class, and gender salient in determining how society's resources are distributed and to whom; ideologies (e.g., racism, sexism) that serve to rationalize why some groups (e.g., white Americans, upper-class elites) deserve the greater resources and opportunities they have relative to others; and segregation of groups and resources in relation to housing, early care, education, health care, food access, transportation, employment, and other critical determinants of optimal child development and family well-being (Garcia Coll et al., 1996). These three factors—social stratification, ideologies, and segregation—are part of the ecology of unequal childhoods that significantly contribute to unequal child outcomes including exposure to lead, low birth weight, homicide in infancy, low rates of school completion, high rates of school expulsion, and disparate educational achievement between children of color and white children. This assertion is intended neither to ignore the role of personal responsibility nor to imply that race, class, or gender is destiny. Rather, it is to suggest that focusing on racial and economic equity and the structural factors associated with it are essential to the development of programs and policies intended to significantly improve the life chances, developmental outcomes, health status, and educational attainment of young children. Creating equal and equitable early childhoods for infants and toddlers requires addressing social stratification, ideologies, and segregation and their manifestation in the programs, services, policies, and practices that currently contribute to unequal child outcomes disproportionately affecting children in poverty and children of color. Research on the value of high-quality early childhood experiences for young children as a strategy for addressing rising poverty and inequity, the association of poor educational outcomes with children of color and in poverty, and national economic interests has led many to assert that national and state investments in these programs must increase (Heckman, 2011; Reynolds, 2000). Advocates argue for the expansion of existing programs serving the youngest children and their families, including Early Head Start, Child Care and Development Block Grants, and Early Intervention Part C; and for considerable new investment in improving the quality, affordability, and availability of infant–toddler programs and services. Expansion of these programs and services will challenge the field in many ways, including in the development of a highly competent workforce able to effectively care for and educate young children from diverse backgrounds. Developing a workforce with these capacities will require policies that address critical and highly interdependent issues: professional preparation of early childhood caregivers and educators who have proven abilities to support optimal developmental and educational outcomes for racially, culturally, and linguistically diverse children and children in poverty; the development of racially and culturally diverse leadership; professional development systems that lead to meaningful career advancement; workforce recruitment that leads to competent staff at all levels who have similar characteristics to the children and families served; genuine family and community engagement; assessment and evaluation procedures and measures that are culturally appropriate; and fair and equitable staff compensation and working conditions.

Professional development systems pose a significant barrier to the creation of high-quality early childhood programs and services for culturally, racially, and linguistically diverse children and children in poverty. A significant body of research and practice literatures argue that effective early childhood education for these children must be grounded in and responsive to their cultural and language backgrounds and delivered by highly trained caregivers and educators who use children's rich cultural knowledge as a platform for care, teaching, and learning (Irvine, 2003; Ladson-Billings, 1994; Murrell, 2002; Ray, Bowman, & Robbins, 2006a). The rationale for the role of culture in children's development and early care and education is related to cognitive theory (Piaget, 1969; Vygotsky,

1978) that posits new knowledge is built on prior knowledge and experience. Very young children, including infants and toddlers, gain an enormous amount of understanding of the world through their everyday participation in and observation of caregiving and family activities. Family care and rearing of young children reflects implicit and explicit culturally grounded strategies, behaviors, values, and practices designed to ensure that individuals become competent members of their cultural communities. When young children are introduced to new information, they use their repertoires of established knowledge, language, and cultural practices to make sense of the new (Cole, 1996; Rogoff, 2003). In order to support optimal learning in young children, early caregivers and educators have to have a deep understanding of and respect for the knowledge children bring to early care and education settings and services; and recognize that children are shaped by a cultural model of care and competence held by their family and community.

Yet most early childhood caregivers and teachers have had little to no formal training on the role of culture in child development, teaching and learning, or in working with adults across cultural, racial/ethnic, social class, or language borders. Ray and Bowman (2003) found that most early childhood teachers, whether experienced or novice, did not feel prepared to educate culturally and linguistically diverse children or to work with their families. In addition, these early educators reported that both pre-service and in-service professional development did not significantly contribute to their sense of competence to work effectively with diverse children. Ray, Bowman, and Robbins (2006a, 2006b) reported that early childhood professional development systems (e.g., early childhood coursework provided by institutions of higher education, state teacher standards, professional accreditation standards) insufficiently address the complex cultural, racial, language, and social class diversity found in young children, families, and communities and fail to consistently convey to early childhood educators their responsibility to effectively educate diverse children and children in poverty. Policies needed to reform and create early childhood professional development systems that prepare staff to successfully care for and educate young children in poverty and of color must be developed if quality programs and services are to be widely available.

The development of quality early childhood programs and professional development are related to issues of adequate compensation. Policies and practices are desperately needed that address workforce compensation and working conditions, including low pay, poor to nonexistent benefits, demanding work, economic insecurity, high staff turnover, and insufficient career pathways for advancement in the field. Equity for children and families cannot be resolved on the backs of early childhood staff. These factors (wages, benefits, working conditions, and career advancement) contribute to poor-quality programs and must be addressed through intentional policies and funding that link improvements in quality to improvements in workforce compensation (Whitebook, Philips, & Howes, 2014). In addition, investments in early childhood care and education programs may be less attractive employment options for good teachers and care workers, currently working in the field, with advanced training and degrees. They may have the option of finding employment and better benefits and wages in K–12 educational systems. For example, the Bureau of Labor Statistics in 2009 reported that the average annual salary across settings for preschool teachers was $27,450 compared to $50,380 for kindergarten teachers (NIEER, 2013). Wages and working conditions of early childhood staff have to be at the top of a policy agenda that seeks to address racial and economic equity and improve the educational and developmental outcomes of children birth to 3 years old.

Policy implications:

1. **Systematically collect and analyze racial/ethnic data on infants and toddlers and create equity/opportunity benchmarks** to help practitioners, policymakers, programs, families, and advocates assess progress toward equitable outcomes and improving program effectiveness.
2. **Use data to increase and redirect investments toward improving outcomes for infants and toddlers of color and in poverty.**
3. **Develop community education and awareness initiatives.** Target community outreach to families, community leaders, and others to build awareness of the findings in early childhood science (e.g., caregiving relationships are critical; brains are built by experience; trauma affects early development).
4. **Ensure that all infants and toddlers at risk of developmental challenges, especially those of color and in poverty, can access high-quality early care and education services.**
5. **Fully fund high-quality early care and education for children in poverty and children of color.**
6. **Support strong families.** Provide families in poverty and working poor families with the comprehensive supports they need to nurture, protect, and educate their children.
7. **Attack and reduce community-level violence.** Develop policies and programs that significantly address the causes of community-level violence and reduce it through multiple strategies (e.g., engagement of community leadership, education of youth, employment, community policing).
8. **Develop comprehensive mental health services in communities of poverty.** Community mental health

programs and services should be culturally appropriate and provided in a variety of settings in which young children and families are served.

9. **Reduce poverty and increase income.** Develop policies that reduce family poverty through strategies such as the Earned Income Tax Credit, "living wage" legislation, extended unemployment benefits, worker retraining, and public-sector work programs.

10. **Support parent/family educational aspirations.** Develop policies that support parents' aspirations to further their education, improve their literacy, and develop English-language competency, thereby supporting their children's educational attainment.

11. **Improve the capacity of the early childhood workforce to effectively work with and for diverse children and families.** Professional development policies and systems need to focus on developing the competence of staff at all levels to significantly improve developmental and educational outcomes of children of color and children in poverty. Professional development should include effective evidence-based strategies for caring for and educating young African Americans, American Indians/Alaskan Natives, Latinos, immigrant children/children of immigrants, dual language learners, second dialect speakers, and boys of color, as well as effective practices for supporting diverse families.

12. **Recruit, support, train, and advance leadership of color at all levels of the early childhood workforce.**

13. **Create meaningful career pathways for staff at all levels.**

14. **Compensate the early childhood workforce, at all levels, with the wages and benefits commensurate with the importance of the work they perform.**

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## Questions for Layli Maparyan, PhD, Wellesley Centers for Women

**Because your research focuses on mothers and infants, brain development, and two-generation approaches, can you talk about the importance of incorporating the "family voice" as we develop policies and practices that promote equity for infants and toddlers?**

***Maparyan's response:***

This year, for the first time in U.S. history, infants of color became the statistical majority in their age group (Adamu, Hamm, Vance, & Ahmad, 2014). These infants are the vanguard of what has been referred to as the "browning" of the U.S. population, or the movement toward a majority–minority national demographic. What does this mean in terms of racial and economic equity? It means that questions of racial and economic equity will become the questions of the U.S. mainstream. They will become questions that we cannot ignore, because they concern the majority of the population.

The achievement of racial and economic equality is unfinished business in the United States. Of great concern to those who care about American children and youth is the achievement gap between children and youth of color and their white age mates, as well as between economically disadvantaged children and youth and their more privileged counterparts. In the long run, this achievement gap undermines the effectiveness and productivity of the American workforce, but it also undermines the well-being of individuals, families, and communities whose life outcomes are not all they could be.

Professionals who focus on infants and toddlers, specifically, share the belief, based on research, that early life inputs play a pivotal role in later outcomes, whether these outcomes are measured during childhood, adolescence, or adulthood. Increasingly, professionals focus on the critical importance of early brain development, the role of early caregiving relationships between young ones and their familial or nonfamilial caregivers (NICHD Early Child Care Research Network, 2005), and key aspects of the physical environment, from access to healthy food and nutrition to the quality of homes, child care centers, or neighborhoods. They recognize that inequities in these areas are often distributed around racial, ethnic, and economic differences, and they attempt to shape policies in directions that will reduce or eliminate disparities so that all infants and toddlers can thrive.

What is the role of the family voice in this scenario? Families are the links between cultures and the policy context; they are the bridge between policies and the young children about whom those policies are made. Without the *family voice*—that is, the input of families about their needs, values, aspirations, and problem solving—policy makers and others who make societal-level decisions affecting infants' and toddlers' lives cannot do so effectively or equitably. Policymakers and those who implement policy need to actively include families in their deliberations and decision making, with particular attention to families who represent diverse cultures and socioeconomic groups.

Families are also the agents of community and cultural mobilization. They can organize to protest conditions and policies that harm them or to solve problems that concern them. When families are motivated, they are a great force for good alongside other powerful change makers. This power of families must be recognized, utilized, and validated in our efforts to make positive change for infants and toddlers.

Two interrelated issues shape this conversation: Diversity, which relates to cultural (and other forms of) representation, and equity, which relates to structural justice for diverse people. Both are essential to the achievement of equitable outcomes for infants, toddlers, and their families. Policies, whether governmental or nongovernmental, must address both at once. Following are some examples of ways that research findings can inform efforts to increase diversity and equity for infants and toddlers.

Research has made it clear that early brain development influences future outcomes, whether academic, social-emotional, or economic (National Research Council & Institute of Medicine, 2000). Thus, a policy implication is that we need to make sure that all infants and toddlers have access to the inputs associated with healthy brain development. Anything that supports prenatal care supports this. Medical professionals need to make sure that prenatal care is culturally sensitive and culturally informed, so that women are motivated to get it and stick with it. Once the child is born, food and nutrition support, talking and reading in the context of caregiving relationships, and environmental safety and stability all contribute to healthy brain development. Policy oriented toward equity would give attention to proximal factors, supporting cultural food preferences, valuing and supporting multiple languages spoken in the home, and addressing parental stress and mental health issues. But policy could also address structural issues that form the foundation of environmentally rooted traumatizing conditions that negatively impact infants and toddlers. Legislation that institutes a living wage for the lowest-paid workers, deals more effectively with domestic violence, or brings attention to how gun violence affects infants and toddlers would go a long way. Research shows that the development of self-regulation is one of the most important outcomes of early brain development, and yet it is hard to develop self-regulation when one is regularly subjected to the traumas of poverty, violence, or relational instability (Steinberg, 2014).

Photo: Kiwi Street Studios

The achievement of racial and economic equality is unfinished business in the United States.

So that parents can have secure, stable, supportive relationships with their infants and toddlers, reliable, affordable, quality infant and toddler care for working families is absolutely essential (Marshall, 2009; Marshall, Dennehy, Starr, & Robeson, 2005; Marshall, Robeson, Tracy, Frye, & Roberts, 2014). The definition of *quality care* needs to include cultural alignment, including the development of standards for cultural representation and inclusion in both social and physical aspects of caregiving settings. Practitioners and researchers alike have identified the need for more caregivers "who look like me" (vis-à-vis diverse infants and toddlers) as well as greater cultural diversity among decision makers in care settings (ZERO TO THREE, 2008). When the care team is diverse, children are more likely to receive interpersonally sensitive care and more advocacy for their cultural needs.

Quality care must also encompass responsiveness to real-world social–emotional conditions, that is, those caused by the traumatizing conditions, many of them structural in nature, described above. Caregivers must be prepared to help children rebound from traumatizing conditions or experiences that are part of their daily lives. In addition to training all caregivers to be competent in this way, a concerted effort to invite more caregivers who can relate to these kinds of experiences into the child care workforce would be valuable.

To create more equity for infants and toddlers, professionals need to make sure that all parents have access to supports for their children as well as access to supports for their own health and well-being. In addition to the living wage, parents and other household earners need family-friendly work schedules and access to transportation that makes work–family balance possible. Families also need freedom from the "–isms," namely, racism, sexism, homophobia, xenophobia, religious prejudice, ableism, and related forms of discrimination. As alluded to above, these conditions traumatize families and impede child and youth development, including that of infants and toddlers. They contribute to "toxic stress" and can make parents less available as they struggle simply to keep their own or the families' boats afloat. Families need active recognition and valuation of their cultures and valued groups. Such support should show up everywhere a parent or child looks—in the neighborhood, in a child care setting, at school, at work, in public places, and in the media.

An emerging body of research is beginning to show that two-generation models help parents and children thrive together. Policies that help to coordinate supports for children, parents, and families under fewer umbrellas and with more single entry points would go a long way to help families take advantage of the supports that are available (Adamu et al., 2014). Two-generation models would benefit from more investment in evidence-based programming for diverse populations and more data-disaggregated metrics that allow analyses by race, ethnicity, income, and other variables. Not only do two-generation approaches contribute to family resilience, they also have the potential for welcome economic and logistical efficiencies.

Professionals must make sure that, in the pursuit of family voice, they reach and include hard-to-reach or less visible families (ZERO TO THREE, 2008). These include father-headed families (whether headed by a single father or fathers in a same-sex relationship), families headed by one or more transgender parents, unhoused families, families with undocumented members, adoptive parents, parents with disabilities, and parents from very small or isolated ethnic communities. Professionals must also remember that there are households where siblings are raising each other and families are headed by grandparents and other extended relatives. Every voice counts, every child counts, and full equity will not be achieved until all are included.

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## Questions for Lauren Hogan, National Black Child Development Institute

**Given all the pre-K movement at the state and federal levels, there has been a big focus on 3- and 4-year-olds. How can this energy be used to promote state and federal policies that support equity for infants and toddlers and really embrace that school readiness starts at birth—or even prenatally?**

***Hogan's response:***

The energy propelling investments for 3- and 4-year-olds has come from a joining of disparate forces responding to research and data from multiple fields, all of which confirms what parents and early childhood professionals already know to be true: The first years of childhood are critically important to ensuring a lifetime of positive health and development. And yet, it is not safe to assume that this knowledge and energy will naturally shift to a focus on infants and toddlers. Nor can it be assumed that policy development and implementation will be strengths-based, culturally relevant, and focused on equity. As ZERO TO THREE noted in its own federal policy agenda, "Public policies that promote positive infant-toddler development will look different from those for preschool and older children" (2013, p. 4). An equity perspective would also note that public policies promoting positive infant–toddler development in families and communities that have been systemically marginalized and undermined should also look different—at least in order to be successful.

A critical point to be made about equity: It is not the same as equality. If Americans are serious about eliminating disparities that are predictable by race and class, then our country must also be serious about acknowledging that equal treatment, laid upon unequal starting points, is not sufficient. Equity, perhaps uncomfortably, requires more—and some communities, states and organizations, from St. Paul, Minnesota, to Washington state, are intentionally stepping up to achieve it (Office of Equity, St. Paul Public Schools, 2012; Thrive By Five, n.d.).

There has been, in fact, a range of promising programs, practices, and policies that have helped to promote equitable, culturally relevant, and high-quality services for infants and toddlers, from Early Head Start to mental health consultation practices to the Program for Infant/Toddler Care (PITC) and higher education scholarships for providers (Schmit & Matthews, 2013). In general, however, policies have not attended either to the importance of equity nor to the critical nature of cultural responsiveness in order to improve outcomes for children and families, in spite of research indicating that culturally relevant program practices produce stronger results (Moodie & Ramos, 2014). It is the rare teacher-education curriculum that supports conversations about bias, race, and culture, the rare school district that reallocates resources to where they are most needed, and the rare QRIS that intentionally weaves culturally competent practices into its criteria for all programs. More commonly found, particularly for infants and toddlers, are places in which the strongest current is that which remains deeply skeptical of what is seen as government intrusion into the private lives of families raising their young children.

So what policies, directed toward equity and effectiveness, and contextualized in our current political and economic environment, can we promote? Based on what researchers and parents know is best for children—loving, stable, and supportive relationships with caregivers—the answer is those policies explicitly designed to strengthen family and community bonds. This framework allows for multiple points of entry, from the more traditional veins of early childhood policy pursuits, such as home visiting, child care access and quality improvements, and paid family leave, to the less frequently invoked, such as a revision of child support and housing and land use laws (Huntington, 2014). It also encourages a focus on two-generation strategies designed to meet the needs and build on the strengths of each and every family, meaning that these policies can encompass a culturally specific approach—although not, notably, a culturally monolithic one (Matthews, 2014).

The success of recently implemented policies and budgets around the country, including in Colorado, Texas, Michigan,

and Tennessee, shows potential blueprints for maintaining the momentum and increasing the resources that move this work forward (National Conference of State Legislatures, 2014). There have been strides at the federal level as well; indeed, after a generation of laying the groundwork, support for investments in early childhood has led to the passage of new legislation for the Child Care and Development Block Grant; exciting Early Head Start–Child Care partnerships; and the Race to the Top Early Learning Challenge, among other developments.

While applauding these significant accomplishments, it must be remembered that "without an intentional focus, it is too easy for [cultural competencies] to be ignored or marginalized" (Chang, 2004, p.17). Putting equity and cultural relevance in the center of the field's collective work, rather than on the sidelines, would be a fundamental change—and, it may be argued, a necessary one, if educators and families are to meet the goal of preventing and closing gaps in opportunity and achievement right from the start.

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# Facilitating Attuned Interactions: Using the FAN Approach to Family Engagement*

*Linda Gilkerson*
Erikson Institute

Erikson Institute's Fussy Baby Network® (FBN) is a national model prevention program known for its approach to family engagement called the FAN (Gilkerson & Gray, 2014; Gilkerson et al., 2012). The FAN is both a conceptual framework and a practical tool to facilitate attunement in helping relationships and promote reflective practice. The word *FAN* is used for two reasons: because the graphic model of the intervention is visually similar to the shape of a fan and because the model refers to facilitating attuned interactions. The elements of the FAN approach are illustrated in the figure reproduced on page 57 in Heller and Breuer (this issue). Winnicott (cited in Borden, 2009) spoke eloquently about the need for a grounding framework from which to adapt to need. The FAN provides such an anchor in the dynamic flow of being with parents and babies.

*The FAN serves as an "internal supervisor" for more experienced providers, helping them to track the process of engagement in the moment and adapt flexibly.*

Two articles in this issue of *Zero to Three* (Cosgrove & Noriss-Shortle, p. 49, and Heller & Breuer, p. 56) illustrate how the FAN provides a guiding framework in each of the FBN's three kinds of dissemination sites: program sites which start a new FBN home visiting program typically in an agency which already provides a continuum of infant–family services; infusion sites which incorporate the FAN approach into an existing program; and systems sites which incorporate the FAN approach into larger systems of care, such as evidence-based home visiting programs.

## Fussy Baby Network, New Orleans and Gulf Coast

Located at Tulane University in the Department of Public Health and Tropical Medicine, Fussy Baby Network New Orleans and Gulf Coast Region (FBNNOGC) is in its third year as a program site. Program sites not only use the FAN framework to guide their work with families, but also adhere to a set of required program structures which embody the FBN principles for a nonstigmatizing, universally available service, where eligibility and service intensity is determined in collaboration with the family. FBNNOGC has a special mission to develop a culturally responsive program to support families who live a region with a history of environmental disasters. Sherry Heller, program director, and Anna Breuer, Fussy Baby specialist, bring the FAN approach to life through rich descriptions of the attunement process illustrating each of the five core processes with different families.

It is intriguing how the FAN approach is embraced equally by both new professionals and very experienced infant mental health clinicians such as Drs. Heller and Breuer. For new providers, the FAN concretizes the processes for engagement and reflection on engagement. The FAN serves as an "internal supervisor" for more experienced providers, helping them to track the process of engagement in the moment and adapt flexibly. Like other infant mental health informed approaches, the FAN relies on the development of a safe, holding environment for families. Providers as well need a safe, holding space in the interaction to catch themselves in times of reaction—to pause and invoke self-awareness and self-compassion—and in the FAN approach use Mindful Self-Regulation to re-regulate and engage with new awareness. Drs. Heller and Breuer beautifully illustrate this process in action, highlighting the dual attunement to self and other that characterizes the FAN approach.

## FBN Maryland

FBN Maryland is an infusion site where the FAN is integrated into a range of services within or in collaboration with the University of Maryland Center for Infant Studies (CIS). The CIS has a long history as a center of excellence in infant mental health assessment, treatment, and consultation. One of the sites for FAN infusion is the PACT Therapeutic Nursery serving homeless families with very young children; the Therapeutic Nursery is an affiliate of Kennedy Krieger Institute and partners with CIS. In this glimpse into their innovative work in the Therapeutic Nursery MAPS program, Kim Cosgrove and Carole Norris-Shortle focus on their creative use of the FAN Arc of the Visit questions and describe the impact from adding this

* From an address given at the Irving Harris Foundation Symposium, March 20, 2014

simple, tailored set of questions to the beginning, middle, and end of the mindful awareness parent–child play sessions. The Arc has been adapted for use in the CIS infant mental health assessment process as well as to guide mental health consultation and training to an inpatient mental health unit, neonatal intensive care inpatient unit, and to train home visitors and interdisciplinary mental health teams.

You will also see how the FAN framework is helpful as an anchor during what the site calls "FAN Moments"—times when a parent is intensely dysregulated at the shelter and the potential for emotional contagion to the staff is high. The staff and the leaders—Ms. Cosgrove and Ms. Norris-Shortle—are exquisitely skilled and trauma-trained, yet the structure and guidance of the FAN adds another layer of containment and fortifies their ability to regulate the intensity, think about what is needed, and stay present with the parent.

Tajuana Rice, supervisor of Family Focus Englewood (see box), a Healthy Families Illinois home visiting program serving families on Chicago's southwest side, provides her perspective on using the FAN approach in a home visiting program. Family Focus

## Family Focus Englewood

### Tajuana Rice, Supervisor

The work that we do with children and families can often be filled with emotions. We often believe that we can leave our personal beliefs, biases, and opinions at the door, but this rarely happens. Our desire to help, assist, fix, or even change families can cause us to be overwhelmed, frustrated, and judgemental. Meaning, no connection! We often try various engagement techniques, consult other experts around us, and even do more research on the family and still nothing.

The Fussy Baby Network and its FAN approach have figured out how to restore that connection. For almost 1 year, my staff and I have been working with Dr. Gilkerson and the Fussy Baby Network learning the FAN approach. This approach has truly enhanced our work. Prior to the FAN, we were often focused on the family's progress; getting the parent to achieve their goals and what we considered as success as fast as possible. The FAN approach has helped us to develop an awareness and understanding of what is happening not only with the family but with ourselves as well. We have learned to move slower and ask questions with the goal of collaborating with the family. So it's not only about the family's progress but also the process. Now, the home visitors have also been given language to the process used to support parents during some of the most urgent times and with some of the scariest concerns. When talking to home visitors about the FAN and its meaning to their work, I was given words and statements such as "intentional", "bridging the gap" and "parents in the lead."

For example, we have a parent who enrolled into our program prenatally. She worked with a doula as well as a family support worker (FSW) and seemed uninterested, distant, and disengaged during home visits. However, the FSW felt that as long as the mother continued to open the door, they would continue to visit her. At each visit, the home visitor would use the FAN Arc of the Visit, a set of reflective questions to ask in the beginning, middle, and end of the visit to structure and set the tone of the visit. The FSW would ask the mother, "How have you been feeling as a parent since the last visit?" The mother would give dry, negative or one word answers such as "hard" or "annoying." Or at the end of the visit, after sharing information about caring for baby, reading with baby, or even completing a parent–child activity, the FSW would then ask "What would you like to remember from our visit today?" and the mother would respond "I don't know" or "nothing." This went on for several visits. As the FSW worked to use the FAN approach to match the mother, she realized after watching her nonverbal body language that the mother was in Empathic Inquiry (the first element in the FAN model). So that's where the FSW stayed. Often accepting, validating, exploring, and even just holding the mother's feelings. Allowing the mother time to feel what she felt and to support her in those feelings. Once the mother realized that she was being heard and that someone appeared to care, she moved to Collaborative Exploration (the third element in the model). It did not take any push from the FSW. Not much longer after that, the FSW was reporting that she was having positive and insightful visits, demonstrating the fifth element of Integration. The mother began describing her parenting as okay and good. She also began identifying things that she would take away from the visit.

Now while I can go on and on about what the FAN approach has added to the work of the home visitor, I can give just as much about what it has taken away from the work. It has taken away the to-do list. Yes, you know! That list of things you had all ready for the family to do to fix their lives. It has also taken away the silence. The silence of that awkward moment when the family wants to let you know how they feel and the ideas they have to solve their own problem but often hold back because you, the expert, usually give them an idea. It has also taken away the tint. The tint is often on glasses or windows and they allow one to see out but it prevents others from seeing in. With parents and their children, tint allows a mother to see out but it prevents us from seeing in. So we are unable to see what they see.

But the FAN has not only been a boost to the practice of home visiting but it has given lift to my supervisory and coaching skill. Prior to the work of the FAN, I listened with my ears but now I am able to listen with my mind. As we discuss their work, I listen to them relate their successes and failures and what is working instead of focusing on the activity itself. I now partner with my staff in thought-provoking and creative processes that inspire them to maximize their potential. Using the FAN in a parallel process, I encourage reflection and take the time to be a more active and attentive learner. The core processes of the FAN help me to build the confidence of the home visitor and allow them to develop ideas and conclusions about the work they do.

We are often told that we must meet the family where they are. But how do you know where they are? The FAN approach not only helps us identify where they are but how they feel being in that place. It also teaches us how to stay with the family in that place until they are prepared and ready to move. I have learned that if we can slow down, listen, pay attention, and allow the family to guide us, then they will take us straight to confidence, strong relationships, and developmentally healthy children.

Englewood is part of a study funded through Illinois' Maternal, Infant, and Early Childhood Home Visiting grant to examine the process of infusing the FAN into a larger network of programs. Ms. Rice highlights the value of the FAN to help home visitors stay attuned to the parent's perspective and not get ahead of them. The FAN is in alignment with her belief that the focus in home visiting should be process as well as progress and is now a valued part of her supervision and staff training.

The FAN concepts are not new, but their articulation and visualization into the FAN provides a way to hold onto the principles and practice of attunement to self and others in the moment. Within FBN, the FAN has been called a GPS that helps users track interactions and reroute as needed. Perhaps, it's more like a compass which points in the direction and from there, users can adapt to need. Enjoy these insightful stories from the field!

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# "Let's Spend More Time Together Like This!": Fussy Baby Network® Infusion in a Baltimore Homeless Nursery Program

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## ABSTRACT

The development of babies whose families are homeless can easily be affected by their uncertain living arrangements. The PACT Therapeutic Nursery's attachment-based, trauma-informed, mindfully focused family interventions help these children and families move beyond the trauma of shelter living. In the past year, Nursery clinicians have infused Fussy Baby Network concepts into their daily interactions with families and into a parent and child regulation activity, the mindful awareness play session. The result has been more productive levels of parental self-reflection, calm, and joy in parent–child interactions.

*Sally approached the red box uncertainly. Her mother, Ms. Green, sat on the floor behind her. Looking at the box, she cautiously backed into her mom's lap, pointing to the colorful box and gesturing, "What is that?" Ms. Green initially responded to the nonverbal question, "Open it up, Sally. See for yourself what is in it." Sally started chewing on her finger and twisting her hair as she stared at the box. After a series of unsuccessful directives, Ms. Green said in frustration, "Why don't you EVER listen, Sally? Look, you just open it like this, and see, it is only a couple of feathers inside. Now, you try it. And, don't put the feathers in your mouth." Ms. Green gave more and more commands that 2-year-old Sally barely understood and clearly did not feel secure enough to follow. The activity ended abruptly as Sally kept her distance from the box and Ms. Green's frustration bubbled over. "There is no reason for you to behave like this, Sally!" Ms. Green burst out.*

Most weeks that they attended the Therapeutic Nursery at the PACT: Helping Children With Special Needs, Sally and her mother stayed for the Thursday morning Family Traditions breakfast. The hot food and circle time singing with her daughter enticed Ms. Green to stay, but it was in mindful awareness play (MAP) sessions that she truly learned about her daughter's creativity. After the first session, during which Sally shrank from touching the box or the feathers, Ms. Green learned to support Sally by being a curious observer and by encouraging her daughter to become a curious explorer. Going into each new MAP play session, Ms. Green's goal became "I want to try to let her do it herself." As she watched her daughter find new and more creative ways of playing with the week's simple MAP object, Ms. Green increasingly responded to mid-session check-ins with a thumbs-up and a smile. Coached by the clinician, Ms. Green became skilled at narrating her daughter's play, and soon she was able to name when her daughter was angry, without reacting with anger or annoyance herself.

*Several weeks later, when the MAP activity was feathers again, Ms. Green provided just enough help so her daughter could "do it herself." Mother and daughter both showed great delight as Sally batted the feather to keep it afloat, staying engaged for far beyond her initial ability to focus on a play activity. They giggled as they named their play "feather basketball," and the clinician savored this "angel moment," smiling in delight at their mutual and collaborative play. When the session ended, the clinician asked Ms. Green what she would remember from the MAP experience that would be of help to her throughout the week. Ms. Green responded that she would remember how she is now able to pause and not help or direct Sally right away, but encourage her to try to figure problems out first and then ask for help when she needs it. Ms. Green beamed, adding that the three thoughts the pair would take into their week were "enjoyment," "fun," and "Let's spend more time together like this!"*

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PACT: Helping Children With Special Needs Therapeutic Nurseries provides specialized child care; mental health services; occupational, speech-language, and physical therapy; and service coordination to families who are homeless.

## The Lasting Effects of Homelessness on Young Children

Overburdened homeless parents are usually doing their best to shield their young children from the fear and trauma of staying in a public shelter, but parents' own worries about having a place to sleep every night can get in the way of these efforts. A typical homeless family in the United States consists of a young woman with two small children (National Center on Family Homelessness, 2011), with 1 in 45 children experiencing homelessness each year (National Center on Family Homelessness, 2010). The U.S. Department of Health and Human Services (2001) reported that of the more than 1.6 million children living on the streets or in homeless shelters, 42% are less than 6 years old. These vulnerable children, especially infants and toddlers, have 3 times the rate of emotional and behavioral problems as do non-homeless children (National Center on Family Homelessness, 2010). Close to 25% of homeless children have seen and heard family violence, and by 12 years old, 83% have witnessed at least one violent event (National Center on Family Homelessness, 2010). More than one fifth of homeless preschoolers have emotional problems serious enough to require professional care, but less than one third receive any treatment (National Center on Family Homelessness, 2011; National Child Traumatic Stress Network, 2005).

PACT: Helping Children With Special Needs Therapeutic Nurseries ("the Nursery"), an affiliate of the Kennedy Krieger Institute (KKI) in Baltimore, provides specialized child care; mental health services; occupational, speech-language, and physical therapy; and service coordination to families who are homeless. Consistent with national statistics, the families served are primarily headed by young single mothers, typically with less than a high school education. The mothers often care for more than one child and have difficulty meeting their own and their children's basic needs; they are even less able to give their children the attention they need to feel securely loved and attached. In a 2006 study of 99 mothers and their children (Norris-Shortle et al., 2006), we found that 42% showed significant language delays and 40% showed delays in play development. We also found that 32% of parents and children were identified as having a "problematic attachment relationship" (Norris-Shortle et al., 2006). Early patterns of attachment and attunement between very young children and their caregivers have been shown to alter the neural networks of young brains, thereby forming enduring modes of relating that affect regulation and learning (Ginot, 2009). The challenges that homeless and shelter-housed children encounter have immediate and long-term consequences (Koplow, 1996; Rubin, Bukowski, & Parker, 1998; Schaefer 1980).

### PACT THERAPEUTIC NURSERY AND CLINICAL INTERVENTIONS

In addition to being affiliated with KKI, the Nursery has had a 16-year relationship with the University of Maryland's Center for Infant Study (CIS); clinical staff from CIS are embedded within the Nursery program. Specifically because of these high-profile partnerships, the Nursery has earned national respect as a cutting-edge trauma-informed and attachment-based intervention program for high-risk families and babies.

In 2008, Nursery staff explored incorporating mindfulness into the Nursery program, through the SHINE program (Support, Honor, Inspire, Nurture, Evolve; from the Center for Mindful Awareness), as a way to build capacity for self-reflection in both staff and parents (Connolly, 2014). With mindfulness then fully integrated into the daily life of the Nursery, the Fussy Baby Network® (FBN) domain-focused approach seemed particularly applicable (Gilkerson & Gray, 2014; Gilkerson et al., 2012) The FBN approach gives clinicians the freedom and flexibility to adapt core concepts to formal and informal interactions with parents. It provides for collaborative, strength-based support for parental reflection; clinical situations become safe environments in which parents can share their struggles, fears, and, ultimately, joys in connecting with their child. The FBN approach includes two levels of training and ongoing program development support. The 2-day Level I FBN Core training provides clinicians with the working understanding of FBN concepts, the "FAN" approach, and implementation strategies. Level II FBN Facilitated Practice training focuses on the application of the FAN approach to everyday practice. Trainees complete a FAN reflective learning tool on 10 encounters and review each of these with their supervisor. Throughout training, FBN provides mentorship to the supervisor so that both the supervisor and the trainee internalize the FAN approach. The FAN review sessions develop self-reflection regarding the clinical interactions for both the facilitator and trainee.

Staff from both institutions joined in the FBN training, including the Nursery program director/senior clinician from KKI and the senior clinician and other staff from CIS. Recognizing

the secure, open, longstanding relationship between the two senior clinicians, FBN agreed to allow the two to conduct the FAN review sessions through peer facilitation. In other words, the senior CIS clinician learned to conduct FAN review sessions with the Nursery program director, and vice versa.

The strength of the clinical partnership, both between anchor institutions and individuals, created an environment of openness and curiosity in the process of discovery, and this synergy provided the fermentation bed within which new clinical and programmatic improvements using the FBN framework bubbled up into the daily work at the Nursery. The parallel relationships of mutual supervision, interlocking institutions, and well-oiled partnerships became a metaphor for the clinical work of building parent–child attachment. The Nursery program of formal and informal interventions integrates aspects of the continuum of nurturance provided at the Nursery. Program administrators nurture staff members, who nurture parents, with the ultimate goal of building capacity for parents to nurture their children. The collaboration of program, clinical, and child development staff members creates a holding environment for the families; the conscious intersection of the institutions does the same for the work of the Nursery clinical program.

In this article, we show how the essential FBN elements of the FAN and Arc of the Visit (Gilkerson et al., 2012) are infused throughout the Nursery program. First, we describe the Arc of the Visit as a structured part of our weekly Family Traditions MAP sessions. We then show how the FAN serves as a guide for our more informal daily interactions with parents.

## Morning MAP Sessions at the Nursery

Once a week, all of the families of the enrolled homeless babies are invited to an evolving multifamily tradition intervention, building new family traditions in a group setting (Kiser, Donohue, Hodgkinson, Medoff, & Black, 2010; Melley et al., 2010). The parents may stay and enjoy a catered breakfast with their child. As part of the welcome for the morning, parents are asked to introduce their family to the group and to signal how their morning is going with a "thumbs up" (great morning), "thumbs middle" (a few struggles), or "thumbs down" (very difficult morning). An attachment-based circle time follows breakfast: Children sit in their parents' laps as they sing mindfulness- and emotion-based songs. A clinician then accompanies each parent and child for a MAP session. The morning concludes with a parent mindfulness group focusing on parental affect regulation and reflection (Connolly, 2014; Connolly, Cosgrove, Norris-Shortle, & Taylor, 2011).

Senior therapists from the CIS and the Nursery jointly developed the MAP component of the family morning (Connolly et al., 2011) with the goals of addressing trauma-induced developmental delays and strengthening the attachment relationship between parents and infants or toddlers (under 3 years old) who are experiencing homelessness. Homelessness and shelter living leave children with intense separation anxiety, expressive and receptive language delays, and blunted imaginative play (Cook et al., 2005; National Health Care for the Homeless Council, 2003; Norris-Shortle et al., 2006). MAP aims to help very young children grapple with, and grow beyond, the social-emotional trauma of their environment (Connolly et al., 2011).

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Recognizing the child's abilities creates a shared joy in the dyad and increases the parent's appreciation of the child.

Child-directed play is essential fodder for healthy brain development (Ginsberg, 2007), and MAP activities seek to support a parent's ability to be mindfully present and to delight in her child's play, without giving commands to the child (Cohen, Lojcasek, Muir, Muir, & Parker, 2002; Hanna, 1990). In each session, the clinician focuses on a single parent–child dyad. The therapist invites the parent to follow the child's lead as a *curious observer*; the child, the *curious explorer*, plays with a simple item however she chooses, her free choice respected (Guerney, 1983). The therapist, as witness, protects the moment of undirected play and supports the parent in noticing his child's interests (Herschell, Calzada, Eyberg, & McNeil, 2002). The relationship-based MAP activities aim toward mutual emotional regulation using mindful self-awareness in the dyad, as well as the restoration of age-appropriate functioning in young children through increasing their capacity for play and communication (Connolly et al., 2011; Lieberman & Van Horn, 2008). Play, specifically exploration in play, lies at the core of the development of social relationships, cognitive development, and problem-solving skills (Brown & Vaughn, 2009). While neuroscientists continue to discover the brain-based science behind relationships, revealing the associations among and integration of neural pathways, attachment, and mutual emotional regulation (Siegel & Hartzell, 2004), some scholars are directly connecting the molding of the mirror neuron system (i.e., metabolizing the experience of the other for learning and regulation) and the development of the capacity for empathy to early caretaking and dyadic resonance (Ginot, 2009).


Photo: © iStockphoto.com/AvailableLight

The U.S. Department of Health and Human Services (2001) reported that of the more than 1.6 million children living on the streets or in homeless shelters, 42% are less than 6 years old.

In each weekly MAP session at the Nursery, the clinician invites the parent to give a decorated red box to the child. The box contains a different simple item every time (e.g., a few cotton balls, some feathers, a glitter ball, a bottle of lotion). The parent gives the closed box to the child, without instruction, and plays the role of the curious observer, following the child's lead. The clinician is witness to the dyad and helps coach the parent to follow the child's curious exploration and allow the child to be in charge of his own play. By encouraging the parent to limit her questions, the clinician supports parental curious observation. For parents who have little control over their life circumstances, this new way of interacting can feel confusing and frustrating at first. And yet, as they experience being the curious observer and allowing their child to explore without judgment, they begin to notice the creativity and innovation that lie at the core of play emerge in their child (Connolly et al., 2011).

## INFUSING MAP WITH THE FBN APPROACH

The 15-minute MAP sessions represent precious clinical time with highly stressed parents, so Nursery staff are always striving to offer a safe holding environment for the parent–child dyad within this time constraint. We have recently discovered that infusing the FBN approach—the Arc of the Visit and the FAN—into the work of the Nursery provides a structure that has led to a new level of interactive and reflective work with parents. The new framework is built on the overlapping intentions of MAP with the Arc and the FAN, and the ways in which FBN engages with families through the FAN five core processes (Gilkerson et al., 2012):

1. *Empathic inquiry* connects the clinician with the parent's strong feelings.
2. *Mindful self-regulation* and mutual dyadic regulation ask the clinician to listen to the parent's concerns, without judgment or panic. By monitoring her own reactions, the clinician can increase her self-awareness and offer calm in the interaction, modeling dyadic regulation while building the parent's capacity to do the same with his little one.
3. *Collaborative exploration* can occur after the parent's strong affect is contained. Together, the parent and clinician can begin to think and process, exploring possible explanations of what is going on with the baby. The clinician may then ask a parent what new approach she would like to try in the moment.
4. The parent demonstrates *capacity building* by being open to learning new ways of interacting with her child, and by practicing them.
5. *Integration* takes place when the parent can reflect upon her new skills and awareness.

As is mindful awareness, the FBN framework is now part of the everyday life of the Nursery. Nursery clinicians have implemented the construct of the Arc of the Visit not as an overlay, but as the armature undergirding daily clinical work. The FBN infusion helps clinicians "concretize the holding environment" that they strive to provide to the families and allows them to support new levels of parental self-reflection (Connors, Cosgrove, & Norris-Shortle, 2013). The FBN Arc structure of three main foci to shape the beginning, middle, and end of each intervention supports both parent and clinician in effecting positive change for parent and child (Gilkerson et al., 2012).

The FBN infusion has restructured the clinical interaction. As the clinician, parent, and child enter the playroom at the beginning of the weekly MAP session, the clinician uses empathic inquiry to ask, "What would you like to get out of this special play time with your child today?" This question empowers the parent to build the beginning of self-reflection and set her own intention for the precious time with her child that is about to unfold. Even in a less formal interaction, the therapist demonstrates respect for a parent's role and expertise. By using a whispered voice, physically placing herself out of the dyad's face-to-face positioning, and limiting eye contact with the child, the clinician encourages positive engagement within the family pair.

As an intervention or a seemingly casual interaction reaches a mid-point, the clinician seeks collaborative exploration in steering the time together. Being mindful not to interrupt the play nor be intrusive as the play progresses, the clinician asks the parent, "How is it going?" The parent responds with thumbs up, middle, or down. Clinicians find that as parents become the curious observer and allow their child to explore without judgment, they often recognize, with the help of the clinician,

the increasing creativity, focus, and problem solving that lie at the core of their child's play. A sense of awareness and delight emerges from the newfound recognition and relationship.

As the child's play wraps up, the clinician promotes integration of what the dyad has just experienced by asking, "What would you like to remember from your special play time with your little one today?" and, at the end of the session, "What three words would you use to describe your time with your child today?" The clinician writes the words on a colorful 3 × 5 inch card and gives it to the parent. The child frequently wants to see this card. Nursery staff have found that as reflection and insight emerge for parents, they take the time to read the three words to their child, and allow the child to proudly carry the card back into the classroom as a love token from the parent.

MAP play clinically benefits the dyad, both parent and child (Connolly et al., 2011). Recognizing the child's abilities creates a shared joy in the dyad and increases the parent's appreciation of the child. Observed benefits for the child are increases in focus, creative problem solving, and language skills (receptive and expressive). At the core of these benefits, the pairs demonstrate a marked increase in mutual regulation and a strengthening of their attachment bond (Connolly et al., 2011).

Nursery staff continue to evolve the shape of the interventions as holding environment for the parent–child dyad within the Nursery's daily programming. Infusing the ARC into MAP offers an elegant yet parent-friendly framework that can lead parents (with the mindful support of a clinician) to a higher level of reflection; and the clinician has the opportunity to become a guide in the parents' journeys as they become more mindful and self-reflective. When a parent succeeds at showing delight in her child and the child responds to being claimed by the one person who loves him most, the joy and pride in the room can be palpable. It is those precious "It's only you" moments (Gilkerson, personal communication 2014) that help the parent and child to "hold on" in the midst of the chaos of their homelessness and give the child the emotional protection to continue typical development.

## Infusing the FBN Into the Nursery Program

The Nursery clinician and staff have interactions with parents as they drop off and pick up their child from the Nursery every weekday. These parents have a lot of trauma triggers, and it is during these daily tasks that parents often release the frustration accumulated from many parts of their lives—and Nursery staff may receive the brunt of it. Nursery clinicians use the FBN FAN construct to both structure and contain the clinical work. Empathic inquiry is a valuable tool in allowing a parent to "tell their experience" even when it is hard to listen, asking, for example, "What has it been like for you to take care of your baby?" Mindful self-regulation helps clinicians remember that they must stop and listen to what the parent needs to tell them without responding with a mirrored affect or trying to hurry the parents along.

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Child-directed play is essential fodder for healthy brain development.

*Although normally pleasant with her daughter, Sally, and Nursery staff, occasionally Ms. Green would come into the nursery angry and hostile. She would find issue with staff members regarding the care of her child and upset everyone involved. After the nursery coordinator and clinicians completed their FBN Level I training, they realized that the containing structure of the FAN could be particularly helpful for staff when the mother was so dysregulated. The next time Ms. Green became angry, the clinician invited her to sit down and explain the*

### Learn More

**PACT: Helping Children With Special Needs Therapeutic Nursery**
**www.pact.kennedykrieger.org**

PACT: Helping Children With Special Needs Therapeutic Nursery is a private nonprofit affiliated with the Kennedy Krieger Institute in Baltimore, Maryland, that has been providing specialized child care and family support for young children and their families for more than 30 years. PACT is the only program in the Baltimore area that provides two unique child care centers, one specializing in children with complex medical needs and one for homeless infants and toddlers. PACT is also the only program in Maryland that provides center- and home-based training and support for parents with intellectual disabilities who have children less than 3 years old. PACT's staff provide both local and national trainings on their individual areas of expertise.

**Taghi Modarressi Center for Infant Study**
**http://umm.edu/programs/psychiatry/services/special-programs/child-and-adolescent-psychiatry/outpatient-services/secure-starts**

Taghi Modarressi Center for Infant Study (CIS), founded in 1982, is directed by David Pruitt, MD, Division of Child and Adolescent Psychiatry, University of Maryland School of Medicine. CIS is the only Baltimore center to focus exclusively on providing mental health services to infants, toddlers, preschoolers, and their families. CIS has also provided training for professionals in the field of infant mental health as well as culturally competent care for more than 30 years.

*details of what happened. As Ms. Green passionately recounted the perceived offense, she gradually acknowledged that it was Sally's father who was upset about the care of their daughter, rather than her. Ms. Green tearfully shared that just an hour before she and Sally left the house that morning, the father had criticized the mother for her decision to place their daughter in day care. He had in fact criticized her parenting so severely that Ms. Green was afraid he would call Child Protective Services. She was panicked and frightened, fearing the loss of her child, and those feelings came out as an emotional explosion directed toward the child care teachers. The clinician realized that this was the time to use the FBN approach to relate to this mother. Her clinical capacity to shift into empathic inquiry and mindful self-regulation, and avoid the pitfall of problem solving, allowed her to stay in this difficult moment with Ms. Green.*

*As the clinician listened and Ms. Green felt more understood, the clinician was able to use collaborative exploration to evaluate the father's threats. Ms. Green also started problem solving how she could handle her very tenuous living situation, doubled up with the father's extended family. As the days progressed, Ms. Green spent more time in the Nursery with her daughter and staff, gaining significant skills in reading her daughter's cues. She increased her ability to be with her daughter during temper tantrums rather than reacting to, and thereby escalating, them. After this, clinicians heard Sally say, "Mommy, play with me," with Ms. Green responding, "OK, Sally, I can do that for a few minutes." As we watched the mother implement the recently acquired skill of following her daughter's lead in play, we saw the smile on Sally's face confirming that this indeed was an "angel moment" for both Sally and her mother (Gilkerson et al., 2012).*

Parents who are increasingly able to reflect on their child's growing ability to play well with other toddlers, for example, or to take credit for creating more satisfaction in their relationship with their child, demonstrate the achievement of the FAN's fifth core process, integration. In MAP sessions and FBN and FAN-infused interactions, clinicians see the step-by-step building of the parents' capacity to be attuned to their child (capacity building), to connect with their child, to regulate themselves, to help their child regulate, to be mindful in the moment, to respond flexibly, and to innovate in play with their child. We know we have succeeded in building enduring connections between parent and child when the parent concludes their MAPs play session with *"Let's spend more time together like this."*

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# Fussy Baby Network® New Orleans and Gulf Coast: Using the FAN to Support Families

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## ABSTRACT

This article describes the components of the FAN model used in the Fussy Baby Network® intervention. Careful attunement and matching to the parents' experience help stressed parents feel understood and not alone and foster a sense of coherence during this difficult time. It is this attention to the parent's experience that allows flexibility in the model so that it can be successfully used to support families from a disaster impacted region, such as South Louisiana, that is rich in multiple cultures, diverse communities, and various socioeconomic status levels. Case vignettes are used to highlight the 5 components of this model. The vignettes selected reflect the diversity of families served by this site.

In regions exposed to severe environmental incidents, whether natural or man-made, the health of the ecosystem and that of communities is inextricably linked. The adverse consequences of such disasters affect both the physical and mental health of individuals in the impacted communities (Morrello-Frosch, Zuk, Jerrett, Shamasunder, & Kyle, 2011). Unfortunately, access to services to help parents respond to their newborn is diminished in many disaster-exposed communities, such as the Louisiana and Gulf Coast communities, compounding parental distress. In the absence of support services and preventative interventions, parents of fussy babies may continue to struggle during the first year of life, are at risk for a decreased quality of life, and, more severely, are at risk for child abuse (Barr, Trent, & Cross, 2006).

Fussy Baby Network® (FBN), a national program headquartered at Erikson Institute in Chicago, Illinois, has developed a model to support families experiencing stress related to the birth of a new baby (Gilkerson & Gray, 2014; Gilkerson et al., 2012). The FBN model has been shown to increase parental self-efficacy and to decrease maternal and paternal depression, anxiety and stress, and feelings of isolation (Gilkerson, Burkhardt, & Hans, 2011).

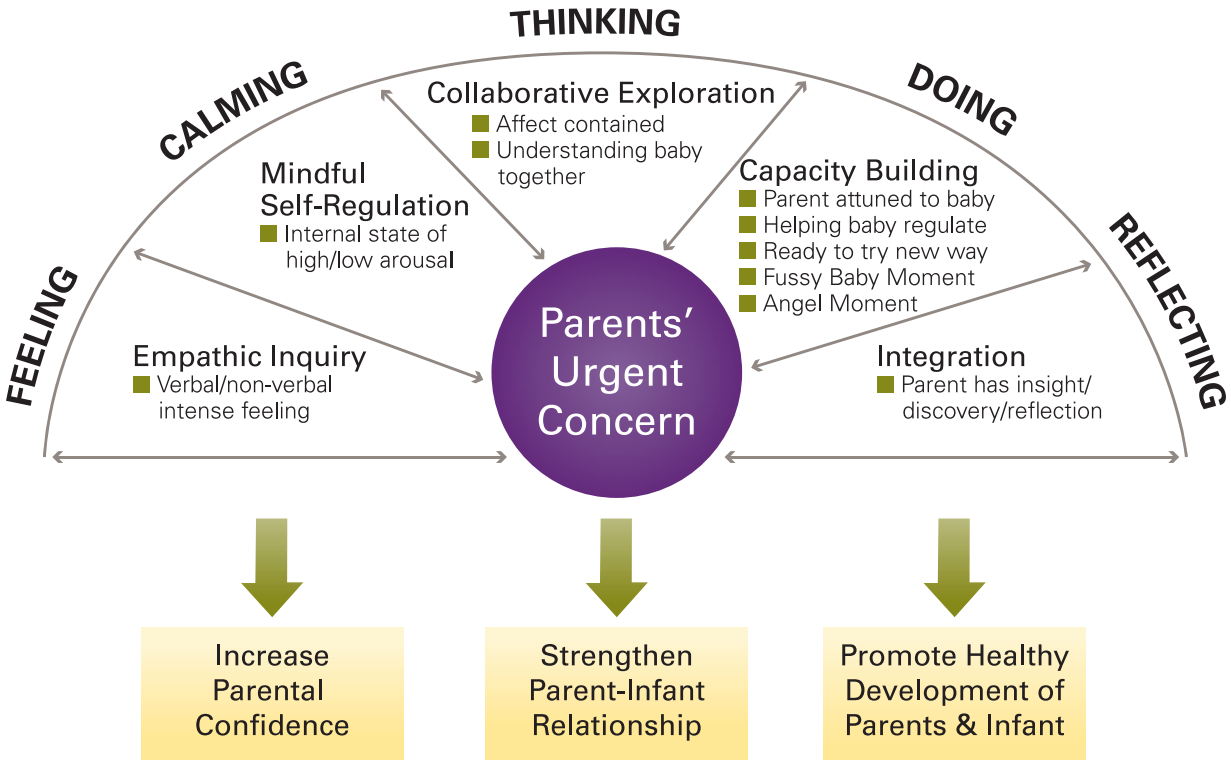
The hallmark of FBN is its approach to family engagement called the FAN (see Figure 1) because of its visual similarity to a FAN (Gilkerson & Gray, 2014; Gilkerson et al, 2012). The FAN approach helps to address the parents' urgent concerns by matching core intervention processes to what the parents are showing they can most use in the moment. Careful attunement and matching to the parents' experiences help stressed parents feel understood and not alone, and they foster a sense of coherence during this difficult time. It is this attention to the parent's experience that allows flexibility in the model so that it can be used to support families from a disaster-impacted region, such as South Louisiana (e.g., Hurricanes Katrina, Rita, and Isaac, and the Gulf Coast oil spill), that is rich in multiple cultures, diverse communities, and various socioeconomic status levels.

The FBN New Orleans and Gulf Coast (FBNNOGC) program, housed in the Tulane School of Public Health Center for Gulf Coast Environmental Health Research, Leadership and Strategic Initiatives, began serving clients in March 2013. We have found the FAN model to be a powerful tool that allows our program to successfully support a diverse set of parents struggling with their infant's fussiness or challenging behavior (e.g., eating, sleeping, or crying). The focus of this article will be to describe the FAN model in detail (Gilkerson & Gray, 2014; Gilkerson et al., 2012) and to use case examples to highlight the different components of this dynamic, nonlinear approach.

## How FBNNOGC Works

The program primarily serves families in the home, however the staff also provide sessions in the FBNNOGC clinic or over the phone at the family's request. In accordance with the FBN model, eligibility is self-determined, in that if the parent perceives their infant to be fussy or challenging, they are eligible to receive services.

FIGURE 1. **Fussy Baby Network® Approach**






## ARC OF THE VISIT

Using the FBN FAN approach, each visit starts with the question "What has it been like for you to take care of your baby?" allowing the FBN specialist to connect with families around their experience of their infant and to learn about the parents' urgent concern regarding their newborn. From there the visit moves fluidly through the five core processes, depending on what is happening in the moment. All the core processes may or may not be used in a single visit. Mid-way through the visit the FBN specialist checks in with the parents to ensure that the visit is focusing on the parents' needs. Typically the FBN specialist inquires "I am wondering if we got to what you most hoped to talk about today?" The third and final part of the Arc of the Visit is integration. Whereas components of this core process may happen throughout the visit, each visit always ends with this process. Integration builds coherence as it allows the parents to reflect on the visit and their baby.

## FAN CORE PROCESSES

Within the Arc of the Visit any of the five core processes on the FAN (Empathic Inquiry, Mindful Self-Regulation, Collaborative Exploration, Capacity Building, and Integration) can be used, depending on the client's need and what is happening in the moment. The processes do not occur in a pre-set order, thus the dynamic nature of the FAN model.

### Empathic Inquiry: Feeling

Many visits begin with the FBN specialist using the Empathic Inquiry core process. This is when the parents are expressing intense feelings verbally or nonverbally, and the goal is to provide a warm, receptive, nonjudgmental environment in which the parents' feelings and experiences can be validated (Gilkerson & Gray, 2014; Gilkerson et al., 2013) Once parents reach out to FBNNOGC they are typically exhausted both psychologically and physically, their sense of their ability to parent is shaken, and their relationship with their infant is overwhelming and often angst-ridden. The presence of an empathic, understanding, and inquisitive individual allows for much of the uncomfortable affect to be contained, readying the parents to work toward developing strategies to address their concerns about their infant.

Empathic Inquiry is frequently the key to "unlocking" the rest of the FAN processes: If parental affect is uncontained, the parents will be unable to think, do, or reflect with the specialist. Denise called the Fussy Baby Helpline after being referred by the family's pediatrician and described James as difficult to soothe, particularly at night. She also mentioned that breastfeeding had proved difficult for the dyad. The specialist arrived at Denise and James' home thinking that infant fussiness, the urgent concern that Denise had shared in the phone intake, would likely be the main focus of the visit that day. However, when the specialist inquired about Denise's experience of caring for James, Denise made a few, brief statements that lacked affect regarding fussiness, and then abruptly shifted topics to the difficulties of breastfeeding.

Denise described her difficult breastfeeding journey with James, including his initial struggles to gain weight, resulting in the need to supplement with formula; James' frenectomy (the surgical

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The presence of an empathic, understanding, and inquisitive individual allows for much of the uncomfortable affect to be contained, readying the parents to work toward developing strategies to address their concerns about their infant.

removal of the fold of skin under the tongue; when it is too large it can interfere with feeding in infants and later with speech), which still failed to solve persistent difficulties with latch; and her mediocre experience of lactation consultation: "they [lactation consultants] won't be there to help you the next time" there is a feeding issue. Denise was pumping and feeding James breast milk via bottle, and was exasperated that her medical providers refused to term this "exclusive" breastfeeding. Seeing Denise's need to express her intense affect, the specialist used Empathic Inquiry and empathized with Denise's feelings of frustration, anxiety, and hopelessness. Denise then described how she felt duped by medical providers and breastfeeding awareness campaigns that described breastfeeding as "easy" and "natural" and vehemently stated that it certainly did not feel easy or natural to her!

Recognizing that Denise's strong feelings about breastfeeding were bringing up a lot of strong feelings for herself as well, the specialist transitioned into Mindful Self-Regulation. By monitoring and containing her own affect, the specialist remained present with Denise and continued to join her with empathy. When Denise and the specialist had discussed Denise's frustrations with breastfeeding at length, Denise was then more able to describe and explore her experience of James' fussiness and move into other sections of the FAN during the course of the visit.

Following this initial visit, the specialist continued to support Denise and James for several months, during which James and Denise experienced some profound shifts in their relationship and experiences together. On the phone call following the initial home visit, the shift in Denise's experience was evident by her light, bright tone of voice and frequent laughter. She was subsequently able to access a breastfeeding support group, despite her initial negative experiences with lactation consultation. From this group she was able to gain enough confidence and practical knowledge to transition James to feeding exclusively at the breast, an unexpected step that has brought Denise both pride and relief.

### Mindful Self-Regulation: Calming

When using the FAN Core Process of Mindful Self-Regulation, the FBN specialist attends to his own internal state of arousal (low or high) and works to maintain a calm and interested presence. This process allows the specialist to care for himself in the midst of caring for others. Because it is built into the FAN approach, the FBN specialist becomes adept at recognizing when his own internal state of arousal becomes higher or lower than optimal for the situation at hand. Once he gains this awareness, a specialist can then use mindfulness practices to both care for himself and bring his internal state back into equilibrium, allowing him to be emotionally available to the family. Unlike the other four core processes, this process is focused solely on the FBN specialist and his responses, internal and external.

Jacob and Jo sought out support in caring for their two daughters, Jayne, 6 months old, and Jana, 3 years old, who has special needs, including significant developmental delay and other issues. Jacob and Jo were struggling to care for two high-needs children at once, while simultaneously experiencing significant financial pressures. In the initial home visit, Jo described how caring for Jana's special needs had become even more complex since Jayne joined the family and that caring for both girls during the day left her both exhausted and isolated. Jacob and Jo also discussed their frustration with medical and early intervention services and their history of dismissing a variety of providers with whom they felt dissatisfied. Jacob and Jo became increasingly conflictual with each other during the course of the visit and acknowledged that their many stressors had taken a toll on their relationship as a couple.

Jacob also shared that his family obligations kept him away from many of the activities his male friends enjoy, and then he remarked that he feels cheated and "not used to all this woman stuff," in reference to caring for his daughters. The visitor was aware of her own internal reaction to this comment, including physical symptoms like increased heart rate, as well as a rush of strong feelings. This increase in arousal alerted the specialist that her "buttons" had been pushed and she needed a moment for herself. In taking a moment to breathe, the specialist was able to realize that, as tempting as it might be to begin a lecture on feminism and modern gender roles, this would not actually help the family address their significant urgent concerns. In addition, the specialist realized that she and Jacob did not yet have the kind of relationship in which Jacob might be able to hear a different perspective on such a contentious topic.

By using Mindful Self-Regulation to calm herself, the specialist was able to return to the family's urgent concerns and continue to collaborate. Also, by regulating herself instead of reacting, the specialist paved the way for an intervention later in the visit. Jacob stated again that he missed taking part in "male" activities, and that he did not feel well-suited or compassionate enough to help

his daughters. The specialist was then able to offer an alternative perspective based on her observations of Jacob's interactions with Jana and Jayne during the course of the visit. She commented on the great compassion she witnessed in these interactions and that perhaps Jacob underestimated his skill and connection with his daughters. Jacob was then able to consider this alternate view of himself, a view that supported his vital importance as a father in the lives of his children. Following this initial visit, the specialist continued to support the family through home visits, phone support, and case management, as they navigated the difficult path of parenting high-needs children.

### Collaborative Exploration: Thinking

The FAN process of Collaborative Exploration helps the parent and FBN specialist build a shared understanding of the baby. This thinking process can be successful only when the parent's affect is contained, enabling the parent to focus on her experiences with the baby. It is in this process that the FBN specialist highlights what the parent is doing (or perhaps has already done) to successfully support the baby around the parent's area of concern.

For Carlos and Elisa, their significant concerns about the behavior of their 10-month-old, Sebastian, made it difficult for them to move into a place of thoughtful collaboration with the specialist. Carlos and Elisa had recently received feedback from a caregiver at Sebastian's child care that Sebastian was at times "aggressive" with the other children, including hitting or rough, physical play. Their older daughter Ana, 8 years old, had been diagnosed several years prior with an autism spectrum disorder, and was now making significant gains with appropriate developmental support. However, when Carlos and Elisa heard the concerns from child care, they became worried that perhaps Sebastian was autistic as well. Thus, they had reached out to FBNNOGC because it is one of the few area resources willing to see children younger than 12 months old. Carlos and Elisa desperately wanted professional guidance regarding the possibility that Sebastian might be autistic, and to begin intervention as soon as possible if that was the case.

The specialist spent almost the entire first home visit in Empathic Inquiry, empathizing with the family's fears that their second child might have autism. At the family's request, in the second visit the specialist used developmental screeners to assess Sebastian's development. In observing Sebastian's interactions with Carlos, Elisa, Ana, and herself, the specialist noted excellent eye contact and age-appropriate verbal and social skills. The specialist also noted that Sebastian, who had just begun to walk, was frequently impeded in his efforts at exploration by Ana, who would grab hold of Sebastian roughly and pick him up, sometimes then laying down and laying Sebastian on top of her. Ana clearly enjoyed interacting with her younger brother but appeared to struggle to understand Sebastian's cues. Sebastian would frequently begin to fight against Ana's hold, squirming and crying out, while Ana only held on tighter. The specialist wondered if these interactions might be contributing to Sebastian's "rough" behavior with peers.

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There are capacity-building moments that occur when the parents and infant are fully engaged and experiencing mutual pleasure, referred to as Angel Moments.

While the specialist was reviewing the results of Sebastian's developmental screeners—which all indicated cognitive, motor, language, and social–emotional development within normal limits—during the third visit, Ana climbed onto the couch between Elisa and Carlos and then began pulling Sebastian up onto the couch to sit with the family. Sebastian squirmed to get away, but Ana grabbed harder, pulling Sebastian up and away from a toy he had been exploring. When his body got uncomfortably wedged between Ana and Carlos, Sebastian began to scream, at which time Carlos remarked, "Ana really likes to pick him up, but I think sometimes it makes Sebastian frustrated." With affect contained after their fears were acknowledged, as well as some reassurance from the screeners that Sebastian's development was on track, the specialist felt this was a good moment to transition into Collaborative Exploration. Elisa and Carlos were ready to think together with the specialist about Sebastian's experience, and she gently said, "I know Sebastian and Ana love each other very much, but I wonder how it is for Sebastian to feel like he can't do what he wants to do when Ana is around." The specialist validated Carlos's concerns, and then pointed out how when Ana picked Sebastian up, he often squirmed and struggled in a "rough" way to try to get away. The specialist then wondered aloud if maybe Sebastian was "rough" with peers at child care because of his experiences with Ana. Carlos and Elisa remarked that they had never thought of this before, but that it certainly made sense that Sebastian would feel the need to act with other children in the same way he did with his big sister. Carlos and Elisa said they would begin to notice when Ana picked Sebastian up and work with her to find different activities to connect with Sebastian.

In a follow-up phone call several weeks later, Elisa told the specialist how they had worked with Ana, and also with her therapists, to help her use gentle touch with Sebastian and find new ways to connect with him. Elisa reported she felt this was going extremely well because she had no further concerns

from child care regarding Sebastian's interactions with peers and that recently Sebastian was even coming up to Ana to be close, something he had never done in the past. The specialist was able to celebrate with Elisa that her children were growing developmentally and growing closer to each other.

### Capacity Building: Doing

The FAN process of Capacity Building is when the doing occurs; it is in this phase that the parents are attuned to their infant and open to trying new strategies (or returning to prior ones). It is the part of the FAN in which the specialist supports caregivers in being with their babies, whether the baby is crying and the interaction is stressful (Fussy Baby Moments), or whether the baby and the parent are engaged with positive affect (Angel Moments).

During the visit, often the behavior around which the parents are struggling will occur in real-time Fussy Baby Moments. These moments are the "heart of the intervention", and the FBN specialist's "patient presence and collaborative approach over time helps most parents to gain perspective and, as a result, become more successful in responding to their baby" (Gilkerson, Gray, & Mork, 2005, p. 37). There are also capacity-building moments that occur during the visit when the parent and infant are fully engaged and experiencing mutual pleasure, referred to as Angel Moments. When these interactions occur the specialist pauses, allowing the moment to play out, and acknowledges the felt experience of the moment and reflects on it with the parent.

*In the midst of all of these painful circumstances, it was tempting for the specialist to try to solve the problem by offering a barrage of advice, but the FAN reminds the specialist that being emotionally present with the family comes first.*

In working with Tanya and her 1-month-old daughter, Keisha, the specialist got to be with the family in both difficult Fussy Baby Moments and delightful Angel Moments. On the specialist's first visit, the house was dark, with the curtains drawn. Tanya moved slowly from the door to the seating area and apologized for still being in her pajamas late in the morning. It was clear that Tanya was struggling with severely depressed mood, and this was confirmed when she described having a number of depressive symptoms. She explained that in addition to her anxiety and depression, Tanya felt unable to soothe Keisha. Keisha was so consistently dysregulated that Tanya and her sister, Maya, who had come from out of town to support Tanya, could only take turns bouncing her at a rapid pace. When one sister became tired the other would take over. Both sisters were so physically and emotionally exhausted from caring for Keisha that they had dragged a mattress into the living room and laid Keisha on it. Bouncing Keisha on the mattress was the least physically taxing way to soothe her. During the course of the session, Tanya demonstrated how any time Keisha was not being bounced she immediately began to cry loudly. In addition to these stressors, Tanya's older daughter Jayla, typically a good student, had been struggling at school since Keisha's birth. Tanya's recent separation from her husband added further emotional distress and additional pressure in parenting.

In the midst of all of these painful circumstances, it was tempting for the specialist to try to solve the problem by offering a barrage of advice, but the FAN reminds the specialist that being emotionally present with the family comes first. When Keisha began to scream because her mother laid her down for a moment, the specialist used the opportunity to move into a Fussy Baby Moment of Capacity Building. The specialist wondered if Keisha's reaction to being put down for a moment was typical, and Tanya confirmed that it was, stating that she could barely eat or go to the bathroom because Keisha became so distressed. The specialist encouraged Tanya to soothe Keisha as she normally would, and Tanya helped Keisha to calm by bouncing her. The specialist was then able to notice some of the other things that Tanya was doing to soothe Keisha, like holding her close, shushing her softly, and wrapping her tightly in a swaddle, thereby affirming Tanya's ability as a parent. Later, the specialist also suggested some alternatives, such as using an infant carrier or wrap, which might help Tanya soothe Keisha while also being able to engage in self-care. Because the specialist did not jump in with a litany of "to-dos," the parent and the specialist could be together in the family's struggle and also discuss possible soothing techniques in a way that was connected to the strategies Tanya was already employing.

The specialist continued to work with the family through home visiting and significant case management, including helping Tanya to obtain psychiatric treatment and receive Family Medical Leave until her mood symptoms lessened. After several weeks of home visiting, Keisha's crying had decreased significantly, to the point that Tanya merely needed to hold Keisha during visits to help her regulate. During a visit, Tanya was discussing her concerns about Jayla while holding Keisha. Tanya then glanced towards Keisha and offered a tentative smile. Keisha responded by giving Tanya a full, gummy grin, and when Tanya's smile widened in response, Keisha began to giggle. Tanya and the specialist began to laugh as well, and the whole house seemed to brighten, as if the windows had been opened to let the sun in. The specialist observed how delightful it was to see Tanya and Keisha exchange a smile, and Tanya said how happy she was that they were beginning to smile together. This Angel Moment affirmed Tanya's efforts to care for Keisha, and her efficacy as a mother and a person. It also affirmed the beauty and goodness residing in Tanya and Keisha's relationship. By being with and bearing witness to this moment, the specialist supported Tanya in all of her "doing" as a parent.

### Integration: Reflecting

The FAN process of Integration allows the parents to reflect on the visit and articulate concepts that have been helpful to them. This reflective process occurs when the parents share an insight or discovery about their newborn or themselves as a parent. At the end of the visit these insights are recorded on a form called "Baby Steps" plan. In this final exercise (and throughout the visit) the FBN specialist seeks to help the parents focus on the needs both of the baby and of the family. In addition, the specialist strives to strike that balance of providing support to the family in a way that does not leave them overwhelmed with too much information nor leave them stranded with too little (Gilkerson et al., 2005).

When working with Tammy and her 5-month-old baby, Makayla, Baby Steps plans became a critical way for Tammy to condense the many things that happened during visits into a less-overwhelming form. Tammy was a successful businesswoman whose two daughters were close in age. Makayla, the younger daughter, had begun to cry inconsolably at around 3 months old, but prior to this time she had been fairly easy to soothe. The specialist empathized with Tammy's frustration and distress in dealing with a crying infant and used the FAN to guide her in supporting Tammy.

One issue that came up frequently was a highly structured care routine used by Tammy and her husband, Darren, to manage the needs of their two young children, while both working full-time at high-pressure jobs. Tammy would place the girls in "stations," such as the swing for Makayla, or a playpen for her 18-month-old sister, Angelique, while Tammy and Darren got ready in the morning or cooked dinner at night. When the girls became distressed, Tammy shifted them to a new "station," such as a bouncy seat. Angelique transitioned easily from one station to another, but Makayla quickly began to scream, and was only comforted by being held. While exploring the use of the "stations" system, it became clear that this systematic way of caring for her children felt very organizing and comforting to Tammy, and it was important to her to continue to use it. However, Tammy was able to discuss with the specialist the idea of trying to maintain an emotional connection with Makayla, even while engaging in other tasks. Tammy was unsure how to accomplish this, and because she had noticed a lack of eye contact in interactions between Tammy and Makayla, the specialist wondered aloud if maintaining eye contact with Makayla might help her feel connected to Tammy. As Tammy and the specialist were making the Baby Steps plan, Tammy asked the clinician to write down the idea of maintaining eye contact, and made a further plan of how she could facilitate this, such as bringing Makayla's bouncy seat into the kitchen while making dinner.

When asked to describe Makayla in three words, an Integration activity used at the end of every Fussy Baby visit, Tammy used the words "moody," "demanding," and "happy baby." Tammy remarked that sometimes Makayla truly was a happy baby, but those times seemed few and far between, and it seemed like her mood could shift quickly and unexpectedly. When asked what she wanted to take with her from the visit, Tammy said she wanted to remember that it is important for her to express her feelings honestly, instead of bottling them up inside, and that she needed to continue to seek out places to express her feelings.

The following week, Tammy excitedly reported that, while maintaining eye contact did not keep Makayla from crying all together, it helped Makayla better regulate. In addition, Tammy described how, when making eye contact with Makayla, it felt natural to talk to her, and Tammy wondered if this might also be helping Makayla to calm down. Later, when providing feedback about her experience with FBN, Tammy remarked how helpful this part of the Baby Steps plan had been, and how she would not have "been able to consider it" if she and the specialist had not come up with this part of the plan together. Thus, the Integration of the Baby Steps plan allowed Tammy to bring together the insights gained in the visit and use them to connect with her baby.

## Conclusion

The FAN model has allowed our program to support a wide diversity of families successfully. When parents contact the FBNNOGC program they rate their stress level, on average, to be 4.05 on a scale of 1 to 5. Sixty percent of the infants served to date have had a medical diagnosis at birth or currently (e.g., reflux, NICU) and 23% of infants were born premature. Of families, 33% were of minority status, and 21% were single parents. The household income for 17% of the families served was less than $25,000 yet 47% were above $75,000. This was the first child for 55% of families. Even given this diversity, by the time families completed the program their average stress score decreased to 2.14.

One issue our program became aware of was the difficulty many families had in accessing resources in the community. The program specialist was spending a great deal of her time providing case management support, which made it difficult to maintain her case load. The FBNNOCG team used this insight to recruit for a combination case manager and community outreach person. Only 2 of the 12 FBN programs across the nation use case mangers or family advocates; the flexibility of the model allowed us to incorporate this position into the program while adhering to fidelity.

The growth of FBNNOGC as a program has certainly been dynamic and nonlinear. The program has grown in understanding the needs of the community. The program's urgent concern remains how to serve all families in a diverse and resource-limited community. The staff's response has been to acknowledge the feelings of being overwhelmed (at times) and worried. But as a team the staff are able to pull together (collaborate) and acknowledge what the program is capable of (capacity building) and then challenge one another to think creatively to address the multitude of needs of the community and the program's clients. With the skills of the FAN, the support of the whole FBN community, and the resources provide by the Center, FBNNOGC is able to continue to provide responsive care.

**Sherryl Scott Heller, PhD,** is currently an associate professor in the Department of Psychiatry and Behavioral Medicine at Tulane University School of Medicine. As a graduate student, Dr. Heller trained and worked in the field of infant mental health through the Tulane Infant Team under the supervision of Drs. Julie Larrieu and Charles Zeanah. The Infant Team works with children less than 60 months old who enter foster care as well as their parents and foster parents. After completing her degree Dr. Heller became the director of the Infant Team's Foster Care Team, which was responsible for administering developmental and social-emotional screening and supporting and educating foster parents. Since December of 2007 Dr. Heller has been responsible for providing reflective supervision (RS) to mental health consultants serving on a state-wide program. Dr. Heller has recently co-edited a book with Dr. Linda Gilkerson, of the Erikson Institute in Chicago, on providing RS to professionals in the field of early childhood intervention. In October 2011 Dr. Heller was selected to be a fellow in ZERO TO THREE's Leadership Development Institute where her project has focused on developing a measure to examine the impact of RS. Dr. Heller is currently the director of the Fussy Baby Network New Orleans & Gulf Coast program.

**Anna Breuer, PsyD,** is an infant mental health specialist at the Fussy Baby Network® New Orleans & Gulf Coast. She holds a doctorate in clinical psychology from Rosemead School of Psychology, Biola University in Southern California. Anna received infant mental health training at the Harbor-UCLA Medical Center in Los Angeles, at Tulane University School of Medicine in New Orleans, and most recently as a postdoctoral fellow at the Irving Harris Program in Child Development and Infant Mental Health at the University of Colorado School of Medicine. Anna is dedicated to helping babies and parents form secure attachment relationships, even in the midst of difficult life circumstances. She firmly believes in the power of positive relationships to promote healing across the lifespan. Anna has worked with parents in recovery and their babies at The Haven Mother's House in Denver, Colorado, and at other programs to help create safe and stable family relationships. She also worked at the Tulane Infant Team with young children in foster care and their parents to promote family reunification.

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# *DC:0–3* to *DC:0–3R* to *DC:0–5*
## A New Edition

***The* DC:0–3R *Revision Task Force:***
***Charles H. Zeanah (Chair)***
***Alice Carter***
***Julie Cohen***
***Helen Egger***
***Miri Keren***
***Mary Margaret Gleason***
***Alicia Lieberman***
***Kathleen Mulrooney***
***Cindy Oser***

Originally published in 1994 by ZERO TO THREE as the *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood (DC:0–3)* and revised in 2005 by ZERO TO THREE as the *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood, Revised Edition (DC:0–3R)*, ZERO TO THREE is now updating and revising the *DC:0–3R*. This article provides background on the creation of the classification system and describes the need and process for the current revision.

ZERO TO THREE's *DC:0–3* was the first developmentally based system for diagnosing mental health and developmental disorders in the first 4 years of life (i.e., birth–3). The creation of *DC:0–3* represented the first attempt by a group of experienced clinicians to devise a useful system that would complement other approaches to diagnostic classification systems for older children and adults, such as the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders (DSM)* and the World Health Organization's *International Classification of Diseases (ICD)*. The *DC:0–3* diagnostic categories reflected the consensus of a multidisciplinary diagnostic classification task force, including clinicians and researchers in early childhood development and mental health from North America and Europe.

Prior to the release of *DC:0–3*, clinicians and researchers lacked any widely accepted system for classifying mental health and developmental disorders for infants and toddlers. Infant and toddler mental health and developmental disorders include disorders that are specific to that stage of development (e.g., feeding disorder of caregiver–infant reciprocity) as well as general disorders that manifest themselves in particular ways in the infant–toddler population (e.g., depression, separation anxiety disorder, and social anxiety disorder). Existing classification systems, such as the *DSM*, did not pay adequate attention to the unique developmental and relational experiences of infants and very young children. These systems did not sufficiently reflect mental health disorders that are typically first diagnosed in infancy and early childhood, such as regulation disorders and caregiver–child relationship disturbances. The goal of diagnosis is not to label a child; it is a way of classifying disorders on the basis of behaviors, development, and relationships. Diagnostic categories help to facilitate research, enhance communication among practitioners, and guide treatment.

A revision to *DC:0–3* was proposed in 2002, and in 2003, ZERO TO THREE appointed a revision task force. The group was charged with drafting a revised version of *DC:0–3*, providing needed specifications and clarifications of criteria to facilitate reliability among clinicians and to advance the evidence-based evolution of the system (ZERO TO THREE, 2005). Over the course of 2 years, the group reviewed clinical literature and other diagnostic systems, developed and disseminated two surveys to users worldwide, and obtained draft language and comments from experts in particular areas (ZERO TO THREE, 2005). The task force conversed weekly (via conference calls and in person) to refine text and diagnostic criteria.

The revised version of *DC:0–3*, published in 2005 by ZERO TO THREE as *DC:0–3R*, drew on empirical research and clinical practice that had occurred worldwide since the 1994 publication and extended the depth and criteria of the original *DC:0–3*. It supports clinicians in diagnosing and treating mental health problems in the earliest years. It also encourages readers to

refer to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM–IV–TR*; American Psychiatric Association, 2000) and the *International Classification of Diseases* (10th ed.; *ICD–10*; World Health Organization, 1992)—both of which describe a number of mental health disorders that are typically first diagnosed in the early years (ZERO TO THREE, 2005). Specifically, *DC:0–3R* is designed to help behavioral health and other professionals

- recognize mental health and developmental challenges in young children,
- understand the contribution of relationships and environmental factors to mental health and developmental disorders,
- use diagnostic criteria effectively for classification and intervention,
- work more effectively with parents and other professionals to develop effective treatment plans based on a careful diagnostic formulation, and
- facilitate research on relational and other behavioral health disorders in infants and young children.

*DC:0–3R* provides a common language that allows individuals across disciplines to communicate accurately and efficiently with each other and to link to knowledge about early childhood disorders. Four major multidisciplinary groups use *DC:0–3R*: clinicians, researchers, faculty, and policymakers (via the *DC:0–3R* crosswalks).

## Why Is *DC:0–3R* Being Updated and Revised?

With the help of the *DC:0–3R* Revision Task Force, ZERO TO THREE is once again tackling an update and revision of the *DC:0–3R*—a 3-year process that began in March of 2013. The *DC:0–3R* Revision Task Force is considering changes to the *DC:0–3R*—making content-related decisions with input from the clinical and research literature, suggestions from users worldwide, and feedback from recognized experts in particular areas. The revision will capture new findings relevant to diagnosis in young children and will address unresolved issues in the field since the book was published in 2005. The hope is that the new edition will improve the usefulness and developmental appropriateness of *DC:0–3R* (ZERO TO THREE Revision Task Force, 2005).

Even at its publication, the authors recognized the limitations of *DC:0–3R*, noting that it represented the best thinking at the time but fully expecting that at some future time the accumulated experience with *DC:0–3R* as well as additional new issues and studies would necessitate a new edition. The *DC:0–3R* Revision Task Force is charged with making updates and revisions that address unresolved issues from *DC:0–3R* as well as capturing new findings relevant to the diagnosis and clinical formulation for young children. The timing of the revision is important, as it coincides with revisions in *DSM* and the publication of the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM–5*; American Psychiatric Association, 2013). Although *DSM–5* has made some effort to be more developmentally sensitive, it still does not adequately capture the breadth of disorders typically seen in infancy and early childhood.

Photo: © iStockphoto.com/Raul_Mellado

The goal of diagnosis is not to label a child; it is a way of classifying disorders on the basis of behaviors, development, and relationships.

To solicit initial input into the revision process, ZERO TO THREE developed and disseminated a *DC:0–3R* users survey in the summer of 2013. The survey was sent out to 20,000 individuals worldwide, including World Association of Infant Mental Health members and affiliates; state infant mental health associations and contacts; the American Academy of Child and Adolescent Psychiatry Infant and Preschool Committee; members of the Harris Professional Development Network; all purchasers of *DC:0–3R* and related materials; *ZERO TO THREE Journal* subscribers; attendees of *DC:0–3R* training events; and ZERO TO THREE board members, staff members, and Academy Fellows. There were 890 responses from six continents. Respondents reported being experienced in evaluating and treating infants and toddlers—23% had more than 20 years of experience, and 51% had more than 10 years of experience. More than half (56%) of the respondents had used *DC:0–3R* in the past year, 36% had not used it but would like to in the future, and only 8% were not interested in using it. Reasons given for not currently using *DC:0–3R* included the following:

- does not find diagnosis clinically useful in young children,
- not trained in *DC:0–3R*,
- *DC:0–3R* diagnoses not billable, and
- *DC:0–3R* diagnoses not translatable into *DSM* or ICD coding.

Respondents also provided valuable information about the multiaxial system, and they suggested changes in specific aspects of *DC:0–3R*, such as revising the relationship axis to be less pejorative and adding some disorders to the system.

The *DC:0–3R* Revision Task Force meets on a biweekly basis via conference calls and in person several times a year. *DC:0–3R*

Revision Task Force members, along with several doctoral and postdoctoral students, have been reviewing the research literature on selected disorders on the basis of current evidence. The first set of disorders—sleep disorders, anxiety disorders, posttraumatic stress disorder, disorders of relating and communicating, regulation disorders of sensory processing, and prolonged bereavement/grief reaction—will be completed by the end of 2014.

## What Can You Expect? A New Edition—*DC:0–5*

The *DC:0–3R* Revision Task Force was charged with making revisions to *DC:0–3R*. While still in the midst of the revision process, decisions have been made about several issues in the revised and updated *DC:0–3R*. These include the following:

- The new edition will include disorders occurring in children up to 5 years old; the working title *DC:0–5* reflects this change.
- *DC:0–5* will continue a multiaxial classification system that has been extremely useful in clinical formulation.
- *DC:0–5* will include some disorders that were not included in *DC:0–3R* (i.e., inhibition to novelty disorder for children less than 2 years old) and will exclude other disorders that were in *DC:0–3R* (i.e., anxiety disorder not otherwise specified).
- Although criteria in the new edition will apply to children less than 5 years old, the *DC:0–3R* Revision Task Force is also defining and specifying symptoms in children less than 1 year old whenever appropriate.
- Using criteria based on stronger evidence, ZERO TO THREE will make available literature reviews for each disorder on the *DC:0–3R* Revision web page (www.dc03r.org).

In addition to the new *DC:0–5*, future plans include the development and release of a casebook linked to disorders in *DC:0–5* and occasional articles on the use of *DC:0–5* in research, practice, and training in the United States and around the world. The new edition necessitates an updated training approach and curriculum. Efforts are underway to create a training curriculum to parallel changes in *DC:0–5* and to increase the number of trainers with capacity to provide training nationally and internationally.

The *DC:0–3R* Revision Task Force and ZERO TO THREE invite members of the infant–early childhood mental health community worldwide to provide feedback over the course of the revision process. As revisions in the diagnostic criteria are drafted, they will be posted on www.dc03r.org for input from the field. Up-to-date information about the revision process can also be found on www.dc03r.org. The *DC:0–3R* Revision Task Force and ZERO TO THREE plan to preview *DC:0–5* at the World Association of Infant Mental Health Congress in June 2016 and to release *DC:0–5* in December 2016 at ZERO TO THREE's National Training Institute.

**Charles H. Zeanah, Jr., MD,** is Mary Peters Sellars Polchow Chair in Psychiatry, professor of psychiatry and pediatrics, and vice chair for child and adolescent psychiatry at the Tulane University School of Medicine in New Orleans. Dr. Zeanah is widely recognized for his leadership in the field of infant mental health, especially in understanding infants' development in the context of infant–parent relationships in high- and low-risk families. He has a research focus on the effects of adverse early experiences on development and psychopathology in young children. This includes research on disturbances and disorders of attachment, posttraumatic symptomatology in young children, and the effects of serious deprivation on infant development, as well as interventions to address these problems. Dr. Zeanah is widely published in books and journals. He is particularly well known for his *Handbook of Infant Mental Health* (3rd edition published in 2009) and has served as presenter for more than 200 invited addresses worldwide. Dr. Zeanah is a former fellow and a current board member of ZERO TO THREE. He served as a member of the Childhood and Adolescent Disorders Work Group for *DSM-5* and chairs the ZERO TO THREE Task Force on revising the *DC:0-3R*.

**Alice Carter, PhD,** is a professor and director of the Graduate Program in Clinical Psychology in the Psychology Department at the University of Massachusetts Boston. Her areas of expertise include the identification of infants and toddlers at risk for problems in social, behavioral, and emotional functioning and the role of family functioning in child development. Dr. Carter's primary research interests include: early identification and evaluation of infants, toddlers, and preschoolers experiencing and/or at risk for later psychopathology; addressing health disparities by improving early identification, evaluation, and treatment of infants and toddlers with autism spectrum disorders; evaluating interventions that reduce early onset psychopathology and parenting stress and enhance child competencies and parenting efficacy; and understanding reciprocal relations between young children's developmental trajectories and trajectories of family functioning. She is also studying young children with autism spectrum disorders as part of two projects focused on reducing disparities in rates and age of detection and services received, which are funded by the Health Resources and Services Administration and the National Institutes of Mental Health. Her teaching interests include developmental psychopathology, child assessment, and child and family functioning. She is a former fellow of ZERO TO THREE.

**Julie Cohen, MSW,** is associate director of the ZERO TO THREE Policy Center. Ms. Cohen first joined ZERO TO THREE in 1995 and has served in a variety of roles. She is the author of numerous publications, including *America's Babies: The ZERO TO THREE Policy Center Data Book* (2003); *A Call to Action on Behalf of Maltreated Infants and Toddlers* (2011); *Making It Happen: Overcoming Barriers to Providing Infant-Early Childhood Mental Health* (2012); *Supporting Infants, Toddlers and Caregivers Impacted by Caregiver's Mental Health Problems, Substance Abuse, and Trauma, A Community Action Guide* (2012); and most recently, *Nurturing Change: State Strategies for Improving Infant and Early Childhood Mental Health* (2013).

**Helen Egger, MD,** a child psychiatrist and epidemiologist, is chief of the Division of Child and Family Mental Health and Developmental Neuroscience and vice-chair for Integrated Pediatric Mental Health in the Department of Psychiatry and Behavioral Sciences at Duke University Medical Center in Durham NC. She is a tenured associate professor in the Departments of Psychiatry and Pediatrics. She also holds a secondary appointment in the Department of Psychology and Neuroscience. Dr. Egger's research program focuses on the developmental epidemiology and developmental neuroscience of psychiatric disorders, particularly anxiety disorders, in preschool children. She is a leader in the development of

measures for assessing psychiatric symptoms and disorders in young children. Dr. Egger is lead author of the Preschool Age Psychiatric Assessment (PAPA), as well as lead developer of the ePAPA, a computerized version of the interview. Dr. Egger is also co-director of the Duke Information and Child Mental Health Initiative with Duke's Information Initiative (iiD). A cornerstone of this work is a collaborative, multidisciplinary, and university-wide program of research to develop new computational tools and instrumentation for early diagnosis of psychiatric and neurodevelopmental disorders in infancy and early childhood. Dr. Egger has served in leadership roles within Duke Medicine and in external organizations including the American Academy of Child Psychiatry and the American Psychiatric Association. She is also a 2014 graduate of Drexel University Executive Leadership in Academic Medicine (ELAM) leadership program. She is a former fellow and a current board member of ZERO TO THREE.

**Miri Keren, MD,** is a child and adolescent psychiatrist, director of the first Community Infant Psychiatry Unit in Israel, created in 1996, and affiliated to the Geha Mental Health Center. She is a consultant of the Tel Aviv Residential nursery for infants waiting for adoption; consultant at the FTT Clinic, Schneider Children's Hospital, Petah Tiqva; teaches as lecturer at the Child Psychiatry Department, Tel-Aviv Sackler Medical School; and is the head of a 2-year Early Childhood Psychiatry Course, Faculty of Continuing Education, Tel-Aviv Sackler Medical School. She is a member of the Joint-Ashalim Committee for Early Childhood, Tel Aviv University Certified Psychotherapist, and trainer at the trauma-focused Child–Parent Psychotherapy (CPP). She created the Israeli WAIMH Affiliate in 2000, was its president from 2003 to 2007, is now honorary president of the Israel WAIMH Affiliate, and president of WAIMH. Dr. Keren's research interests are attachment (Certified AAI coder), parental reflectiveness (certified coder of the Insightfulness Assessment), infant mental health diagnostic classification, feeding disorders in infancy, symbolic play development, parent–infant dyadic and triadic relationships characteristics among clinic- and non-clinic-referred families, abandoned babies, and adoptive parents.

**Mary Margaret Gleason, MD,** is a pediatrician and child and adolescent psychiatrist and serves as the director for Tulane Infant Mental Health Services. She is interested in the clinical care of high-risk young children and their families. In her academic work, Dr. Gleason is interested in early identification of childhood mental health disorders, early childhood mental health disorders in high-risk children, especially reactive attachment disorder, and the factors that shape treatment decisions by families and providers. She has developed a screening tool to identify young children at risk for mental health concerns (Early Childhood Screening Assessment), that has been endorsed by the American Academy of Pediatrics. She has also coordinated an effort to define the evidence base related to preschool medications and to develop evidence-informed treatment algorithms to guide responsible treatment decisions. In addition to other leadership positions in child psychiatry, Dr. Gleason serves on the American Academy of Pediatrics Early Brain and Child Development Leadership Workgroup; with colleagues, she received the 2011 Norbert and Charlotte Rieger Award for Scientific Achievement, and is on the editorial board of the *Journal of the American Academy of Child and Adolescent Psychiatry*. She is a former fellow of ZERO TO THREE.

**Alicia F. Lieberman, PhD,** is Irving B. Harris Endowed Chair in Infant Mental Health, professor and vice chair for Academic Affairs at UCSF Department of Psychiatry and director of the Child Trauma Research Project at San Francisco General Hospital. Her research involves treatment outcome studies with infants, toddlers, and preschoolers from low-income and under-represented minority groups with a high incidence of exposure to family and community violence, maternal depression, and other risk factors. Dr. Lieberman is the senior developer of Child–Parent Psychotherapy, which has shown efficacy in comparison to other interventions in five randomized studies with young children and their mothers. She currently directs the Early Trauma Treatment Network, a four-site center of the SAMHSA-funded National Child Traumatic Stress Network. She has authored a book on toddler development, two treatment manuals, and numerous articles and chapters on risk and protective factors for mental health in infancy and early childhood, child–parent attachment, and cultural competence in intervention and treatment. She was born in Paraguay and received her professional training in Israel and the United States. This cross-cultural experience informs her commitment to closing the mental health services gap for low-income and minority young children and their families. Dr. Lieberman is on the board and is past president of ZERO TO THREE.

**Kathleen Mulrooney, MA, LPC, ACS, IMH-E (IV)** works with ZERO TO THREE as assistant director of Infant Mental Health and resource specialist for Project LAUNCH National Resource Center for Mental Health Promotion and Youth Violence Prevention. Kathy holds a master of arts degree in clinical psychology and is a licensed professional counselor in New Jersey. She is an accredited clinical supervisor and has achieved Infant Mental Health Endorsement at Level IV (Clinical/Mentor). Kathy has an extensive history of clinical, training, administrative, and systems consultation experience. Kathy is an adjunct faculty member with Montclair State's Center for Autism and Early Childhood mental health teaching in the Infant Mental Health Graduate Certificate Program. In addition, Kathy has worked to support military and veteran families and has done extensive work in disaster and crisis response counseling and training.

**Cindy Oser, RN, MS,** is director of Infant-Early Childhood Mental Health (I-ECMH) at ZERO TO THREE and co-director of the Project LAUNCH Resource Center, part of the SAMHSA-funded National Resource Center on Mental Health Promotion and Youth Violence Prevention. Ms. Oser has been with ZERO TO THREE since 1998 in a variety of roles including founder and first director of the Western Office in Los Angeles, director of State Policy Initiatives, and technical assistance specialist with the National Early Childhood Technical Assistance System. Ms. Oser is the author of many publications, including *America's Babies: The ZERO TO THREE Policy Center Data Book* (2003); *Making It Happen: Overcoming Barriers to Providing Infant-Early Childhood Mental Health* (2012); and most recently, *Nurturing Change: State Strategies for Improving Infant and Early Childhood Mental Health* (2013).

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# Hearing Screening Follow-up: Completing the Process to Identify Hearing Health Needs

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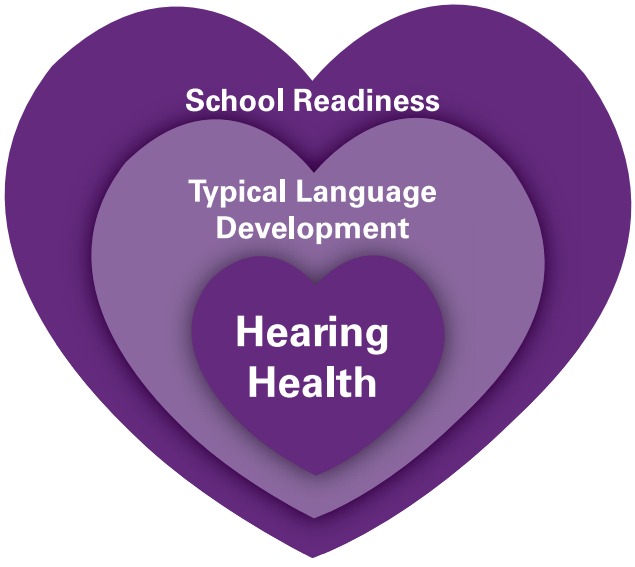
## ABSTRACT

Hearing is at the heart of language development and school readiness; increasing numbers of Early Head Start programs have come to rely on otoacoustic emissions (OAE) technology to screen all infants and toddlers for hearing loss. Successful identification of hearing health needs is dependent not only on an appropriate screening method, but also on adherence to an evidence-based follow-up protocol that includes referral to health care providers and specialists. Tools and resources are available to help programs make the most of their OAE hearing screening process and these can further inform other heath and developmental screening efforts.

Early childhood care and education providers are becoming more aware than ever before that hearing health is central to language development and school readiness (see Figure 1). Because hearing is at the heart of typical language learning, any unidentified hearing loss in early childhood is likely to have long-term, negative effects on a child's academics, social–emotional development, and self-esteem (Moeller, 2000). Over the past decade, increasing numbers of Early Head Start (EHS) programs have come to rely on otoacoustic emissions (OAE) technology to screen infants and toddlers for hearing loss (Eiserman & Shisler, 2010). For some key facts about hearing loss, see box Incidence of Early Hearing Loss.

FIGURE 1. **Central Importance of Hearing Health**




Source: Lenore Shisler, National Center for Hearing Assessment and Management

As OAE screening expands, EHS program improvement efforts are often directed initially toward acquiring equipment and learning to conduct the screening procedure. Although these elements are essential for quality screening, identification of

### Incidence of Early Hearing Loss

Hearing loss in infancy and early childhood

- Is the most common birth defect in the U. S. (White, 1996).
- Can occur at any time during the critical language-learning years as a result of illness, physical trauma, or environmental or genetic factors (American-Speech-Language-Hearing Association, 2014b).
- Doubles between birth and school age; increasing from about 1–3 per 1,000 at birth (White, Forsman, Eichwald, & Munoz, 2010) to 3–6 per 1,000 by the time children enter school (Bhatia, Mintz, Hecht, Deavenport, & Kuo, 2013; Northern & Downs, 2002).

Photo: William Eiserman

If parents, caregivers, or staff have concerns about a specific child's hearing or language development, referral for further evaluation should be undertaken regardless of the otoacoustic emissions screening outcomes.

Photo: William Eiserman

Over the past decade, increasing numbers of Early Head Start programs have come to rely on otoacoustic emissions technology to screen infants and toddlers for hearing loss.

hearing loss is highly dependent on adherence to a follow-up protocol when children do not pass the screening (Eiserman, Shisler, et al., 2008; Foust, Eiserman, Shisler, & Geroso, 2013). As with any screening process, OAE screening is only as effective as a program's ability to ensure that each and every child who does not pass receives accurate and timely diagnostic evaluation and, when necessary, intervention.

Programs trained to conduct OAE screening and to actively engage in follow-up are identifying 3 children per 1,000 with permanent hearing loss (Eiserman, Hartel, et al., 2008). Many additional children are being treated for middle ear conditions that are accompanied by some degree of temporary loss that can affect development. This article describes a recommended protocol for OAE screening and follow-up that demonstrates the importance of a clearly defined protocol for all health and developmental screenings.

Photo: William Eiserman

Otoacoustic emissions screening can be conducted in a variety of environments where children are already engaged.

## Subjective and Objective Screening Methods

Devoted parents count every finger and toe after a baby is born. Perhaps without recognizing it, they have started to screen their child for possible problems. This informal monitoring is vital throughout early childhood, and parent or caregiver concern in any domain, including hearing, should always prompt referral for further formal assessment. As important as parental perception may be, however, observation alone is never sufficient as the sole hearing screening method. Hearing loss is often called the "invisible disability" because neither parents nor professionals can reliably observe how well a child can hear (American-Speech-Language-Hearing Association, 2014a; Eiserman & Shisler, 2010; Watkin, Baldwin, & Laoide, 1990). Most children with a hearing loss will respond to some sounds and even those with severe loss will often turn toward sound. This can cause parents and professionals to mistakenly assume that a child's hearing is normal.

Because observation is not a reliable way to identify children who have a hearing loss, OAE hearing screening is vital in any early childhood program committed to promoting language and school readiness. OAE screening is an objective measurement of cochlear (inner ear) functioning that can be performed with very young children, even newborns (Early Childhood Hearing Outreach Initiative, 2014; Eiserman & Shisler, 2010). EHS teachers, home visitors, and health specialists can be trained to conduct OAE screening in a variety of environments where children are already comfortably playing, being held, or even sleeping.

Although it is a highly reliable tool, OAE screening technology does not conclusively identify a hearing loss. An effective OAE screening process does, however, identify children who need further medical or audiological assessment, or both, and treatment. As with any health or developmental screening, a clearly defined follow-up process is integral to a successful OAE screening effort.

This process needs to incorporate consultation with specialists including health care providers and pediatric audiologists.

## OAE Screening Follow-Up Protocol and Process

An OAE screening protocol for early childhood education settings, used extensively in EHS programs, is shown in the OAE Protocol Flowchart (see Figure 2). Although several steps are required when a child does not pass the screening on one or both ears, there is one easy "rule of thumb" to remember:

The OAE screening and follow-up process is complete only when—

- The child passes the OAE screening on both ears at some point during the screening process,

  or

- The child receives an evaluation from an audiologist and the program has obtained those results.

However, if parents, caregivers, or staff have concerns about a specific child's hearing or language development, referral for further evaluation should be undertaken regardless of the OAE screening outcomes. No screening procedure can catch every possible disorder. Certain conditions that affect hearing and language processing can be identified only through a comprehensive diagnostic process.

## Evidence-Based OAE Screening Process

Analysis of data collected on more than 20,000 children screened in hundreds of EHS programs using the OAE screening protocol can inform other programs about what to expect when implementing OAE screening. The data suggest that approximately 75% of young children will pass the initial OAE screening on both ears.

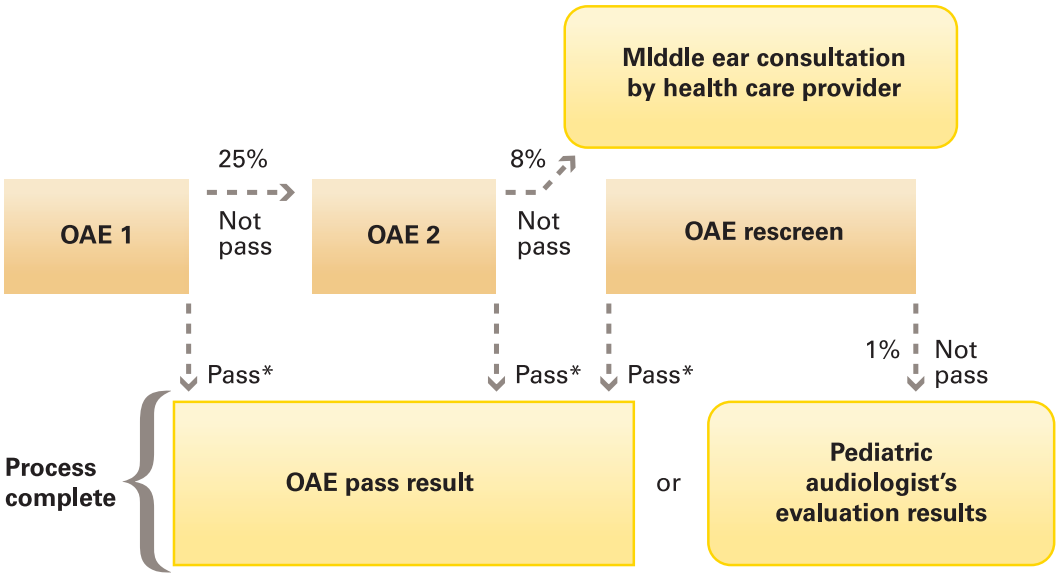
Approximately 25% of children will not pass for a variety of reasons that could include temporary conditions such as congestion accompanying a head cold or screener error (Eiserman, Shisler, et al., 2008, Foust et al., 2013). It would be impractical to refer every child not passing the initial screening to a health care provider or an audiologist. Instead, within 2 weeks a second OAE screening is conducted on the ear(s) that did not pass. If the result of this second screening is a "pass," the screening is complete and no further action is needed.

When a child does not pass the second OAE screening, a medical evaluation is required. As shown in the OAE Protocol Flowchart, approximately 8% of the children initially screened will not pass this second screening. Subsequent referral to a health care provider for middle ear consultation does not mean that the screening process is complete or that your responsibility is reduced. Instead, intensified monitoring is necessary because most health care providers do not have OAE equipment and cannot conduct a hearing screen on an infant or toddler.

When seeking consultation from a health care provider, it is helpful to:

- Share the OAE screening protocol;
- Provide documentation of the child's OAE screening results;
- Specifically request that information on the child's middle ear status, obtained through tympanometry or pneumatic otoscopy, be relayed back to you;

FIGURE 2. **Otoacoustic Emissions (OAE) Protocol Flowchart**




*Parent or caregiver concern about hearing or language development warrants prompt referral to a health care provider, audiologist, or both even if a child passes the screening.

Source: Lenore Shisler, National Center for Hearing Assessment and Management

- Assist parents in completing any recommended treatment;
- Determine when the previously non-passing ear(s) should be rescreened. (It may take several weeks for some middle ear conditions to be resolved.)
- Inform the provider that if the child does not pass the OAE rescreen, referral to a pediatric audiologist will be necessary to complete the evaluation process.

The goal at this point is to make sure that any middle ear issues are identified and addressed so that you can complete the OAE rescreening of inner ear functioning.

If the child passes the OAE rescreen, the screening is complete. If the child still does not pass, referral to a pediatric audiologist is necessary. Approximately 1% of children will typically need this referral. As with many health and developmental screenings, referral to a specialist does not conclude your role in the screening process. When a child is referred to a pediatric audiologist for evaluation, it is critical to:

- Provide the audiologist with all OAE screening and follow-up hearing-health consultation results;
- Support the parent in getting the audiological evaluation completed;
- Obtain a copy of the audiologist's evaluation and seek clarification as needed so that you understand the final outcomes; and
- Obtain information about what you need to do to support appropriate intervention for any child diagnosed with a permanent hearing loss.

## OAE Screening Resources and Tools

In initiating and maintaining an OAE screening program, EHS staff can benefit from the technical assistance of a local pediatric audiologist who can address an array of issues surrounding equipment selection, how to conduct the screening procedure, and various aspects of establishing OAE screening and follow-up practices (Eiserman & Shisler, 2010). Also, devote adequate time and attention to the topic of follow-up during planning and training activities to ensure that staff members develop a thorough understanding of their roles in documenting ear-specific results, tracking children who do not pass the screening, and implementing the protocol steps in a logical and timely way.

Use screening documentation forms that guide screeners through the screening process along with an appropriate tracking tool. At a minimum, a tracking system needs to:

- Reflect each step in the OAE screening and evaluation protocol;
- Allow users to record child-specific OAE screening and follow-up evaluation results; and
- Indicate which children have completed the process, which have not, and what the next step is for those who need further screening or evaluation.

If you use an existing tracking system that was created for health and developmental screenings, you will need to modify it to incorporate data fields that reflect the OAE screening and follow-up protocol.

A well-designed tracking system has the added value of helping administrators to monitor overall program quality and should have the capability of calculating outcomes related to:

- Pass and refer rates,
- The number of children whose screening is complete and the number who are still in the follow-up process, and
- The number of children diagnosed with hearing loss.

### Learn More

The Early Childhood Hearing Outreach (ECHO) Initiative is part of the National Center for Hearing Assessment and Management at Utah State University. The ECHO Initiative focuses on extending the benefits of periodic hearing screening to young children in a variety of health and education settings and serves Early Head Start programs as the National Resource Center on Early Hearing Detection and Intervention. A variety of links and free resources at www.KidsHearing.org facilitate otoacoustic emissions (OAE) screening and follow-up:

- Find a local pediatric audiologist who may be able to assist with OAE screening program development. **kidshearing.org/resources/find-audiologist**
- View video tutorial modules that walk screeners and administrators through each aspect of planning and implementing an OAE screening program. **kidshearing.org/learn-to-implement**
- View and print a Protocol Guide and Screening and Diagnostic forms that reflect the recommended OAE screening protocol. **kidshearing.org/resources/protocol-guides**
- View and print referral letters and suggested script templates that help staff to accurately communicate screening results to parents and health care providers. **kidshearing.org/resources/document-share**
- Try a spreadsheet tracking system that allows staff to record child-specific OAE screening and follow-up results and automatically indicates which children need further screening or evaluation. **kidshearing.org/resources/track**
- Contact your state's Early Hearing Detection and Intervention (EHDI) program, which can link families of children identified with a hearing loss to services. **www.infanthearing.org/states/index.html**

Your hearing screening follow-up data can then be used for the grantee and delegate record-keeping, reporting, and for ongoing monitoring processes. The capacity to analyze outcomes at various steps in the screening protocol can also help you to identify areas where technical assistance may be needed.

An additional resource is your state's Early Hearing Detection and Intervention (EHDI) newborn hearing screening program. The state EHDI program coordinator will want you to report any child who is newly diagnosed with a permanent hearing loss and will be able to connect the child and family with valuable services. Any child with a permanent hearing loss should also be referred immediately to your local Part C/early intervention program.

## Conclusion

Following an appropriate screening and follow-up protocol helps children to get the medical and audiological attention they need while minimizing unnecessary referrals to health care providers and specialists. Quality screening, followed by medical and audiological evaluation and early intervention as needed, can dramatically improve options and outcomes for children who are deaf or hard of hearing. When a hearing loss is identified early, and the child receives timely and appropriate early intervention, delays that have historically been associated with hearing loss can be significantly minimized or eliminated altogether. The expansion of OAE screening and follow-up leading to early identification means that greater numbers of children who are deaf or hard of hearing will thrive in ways that used to be rare.

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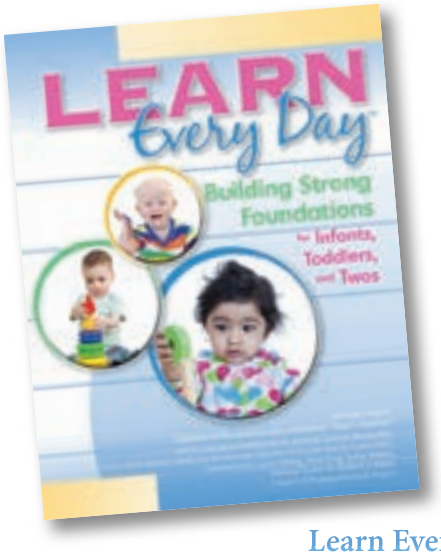


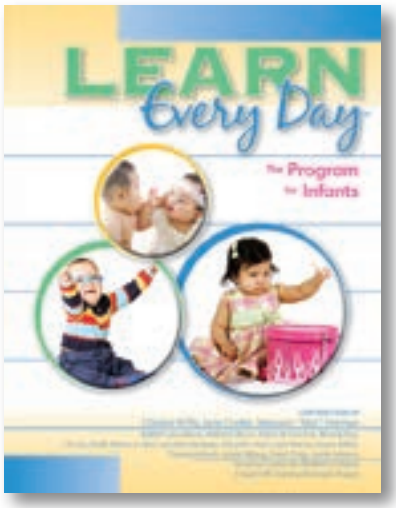


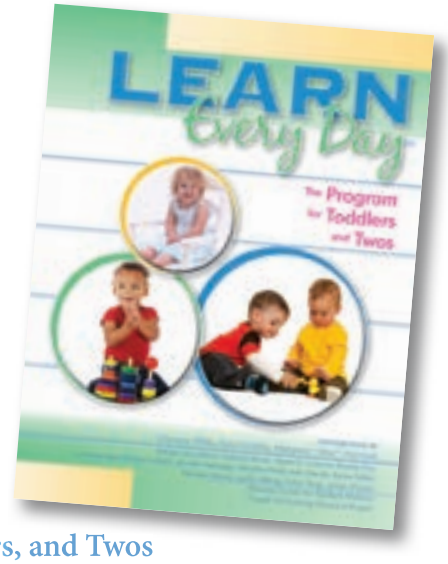


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# Jargon Buster

Given the multidisciplinary nature of our work with infants, toddlers, and families, we often come across words or acronyms that are new or unfamiliar to us. To enhance your reading experience of this issue of *Zero to Three*, we offer a glossary of selected technical words or terms used by the contributing authors in this issue. Please note that these definitions specifically address how these terms are used by the authors in their articles and are not intended to be formal or authoritative definitions.

| | |
|---|---|
| **Cultural Competence** | For individuals, cultural competence is an approach to learning, communicating, and working respectfully with people different from oneself. For organizations, cultural competence is creating the practices and policies that will make services more accessible to diverse populations and that provide for appropriate and effective services in cross-cultural and transcultural situations. [Find it in Mayoral et al., page 31] |
| **Equity vs. Equality** | *Equity* refers to "something that is just, impartial and fair; justice based upon need and ability." Whereas *equality* translates into every person having the same, *equity* is everyone having what they need, which might vary by individual and community. [Find it in Mayoral et al., page 31] |
| **Epigenetic** | The chemicals and proteins that control gene activity without altering the DNA sequence are collectively referred to as epigenetic. These factors can promote both gene expression and gene silencing, with both of these processes being essential for normal development. [Find it in Champagne, page 2] |
| **Externalizing Disorders** | This term refers to behavior problems such as aggression, opposition, and antisocial behaviors. Across all ethnic groups, boys are more likely than girls to exhibit problems of conduct. The prevalence of conduct and aggression appears to increase from prekindergarten through middle school. Such rising rates of aggressive and oppositional behavior are especially striking among boys of color who are 4–12 years old. [Find it in Barbarin, page 9] |
| **Mentalization** | Mentalization refers to the awareness and understanding of "mental" states of one's self and of others, as well as the making of accurate connections between them and observable actions. [Find it in Shahmoon-Shanok & Stevenson, page 18] |
| **Otoacoustic Emissions (OAE) Technology** | OAE screening is an objective measurement of cochlear (inner ear) functioning that can be performed with very young children, even newborns. An effective OAE screening process identifies children who need further medical and/or audiological assessment and treatment. [Find it in Eiserman, Shisler, & Hoffman, page 67] |

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