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Introducing a New Classification of Early Childhood Disorders: DC:0–5™

Charles H. Zeanah
Tulane University

Alice S. Carter
University of Massachusetts Boston

Julie Cohen
ZERO TO THREE
Washington, DC

Helen Egger
New York University

Mary Margaret Gleason
Tulane University

Miri Keren
Tel Aviv University

Alicia Lieberman
University of California, San Francisco

Kathleen Mulrooney
Cindy Oser
ZERO TO THREE
Washington, DC

Abstract

This article introduces the revised and updated *DC:0–5™: Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood*. The authors describe the past and current efforts to create a developmentally based classification system for very young children. DC:0–3, published in 1994 by ZERO TO THREE, was created to address the significant need for a systematic, developmentally based approach to the classification of mental health and developmental difficulties in the first 4 years of life (i.e., birth through 3 years old). Based on advances in knowledge, ZERO TO THREE decided to revise DC:0–3 and published DC:0–3R in 2005. The current revision, DC:0–5, was substantial, expanding the age range from 3 years old to 5 years old and expanding the number of diagnostic categories and clinical disorders from previous versions. The authors describe the new features of DC:0–5, detail three levels of the training model, highlight other DC:0–5 resources, and discuss the future of DC:0–5.

ZERO TO THREE published *DC:0–5™: Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood* in December 2016. This article is a brief guide to DC:0–5, designed both for readers who are familiar with DC:0–3R and the original DC:0–3 and those for whom DC:0–5 is their introduction to this diagnostic classification system. The authors are members of the Diagnostic Classification Revision Task Force who completed the update and revision.

In this article, we describe the following:

- ZERO TO THREE's past and current efforts to create a developmentally based classification system,
- new features of DC:0–5,
- the DC:0–5 training model,
- other DC:0–5 resources, and
- the future of DC:0–5.

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Background: Creating a Developmentally Based Classification System[1]

DC:0–3, published in 1994 by ZERO TO THREE, was created to address the significant need for a systematic, developmentally based approach to the classification of mental health and developmental difficulties in the first 4 years of life (i.e., birth through 3 years old). The design and formation of DC:0–3 represented the first effort by a group of expert, experienced clinicians to devise a useful scheme that would complement, but not replace, other approaches to diagnostic classification systems for older children and adults, such as the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; DSM-IV; American Psychiatric Association, 1994) and the *International Classification of Diseases* (10th ed.; ICD-10; World Health Organization, 1992). The creators of DC:0–3 sought to take note of new knowledge concerning psychopathology, including (1) factors that contribute to adaptive and maladaptive patterns of development and (2) the meaning of individual differences in infancy (ZERO TO THREE, 2005). Their goal was to develop classification criteria that could improve professional communication, clinical formulation, and research.

In 2002, based on advances in knowledge, ZERO TO THREE decided to revise DC:0–3, and in 2003, ZERO TO THREE selected and appointed a Revision Task Force. The group was tasked with drafting a revised version of DC:0–3, providing needed specifications and clarifications of criteria to allow reliability among clinicians and to advance the evidence-based evolution of the system (ZERO TO THREE, 2005). For 2 years, the group reviewed clinical literature and other diagnostic systems, developed and disseminated two surveys to DC:0–3 users worldwide, and gathered draft language and comments from experts across disciplines. The Task Force communicated each week (via conference calls and in person) to hone text and diagnostic criteria. The revised DC:0–3, published in 2005 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 DC:0–3.

Clinicians who address the mental health needs of infants/young children[2] found DC:0–3R to be a useful nosology, or classification of disorders. It was well-received by clinicians from around the world; in addition to the original English edition, translations have been published in Dutch, French, Italian, Japanese, Korean, Polish, and Romanian.

Although DC:0–3R represented the best thinking at the time, the authors noted that at some future time, the collected experience with DC:0–3R, as well as additional new issues and studies, would necessitate a new edition. There were several key reasons DC:0–3R needed to be revised and updated. First, by 2016, more than a decade had passed since DC:0–3R was published; substantial research on infant/early childhood psychopathology has been published during that time. Second, the decision to revise and update DC:0–3R anticipated the publication of DSM-5 (American Psychiatric Association) in 2013. Although DSM-5 made an intentional effort to be more developmentally sensitive, it did not sufficiently capture the range of disorders characteristically seen in infancy/early childhood. Finally, there were some unresolved issues for the field since DC:0–3R was published that could be addressed with the benefit of a decade of clinicians' experiences using it.

In 2013, ZERO TO THREE appointed the Diagnostic Classification Revision Task Force to draft a revised and updated version of DC:0–3R, with an anticipated publication by the end of 2016. The Task Force examined large data sets on clinical and community samples of young children, studied clinical literature and other diagnostic systems, developed and disseminated a DC:0–3R survey of users worldwide, posted criteria for public comment, and gathered draft language and feedback from world-renowned experts who represented a variety of professional disciplines. The Task Force communicated via conference calls and met in person several times a year to develop diagnostic criteria and to draft and hone text. DC:0–5 is the product of this 3½-year effort. See box Highlights of Changes From DC:0–3R to DC:0–5.

Highlights of Changes from DC:0–3R to *DC:0–5™: Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood*

Changes in DC:0–5 include the following:

- The new edition includes disorders occurring in infants/young children through 5 years old.
- Each disorder includes a diagnostic algorithm to clarify how the criteria are to be used.
- Age limitations and duration criteria have been included when appropriate.
- Every disorder includes distress and/or functional impairment as a criterion.
- DC:0–5 extends criteria to younger ages when appropriate, including in some cases the first year of life.
- Links to the corresponding DSM-5 and ICD-10 disorders are included in the text for each DC:0–5™ Axis I disorder.
- DC:0–5™ introduces several new disorders including Relationship Specific Disorder of Infancy/Early Childhood, Disorder of Dysregulated Anger and Aggression of Early Childhood, Overactivity Disorder of Toddlerhood, and Early Atypical Autism Spectrum Disorder.
- A new Sensory Processing Disorders section has been added and includes Sensory Over-Responsivity Disorder, Sensory Under-Responsibility Disorder, and Other Sensory Processing Disorder.
- Axis II has been revised substantially. It includes a rating of the primary caregiving relationship(s) and a rating of the caregiving environment.

1 This section was adapted from *DC:0–5*.
2 As explained in the book, for brevity, we use the term "infant/young child" to refer to infants, toddlers, and young children.

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New Features of DC:0–5

The Diagnostic Classification Revision Task Force included representation from the professional disciplines of psychiatry, psychology, pediatrics, nursing, social work, and counseling. We decided early on that the revision would be substantial rather than a mere fine-tuning of DC:0–3R (see box Goals of DC:0–5). Whenever possible, we valued empirical evidence as the most important validity data for developing and refining criteria, but we also relied upon clinical expert consensus and practitioner clinical experience, including that of task force members.

The new features of DC:0–5 can be grouped into three categories: (1) global changes, (2) new disorders, and (3) revised axes. (See box Table of Contents of DC:0–5.)

Global Changes

Certain overarching changes apply throughout DC:0–5. These include:

- **Expands age range:** DC:0–5 expands the upper age limit from 3 years old to 5 years old and includes specific criteria for younger ages whenever appropriate, including in some cases the first year of life.
- **Includes a diagnostic algorithm for each disorder:** Each diagnostic algorithm lists the criteria that need to be met.
- **Requires distress and functional impairment:** DC:0–5 requires that every disorder causes distress or functional impairment in order to avoid pathologizing fleeting behavioral anomalies and typical individual differences.
- **Includes all disorders relevant for young children:** DC:0–5 includes all disorders relevant for young children; clinicians no longer have to refer to other nosologies when those diagnoses are applicable.
- **Includes cultural context:** DC:0–5 integrates culture throughout the text, adding and integrating international perspectives and examples.

Goals of DC:0–5

DC:0–5™: Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood is designed to help mental health and other professionals:

1. recognize mental health and developmental challenges in infants and young children, through 5 years old;
2. characterize the relationships and psychosocial stressors that contribute to mental health and developmental disorders into the diagnostic process;
3. organize the information gathered in assessment to systematically guide diagnostic classification and provide a solid framework from which case formulation and intervention designing can be done; and
4. encourage research on mental health disorders in infants and young children.

Table of Contents of *DC:0–5™: Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood*

Axis I: Clinical Disorders

Neurodevelopmental Disorders
- Autism Spectrum Disorder
- Early Atypical Autism Spectrum Disorder
- Attention Deficit Hyperactivity Disorder
- Overactivity Disorder of Toddlerhood
- Global Developmental Delay
- Developmental Language Disorder
- Developmental Coordination Disorder
- Other Neurodevelopmental Disorder of Infancy/Early Childhood

Sensory Processing Disorders
- Sensory Over-Responsivity Disorder
- Sensory Under-Responsivity Disorder
- Other Sensory Processing Disorder

Anxiety Disorders
- Separation Anxiety Disorder
- Social Anxiety Disorder (Social Phobia)
- Generalized Anxiety Disorder
- Selective Mutism
- Inhibition to Novelty Disorder
- Other Anxiety Disorder of Infancy/Early Childhood

Mood Disorders
- Depressive Disorder of Early Childhood
- Disorder of Dysregulated Anger and Aggression of Early Childhood
- Other Mood Disorder of Early Childhood

Obsessive Compulsive and Related Disorders
- Obsessive Compulsive Disorder
- Tourette's Disorder
- Motor or Vocal Tic Disorder
- Trichotillomania
- Skin Picking Disorder of Infancy/Early Childhood
- Other Obsessive Compulsive and Related Disorder

Sleep, Eating, and Crying Disorders
- Sleep Disorders
  - Sleep Onset Disorder
  - Night Waking Disorder
  - Partial Arousal Sleep Disorder
  - Nightmare Disorder of Early Childhood
- Eating Disorders of Infancy/Early Childhood
  - Overeating Disorder
  - Undereating Disorder
  - Atypical Eating Disorder
- Crying Disorder of Infancy/Early Childhood
  - Excessive Crying Disorder
  - Other Sleep, Eating, and Excessive Crying Disorder of Infancy/Early Childhood

Trauma, Stress, and Deprivation Disorders
- Posttraumatic Stress Disorder
- Adjustment Disorder
- Complicated Grief Disorder of Infancy/Early Childhood
- Reactive Attachment Disorder
- Disinhibited Social Engagement Disorder
- Other Trauma, Stress, and Deprivation Disorder of Infancy/Early Childhood

Relationship Disorders
- Relationship Specific Disorder of Infancy/Early Childhood

Axis II: Relational Context

Axis III: Physical Health Conditions and Considerations

Axis IV: Psychosocial Stressors

Axis V: Developmental Competence

Appendix A: Developmental Milestones and Competency Ratings

Appendix B: The Process of Revising and Updating DC:0–3R

Appendix C: ZERO TO THREE Diagnostic Classification Task Force (DC:0–3) and Revision Task Force (DC:0–3R)

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DC:0–5 expands the upper age limit from 3 years old to 5 years old and includes specific criteria for younger ages whenever appropriate.

- **Provides text:** DC:0–5 provides text that describes what is known about the clinical presentations, course, and correlates of almost every Axis I disorder.
- **Groups disorders into clusters:** DC:0–5 clusters disorders on the basis of similar features.
- **Includes crosswalk to other nosologies:** DC:0–5 includes links between each Axis I disorder and corresponding DSM-5 and ICD-10 codes.

New Disorders

Several new disorders were added to DC:0–5. These include:

- **Early Atypical Autism Spectrum Disorder** describes profound social abnormalities in children less than 2 years old. The disorder involves impairing features of Autism Spectrum Disorder but without the full symptom picture. Many of the children who meet criteria for this disorder may ultimately be diagnosed with Autism Spectrum Disorder, though others may not.
- **Inhibition to Novelty Disorder** defines extremes of behavioral inhibition that impair the infant's/young child's functioning. Infants and young children with this disorder show an overall and pervasive difficulty approaching new situations, toys, activities, and persons and experience impairing levels of distress.
- **Disorder of Dysregulated Anger and Aggression of Early Childhood** describes a new mood disorder in which the young child exhibits a pervasive and persistent pattern of mood and behavioral dysregulation. Of particular significance is the fact that this disorder is classified as a Mood Disorder rather than a Disruptive Behavior Disorder.
- **Relationship Specific Disorder of Infancy/Early Childhood** attempts to define relationship-specific symptomatic behavior in young children. The key feature of this disorder is that the symptomatic behavior displayed by the infant/young child is limited to one caregiving relationship. There is no specification for the particular behaviors exhibited, only that these behaviors are not present in other relationships and that the behaviors impair the child's functioning.
- **Overactivity Disorder of Toddlerhood** describes a syndrome of pervasive, persistent, extreme, developmentally inappropriate hyperactivity and impulsivity in young children. It affects young children who are impaired by symptoms of hyperactivity but do not necessarily meet criteria for Attention Deficit Hyperactivity Disorder. Of significance is the narrow developmental window for this disorder, with a lower limit of 24 months old and an upper limit of 36 months old.

Revised Axes

All axes were updated and revised. Key revisions include:

- **Axis I (Clinical Disorders):** Axis I has expanded the number of diagnostic categories and clinical disorders from the previous versions. DC:0–5 contains more disorders (42) than DC:0–3R (30) and the disorders are more closely aligned with those in the DSM-5 (American Psychiatric Association, 2013).
- **Axis II (Relational Context):** Axis II has been expanded to include noting not only the child-primary caregiving relationship (Caregiver-Infant/Young Child Relationship Adaptation) but also the child's contributions to the relationship and the child-family relationships (Caregiving Environment and Child Adaptation). The Parent-Infant Relationship Global Assessment Scale (PIR-GAS) and Relationship Problems Checklist have been replaced by a continuous 4-point rating scale is used for rating each of the components of Axis II.
- **Axis III (Physical Health Conditions and Considerations):** Axis III provides an expanded list of examples of physical, medical, and developmental conditions, and also emphasizes the direct and indirect implications of physical/developmental conditions on child-caregiver relationships and mental health.
- **Axis IV (Psychosocial Stressors):** Axis IV provides an expanded list of examples of stressors reflecting a more comprehensive consideration of potential life stressors for young children and their families.
- **Axis V (Developmental Competence):** Axis V has been expanded to capture a broad range of developmental competencies and includes a table to assist clinicians in identifying expected competencies through the first 5 years across various developmental domains (emotional, social-relational, language-social communication, cognitive, and movement and physical).

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Learning to Use DC:0–5: The DC:0–5 Training Model

ZERO TO THREE has developed a new DC:0–5 training model in order to provide one consistent and authorized training approach for U.S. and international practitioners. The 2-day, intensive practitioner training on DC:0–5 content and approach will be offered beginning in early 2017 and will be delivered by highly qualified and carefully trained ZERO TO THREE faculty (15 faculty members from across the U.S. and around the world). The DC:0–5 training offerings include:

- **DC:0–5 Training:** The 2-day comprehensive training on DC:0–5 targets advanced clinicians from fields of mental health, health, and early intervention who are responsible for diagnosis. The training includes the history and background around the need and development of a specialized diagnostic classification system for infancy and early childhood. The training also includes approaches to diagnosis from an infant mental health perspective that is developmentally informed, relationship based, contextual, and culturally competent. Participants will learn about the multi-axial approach to diagnosis as well as understanding the contents of each axis including Axis I Clinical Disorders. Only ZERO TO THREE offers this official DC:0–5 Training, and ZERO TO THREE expert faculty are all trained by the Diagnostic Classification Revision Task Force. Training participants can also join a community of practice calls following the training for support from peers, ZERO TO THREE, and a member of the Diagnostic Classification Revision Task Force.
- **DC:0–5 Overview Trainings:** ZERO TO THREE can provide overviews about the development and use of DC:0–5 through 90-minute workshops or webinars, half-day trainings, or full-day trainings. These overviews can be targeted for advanced practitioners as well as other staff who are involved in infant and early childhood services.
- **DC:0–5 Faculty Teaching Resource:** This resource is designed for college and university faculty and Infant and Early Childhood Mental Health certificate program faculty to use in clinical didactics or classroom coursework (e.g., infant-toddler mental health, disorders of childhood, assessment and diagnosis) The tool consists of a brief faculty guide which serves as a companion to a slide set with notes describing topics such as: development of a diagnostic classification system for infancy and early childhood, infant mental health, approaches to diagnosis, the importance of context (Axes III, IV, and V, and Cultural Outline), Axis II Relational Context, and Axis I Clinical Disorders.

Other DC:0–5 Resources

Additional DC:0–5 resources include:

- **Universal Crosswalk:** A universal crosswalk for DC:0–5, DSM-5, and ICD-10 has been developed and will be available on the ZERO TO THREE website with the release of the book. For more information, please refer to: zerotothree.org/dc05crosswalk.
- **Literature Reviews:** Review articles on several newly defined disorders (Early Atypical Autism Spectrum Disorder, Overactivity Disorder of Toddlerhood, and Relationship Specific Disorder of Infancy/Early Childhood), disorders that had been defined in DSM-5 but not in DC:0–3R (Attention Deficit Hyperactivity Disorder), and substantially revised disorders (Eating Disorders of Infancy/Early Childhood) were published in a special issue of the *Infant Mental Health Journa*l (Zeanah et al., 2016).

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Axis III provides an expanded list of examples of physical, medical, and developmental conditions, and also emphasizes the direct and indirect implications of physical/developmental conditions on child-caregiver relationships and mental health.

The Future of DC:0–5

Nosologies are always developed as good faith efforts to define disorders on the basis of the best available evidence at the time. Inevitably, they fail. One problem is that the quality and amount of evidence about the validity of diagnostic criteria of different disorders varies considerably. Also, descriptive classification of signs and symptoms is increasingly criticized as lacking meaningful anchors in etiology and pathophysiology. Finally, categorical approaches to mental health disorders are challenged as establishing arbitrary cut-points that fail to acknowledge that most psychopathology is continuously distributed in populations.

Nevertheless, lacking validity data about a number of early childhood disorders does not reduce the importance of characterizing what disorders are being treated and why—validating disorders is ongoing work that must continue for decades. Also, descriptive classification is the current state of the art, despite aspirational efforts to determine underlying neurobiological pathways involved in mental health disorders, so much as DSM-5 (American Psychiatric Association, 2013) is a descriptive system of classification, so is DC:0–5. Finally, clinicians must always make decisions about whether or not the degree of symptomatology and impairment constitutes a

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reason to prescribe a treatment or not. This decision necessarily dichotomizes what may be continuously distributed.

We acknowledge that these limitations hamper efforts to characterize young children's suffering, to communicate effectively with one another about the problems being targeted for treatment, and to design effective interventions tailored specifically to the needs of young children impaired by mental health disorders. The criteria of all disorders must be continually re-evaluated, refined, or discarded as new findings are incorporated and better understanding of nosologies is reached. This requires carefully planned and executed research that enhances understanding and effectiveness. The true test of the usefulness of DC:0–5 will be the degree to which it inspires careful empirical study to confirm its strengths, and especially, to expose its errors. We welcome these efforts.

Charles Zeanah, 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, post-traumatic 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* (a 4th edition is in development) and has served as presenter for 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 chaired the ZERO TO THREE Diagnostic Classification Revision Task Force.

Alice S. Carter, PhD, is a professor in the clinical psychology doctoral program and 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. With funding from the Health Resources and Services Administration and the National Institutes of Mental Health, she is currently working with early intervention agencies in the greater Boston region to improve systems of care in an effort to reduce disparities in rates and age of detection and services received. She is the co-author, with Dr. Margaret Briggs-Gowan, of the *Infant Toddler Social and Emotional Assessment* (ITSEA) and the *Brief Infant Toddler Social and Emotional Assessment* (BITSEA). She is the co-editor, with Rebecca Del Carmen, of the *Handbook of Infant, Toddler, and Preschool Mental Health Assessment* (2nd edition). 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 worked in a variety of roles including assistant director of public policy. She specializes in early childhood policy, specifically infant-early childhood mental health. She is the author of numerous publications including *Nurturing Change: State Strategies for Improving Infant and Early Childhood Mental Health*; *Supporting Infants, Toddlers, and Families Impacted by Caregiver's Mental Health Problems, Substance Abuse, and Trauma, A Community Action Guide*; *Making it Happen: Overcoming Barriers to Providing Infant-Early Childhood Mental Health; A Call to Action on Behalf of Maltreated Infants and Toddlers*; and *America's Babies: The ZERO TO THREE Policy Center Data Book*.

Dr. Helen Egger, MD, is the Arnold Simon Professor and chair of the Department of Child and Adolescent Psychiatry at New York University Langone Medical Center (NYULMC) and the director of the NYULMC Child Study Center. Previously, she was chief of the Division of Child and Adolescent Psychiatry at Duke University Medical Center and director of the Early Childhood Research Program in the Duke Center for Developmental Epidemiology. Her research focuses on the developmental epidemiology and developmental neuroscience of early childhood psychiatric symptoms and disorders with a focus on anxiety and other emotional disorders. She collaborated with computer and data scientists at Duke School of Engineering to develop methods for automatic analysis of early childhood emotions and behaviors using computer vision and machine learning algorithms. Her team released the first pediatric Apple ResearchKit app, Autism & Beyond, last fall in the U.S. with additional releases in South Africa, Argentina, Turkey, Singapore, and Australia coming this year. The team's next app will be Picky Eating & Beyond. Dr. Egger is a former Fellow and a current board member of ZERO TO THREE.

Mary Margaret Gleason, MD, is a pediatrician and child and adolescent psychiatrist at Tulane University School of Medicine. 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

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evidence-informed treatment algorithms to guide responsible treatment decisions. She is proud to have served on the Early Brain and Child Development Workgroup of the American Academy of Pediatrics and the Task Force on Integrated Care for the American Academy of Child and Adolescent Psychiatry. She is a former Fellow 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 Failure to Thrive Clinic, Schneider Children's Hospital, Petah Tiqva; an assistant clinical professor at the child psychiatry department, Tel-Aviv Sackler Medical School; and is the head of a 1-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. She created the Israeli World Association of Infant Mental Health (WAIMH) Affiliate in 2000, was its president from 2003 to 2007, is now honorary president of the Israel WAIMH Affiliate, and past 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.

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 National Child Traumatic Stress Network funded by the Substance Abuse and Mental Health Services Administration. She has authored numerous books, articles, and chapters on toddler development, 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 past president of ZERO TO THREE.

Kathleen Mulrooney, MA, LPC, IMH-E® IV (Clinical), works with ZERO TO THREE as content director, Infant and Early Childhood Mental Health. Kathy holds a master of arts degree in clinical psychology and is a licensed professional counselor in New Jersey. Kathy has an extensive history of clinical, training, administrative, and systems consultation experience, specializing in infant and early childhood mental health. In addition, Kathy has worked to support military and veteran families and has done extensive work in disaster and crisis response counseling and training. Kathy lead the development of the DC:0–5 training curricula offered through ZERO TO THREE and oversees the provision of DC:0–5 training worldwide through a network of expert faculty consultants, and other infant and early childhood mental health offerings to support professional development for infant/early childhood professionals.

Cindy Oser, RN, MS, is director of infant-early childhood mental health strategy at ZERO TO THREE and co-director of the Project LAUNCH Resource Center, part of National Resource Center on Mental Health Promotion and Youth Violence Prevention funded by the Substance Abuse and Mental Health Services Administration. 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. In addition to federal and state policy work, and providing technical assistance to states and communities, she currently serves as a member of the Board of the Ohio Association for Infant Mental Health.

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