Intersections Between Infant/Early Childhood Mental Health and Autism: Identification and Intervention

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AUCD Webinar
Assessment and Diagnosis of Autism Spectrum Disorder in Young Children: An Infant Mental Health Lens

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Overview

• Early identification of autism spectrum disorder

• Co-occurrence of ASD and other mental health concerns

• A model for interdisciplinary assessment of ASD within an infant mental health context
At what age are children with ASD typically diagnosed?

At what age did their parents typically have concerns about their child’s development?
How young do you think that ASD can reliably be diagnosed?
What do you think are the most important early signs of ASD in infants and toddlers?
Why should clinicians consider ASD in a child younger than age 2?
Autism Spectrum Disorder

Window of early intervention for autism spectrum disorder often missed:

• Parents typically had concerns by 12 to 18 months
• Broad window re age of onset of full ASD criteria, ranging from 14 to 36 months
• Average age of diagnosis of ASD is 3 to 4 years

See Table of symptoms in Infants/Toddlers and Preschoolers:
How can we determine at what age children with ASD can be reliably differentiated from children without ASD?

- Retrospective studies: problem of memory, etc.
- Initial studies used videos of children’s first birthday
- Prospective studies challenging since most children do not develop autism, so need huge number of subjects
- Now, a number of multi-site prospective studies have followed infant siblings of children diagnosed with ASD
- There may be some differences between children in high-risk groups and non-HR groups re ASD profiles
At what age can children with ASD be reliably differentiated from children without ASD?

- **6 months**: no reliable group differences (from multiple studies).
- Some studies suggest earliest signs may include:
  - more difficult temperament
  - differences in eye tracking (e.g. gaze at mouth instead of eyes; interest in geometric patterns rather than humans) (but no good behavioral correlate)
  - motor delays and atypical motor development
At what age can children with ASD be reliably differentiated from children without ASD?

- **12 months:** differences are emerging; parents may not perceive the changes (Ozonoff et al., 2010):
  - Decline in looking at faces
  - Decline in social smiling
  - Decline in examiner-rated social responsiveness
  - This is a *decrease* in social communication behaviors between 6 and 12 months, not just a failure to progress
  - Less pointing and waving compared to children with DD or language delay (Barbaro & Dissanayake, 2013)
At what age can children with ASD be reliably differentiated from children without ASD?

• 14 months:
  – some children are reliably diagnosed, with diagnoses that remain stable;
  – other children do not meet criteria at this age but later show clear ASD diagnostic pattern

• 24 months: clinical diagnoses of ASD by expert clinicians are clearly reliable and stable over time

• 36 months: many children diagnosed at age 36 months did not meet full criteria at 24 months
What are earliest signs to look for?

Reduced:
- Initiation of and response to joint attention
- Seeking of social interaction; social anticipation
- Eye contact
- Response to name
- Babbling
- Gestures, including pointing
- Imitation of others’ actions, sounds, facial expressions, etc.
- Positive affect

Increased:
- Intense visual inspection of objects
- Repetitive actions such as tapping & spinning objects
- Negative affect
What are earliest signs to look for?

• By 24 months, children with ASD are most clearly different from children with language delay or general cognitive delay in:
  
  – Joint attention (3-point gaze shifts; showing)
  – Affective expressiveness
What are diagnostic criteria for ASD in young children?

• **DSM-5:**
  - No separate criteria by age
  - Social communication/social interaction deficits
  - Restricted, repetitive patterns of behavior, interests, or activities
  - Symptoms present in early developmental period
  - Symptoms cause impairment
Introducing DC:0-5™

Get updates at www.zerotothree.org or see description https://www.zerotothree.org/resources/services/dc-0-5-manual-and-training
Multiaxial System

**DC:0–3R**
- Axis I: Clinical Disorders
- Axis II: Relationship Classification
- Axis III: Medical and Developmental Disorders and Conditions
- Axis IV: Psychosocial Stressors
- Axis V: Emotional and Social Functioning

**DC:0–5**
- Axis I: Clinical Disorders
- Axis II: Relational Context
- Axis III: Physical Health Conditions and Considerations
- Axis IV: Psychosocial Stressors
- Axis V: Developmental Competence
DDC:0–5™ Diagnostic Categories

- Neurodevelopmental Disorders
- Sensory Processing Disorders
- Anxiety Disorders
- Mood Disorders
- Obsessive Compulsive and Related Disorders
- Sleep, Eating, and Crying Disorders
- Trauma, Stress, and Deprivation Disorders
- Relationship Specific 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
Autism Spectrum Disorder (ASD)

- A neurodevelopmental disorder characterized by
  - severe impairments in social interaction and communication
  - presence of restrictive and repetitive behaviors
- Accurate and early identification is critical:
  - family and societal costs
  - prevalence higher than previously believed
  - importance of early intervention
ASD Symptoms

- The new DC:0–5 ASD symptoms are aligned with the DSM–5.
- All three social-communication and two of the four repetitive and restrictive behavior criteria must be met.
- Patterns of social-communication behavior are not better explained by sensory impairment, for example, vision, hearing, or other major sensory deficit.
- The symptoms must cause impairment to the infant/young child or family.
What are diagnostic criteria for ASD in young children?

- **Diagnostic Classification: 0 - 5 (DC:0-5)**
- **Autism Spectrum Disorder:**
  - Similar domains as DSM-5
  - Examples specific to younger children, such as:
    - Reduced or limited ability to initiate joint attention to share interests or emotions or to seek information about objects of interest in the environment
    - Reduced or limited ability to engage in reciprocal social games or activities that require turn-taking (e.g. peek-a-boo)
ASD Specifiers

The following **specifiers** are included with a diagnosis of ASD:

- With or without Global Developmental Delay
- With or without language delay
- Associated with a known genetic condition or environmental factor
- Associated with sensory processing abnormalities
- Age criteria is 18 months
New Insights on Early Course of ASD Symptoms

• It is possible to identify risk for ASD in some children at early as 9 months and in many children by 12 months.
• There appears to be a continuum of regression, or loss of skills – regression may be rapid or progress slowly
• The window of ASD disorder onset is quite broad, with children manifesting full symptom criteria for ASD between 14 and 36 months of age
• We need to identify children who are becoming symptomatic, to minimize the progression of symptoms
• Early Atypical –Autism Spectrum Disorder (EA-ASD) is designed to identify children who are evidencing impairing early signs and symptoms of ASD, but do not (yet) meet full criteria
Early Atypical Autism Spectrum Disorder (EA-ASD)

- Age: The child is younger than 33 months of age.
- All of the following criteria must be met:
  - A. The young child does not currently or did not previously meet criteria for Autism Spectrum Disorder.
  - B. At least two of the following three social-communication items must be present:
    - Limited or atypical social–emotional responsivity, sustained social attention, and/or social reciprocity
    - Deficits in nonverbal social communication behaviors
    - Peer interaction difficulties
EA-ASD Criteria (continued)

- C. Patterns of behavior in criterion B are not fully explained by sensory impairment.
- D. One of the four repetitive and restrictive behaviors must be present.
- E. Symptoms of the disorder, or caregiver accommodations in response to the symptoms, significantly impact the child’s and/or family’s functioning.

Thus, EA-ASD is designed to identify children who are evidencing impairing early signs and symptoms of ASD, but do not (yet) meet full criteria.
Overview of DC:0-5 ASD & EA-ASD Diagnostic Criteria

- Social Communication (SC) symptoms:
  - Limited or atypical social–emotional responsivity, sustained social attention, and/or social reciprocity
  - Deficits in nonverbal social-communication behaviors
  - Peer interaction difficulties

- Restricted/Repetitive Behaviors (RRBs):
  - Stereotyped or repetitive babbling/speech, motor movements, or use of objects
  - Insistence on sameness/ritualized behaviors
  - Restricted interests
  - Atypical sensory behaviors
The Diagnostic Timeline

*Long delays between first concerns and ASD diagnosis*

- Parents express concerns about child’s development
- Child receives a definitive ASD diagnosis
- Child receives an EA-ASD diagnosis

*Early intervention window*

Child’s age (yrs):
1 2 3 4 5 6

Birth
How Common are Mental Health Disorders in Children with ASD?
Prevalence of Mental Health Disorders in Children with ASD

- 70%: at least one other mental health disorder
- 41%: two or more mental health disorders

(Simonoff et al., 2008)

DSM-5: “When criteria for both ADHD and ASD are met, both diagnoses should be given. This same principle applies to concurrent diagnoses of ASD and . . . anxiety disorders, depressive disorders, and other comorbid diagnoses.” (pp. 58-59)
Most Common Co-Occurring Mental Health Disorders in Children with ASD

- Anxiety disorders (30 - 40%)
- Attention-Deficit Hyperactivity Disorder (30%)
- Aggressive behaviors (40 - 60%)
- Depression (10 - 12%)
Prevalence of Trauma in Children with ASD

Children with developmental disabilities:

- 18 - 20%: child abuse
- 14 - 17%: sexual abuse
- 18%: emotional abuse
- 10%: neglect
- 30%: bullied
Research on Co-Occurring ASD and Mental Health Symptoms in Very Young Children

Matson et al (2010)

- Toddlers aged 17 - 36 months with ASD
- Higher rates of:
  - tantrums
  - inattention/impulsivity
  - anxiety
  - eating problems
  - sleep problems
Many children with ASD need mental health services . . . Yet most do not receive any.
Our Program

• Early Childhood Mental Health Program at USC UCEDD at Children’s Hospital Los Angeles
• Assessment and intervention services for children aged birth to 5
• Funded through specialty mental health contract with L.A. County DMH
• Referrals from child welfare system, hospitals, and preschools
• Urban setting; families living in poverty
• 70% Latino/Hispanic families
Interdisciplinary Assessment

• Ages birth to 5 years
• Interdisciplinary team:
  – Developmental-behavioral pediatricians
  – Occupational therapists
  – Psychologists
  – Speech-language pathologists
• Referral questions:
  – Autism spectrum disorder & other DD
  – Impact of medical traumatic stress
  – Intersection of trauma, developmental delay, mental health symptoms
Therapeutic Assessment Approach

- Collaboration with family to co-create assessment
- Active participation of family in assessment
- Encourage self-discovery and meaning-making
- Reduce isolation and increase hope
- Use assessment as an intervention approach
  - Help parents develop narrative
  - Shift parents’ story of their child to greater understanding of child’s needs and strengths

- Developed by Finn & Tonsager (1997)
- Adapted for children by Smith (2010)
- Applied to infant mental health by Gart, Zamora, & Williams (2016)
Therapeutic Assessment Goals

1. Enhance parents’ understanding of their child’s development and needs

2. Strengthen caregiver-child relationship

Developmental disabilities are often first diagnosed in the early childhood period.

Therapeutic approach to assessment sets the stage for the family’s growing relationship with their child in the context of developmental challenges.
Approach to Interdisciplinary Autism Spectrum Disorder Assessment

- Autism Diagnostic Observation Scale - 2 (Psychologist or Developmental-Behavioral Pediatrician)
- Autism Diagnostic Interview - Revised (Psychologist)
- Cognitive assessment (Psychologist)
- Adaptive behavior assessment (Psychologist or Occupational Therapist)
- Communication, language, & speech assessment (speech-language pathologist)
- Occupational therapy evaluation
- Observation of parent-child play
Approach to Interdisciplinary Autism Spectrum Disorder Assessment

• Assessment of social-emotional functioning (psychologist and/or DBP)
• Observation of child in school and/or home setting (any team member)
• Physical exam (DBP)
• Consultation with child’s primary care physician
• Input from all professionals integrated into one report
Family-Centered and Culturally Appropriate Care

• Families are key team members
• All primary caregivers invited to participate
• Spanish-speaking families paired with Spanish-speaking clinicians
• Interpreters used for other languages
• Bilingual children receive linguistically-appropriate assessment
• Families receive detailed feedback and time to process
• Reports are translated into parent’s preferred language
• Follow-up is provided through linkage process
Selected Resources (full reference list upon request)

Autism Navigator: www.autismnavigator.com


Selected Resources (full reference list upon request)


TREATMENT OF ASD IN VERY YOUNG CHILDREN

Christine Raches, PsyD, HSPP, BCBA
Assistant Professor of Clinical Pediatrics
Riley Child Development Center-LEND
Objectives

- Define evidence-based practice
- Identify the evidence-based treatments for ASD and young children
  - *Describe ABA intervention and identify considerations in accessing ABA*
- Identify other interventions for young children with ASD
Therapies Discussed

- Infant Mental Health
- Applied Behavior Analysis
  - Early Start Denver Model
  - Floortime
Evidence-based practice (EBP)

- The integration of **best research evidence**, professional judgement, and values and preferences of client

Criteria for Qualification As An Evidence-based Practice

- Randomized or Quasi-experimental Design Studies: 2
- Single-subject Design Studies: 5
- Combination of Evidence: 1 + 3

http://autismpdc.fpg.unc.edu/what-criteria-determined-if-intervention-was-effective
Why choose EBP?

- No cure for ASD
  - *Existing therapies help manage core and associated symptoms and build skills*

- Be suspicious - long history of failed treatments and fads
  - *Claim of “cure” or “quick fix”*
  - *Personal testimonials in place of scientific evidence*

- Our responsibility to guide families toward EBP
  - *Do NO harm*
Families have options

- Behavior programs
- Medication
- Educational programs
- Other interventions
Characteristics of Effective Interventions

- National Research Council’s Committee on Educational Interventions for Children with Autism
  - Early entry into intervention
  - Intensive: full-day and full year (> 25 hours per week)
  - Direct, 1:1, and small group instruction
  - Systematically planned and developmentally appropriate educational activity toward measurable objectives
  - Individualized according to a child’s chronological age, developmental level, specific strengths and weaknesses, and family needs
  - If consistent with educational goals, specialized instruction should occur in setting with typically developing peers
  - Systematic inclusion of parents as interventionists
### EVIDENCE-BASED PRACTICES

*Indicates practices with newly developed content (2015-2016). Select the practice to access these modules and downloadable resources.

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** Indicates new EBP identified in 2014 review. Practice briefs are not available for these practices, but are currently being developed as part of AFIRM.

See the working definitions of each EBP in this excerpt from the 2014 Evidence-Based Practices for Children, Youth, and Young Adults with Autism Spectrum Disorder report. The full report is available here.
Common interventions for ASD

These are the 10 most commonly used interventions by parents

(but not all evidence-based or recommended)

- Speech and Language Therapy*
- Occupational Therapy
- Applied Behavior Analysis*
- Social Skills Groups
- Picture Exchange Communication Systems (PECS)*
- Sensory Integration Therapy
- Visual Schedules
- Physical Therapy
- Social Stories
- Casein-Free Diet

* = evidence-based

www.iancommunity.org/cs/ian_research_reports/treatment_report
What is Applied Behavior Analysis?

“Applied Behavior Analysis is the process of systematically applying interventions based upon the principles of learning theory to improve socially significant behaviors to a meaningful degree, and to demonstrate that the interventions employed are responsible for the improvement in behavior.”

Baer, Wolf, & Risley (1968)
Efficacy of ABA

■ 40 years of evidence documenting successful use of ABA procedures
  - Evidence-based treatment for ASD
    ■ National Professional Development Center on Autism
      - http://autismpdc.fpg.unc.edu/evidence-based-practices
    ■ Centers for Medicare and Medicaid Services
    ■ National Autism Center’s National Standards Project
    ■ Agency for Healthcare Research and Quality
Who can benefit from ABA?

- Is the individual having difficulties...
  - Learning?
  - Communicating and socializing?
  - Regulating behavior?
  - Engaging in activities of daily living?

- Not just for ASD...
  - Severe destructive behavior
  - Intellectual disability
  - Substance use
  - Seizure disorders
  - Dementia
  - Feeding and elimination disorders
  - Traumatic Brain Injury

https://www.autismspeaks.org/what-autism/treatment/applied-behavior-analysis-aba
Goals of ABA

- Replace problem behaviors
- Change responses to behavior
- Maintain and generalize skills
- Promote learning readiness
- Increase prosocial behavior
- Improve cognitive/academic skills
ABA: Many different approaches

- Discrete trial training
- Incidental teaching
- Verbal training
- Pivotal response training
- Natural language paradigm
- Relationship/developmental approaches

Early Start Denver Model
Floortime

https://www.autismspeaks.org/what-autism/treatment/applied-behavior-analysis-aba
EARLY START
DENVER MODEL
(ESDM)
Early Start Denver Model (ESDM)

- Developed by Sally Rogers, PhD, & Geraldine Dawson, PhD (2010)
- The Early Start Denver Model (ESDM) is an evidence-based intervention specifically developed for very young children with autism or who are at risk for being diagnosed with autism.
  - A “comprehensive, early intervention approach for toddlers with autism ages 12-36 months and continuing until 48-60 months…”
- ESDM is a play-based intervention that fuses behavioral and developmental principles into an integrated approach.
  - Uses the knowledge of how a typical baby develops to facilitate a similar developmental trajectory in young infants who are at risk for autism.
Early Start Denver Model

- Comprehensive behavioral intervention approach for children 12 to 48 months
  - Integrates a relationship-focused developmental model with well-validated teaching practice of ABA
    - Naturalistic applied behavioral analytic strategies
    - Sensitive to normal developmental sequence
    - Significant parental involvement
    - Focus on interpersonal exchange and positive affect
    - Shared engagement with joint activities
    - Language and communication taught inside a positive, affect-based relationship
ESDM can be implemented in different natural settings
- Examples include: Individual therapy sessions, group programs, therapy teams, at home by parents

ESDM aims to reduce the symptoms of autism and target all developmental areas.
Core Features of ESDM

- Naturalistic applied behavioral analytic strategies
- Sensitive to normal developmental sequence
- Deep parental involvement
- Focus on interpersonal exchange and positive affect
- Shared engagement with joint activities
- Language and communication taught inside a positive, affect-based relationship
Goals of ESDM

- Bring the child back into the social loop
- Teach the “building blocks” of social life
  - *Imitation*
  - *Emotion*
  - *Communication*
  - *Sharing experiences*
  - *Social and symbolic play*
  - *Language*
- Fill in the learning gaps that are present
FLOOR TIME
Floortime therapy derives from the Developmental Individual-difference Relationship-based model (DIR) created by child psychiatrists Stanley Greenspan, M.D. and Serena Wieder, PhD.

- DIR is the theoretical model for Floortime technique
  - D=Developmental    I=Individual differences    R=Relationship based

Its premise is that adults can help children expand their circles of communication by meeting them at their developmental level and building on their strengths.
What is DIRFloortime?

- Helps clinicians, parents, and educators
- Objectives: to build healthy foundations for social, emotional, and intellectual capacities rather than focusing on skills and isolated behaviors
- Therapy can start at birth and goes through adulthood
- Focus on ASD, other developmental challenges, emotional, and regulation problems
- Includes and focuses on the family/caregivers/support system
- Internationally recognized
- “It is a way to understand our children and each other that builds connections, understanding, love, communication, and engagement. Through this approach, the true potential of each person can be discovered.”

- [http://www.icdl.com/DIR](http://www.icdl.com/DIR)
Floortime aims to help children reach six developmental milestones crucial for emotional and intellectual growth. They are:

- Self-regulation and interest in the world
- Intimacy, or engagement in human relations
- Two-way communication
- Complex communication
- Emotional ideas
- Emotional thinking
Keys to Floortime

■ Focus on and involve family/caregivers
  – Coach parents on engagement, play, and communication

■ Floortime multiple times a day and everywhere

■ Follow the child’s lead and meet them “where they are”
  – Includes strong areas of interests and scripting

■ Help progress developmental ladder
■ Increase circles of communication (back and forth verbally or nonverbally)
■ Floortime emphasizes the critical role of parents and other family members because of the importance of their emotional relationships with the child
■ Focus on regulation
■ ALL behavior is treated as communication
INFANT/EARLY CHILDHOOD MENTAL HEALTH
I/ECMH

“Directs our attention to the well-being of all infants and toddlers within the context of secure and nurturing relationships”

(Fitzgerald, Weatherston & Mann, 2011)
Infant/Early Childhood Mental Health Definition
ZERO TO THREE (2002)

The child’s developing capacity to:

- Form close and secure interpersonal relationships
- Experience, regulate and express emotions
- Explore the environment and learn
- All within the context of family, community, and cultural expectations
Infant/Early Childhood Mental Health

- Is synonymous with healthy social and emotional development.
I/ECMH Interventions
Infant/Early Childhood Mental Health: Scope (Fitzgerald, et al., 2011)

- Promoting well-being
- Preventing risk
- Intervening in relationship disturbance
- Treated identified disorders
Infant/Early Childhood Mental Health: Emphases (Fitzgerald, et al., 2011)

- Adaptive behavior

- The possibility of change

- The importance of relationship, self-regulation and external events as organizing influences

- The impact of early years to development across the lifespan
Typical Components of I/EC Treatments

- Parallel Process
- Use of relationship-based approach
- Attention to parent-child relationship (dyad, triad)
- Strength-based
- Reflective practice emphasized
- Balance of attention—parent and child needs
Why dyadic intervention

- Because young children’s development is tied to close relationships...
- And, their well-being is tied to the emotional status of the caregivers
- Intervention methods that work through and with the caregivers are most effective
Typical Components of I/EC Intervention

- Concrete assistance/Ensuring safety
- Developmental Guidance/Education about development and behavior
- Coaching around effective response
- Connection or links made between parent historical and current relationships
- Parental attendance and participation are key to improvement
Typical I/EC Intervention Outcomes

- Increased parental reflective capacity (ability to see and respond to child needs)
- Enhanced parent-child relationship
- Improved/more effective parenting skills
- Reduction in trauma symptoms for parent and child
- Improved child behavior
I/EC MH Approaches

- Child-Parent Psychotherapy (0-5 y)
- Parent-Child Interaction Therapy (2+)
- Trauma Focused CBT (3+)
- Circle of Security (0-5 y)
- Incredible Years (0-5 y)