

Diagnosis and Treatment of the Nonverbal Child with Autism

Linda Lotspeich, MD, MEd
Stanford University

Conflict of Interest

- Linda Lotspeich, MD, Med
- Presenter's Disclosure: NONE

Course Objectives

- Autism Spectrum Disorders (ASD)
 - ◆ Spectrum reflecting level of severity according to intellectual abilities
- Today - Nonverbal Child with Autism
 - ◆ Severe to moderate severity of ASD
 - ◆ Classical Autism (this is the term I will be using)
 - ◆ Sometimes referred to as “low functioning autism”
 - ◆ Majority have mental retardation plus autism
- Today will cover
 - ◆ Diagnosis in the preschool years
 - ◆ Review management & Treatment

Course Outline

- Diagnosing a Preschool Child with ASD
 - ◆ DSM-IV Criteria
 - ◆ Differential Diagnosis
 - ◆ Best Practice Guidelines for Evaluation
- Epidemiology & Etiology (brief review)
- Treatment and Management
 - ◆ Early Intervention (review)
 - ◆ Structure with Visual Supports in the Home
 - ◆ The Role of Psychiatric Medications

Diagnosing a Preschool Child with ASD

DSM-IV Criteria PDD

■ Pervasive Developmental Disorders

- ◆ Autistic Disorder

- ◆ PDD-Not Otherwise Specified (PDD-NOS)

- ◆ Asperger Disorder

- ◆ Childhood Disintegrative Disorder

 - ☞ Rare, onset after 2 years old

- ◆ Rett's Disorder

 - ☞ Rare genetic disorder (MeCP2) in girls

Diagnosing a Preschool Child with ASD

Autistic Disorder

- Social Impairments (2)
- Communication Impairments (1)
- Restricted Range of Routines/Interests (1)

- Minimum of 6 criteria
- Prior to 36 months, abnormalities in one or more of the following:
 - ◆ social interaction
 - ◆ language as used in social communication
 - ◆ symbolic or imaginative play

Diagnosing a Preschool Child with ASD

Pervasive Developmental Disorder - NOS

- Social impairments
- Plus criteria in either of the two areas:
 - ◆ Communication impairments
 - ◆ Restricted range of routines & interests
- Not meet criteria for a specific PDD

Diagnosing a Preschool Child with ASD

Social Impairments

- Lack of nonverbal behavior
 - ◆ few facial expressions
 - ◆ few gestures (no social pointing)
 - ◆ Poor eye contact for joint attention
- Failure to develop peer relationships
 - ◆ Frequently N/A in 2 year old children
- A lack of spontaneous sharing of interests
 - ◆ no bringing or pointing out objects of interests
- Lack of social or emotional reciprocity
 - ◆ interactions one-sided; agenda oriented

Diagnosing a Preschool Child with ASD

Communication Impairments

- Delay in the development of language
 - ◆ not accompanied by gestures
- Inability to initiate or sustain a conversation
 - ◆ frequently N/A in 2 year old children
- Stereotyped language
 - ◆ immediate and delayed echolalia
 - ◆ frequently N/A in 2 year old children
- Lack of pretend or social imitative play
 - ◆ e.g. not pretending to feed themselves or stuffed animals
 - ◆ no initiation of peek-a-boo, patty-cake

Restricted Range of Routines & Interests (Third Area)

- Preoccupation with one or few interests
 - ◆ e.g. lining up toys, watching same video
 - ◆ frequently not seen in 2 year old children
- Adherence to nonfunctional routines
 - ◆ e.g. insistent on same route to school
 - ◆ frequently not seen in 2 year old children
- Stereotyped motor mannerisms
 - ◆ e.g. hand flapping or fist tremors
- Preoccupation with parts of objects
 - ◆ e.g. spinning wheels, visual inspection

Diagnosing a Preschool Child with ASD

Classical Autism: Differential Diagnosis

- Reactive Attachment Disorder
- Mental Retardation (only)
- Primary Language Disorder
- ADHD
- General rule:
 - ◆ Autism: “third area” symptoms
 - ◆ Autism: Social or language skills more impaired than expected for these other conditions

Diagnosing a Preschool Child with ASD

Best-Practices Dx Evaluation

- Types of Evaluations?
 - ◆ Eligibility for early intervention or special education
 - ◆ “Medical” evaluation (today’s presentation)
 - ◆ Both types should be done

Diagnosing a Preschool Child with ASD

Best-Practices Dx Evaluation

- Who can diagnose ASD
 - ◆ Clinician with experience in making the diagnosis in the age group of the child being diagnosed

 - ◆ As noted above teasing out the list of differential diagnoses is complex and requires in depth knowledge of child development in areas of language, cognition, social and behavior

Diagnosing a Preschool Child with ASD

ASD Screening Instruments

- 18 months and younger
 - ◆ Communication and Symbolic Behavior Scales Developmental Profile

- 18 - 48 months old
 - ◆ Modified Checklist for Autism in Toddlers (M-CHAT) - see handouts for copy

- 4 - 11 years old
 - ◆ Childhood Asperger Syndrome Test

Diagnosing a Preschool Child with ASD

Best-Practices Dx Evaluation

- Multi-disciplinary
 - ◆ Psychologist
 - ◆ Medical (Developmental Pediatrician or Neurologist or Psychiatrist or Pediatrician)
 - ◆ Other Mental Health Clinician
 - ◆ Speech and Language Therapist
 - ◆ Occupational Therapist
- History
- Cognitive (Developmental) Testing
- Physical Examination
- Autism Diagnostic Observation Schedule (ADOS)

Diagnosing a Preschool Child with ASD

Laboratory Tests

- Audiology evaluation for children with language delays
- For children with developmental delays and/or mental retardation
 - ◆ DNA for fragile X syndrome
 - ◆ High Resolution Karyotype
 - ◆ MeCP2 testing for girls with regression
- Other studies as indicated from physical examination and history

Epidemiology & Etiology

Prevalence of Autism

- Prior to the mid 1990s
 - ◆ 4/10,000
- Current Agreed Prevalence:
 - ◆ 6/1000 (CDC, 2007)
 - ◆ Includes Autism, Asperger & PDD-NOS
- Male:Female Ratio - 4:1 and higher for Asperger
- Seen in all ethnic and SES groups

Why The Increase?

- Broaden the diagnostic definition
 - ◆ Thus including high functioning autism, PDD-NOS and Asperger disorder
- Early intervention shown to improve the outcome of some children with autism
- Special Education (IEP) Category for Autism so more children identified

- Now a Major Public Health Concern

Medical Conditions

- Autism is associated with a known medical condition in less than 10% of children
 - ◆ Conditions Including:
 - ☞ Fragile X Syndrome
 - ☞ Tuberous sclerosis
 - ☞ Down syndrome

Medical Conditions

- Vaccines and Mercury Poisoning
 - ◆ Studies have shown no relationship between
 - ☞ MMR vaccine and autism
 - ☞ Thimerosal (mercury preparation) in vaccines and autism
 - ☞ thimerosal has been eliminated from most vaccines since early 2000

Genetics of ASD

- Multiple Genes in relationship with other unknown factors
 - ◆ Multifactorial
 - ◆ Many genetic studies and no specific “risk genes” identified at this time

- Sibling (Recurrence) Risk
 - ◆ 5 - 6%
 - ◆ Recommend genetic counseling

Early Intervention

- See Handout on Early Intervention Techniques

- Best Practice Guidelines:
 - ◆ *Educating Children with Autism*
 - ◆ By the Committee on Educational Interventions for Children with Autism, National Research Council,
 - ◆ The National Academy Press 2001
 - ◆ www.nap.edu/catalog.php?record_id=10017#toc

Classical Autism: Management and Treatment

Role of Mental Health

- Psychiatric Medication Management
- Parent Counseling:
 - ◆ Supporting parents in caring for their child with autism, sibling/s and themselves; caring for a child with classical autism places a major stress on the family and effects all family activities

Psychopharmacology by Target Behaviors

- Hyperactivity & Poor Attention
 - ◆ ADHD medications, some children become more active on stimulants
- Anxiety / Depression
 - ◆ SSRIs
- Perseverative / Ritualistic Behaviors
 - ◆ SSRIs, Atypical Neuroleptics, Mood Stabilizers
- Agitation & self injurious behaviors
 - ◆ Same as for perseverative behaviors

Research Evidence

- Risperidone
 - ◆ The only FDA approved medication to treat children with autism
 - ◆ Multisite study (McCraken et al 2002)
 - ☞ Common side effects:
 - mild to moderate weight gain
 - drowsiness
 - high blood sugar requiring monitoring
- Olanzapine and aripiprazole currently being studied

Parent Counseling

- Mental health therapists can provide a supportive environment where parents can discuss all aspects of caring for their child such as:
 - ◆ behavior outbursts
 - ◆ taking their child out into the community
 - ◆ relationship between child and sibling/s
 - ◆ how to discuss autism with extended family
 - ◆ parental conflict over child's care

Behavior Outbursts

- One of the most common parental concerns
 - ◆ Example: 7 year old Tommy with autism screams and hits his mother while she is driving the car. He had just been picked up from school and instead of the usual routine of going home his mother takes him to his grandparents to pick up his sister.
- common cause: lack of a communication and their need for routine

Behavior Outbursts

- Treatment is helping parents provide child with:
 - ◆ Communication system
 - ◆ Structured routine
- These are provided in the school program
- A common strategy - Picture Schedules
 - ◆ Many children have good visual abilities
- Suggest mental health therapists facilitate parents developing behavioral techniques the child's teacher is using

Visual Supports to Structure Routine

- Children with autism have difficulties with transitions
- It is hard for them to stop a known activity and change to an unknown activity
- They cannot always anticipate a reward so get upset as soon as they are unhappy like a toddler
- Visual Supports help the child anticipate the next activity and future activities
- Following slides has some specific examples of visual supports

Classical Autism: Management and Treatment

Sara's Transition Board

First Shoes on



Then go Swing



Classical Autism: Management and Treatment

Handling Transitions: 7 year old Tommy

■ Picture Schedule

- ◆ Car
- ◆ Grandparents
- ◆ Toy he likes at grandparents'
- ◆ Car
- ◆ Home
- ◆ watch *Sponge Bob* video

Management and Treatment

Visual Timers



Classical Autism: Summary

- Screened for as young as 18 months and younger
- Diagnosed by experienced clinicians
 - ◆ Developmental testing
 - ◆ ADOS
 - ◆ Medical assessment
- Siblings should be screened if any concern
- Mental Health Treatment is medication management and parent counseling