Autism Spectrum Disorders: An update on research and clinical practices for SLPs

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DSM-IV to DSM-5: Primary Changes

- DSM-IV
  - Previously we used the term Pervasive Developmental Disorders (PDD)
  - Separate categories under the overall PDD heading
  - 3 Core diagnostic domains

- DSM-5
  - What was formerly PDD is now termed Autism Spectrum Disorder (ASD)
  - Single diagnosis – ASD
  - But includes better ways to capture level of language, adaptive skills, IQ, etc. (specifiers and severity)
  - 2 Core diagnostic domains
- Social and communication combined into 1 domain

What can we do to improve early identification?

Recommendations or practice guidelines from:
- American Academy of Pediatrics
- American Academy of Neurology
- Centers for Disease Control
- Department of Health and Human Services

Recommendations for developmental screening

Administer ASD-specific screening tool:
- At any point when concerns about ASD are raised by parent or as a result of clinician observations
- At 18 and 24 month well checks for EVERYONE!

Specific practice parameter recommendations: Centers for Disease Control and Prevention

Learn the Signs. Act Early.
Free materials online:
- Milestone Checklists for age 2 months-5 years (English & Spanish)
- Flyers
- Tip Sheets
https://www.cdc.gov/ncbddd/actearly/freematerials.html

Specific practice parameter recommendations: American Academy of Neurology

- Clinical signs (indications for further evaluation) that can help identify children at risk for delay and/or ASD.
  - No babbling by 12 months
  - No gesturing (waving, pointing) by 12 months
  - No single words by 16 months
  - No spontaneous two-word phrases by 24 months
  - Loss of language or social skills at any age
**Early Identification: Screening vs. Diagnostic Processes**

**Screening**
- Requires minimal training
- Aptitude measures that are relatively easy to administer and score

**Diagnosis**
- Requires advanced clinical training and specialized experience
- Involves integration of information and the context of developmental history, family factors, and cognitive level

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**Stability and change in diagnosis**

- **Stable diagnosis ≠ Stable symptom severity**
- **Social Communication and Interaction**
  - Improvement in ASD and Non-ASD groups
- **Restricted and Repetitive Behaviors**
  - ASD showed increase in behaviors
  - Non-ASD stayed stable

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**What tool can we use for ASD-specific screening?**

- **Modified Checklist for Autism in Toddlers, Revised with Follow-Up (M-CHAT-R/F)**
  - Widely used and studied tool
  - Appropriate for children 16-30 months of age
  - Has 20 yes/no questions
  - Requires minimal training
  - Takes approximately 5 minutes to complete

- **Two options:**
  - Free version that you can print from website:
    - [https://www.m-chat.org/print.php](https://www.m-chat.org/print.php)
  - Free for parents to fill out right online:
    - [https://www.m-chat.org/mchat.php](https://www.m-chat.org/mchat.php)

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**How do you administer M-CHAT-R/F?**

1. Parents complete the M-CHAT-R/F.
2. You score the M-CHAT-R/F:
   - For all items except 2, 5, and 12, the response "NO" indicates ASD risk
   - For items 2, 5, and 12, the response "YES" indicates ASD risk
3. You decide what to do based on these guidelines:
   - **LOW-RISK**:
     - Total Score is 0-2; if child is younger than 24 months, screen again after second birthday
   - **MEDIUM-RISK**:
     - Total Score is 3-7; Administer the Follow-Up (second stage of M-CHAT-R/F on following day) to get additional information about at-risk responses
   - **HIGH-RISK**:
     - Total Score is 8-20; It is acceptable to bypass the Follow-Up and refer immediately for diagnostic evaluation and eligibility evaluation for early intervention.

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**Social (Pragmatic) Communication Disorder**

- **A new diagnostic category**
- **Under Communication Disorders in the Neurodevelopmental Disorders section**
Components of Social Communication

Why the addition to DSM-5

- Changes to DSM-IV PDD category
- Existing literature
  - Speech and language
  - Neuropsychological
  - Autism

The Role of the SLP

- Identify social communication deficits
- Implement an assessment protocol that informs differential diagnosis of primary impairments:
  - Structure language disorder
  - Pragmatic language disorder (now called SCD)
  - Deficits in multiple aspects of language

Language in ASD: Subgroups

Impact of ASD severity on language

Predicting "Language Status" (Time 1 V and NV DQ and change ***
Time 1 ADOS domain CSS and improvement ***
ADOS SA-CSS and improvement ***
NVDQ washes out findings)
Language Subgroups

Minimally Verbal

Grammatical Impairment

Language Impaired

Language Normal

Remained minimally or non-verbal at age 5 and did not have enough language to produce a spontaneous sample.

Normal range on non-verbal IQ, vocabulary, and some unstructured tests for their non-verbal IQ, vocabulary, and some unstructured tests similar to the OT group than group GI.

Standardized tests and spontaneous language samples indicated non-verbal IQ, vocabulary, and some unstructured tests similar to the OT group than group GI.

Responsiveness to speech: # of times a child responds to adult utterances

MLU – reference point for comparison of other behaviors

Word use – vocabulary diversity

Proportion of Echolalia

Proportion of inappropriate pronoun use

Social Use of Language – rating scales

Once general LD is established – focus on communication profile, keeping in mind typical ASD behaviors

- Responsiveness to speech: # of times a child responds to adult utterances
- MLU – reference point for comparison of other behaviors
- Word use – vocabulary diversity
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- Proportion of inappropriate pronoun use
- Social Use of Language – rating scales

Commun. functions

Directing others, self-directing, securing, reasoning, predicting, empathizing, etc.

Discourse management

Turning, initiating topics, maintaining, give and read cues

Presupposition

What does the partner know and need to know

Conversational manner

“Clear, brief, orderly”

Implemented in natural settings, involve shared control between child and therapist, utilize natural contingencies, and use a variety of behavioral strategies to teach developmentally appropriate and prerequisite skills.

Sample Intervention Goals Based On Core Challenges In Autism Spectrum Disorder

### Skills

- **Language and Joint Attention**
  - Autistic Navigator
  - National Autism Center (national standards project)
  - Autism Speaks

#### Prelinguistic Stages
- Turning pages and pointing to pictures in books
- Recognizing and using emotional states of self and others

#### Emerging Language Stages
- Producing a variety of speech sounds
- Understanding and using more sophisticated syntax

#### Advanced Language Stages
- Using effective strategies for turning pages and pointing to pictures in books
- Understanding and using more sophisticated syntax
- Expanding the use of spontaneous talk

### Social Reciprocity

- **Prelinguistic Stages**
  - Providing essential background information
  - Engaging in topic maintenance (e.g., elaboration, elaboration continua)

- **Emerging Language Stages**
  - Increasing frequency of communication across interactive partners
  - Maintaining interactions by taking turns

- **Advanced Language Stages**
  - Engaging in topic maintenance (e.g., elaboration, elaboration continua)
  - Maintaining interactions by taking turns

### Resources for overview of treatments in ASD...

- Autism Speaks
  - [http://www.autismspeaks.org/whats-autism/treatment](http://www.autismspeaks.org/whats-autism/treatment)

- National Autism Center (national standards project)

- Autism Navigator
  - [http://resources.autismnavigator.com/Account/Login?ReturnUrl=%2F](http://resources.autismnavigator.com/Account/Login?ReturnUrl=%2F)

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