Overview of Autism Spectrum Disorders: Maximizing Positive Outcomes

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ASD Track: Overview of Two Sessions

- Session 1:
  - Brief overview of ASD
  - Specific learning strengths and needs
  - General interventions for success – school/home
- Session 2
  - Mental health symptoms that co-occur with ASD
  - Overview of Facing Your Fears program for Children with High-Functioning ASD and anxiety (and their families)

The Autism Spectrum

Pervasive Developmental Disorders

- Autism
- PDD-NOS
- Asperger Syndrome

Similarities = Difficulties in 3 areas:

- Social functioning
- Communication/language
- Restricted activities and interests/Repetitive Behaviors

Abnormal Social Relatedness

- Lack of social/emotional reciprocity
- Problem maintaining and initiating interactions; lack of friendships
- Mechanical, stilted, and pedantic
- Tendency to be socially intrusive or awkward
- Lack of sharing of affect, interests
- Difficulty in perspective-taking
- Impaired use and understanding of nonverbal behaviors
- Verbal skills can mask social deficits

Abnormal Communication

- No general delay in the use of language
- Difficulty initiating and maintaining conversations and interactions
- Impaired pragmatics
- Literal style, absence of “chat”
- Topics may be circumscribed to own interests
- Lack of joint attention behaviors (younger children)
- Stereotyped, repetitive phrases
- Lack of pretend play, deficits in imitation

Repetitive Interests

- Repetitive actions, stereotypies
- Special interests, preoccupations
- Inflexible adherence to routines, rituals
- Preoccupations with parts of objects
- Special interests pervades into many aspects of life, including social interaction
Autism Spectrum Disorders

- Continuum of severity for core deficits
- Fluid boundaries between HFA, Asperger’s, PDD-NOS
- Symptom presentation influenced by:
  - IQ
  - functional communication
  - age
  - family context
  - associated features and co-occurring conditions (problem behaviors, medical, mental health, etc.)

Prevalence of ASD

- 1 in 88; 1% in North America; 2.6% South Korean study (CDC, 2012)
- 2/3 of children with ASD have average IQ
- More common in males; 5 times more likely (1 in 54 boys; 1 in 252 – girls)
- Prevalence affected by:
  - Broader definition of ASD
  - Early identification and early awareness
  - Children at younger ages are being diagnosed
  - Unexplained factors
  - Higher prevalence for siblings (2-18%)
  - In identical twins (36-95%); non-identical twins (0-35%)

Risk Factors for ASD

- Children born to older parents are at a higher risk
- Premature infants or babies with low birth weight are at greater risk (small %)
- Presence of developmental, psychiatric, neurologic, chromosomal, and genetic diagnoses. Co-occurrence of 1> non-ASD developmental diagnoses is 83%.

5 Major Themes for DSM-5 Revision

(Hepburn, 2010)

- Rethink core symptoms (e.g., social/communication together; symptoms change across age, language, overall impairment)
- Rethink subcategories, move towards ASD
  - Symptoms are indistinguishable among dx (Ozonoff, 2008)
  - Leads to obstacles in care (King, 2008)
- Assume other conditions will co-occur
- Apply a developmental perspective
  - Provide descriptors of symptoms during different development periods across lifespan (Wright, 2008)
- Add functional impact to diagnostic definitions
  - Include adaptive functioning

Etiology

- Neurobiological
  - Structure?
  - Chemical?
  - Interaction of multiple brain systems
- Possibly multiple causal factors
- Strong genetic component (known genetic conditions account for 10-20% of ASD)

Outcomes

- Diverse; more research needed
- High risk for co-morbid conditions and problem behaviors
- Some get married; most single
- Some fully employed; most underemployed
- Optimal outcome
Optimal Outcome (OO)(Fein & Colleagues, 2009)
- Verbal, Nonverbal and FSIQ > 77
- Vineland Socialization and Communication > 77
- Regular classroom, no aide
- Minimal pull-out for language, reading, etc.
- No ASD score on ADOS social/communication
- Diagnosis before age 5 from a specialist and verified
- Executive functioning is similar to TD children
- Mental health symptoms common in OO group – include ADHD, Tic Disorders and Specific Phobia
- 10-20% of children with ASD may have OO

Specific Learning Characteristics: Autism
- Strengths
  - Strong long and short term memory, especially for rote or factual information
  - Good visual discrimination
  - Visual perceptual skills
  - Good pre-literacy and literacy skills
- Areas of need
  - Organization
  - Auditory processing
  - Receptive/expressive language
  - Abstract reasoning and social understanding
  - Initiation
  - Adaptability
  - Generativity
  - Working quickly

Learning Characteristics: ASP
- Asperger’s Disorder—can present with a different learning profile:
  - Verbal/performance split
  - Deficits in math relative to reading
  - Poor handwriting
  - Poor visual-spatial ability
  - Disorganization
  - Gets lost easily; poor map reading

Additional Challenges: Executive Functioning and Theory of Mind
- Organization, planning, sustain attention, inhibiting inappropriate responses
- Inability to understand thoughts/feelings of others
- Comfort with adults; may have strong convictions and beliefs
- Difficulties with:
  - Explaining one’s behaviors
  - Understanding emotions
  - Predicting behavior or emotional states of others
  - Inferring intentions
  - Differentiating facts from fiction

Prevent Problem Behaviors Through Proactive and Preventative Strategies; Identify Skill Deficits and Teach!

Focus of Intervention Programs:
- Functional and spontaneous communication
- Social instruction (across settings)
- Cognitive/developmental/pre-academic skills
- Play skills and recreation/leisure activities
- Fine motor/gross motor and sensory functioning
- Independence, adaptive behavior and organizational skills
- Proactive approaches to challenging behaviors
Areas to Consider for Intervention

- Academic Interventions
- Unstructured Time
- Environmental Supports
- Social Competence

**Academic Interventions: First Steps**

- Comprehensive IEP
- Operationally defined objectives, prioritized with teaching plans
- Priming (pre-teaching)
- Classroom assignment modifications (instructional input and student output)
- Homework

Classroom Assignment Modifications (Janney & Snell, 2000)

- Instructional input
  - Visual supports to accompany lecture—overheads, outlines
  - Note taking: complete outline, skeletal outline, peer constructed outline
  - Provide models or demonstrations
  - Format changes—large group to small group or individualized instruction

Classroom Assignment Modifications (continued)

- Student Output
  - Vary the amount (quantity of work varies)
  - Vary the modality (alter method of assessment, oral presentation, written paper, project or demonstration, extra time, present information privately)
  - Consider parallel activities

Homework

**Common problems:**
- incomplete information about the homework due
- necessary materials did not come home
- homework completed but not turned in
- student does not understand homework
- homework is overwhelming!

**Solutions:**
- improve home/school communication
- use an assignment notebook
- consider PDA
- get parents out of the middle
- homework hotline
- establish routine for turning in homework
- study hall
- find a tutor
- use positive rewards

Long Term Projects

- Show student how to break large tasks into steps
- check-off when each step is completed
- observe completed steps, student may not report well

- Have regular meetings with student to monitor progress
- Send written description of large assignments (with due dates and steps) to parents
Unstructured Time (Myles & Adreon, 2001)
- Transportation/Bus
- Physical Education
- Lunch
- Changing Classes
- Before and After School

Environmental Supports
- Preferential Seating
- Organizational/Visual Strategies
- Home Base/Safe Person
- Travel Card
- Ticket Out

Organizational/Visual Support
- Physical structure and environment
- Organization systems for desks, backpacks and lockers
- Develop time lines for homework and other projects
- Task lists for school and home setting
- Visual schedule (day timer—smart phones)
- Cue cards to remember everyday rules

Visual Supports for Middle/High School
- Map of school outlining classes
- List of classes, books and other supplies
- List of teacher expectations and routines; homework assignments
- Outlines of notes, models of assignments
- List of test reminders
- Post-it notes/index cards on child’s desk for appropriate behavior (e.g., raise your hand)

Graphic Organizers (Myles & Adreon, 2001)
- Visual
- Consistent
- Allow for processing time
- Present abstract information in a concrete manner
  - hierarchical (linear); conceptual (characters’ actions and motivations); sequential (timelines); cyclical (circular flow of information)

Handling Challenging Behaviors: Consider the Underlying Message
- Is confused but has problems communicating under pressure
- Experiences negative affect but does not know how to manage
- Craves predictability
- Wants to interact but does not know how
- Thinks he cannot do something well, so does not try
Improving Social Competence

- Pragmatic language skills
- Social interactions
- Social awareness
- Relationship development
- Issues of Sexuality

Difficulties with social reciprocity does not mean...

- Lack of social interests
- Lack of social motivation
- Insensitivity
- Lack of conscience of remorse

Some individuals with HFA are extremely socially sensitive, but...

- They confuse or misread the cues they get from others
- They may take social information in, but do not know how to use it
- They have trouble accessing social intuition and rely on laws and rules

What skills do people with ASD actually need?

The concept of pivotal social skills (Schriebman, Koegel, Koegel)

Understanding nonverbal signals from others; signaling to others

- Voice tones – volume and inflection
- Facial expressions
- Gestures
- Posture

Differentiating situations

Behavior in library...... .....is the same as in the bank, dentist office, etc.

Behavior with little sister...... .....not the same as behavior with friends

Behavior in the cafeteria...... .....not the same as behavior in the classroom
Being flexible

- Doing things someone else’s way
- Not being first
- Waiting your turn
- Dealing with an unexpected event
- Accepting mistakes and defeat

Perspective taking: Understanding Intentions

- Is she telling me the truth?
- Is he being sarcastic?
- Is she angry with me?
- Accepting criticism
- Accepting and offering empathy

Social Communication

- Initiating interaction
- Engaging in conversations
- Giving/accepting compliments
- Making comments/asking questions
- Apologizing
- Interrupting

So, how do you teach these skills?

Direct Instruction Approach

- Social Skills groups (inclusion of typical peers/naturalistic environments)
- Adult-directed activities
- “Lesson-like”
- Involves lots of practice and repetition
- Reinforce effort and attention and scaffold enough to ensure success
- Goal is to master basics – think of learning a foreign language!!

Social Narratives

Purpose:
- To teach social rules and the reasons why situations are handled in certain ways
- To increase cognitive flexibility
- Provide alternatives and/or coping strategies

Review Carol Gray’s website or the following references – Social Stories/Comic Strip Conversations

Gray, 1993; Gray, 1994; Fullerton, Stratton, Coyne, & Gray, 1996
Naturalistic Teaching

- Narrating situations (Tony Attwood calls this “being an anthropologist”)
- Setting up play/social situations that you can subtly observe and teach through
  - Bring good models into your house/classroom and structure play/social activities to encourage active participation
  - Prime or prepare individual with ASD
  - Choose shared activities that emphasize strengths and are cooperative, not competitive

Cognitive-Behavioral Approaches

- Write out scripts of common social scenarios (e.g., answering phone, meeting new people)
- Using videotape modeling
  - Watch videotapes of the individual interacting with others
  - Watch good examples of social behavior
  - Narrate and instruct

Skills for College Success (Laura Klinger, 2012)

- Personal flexibility and basic independent living skills
- Network of peers/professors who can provide support
- Recognize need for assistance and ability to ask for help
- Understanding social elements of lectures (e.g., humor, metaphorical language, etc.)
- Personal insight; the need to think critically
- Ability to work in a small group
- Resiliency

Tips for Parents/Caregivers (from My Resource Notebook)

- Begin treatment as soon as you can
- Learn facts about autism
- Maintain daily routines
- Do something for yourself every day
- Consider and seek out respite
- Consider personal mental health support
- Remember to appreciate your child’s gifts
- Give yourself time to adjust and cope

To Sum it Up

- Individuals with ASD have deficits in:
  - reciprocal social interaction
  - communication
  - restricted interests.
- Individuals with ASD respond to direct intervention and systematic instruction!
- To promote success:
  - academic intervention
  - environmental supports
  - supporting unstructured times
  - improving social competence

Resources

- www.autismspeaks.org
- www.autismcolorado.org
- www.researchautism.org
- www.thearcofco.org
- www.p2p-co.org
- www.peakparent.org
- www.familyvoicesco.org
- www.caregivernetwork.org
- www.empowercolorado.com
- www.ccdconline.org
- www.coddc.org