STRATEGIES TO HELP INDIVIDUALS WITH ASD DEVELOP INDEPENDENCE AND ADAPTABILITY

Meghan Barlow, Ph.D.
Pediatric Psychologist

MEGHAN BARLOW
AND ASSOCIATES

CHALLENGES IN DIAGNOSIS: MISCONCEPTIONS AND REALITIES

Updates to DSM-V Criteria for ASD

- Now categorized as a Neurodevelopmental Disorder
- It's all ASD
- Less of a focus on verbal language development
- Symptoms in the "early developmental period," but may not be evident until later in life
- Can also be diagnosed with ADHD now
- Includes sensory aspects
- Level of support needed in each domain is identified

DSM-V Criteria: A. Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history

1. **Deficits in social-emotional reciprocity**
   - Abnormal social approach
   - Failure of back and forth interactions
   - Reduced sharing of interests, emotions, or affect
   - Failure to initiate or respond to social interactions

APA, 2013

2. Deficits in **nonverbal communicative behaviors** used for social interaction
   - Poorly integrated verbal and non-verbal communication
   - Abnormalities in EC and body language
   - Deficits in understanding use of gestures, nonverbals
   - Lack of nonverbals or expressions

- 3. Deficits in **developing, maintaining, and understanding relationships**
   - Difficulty adjusting behavior to social context
   - Difficulty in sharing imagination
   - Difficulty making and keeping friends
   - An absence of interest in peers

Social Communication Misunderstood

- He's so "*SOCIAL!*"
- She makes *eye contact*
- He plays *pretend*
- She wants friends…she even *has* friends!
- He has *conversations* with us
- Sometimes she's totally "*normal!*"

DSM-V Criteria: B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least 2 of the following, currently or by history:

1. **Stereotyped or repetitive** motor movements, use of objects, or speech
   - Simple motor stereotypies
   - Lining up toys
   - Echolalia (immediate or delayed)
   - Idiosyncratic phrases

APA, 2013

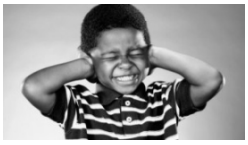
2. Insistence on **sameness, inflexible adherence to routines, or ritualized patterns** of verbal or nonverbal behavior
   - Extreme distress with changes
   - Difficulty with transitions
   - Rigid thinking

- 3. Highly **restricted, fixated interests** that are abnormal in intensity or focus
  - Strong attachment to or preoccupation with unusual objects



  - Excessively circumscribed or perseverative interests

4. Hyper- or hypo-reactivity to **sensory input or unusual interest** in sensory aspects of the environment
   - Indifference to pain/temperature
   - Adverse response to sounds/textures
   - Excessive touching or smelling of objects
   - Visual fascination with lights or movement



- C. Symptoms must be present in the early developmental period (**but may not become fully manifest until social demands exceed limited capacities**, or may be masked by learned strategies later in life)
- D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning
- E. Disturbances are not better explained by intellectual disability or global developmental delay

APA, 2013

GOING BEYOND THE DSM-V

The individual with autism's eye view

What You *Don't See*

- Hand flapping and monologues about ceiling fans are obvious
- Does it matter that *you* are in the room?
- Does it matter *how* you respond? And why does it matter?
- Are you being used? How?
- Going through the motions vs. depth and novelty

Differences We See: Information Processing

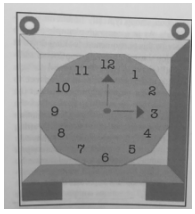
- Theory of Mind
  - Mindblindness
  - Unable to interpret others' actions or intentions leads to inability to see the big picture and adjust behavior accordingly (as in the cartoon about nonverbal communication)

Differences in Information Processing

- Weak Central Coherence Theory
  - Missing the forest for the trees
  - Difficulties putting information together to form context (i.e., missing the big picture)
  - Inability to see the relationship between components (i.e., detail oriented bias)
  - Homograph test – difficulty with appropriate pronunciation of homonyms (i.e., there was a tear in her dress vs. there was a tear in her eye)
  - Inability to holistically integrate the components of a social situation to comprehend greater meaning
  - Trouble distinguishing emotions, responding appropriately, adjusting behavior to context, comprehend the relevance of emotions in social situations
- OR….

Differences in Information Processing

- Not deficits in getting the big picture, but a superior ability to process features
- Embedded Figures Task
- Block Design on Wechsler IQ tests



Differences in Findings in Literature

- SO, the Hierarchization Deficit Model proposes that differences in performance on visuospatial tasks
  - Equally capable of performing global and local tasks, but "default" differs
  - Neurotypicals default = global; ASD default = local
  - And, studies vary in how they measure performance
  - And, you met one person with ASD and you've met one person with ASD (meaning, heterogeneity in ASD poses a challenge)
  - And, range of functioning poses a challenge (severity of ASD may be correlated with intensity of difference in central coherence)

- Kumar, 2013

Complex Information Processing

- Minshew et al. (1998); Bertone et al. (2005) highlight the importance of the complexity of the task
  - "superior when autonomous, inferior when synchronized" explains the difference in performance of more complex vs. less complex visuospatial processing in ASD
  - A processing pathway that is efficient and superior for an isolated task (less complex tasks)
  - As components are added to increase the complexity of the task, visual areas are required to work in sync and that's when the person with ASD's processing becomes less efficient

• Kumar, 2013

Neuroimaging Findings

- Using fMRI with Embedded Figures Tasks
  - ASD use visual processing; Neurotypicals use executive functioning
  - Neurotypical controls also activate verbal working memory
  - Suggests lack of coordination between executive functioning areas and visuospatial sensory processing in ASD

• Kumar, 2013

Differences in Information Processing

- Theory of functional underconnectivity (a neural model of ASD)
  - Individuals with ASD rely on posterior regions of the brain to work in autonomy rather than in collaboration with frontal regions to perform visuospatial and cognitive tasks
  - There is no I in TEAM!
    - As tasks increase in complexity, NTs are able to employ all players on the team
    - Social cognitive, cognitive, problem solving, high level language comprehension, inhibition – all require teamwork!

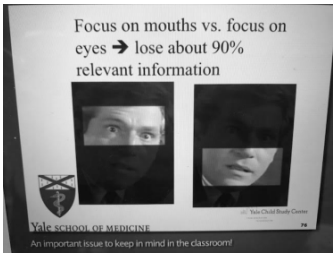
• Kumar, 2013

Eye Tracking and Face Scanning

- Volkmar's research
- Who's Afraid of Virginia Wolf?
- Individuals with ASD compared to NT

Individuals with ASD

Individuals with ASD miss out



Eye Tracking and Face Scanning

- Yi et al., 2013
- Children with ASD fixated less on faces than age and IQ matched NT children
- ASD group spent less time looking at the right eye than NT control groups
- AND, when looking at the left eye, ASD group actually looked at area slightly below the eye whereas NT controls tended to look at the pupils

What's wrong with the right?

- Right side of the face typically more emotionally expressive
- Supports greater difficulty in ASD in understanding facial expressions and emotions
- Could explain deficits in joint attention, helps us understand weaknesses in understanding intentions

BUT HE *CAN* IDENTIFY EXPRESSIONS

MOST OF THE TIME

More About The Mouth

- Repeated studies show gaze focuses on the mouth and less at eyes
- But many people with HFA *can* recognize faces and expressions
- More difficulty when complexity of social understanding increases
- What is it about the mouth?
  - Avoiding eyes/more emotional information?
  - Mouths move and emit noise?
  - Compensatory strategy?

Why the Mouth?

- Neumann et al., 2006 Identifying emotional facial expressions
- Normal accuracy and face gaze with upright faces
- When difficulty of task increased, normal accuracy BUT gaze differences noted – ASD group looked much more often and longer at the mouth
- Results suggest individuals with ASD rely more on information from the mouth for emotional judgments

Research Lab vs. Real Life

- Clear demonstration that we sometimes see differences and we sometimes do not
- General agreement that the more complex a task and the more integration of skills required, more trouble individuals with ASD have

Processing of Emotional Responses

- Cassidy et al., 2014 and 2015
- Participants presented with a person's spontaneous emotional response to receiving a gift (unwanted/wanted) then have to infer which gift they received
- Retrodictive Mindreading – common form of emotion processing in everyday life
- Did ok except with more subtle emotional responses (genuine and feigned positive)
- In real life, spontaneous emotional responses are subtle (and filled with mixed messages!)
- Static vs. Dynamic

Processing of Emotional Responses

- Participants presented with video clips or static pictures while eye movements recorded
- Told they would see videos or pictures of people receiving either a box of chocolates, fake money, or a tacky glitter card
- Asked to judge which gift the person was given and state the person's emotion
- Emotion response was coded as positive, negative, pretend, or confused

Processing of Emotional Responses

- Individuals with ASD were more accurate overall when presented with pictures rather than video
- When they have more time to process (pictures), tend to be more accurate
- But for mixed messages, individuals with ASD tended to rely on speech content rather than other nonverbal cues to help them determine emotions
- When speech content isn't there (as in when presented with pictures), they show difficulty interpreting mixed emotional responses (i.e., smiling in confusion)

Anxiety

- Rates vary; seems clear that anxiety is very much a part of ASD
- Intolerance of Uncertainty
  - Desire for predictability
  - Uncertainty paralysis
  - Rely less on prior knowledge and making connections

Boiling it down

- Individuals with ASD *can* process information but
  - They tend to focus on 1 piece of information at a time and have trouble integrating
  - They tend to need more time to make sense of everything all together
  - Mixed messages, subtle cues, and very complex situations make it much harder
  - We see this in people with ASDs brains, behavior, and everyday functioning
  - We don't always see this in…

Where It Doesn't Always Show Up

- Standardized tests in a 1:1 test situation
- Routine, predictable situations
- Calm situations
- Situations where the messages are consistent

Why Is This Important?

- People with ASD aren't always identified in schools as having deficits
- But have difficulty managing the demands of social situations throughout the day
- Accuracy and ability to successfully navigate situations is inconsistent
- Just because they *can sometimes* doesn't mean they *always will*
- Fight or Flight or Freeze often misperceived as behavior problem

What Can We Do?

- Evaluate complexities
- Move to video and real life vs. static
- Calm things down and isolate
- Keep messages consistent
- Be clear with language, facial expressions
- Allow for processing time
- Teach about confusion and asking for clarification
- Provide ways to decrease sensory demands
- Routines, process, predictability

The Individual with Autism's Eye View

- First hand accounts
- Beyond ASD, understand that individual
- Avoid rubber stamping interventions, plans
- As individuals develop (and develop greater awareness of their strengths and weaknesses), involve in treatment planning

Don't Underestimate Anxiety

- Fight or Flight or Freeze
- Avoidance and escape behaviors can be difficult to manage, and don't forget the individual is suffering, too
- Recognize triggers, clues, signs that anxiety is escalating
- Teach anxiety management skills
- Learn crisis management skills

Or Sensory Experiences

- Sensory Simulations on You Tube
- Shopping at Walmart (among others)

Resources

- Temple Grandin (TED Talk: "The World Needs All Kinds of Minds," I Think in Pictures)
- Aspie Trainers Blog (aspietrainersblog.wordpress.com)
- Autism Speaks (www.autismspeaks.org); Autism Speaks Canada (www.autismspeaks.ca)
- You Tube, Facebook posts, blog posts

The second problem is that stereotypes remove a person's individuality. Consequently an individual's unique needs and abilities can be overlooked. For example, contrary to the stereotype, many autistic people are very socially interested. They might crave human contact and friendship, but really struggle to connect with others on an instinctive level. Therefore, they might spend a lot of time observing other people or reading books about how to behave in a socially acceptable manner. Given enough time, they might become quite good at being social. They might have learnt how to do basic small talk, and they might try very hard to make eye contact. This might create the impression that they have overcome their social difficulties, when this could not be further from the truth.

What is often hidden from view is the amount of effort this social mimicry involves, because the person with autism has to consciously work out every social rule. This means that socialising is seldom a relaxing activity. Even if it appears superficially that the person is coping, the person with autism can feel very lonely and isolated because they are all too aware that a genuine connection with others is often beyond their reach. Unfortunately, other people, meaning well, might tell the autistic person that they must be 'mild' or 'can't be that autistic'. These comments, which are based on the idea that autism invariably involves social disinterest, are hurtful because they diminish the individual's painful lived experience as an *autistic* person…Each person with autism has their own set of unique challenges, strengths, and coping strategies. Mimicking social behaviour is one such coping strategy that I have learnt very well, despite the fact that socialising is incredibly tiring and stressful. If other people assume that my autism is 'mild' just because I am not behaving inappropriately, they might overestimate my capabilities. Therefore they might attribute the occasional social faus pas to deliberate intention or laziness instead of the inevitable outcome of a neurological disability.

The third negative outcome of autism stereotypes that follows on from the above is that it overlooks the invisible nature of autism. What I mean by this is that, unlike disabilities such as cerebral palsy, you cannot always tell that someone is autistic. This is particularly the case for autistic people who do not conform to the stereotype. Would you ever guess that the softly spoken girl at work, who takes an interest in your weekend and loves talking about people, was autistic? It is possible that she might come across as slightly anxious and dreamy. But unless you spent a lot of time with her, you might not notice any obvious sign of disability. If she gets things repeatedly wrong at work, and needs a lot of reminders and supervision, you might wonder what the reasons are for her slowness. You probably won't consider the possibility that she could be autistic.

I mention this hypothetical situation with the hope that it will encourage you to look beyond the stereotype. Autism is not always obvious. It can be well hidden. And this is precisely why many individuals with autism struggle in silence, and develop mental health problems such as depression and post traumatic stress disorder.

I hope that this brief outline of why stereotypes can be harmful will encourage you to not make assumptions about autistic people. Always start with the individual, and avoid jumping to conclusions. Autism can be expressed in an infinite number of different ways. No two people with autism are the same.

-- Taken from aspietrainersblog.wordpress.com