

# Diagnosis and Treatment of the Verbal Child with Autism/Asperger's

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# Conflict of Interest

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

# Acknowledgements

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# Course Objectives

- High end of the autism spectrum
  - High Functioning Autism (HFA)
  - Asperger's Disorder
  - Pervasive Developmental Disorder - NOS
- Diagnosis
- Neuro-cognitive Styles
- Management/Treatment
- Focusing on the Middle School Aged Youth

# Course Outline

- Define: Autism Spectrum Disorders
- Diagnosing: Asperger and HFA
  - DSM-IV Criteria & Differential Diagnosis
- Mental Health Management & Treatment
  - Neuro-cognitive Styles
    - Theory of Mind
    - Executive Functioning
    - Central Coherence
  - Stress Reduction & Skill Building

# Autism Spectrum Disorders

- Spectrum
  - Severity according to intellectual abilities
  - Which includes language abilities
- Severe end of the Spectrum:
  - Nonverbal to poor language abilities
  - Many individuals also have mental retardation
- Milder end of the Spectrum:
  - Adequate to excellent language abilities
  - Low average to above average IQ

# DSM-IV Criteria

- Pervasive Developmental Disorders
  - Autistic Disorder
    - full spectrum
  - Asperger Disorder
    - only on mild end of the spectrum
  - PDD-Not Otherwise Specified (PDD-NOS)
    - full spectrum
  
  - Childhood Disintegrative Disorder
  - Rett's Disorder

# Autistic Disorder - DSM-IV

- 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

# Asperger's Disorder - DSM-IV

- Social Impairments (2)
- Restricted Range of Routines/Interests (1)
  
- Communicative phrases by 36 months
- Lack delays in cognitive development
  - Interpreted IQ > 70
- Do not meet criteria for autistic disorder
- Clinically significant impairment in social or other areas of functioning

# Confusing DSM-IV Criteria

- ASPERGER'S DISORDER
- DSM requires
  - “lack delay cognitive development”
    - Most interpret this as  $IQ > 70$
  - Communicative phrases by 3 years
- DSM does NOT require age of onset
  
- AUTISTIC DISORDER
- DSM does NOT require
  - $IQ < 70$
  - Communicative phrases after 3 years
- DSM requires age of onset

# 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

# 12-year-old Tommy

- Currently diagnosed with ADHD and Bipolar Disorder
- Lack of social skills
- Severe behavioral problems
  - Screaming, hitting, biting peers, siblings and parents
  - As a result he is on a minimal school day
- Not controlled adequately with medication
  - Risperdal, Lithium and Prozac
  - Twice Hospitalized Psychiatrically
  - Discharge dx R/O Asperger's Disorder

# 12-year-old Tommy

- Parent's Concerns:
- “screams, hits, bites peers, siblings & adults”
- “minimal school day”
- “no realization of his thoughts or reality”
- “impulsive”
- “his judgment is very poor”
- “he is in denial of his behaviors” “no remorse”
- “all of a sudden gets angry, sad or happy”

12-year-old Tommy

# History - Cognitive/School

- Mild motor and language delays: 12 – 24 months
- Phrases by 36 months
- Kindergarten:
  - Hid under the desk,
  - Refused to go to school on time
  - Repeated Kindergarten
- Third grade refused to go to school
- Fourth grade
  - School evaluation – below grade level
  - IEP for specific learning disability
  - Resource room services

12-year-old Tommy

# History - Focus on ASD

- **Social**
  - “Lack of social skills”
  - One friend, a boy he talks to about Star Wars
  - Poor eye contact
- **Communication**
  - Does not talk a lot; except about his interests
  - Never engaged in pretend play
- **Restricted Range of Interests, Routines, Behaviors**
  - Spends hours arranging Star Wars toys in patterns
  - When he younger: lined up toys
  - Perseverates on upcoming events

12-year-old Tommy

# Autism Diagnostic Observation Schedule (ADOS)

- Structured Play/Interview
- 4 models based on age and language skills
- Tasks to elicit social interactions or discussion on social interactions, insight, empathy
- Scoring:
  - Autism Range
  - Autism Spectrum Range
  - Not ASD
- Only a tool - not used as final diagnosis

12-year-old Tommy

# Autism Diagnostic Observation Schedule (ADOS)

- Score across all tasks
- Example: looking at a picture of beach resort
  - Use to start up conversation (e.g. vacations)
  - Opportunities to ask examiner about herself
- It is the mental status exam for ASD
  - Suggest training on ADOS (Module 3 and 4)
  - Then Incorporate some ADOS items in your mental status examinations

# Autism Diagnostic Observation Schedule (ADOS) - Module 3

- Social
  - Eye contact inconsistent
  - Flat facial expression (few partial smiles)
  - No spontaneous social overtures
  - No empathy
  - Poor insight into social relationships
    - Friendship
    - His role

12-year-old Tommy

# Autism Diagnostic Observation Schedule (ADOS) - Module 3

- Communication:
  - Incomplete sentences
  - No stereotyped language
  - Poor reporting of events
  - No conversation; ignored my comments
  - Only spoke to answer questions with minimal elaboration

12-year-old Tommy

# Autism Diagnostic Observation Schedule (ADOS) - Module 3

- Restricted Interest, Routines, Behaviors:
  - Kept bringing up Star Wars
  - No compulsive routines
  - No stereotyped motor movements
  - Fidgeted during verbal tasks
  - More coherent when fidgeting with something in his hands

# Mental Status (Pertinent Information)

- Flat Affect
  - smiled once - excitement with Star Wars Toy
- Mood “I don’t know”
- Thought Content
  - Unremarkable
  - “I believe in Santa Claus”
- Other Observations:
  - He acted like a 4 – 5 year old
  - While interviewing his mother, he played outside the office with preschool toys

# Cognition/Adaptive Abilities

- IQ
  - Average Range
- Academic Testing
  - Functioning at 1 - 2 years below grade level
- Vineland Adaptive Behavior Scales
  - Socialization - Standard Score: 55
    - Coping Skill Age Equivalent (AG) - 2.5 years
    - Leisure Skill AG - 4 year
    - Interpersonal Relationships AG - 4 years

12-year-old Tommy

# Diagnostic Impression

- Asperger's Disorder
  - Social Impairments (3)
  - Restricted Range of Routines/Interests (1)
  - Phrase language by 36 months
  - Lack of cognitive deficits (average IQ)
- Learning Disability in Reading and Math
- Anxiety Disorder - NOS

12-year-old Tommy

# Other DSM-IV - Differential

- Asperger's disorder or ADHD
  - Poor attention span and hyperactivity related
    - Anxiety
    - Internally preoccupied with interests
- Asperger's Disorder or Bipolar Disorder
  - Outbursts
  - Loud
  - monopolizing conversations

# Social Impairments

- Lack of nonverbal behavior
  - Few facial expressions
  - Poor modulation of eye contact
- Failure to develop peer relationships
  - For developmental level (e.g. no close friendship)
- A lack of spontaneous sharing of interests
  - Frequently this criterion is NOT met
- Lack of social or emotional reciprocity
  - interactions one-sided; poor empathy

# Communication Impairments

- Delay in the development of language
  - Frequently this criterion is NOT met
- Inability to initiate or sustain a conversation
  - Usually one sided with minimal or no reciprocity
- Stereotyped language
  - e.g. delayed echolalia, pedantic speech
- Lack of pretend or social imitative play
  - Frequently this criterion is NOT met

## Restricted Range of Routines & Interests

- Preoccupation with one or few interests
  - e.g. Tommy - Star Wars
- Adherence to nonfunctional routines
  - e.g. clothing, food, routes,
  - Overlap with OCD compulsions
- Stereotyped motor mannerisms
  - e.g. hand flapping or fist tremors
- Preoccupation with parts of objects
  - e.g. spinning wheels, visual inspection
  - Frequently this criterion is NOT met

## Diagnosing a School-aged Child with ASD

# Differential Diagnosis

## Sometimes Co-morbid Conditions

- Asperger's Disorder & HFA
  - ADHD
  - Anxiety Disorders including Social Anxiety
  - Bipolar Disorder
  - Childhood Onset Schizophrenia
  - Depression
  - Learning Disabilities
  - Parent - Child Problem

12-year-old Tommy

# Education

- Consider an IEP to address social impairments, learning disability and anxiety resulting in aggressive behaviors
- Consider a special day class for children with Asperger's Disorder
- Consider Mental Health Services be added to IEP

# Mental Health: Management & Treatment

- Psychopharmacology
  - Refer to Presentation on Nonverbal Child with Autism
- Psychotherapies using specific strategies developed for ASD
  - Social Skills Groups
  - Individual Psychotherapy
  - Parent Counseling
  - Family Therapy

12-year-old Tommy

# Treatment

- First Step to Treatment is for parents and teachers to understand Tommy's behaviors
- Neurocognitive Theories
  - Perspective Taking
    - Theory of Mind
  - Planning and Organizing
    - Executive Functioning
  - Big Picture vs Details
    - Central Coherence

# Perspective Taking (Theory of Mind)

- The ability to infer mental states of others:
  - Intentions
  - Beliefs
  - Desires
- This is done by reading facial expressions, tone of voice, behavior, listening to the person's comments all within a context.

# Theory of Mind

- First Order False Belief Test
- Second Order False Belief Test
- Advanced Tests

# Theory of Mind

- Recognizing False Beliefs in Others
  - The Sally - Anne Task
    - First Order False Belief
  - Sally and Anne are playing
  - Sally places her marble in a basket
  - Sally leaves the room
  - Anne takes the marble and places it in a box
  - Sally returns
  - WHERE WILL SALLY LOOK FOR HER MARBLE?
- 4 year old children solve these tasks

# First Order False Belief Study

- Down Syndrome
  - 10 years old, Developmental Age of 5 years
- Autism
  - 11 years old, Developmental Age of 9 years
- Down Syndrome 86% correct
- Autism 20% correct
- Baron-Cohen et al, 1985

# Theory of Mind

- Recognizing False Beliefs in Others
  - The Sally - Anne Task (Second Order False Belief)
  - Sally and Anne are playing
  - Sally places her marble in a basket
  - Sally leaves the room
  - Sally peeks through the key hole
  - Anne takes the marble and places it in a box
  - Sally returns
  - WHERE DOES ANNE THINK SALLY WILL LOOK FOR HER MARBLE?
- 6 year old children solve these tasks

# Theory of Mind -Functional MRI Language of Eyes Task

- Functional MRI
  - measures increased blood flow to active brain areas
- Adolescents with Asperger & High Functioning Autism
- No activation of amygdala
  - Baron-Cohen et al, 2000



SYMPATHETIC

UNSYMPATHETIC

12-year-old Tommy

## Planning and Organizing (Executive Functioning)

- Develop strategies and rules to obtain a goal
  - Sequencing, prioritizing
  - Show flexibility of thought and action
  - Self-reflection and self-monitoring
  
- Persons with Asperger's Disorder are:
  - Rigid and inflexible
  - Do not anticipate consequences well
  - Do not consider choices
  - Appear impulsive
  - Homework is a serious problem

# Big Picture versus Details

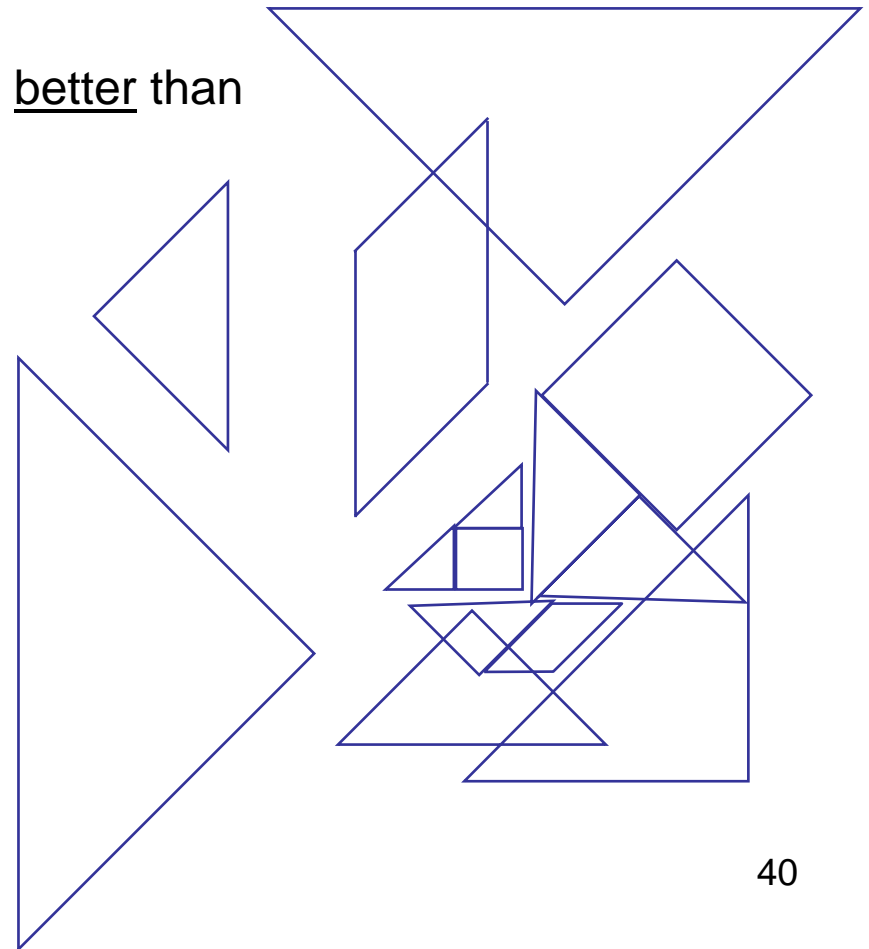
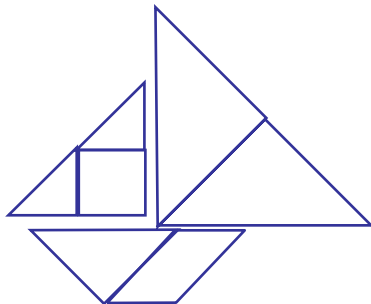
## (Central Coherence)

- Whole and the Parts
  - Like the picture
  - Geometric Shapes or Rabbit
- Strong Central Coherence
  - Focus on the “whole” minimize the details
- Weak Central Coherence
  - Excellent attention to details
- “Cognitive Style”
- Either end of the continuum could interfere with optimal functioning



# Central Coherence Study

- Children's Embedded Figures Test
  - Find the embedded figure
    - Sailboat below
  - Persons with autism performed better than persons without autism
  - Shah & Frith 1983



# Big Picture versus Details

## (Central Coherence)

- Persons with ASD
  - Upset with minor changes in routine
  - Excellent memory
  - Concrete
  - Rule-bound
  - Have difficulties understanding abstract concepts
  - Socialization is very abstract and fluid



# Everything Takes Effort

## Examples for Tommy



Star Wars  
Being Alone

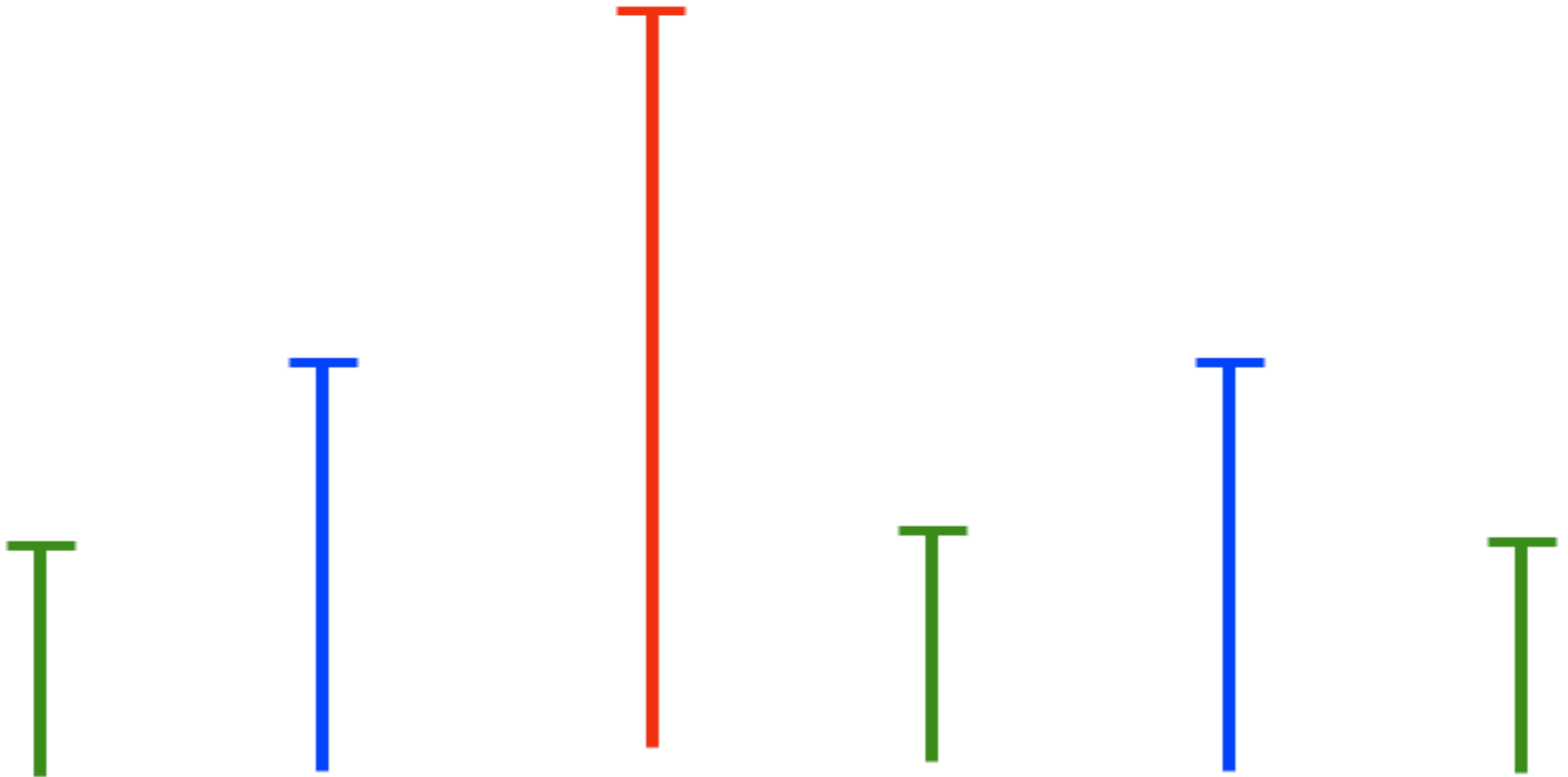


Maybe -  
Talking 1 Friend

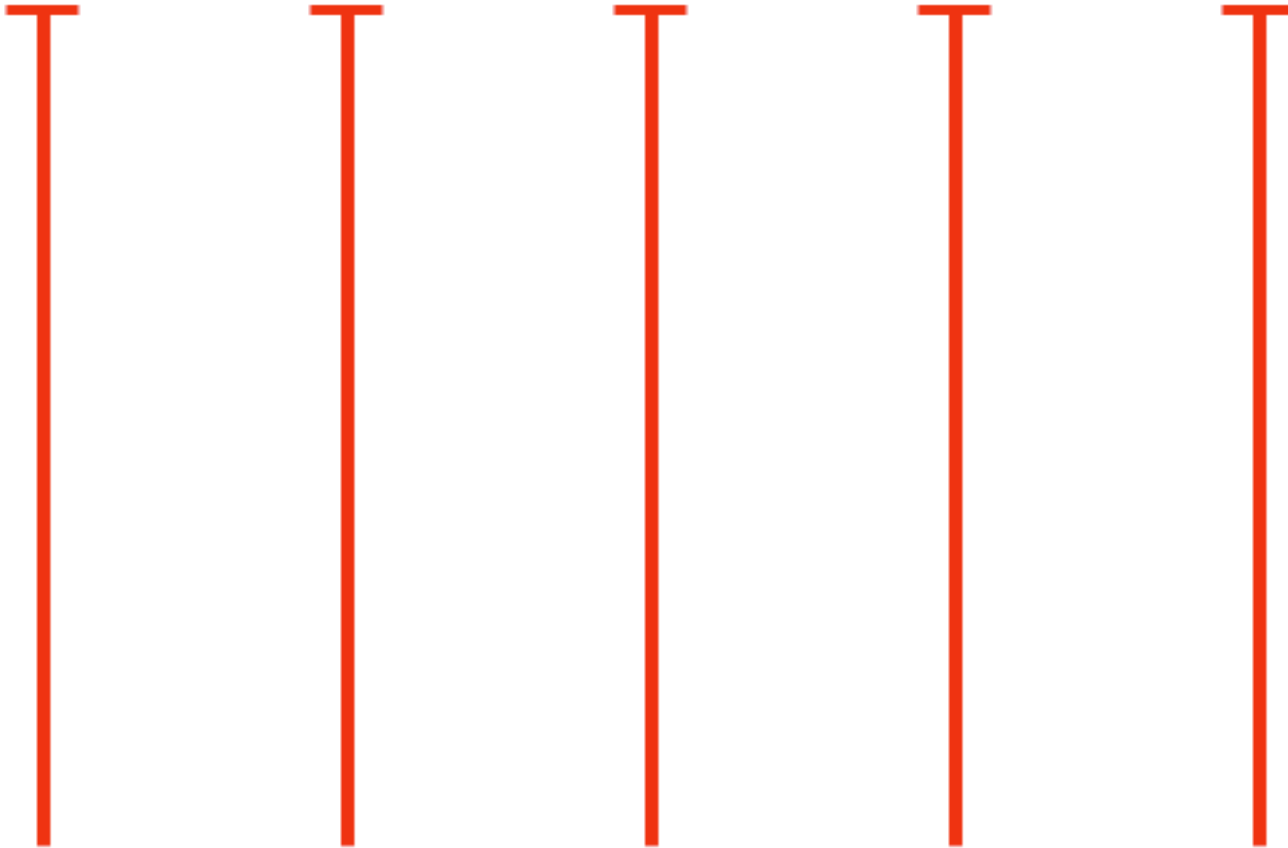


School Lunch Time  
Talking with Parents  
School Work

# Effort: Average Person



# Effort: Person with ASD Need for Stress Reduction



# Treatment

## Behavioral Strategies

- First: Stress Reduction (Today's Focus)
- Followed by: Skill Building
- Frequently youth are frustrated, overwhelmed, and too stressed-out to start with skill building activities
- Like teaching a drowning person how to swim instead of throwing them a life preserve

# Stress Reduction Strategies

- Break Tickets
- Incredible 1 - 5 Scale
- Crisis Contract (Handout)
- Visual Supports
- Few Guidelines - Reinforcement Systems

# Break Tickets

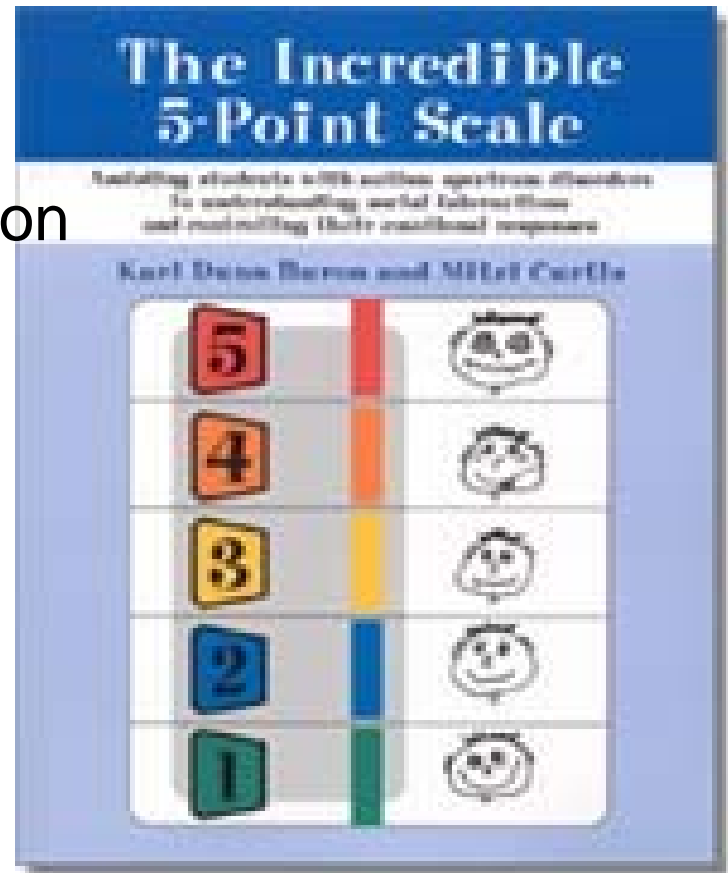
- Tickets indicate
  - Break Activity
  - Break Duration
  - Break Location
- Empower child to take a break
- Child learns to monitor need for break
- Parents/teachers also suggest break
- Reduce behavioral outbursts

# A Break has to be Restorative

- Many children with Asperger's Disorder do not find recess, lunchtime relaxing and for many it is the most stressful time of the day
- True breaks must be restorative
- Self-stimulation behaviors OK

# Emotion Rating Scales: “The Incredible 5-Point Scale”

- Baron & Curtis (2003)
- Describes how to use emotion rating scales to teach self-regulation in ASD
- Can be used for a variety of behaviors and responses, including anxiety, anger, personal space, and other social skills





# Visual Support

## Tommy's Calming Choices



**Trampoline**



**Computer Game**



**Car Ride**



**Walk the Dog**

# Example: Visual Choice Board

When kids on the playground tease me, I can:

Tell them nicely to leave me alone

Find a teacher and ask for help

I could also play close to a teacher or adult, so they won't bother me

I can also take some deep breaths and remember my relaxation thoughts

# Making the Morning Better Checklist!

- Choose clothes for school tomorrow

What's the weather going to be like?

Pack lunch and put in fridge

- Pack backpack

Don't forget homework, binder, & "parent notes"

Put backpack by the door

- TV!!

# Reward Systems - Guidelines

- Avoid using Negative Consequences
  - Kids with ASD sensitive about being wrong/bad
  - Loss of points, privileges etc - upsets them
  - Can trigger an outburst
- Recommend Positive Rewards
  - We will exert more effort to get something we want
  - Providing baseline privilege
  - Tommy can earn more
    - everyday has 15 minutes for video-games after school
    - for completing homework assignment
    - earn more minutes (e.g. 10 minutes)

# When Meltdowns Occur: What NOT to do!

Remember:

Social Emotional Mental Age is that of a Preschooler

- Approach child or touch them
  - This can provoke physical aggressive
- Avoid sudden abrupt responses
- Talk too much
- Ask them to apologize
- Ask them to act a certain way
- Talk too much yourself

# When Meltdowns Occur: What to Do!

- Goal: avoid escalation
- Focus on safety
  - Remove harmful objects
  - Move others out of the area
- Acknowledge angry/frustrated emotion
- State you want to help
- Introduce calming activity
- Refer to the crisis contract (handout)

# Skill Building: Social Thinking

## Social Stories

- Social Stories™
  - Developed by Carol Gray
  - [www.thegraycenter.org](http://www.thegraycenter.org)
  - Key Components:
    - Written from the child's perspective
    - Describes the setting
    - Describes the perspective of others involved
    - Gives clear guideline/rule of expected behavior
  - Best when personalized, developed with the youth

# Skill Building: Social Thinking Social Stories

- Books by Carol Gray Provide Guidance for:

How to manage “Bullying”  
Daily Activities for Young Children  
Using Comic Strips

# Skill Building: Social Skills Training Groups and with Individuals

Michelle G Winner

Center for Social thinking, Inc.

[www.socialthinking.com](http://www.socialthinking.com)

Books Including:

- Thinking about You, Thinking About Me
- SuperFlex... a Superhero Social thinking Curriculum
- Strategies for Organization; Preparing for Homework and the Real World

# Skill Building: Individual Psychotherapy

Asperger Syndrome and Psychotherapy:  
Understanding Asperger Perspectives  
by Paula Jacobsen

Description of her therapy with youth

Asperger's: What Does It Mean to Me? by  
Catherine Faherty & Gary Mesibov  
Manual to use with Asperger/HFA

# Our Schedule!

First 15 minutes of Q & A

Then - Break

Pick Your Break Activities

