



# Understanding Your Child's Dual Diagnosis: Autism Plus ADHD or Anxiety



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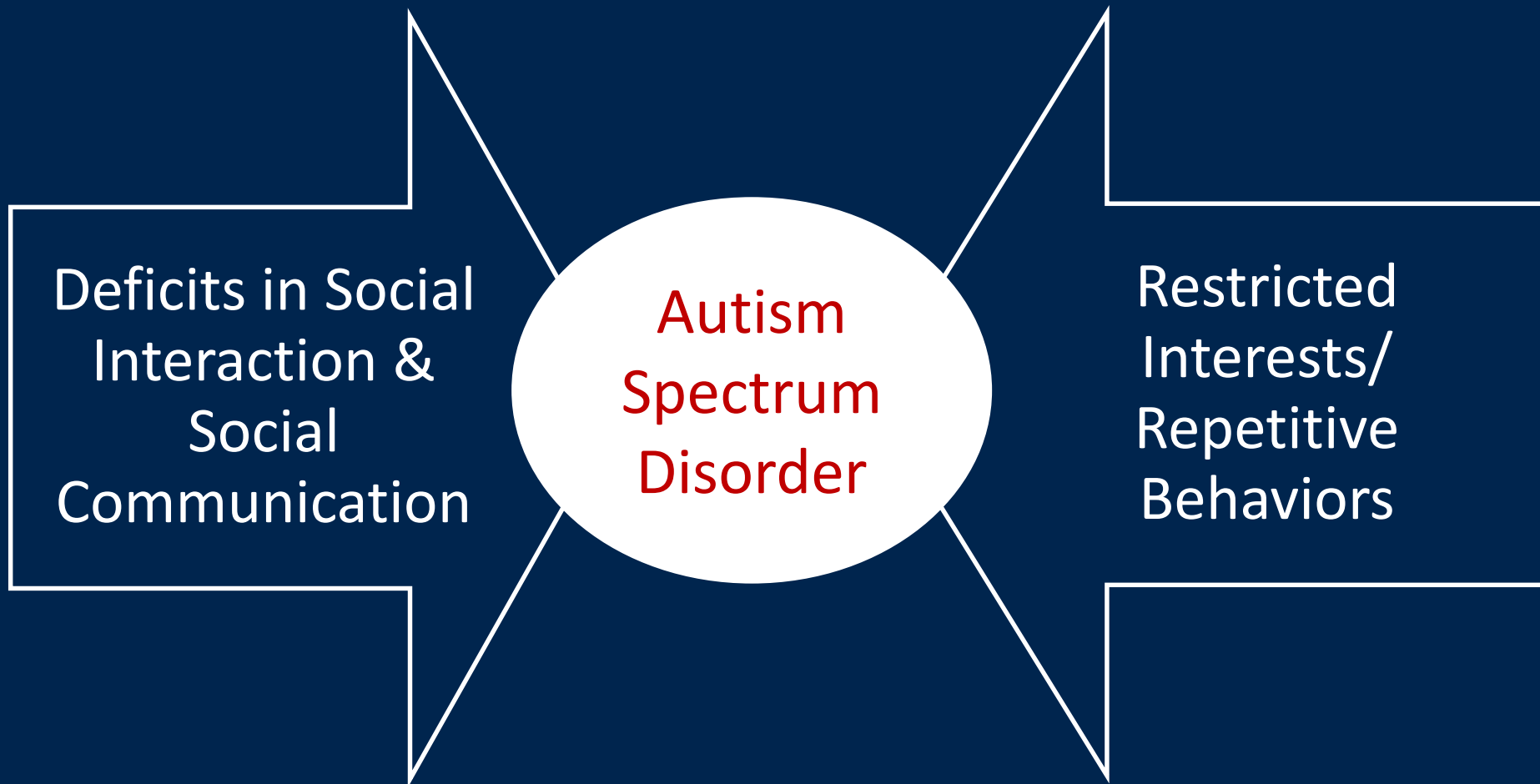
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# Overview

1. Briefly review ASD symptoms (social interaction and social communication deficits; restricted interests/repetitive behavior symptoms).
2. Discuss ADHD subtypes, symptoms, and evidence-based treatments.
3. Provide an overview of anxiety disorders, symptoms, and evidence-based treatments.

# What is Autism Spectrum Disorder (ASD)?



## Deficits in Social Communication and Interaction

- Deficits in social-emotional reciprocity
- Deficits in nonverbal communication
- Deficits in developing, maintaining, and understanding relationships

## Restricted Interests/Repetitive Behaviors

- Stereotyped or repetitive motor movements, use of objects, or speech
- Insistence on sameness, inflexible adherence to routines, or ritualized patterns of behavior
- Highly restricted, fixated interests
- Hyper- or hyporeactivity to sensory input or unusual sensory interests

DSM-5, American Psychiatric Association, 2013

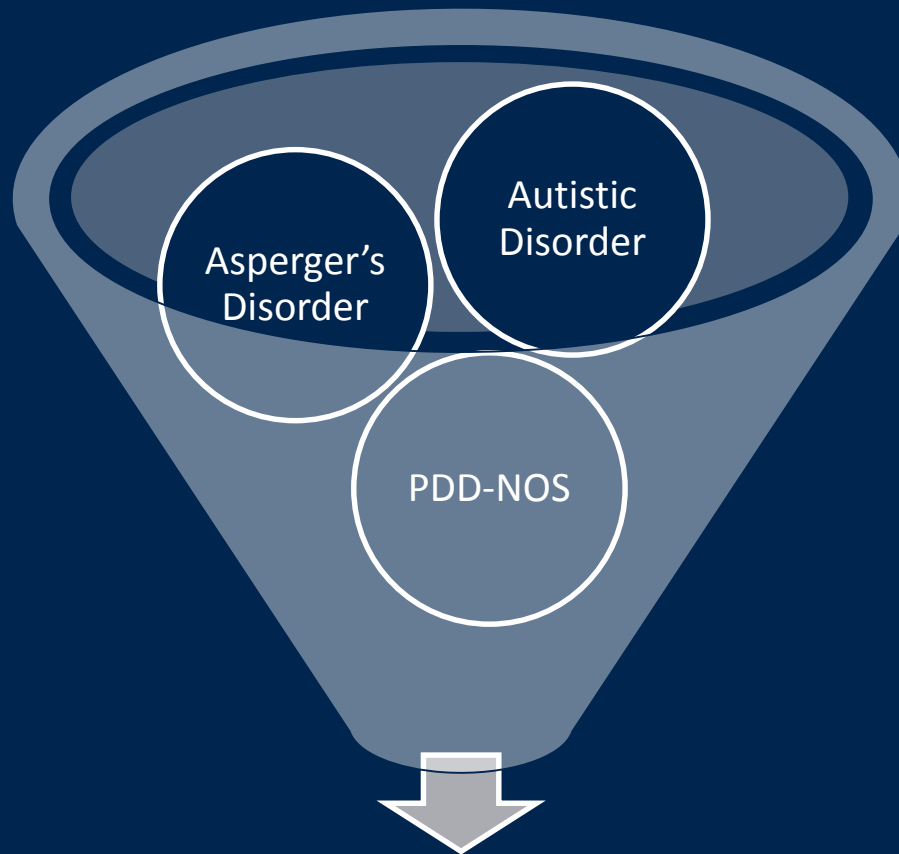


## Symptoms present in early developmental period

- May not fully manifest until social demands exceed limited capacities
- May be masked by learned strategies in later life

## Clinically Significant Impairment

Symptoms NOT better explained by intellectual disability or global developmental delay



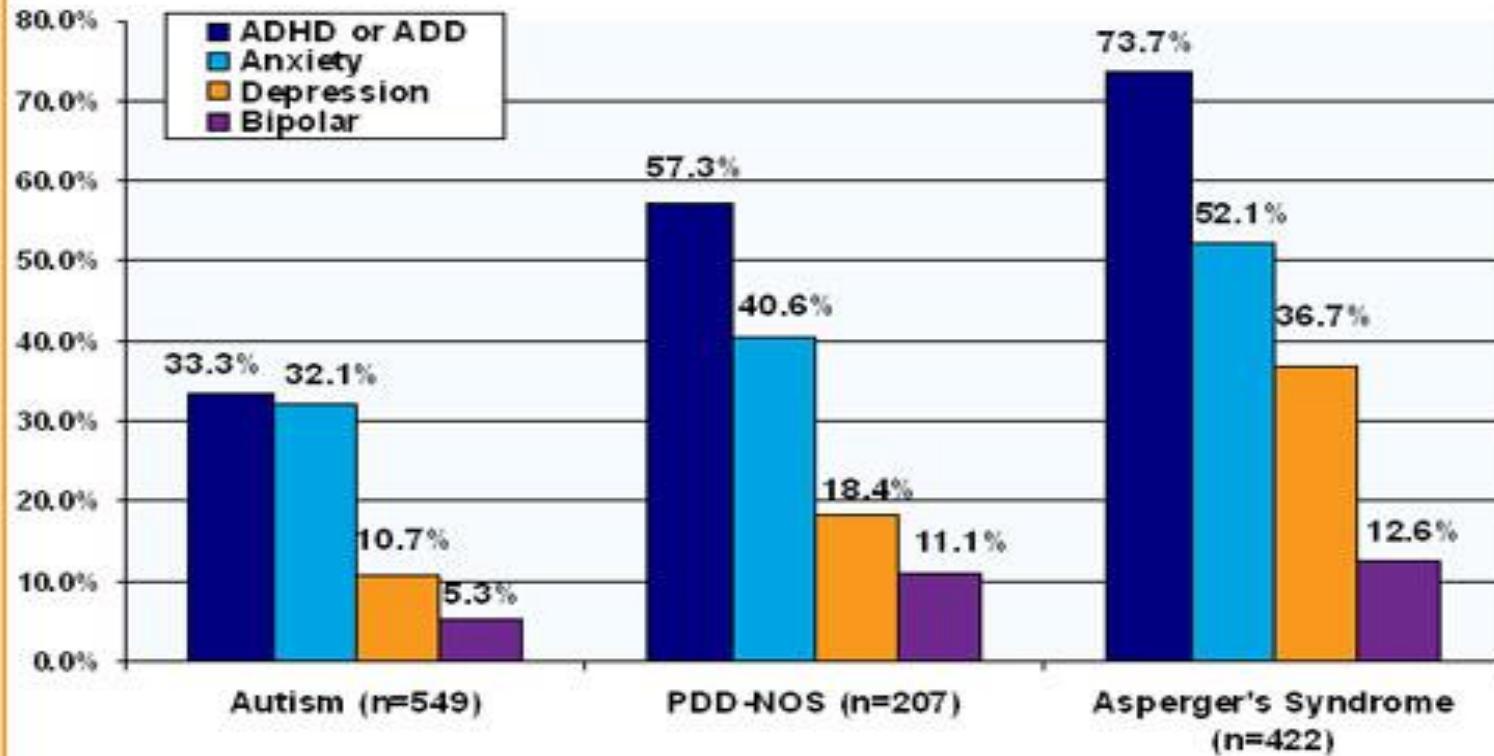
Autism Spectrum Disorder

# Common Comorbid Conditions

- Intellectual Disability
- Language Disorder
- Attention-Deficit/Hyperactivity Disorder (ADHD)
- Anxiety Disorders (including specific phobia, social phobia, OCD)
- Major Depressive Disorder/Dysthymia
- Disruptive Behavior Disorder / Oppositional Defiant Disorder
- Tic Disorder

## Issues of Mood and Attention: Children with ASDs (Ages 10-17)

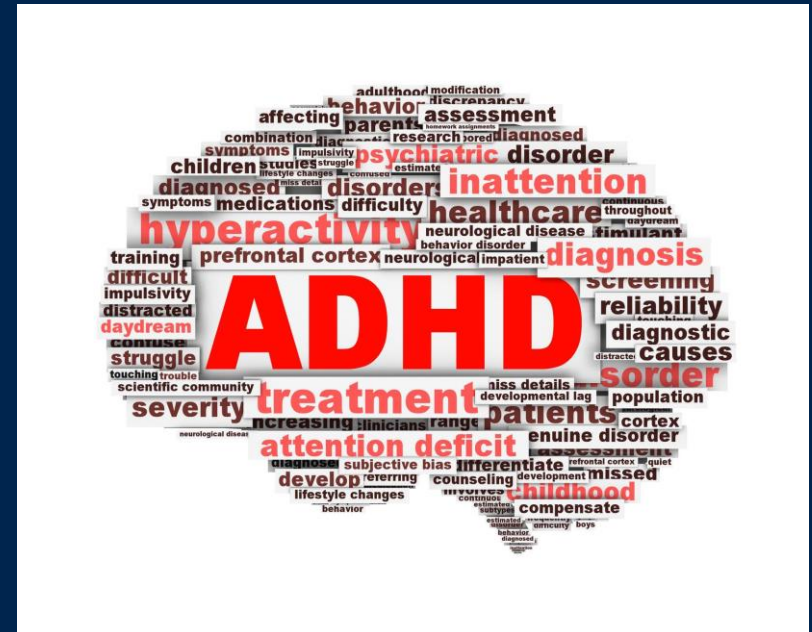
*Based on IAN Data as of 11/28/07*





# What is ADHD?

- Neurologically-based self-regulation disorder characterized by problems with
  - Sustained attention
  - Distractibility
  - High activity level
  - Impulse regulation
  - Regulation of affect
  - Working memory



# ADHD Subtypes

1. Predominantly Inattentive Presentation
2. Predominantly Hyperactive/Impulsive Presentation
3. Combined Presentation

- \* Must have symptoms for at least 6 months
- \* Several symptoms must be present prior to age 12 years
- \* Impairment across settings (2 or more)
- \* Evidence of significant functional impairment

# DSM-5 ADHD Criteria: Inattention

\*6 or more symptoms must be present for at least 6 months to a degree that is maladaptive & inconsistent with developmental level

- a) Often fails to give close attention to details or makes careless mistakes
- b) Often has difficulty sustaining attention in tasks or play activities
- c) Often does not seem to listen when spoken to directly
- d) Often does not follow through on instructions & fails to finish schoolwork, chores, or work duties (not due to oppositionality or failure to understand)

# ADHD Criteria: Inattention, cont.

- e) Often has difficulty organizing tasks or activities
- f) Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (e.g. homework)
- g) Often loses things necessary for tasks or activities
- h) Often easily distracted by extraneous stimuli
- i) Often forgetful in daily activities

# ADHD Criteria: Hyperactivity & Impulsivity

\*6 or more symptoms must be present for at least 6 months to a degree that is maladaptive & inconsistent with developmental level

- a) Often fidgets with hands or feet or squirms in seat
- b) Often leaves seat in classroom or in other situations in which remaining seated is expected
- c) Often runs about or climbs in situations where it is inappropriate (in adolescents or adults, may be limited to feeling restless)
- d) Often unable to play or engage in leisure activities quietly

# ADHD Criteria: Hyperactivity/Impulsivity, cont.

e) Often “on the go” or acts as if “driven by a motor”

f) Often talks excessively

g) Often blurts out answers before questions have been completed

h) Often has difficulty awaiting turn

i) Often interrupts or intrudes on others

# ADHD Symptoms and Diagnosis

- Symptoms difficult to distinguish between normative behaviors before age 4
- Hyperactivity is primary obvious issue in preschoolers
- Often identified during elementary school (when inattention becomes more obvious and impairing)
- For most, hyperactive symptoms become less obvious in adolescence/adulthood



# ADHD Associated Features and Comorbidities

- Low frustration tolerance
- Irritability
- Mood lability
- Mild delays in language, motor, or social development often co-occur
- Oppositional Defiant Disorder ( $\frac{1}{4}$  to  $\frac{1}{2}$  of children with ADHD), Conduct Disorder, Disruptive Mood Dysregulation Disorder
- Specific Learning Disorders
- Anxiety, OCD
- Depression
- Tic Disorders
- ASD



# Potential Impact of ADHD

- Decreased school performance and academic attainment
- Social rejection
- In adults: poorer occupational performance, attainment, attendance; greater likelihood of unemployment and interpersonal conflict

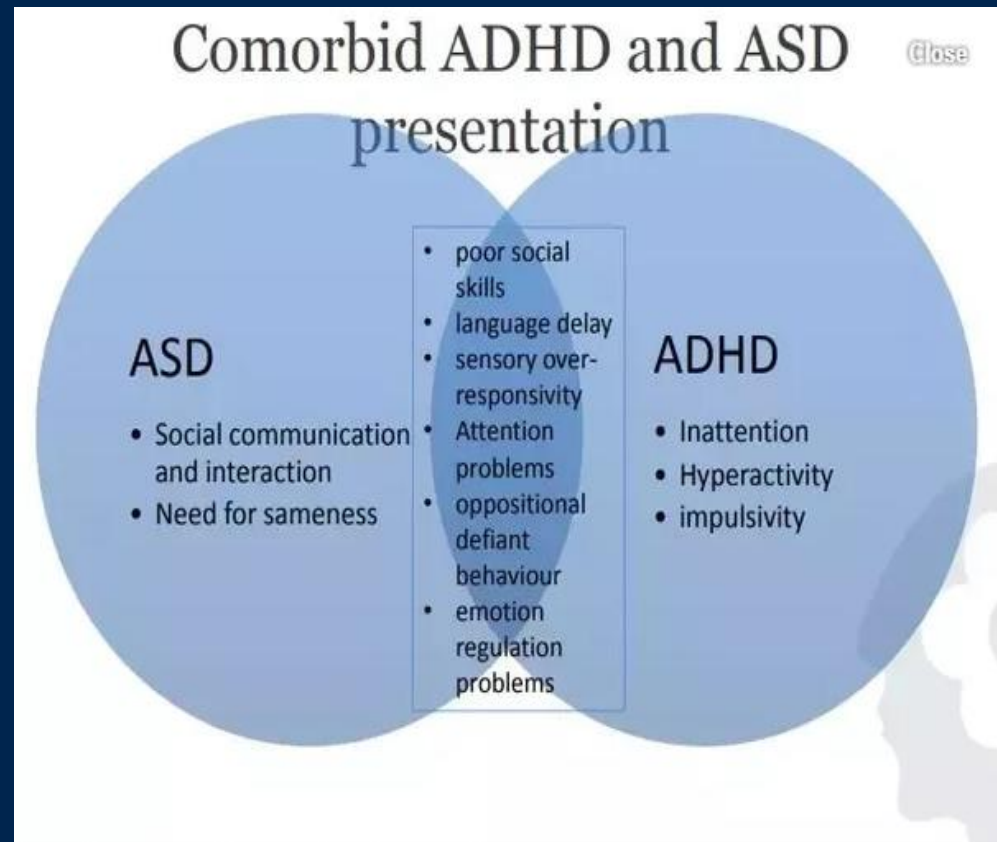
# ADHD Facts

- Diagnosed in approximately 10% of US children (up from 6% in 1997-1998)
- More common in boys than girls (2:1 in children, 1.6:1 in adults)
- High heritability
- No reliable biomarkers identified (to date)
- Can now “officially” be diagnosed in individuals with ASD
- 30-50% of individuals with ASD also have ADHD

# Overlap Between ASD & ADHD

- Symptoms of ADHD and ASD often co-occur.
- Both ASD and ADHD share some phenotypic similarities, but have distinct diagnostic criteria.

(Leitner, 2014)



# ASD and ADHD

- Individuals who have both ASD and ADHD diagnosis may have more significant challenges than people with either diagnosis alone

- Greater impairments in adaptive functioning (Sikora, Vora, Coury & Rosenberg, 2012)
- Poorer health-related quality of life for children (Sikora, Vora, Coury & Rosenberg, 2012)
- Lower IQ (Craig et al, 2015)
- Greater severity of autistic symptoms (Craig et al, 2015)

# ADHD Treatment

- Behavioral Intervention
- School Supports and Accommodations
- Medication

**ADHD Treatments**  
For Children and Teens (ages 6-17)  
*Be sure they get what's best!*

**Where we have been:**  
(Treatment practices, 2009-2010)

Less than **1 in 3** children with ADHD in this age group got **both behavioral therapy and medication.**

**Where we need to go:**  
(Treatment guidance, 2011)

Provide both **behavioral therapy and medication.**

**What can you do?**

**Parents:**  
Talk to your doctor about the recommendations for ADHD treatment and about what's best for your child.

**Healthcare professionals:**  
Be aware of the psychological resources in your community and be prepared to refer children for behavioral therapy as recommended by the American Academy of Pediatrics (AAP).

**FOR MORE INFORMATION:**  
[www.cdc.gov/adhd](http://www.cdc.gov/adhd)  
Twitter: @CDC\_NCBDDD

Centers for Disease Control and Prevention  
National Center on Birth Defects and Developmental Disabilities

CS258177C

# ADHD Behavioral Intervention

- Includes behavior modification and social learning theory
- Emphasis on contingency management and shaping children's behaviors through observation and modeling
- Parents and teachers can learn and implement behavior management strategies
- Good evidence that behavioral interventions are effective for children with ADHD

# ADHD Behavioral Parent Training

## Goals:

- Help parents learn to have consistent and positive interactions with their child
- Develop a better understanding of what behaviors are developmentally “normal”
- Help parents decrease negative interactions with their children
- Teach parents to give appropriate consequences for their child’s behavior and become more empathic to child’s perspective
- Help children improve their abilities to manage their own behaviors

# ADHD Behavioral Parent Training

- Teaches parents how to:
  - Increase appropriate behavior through reinforcement
  - Extinguish inappropriate behaviors (through active ignoring)
  - Limit use of punishment to intolerable or dangerous behavior
  - Give and follow through on clear commands
  - Shape behaviors in gradual increments
  - Use daily contingency charts (e.g., star charts)
  - Effectively use strategies such as time-out, token economies, and response cost



# Focus on Strengths and Successes

- Focus on the behavior that you **want** (the target behavior), rather than constantly directing the child's attention to stopping a behavior.
- Visualizing target behaviors will support the development of action plans for achieving goals.
- Target behaviors are much easier to reinforce than the *absence of a behavior*. **Positive Reinforcement** is much easier than **Extinction**.

# ADHD School Supports

- Teachers can also be trained to use behavioral principles to manage behavior within the classroom
- Teachers and parents can work together to help address behavioral challenges (e.g., daily behavioral report card)

# Daily Behavioral Report Card

- Allows for frequent, immediate feedback that can be motivating to child, parents, and teacher
- Parents and teachers identify 3-5 behaviors that negatively impact student at school
- Each behavior is monitored daily and behavior report card is sent home with the child
- Behavior report card tied to reward system to promote compliance

(Example of daily report card with directions available here:

[https://ccf.fiu.edu/\\_assets/pdfs/how\\_to\\_establish\\_a\\_school\\_drc.pdf](https://ccf.fiu.edu/_assets/pdfs/how_to_establish_a_school_drc.pdf)

# DAILY REPORT CARD

Student Name: \_\_\_\_\_

**Daily Goal:** \_\_\_\_\_

**Behaviors to be Performed to Achieve Goal:**

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

*Note to teachers, please use ratings to evaluate only the target behavioral goal*  
*0 = Didn't perform the behaviors listed above*  
*1 = Performed them, but with prompts & assistance from teacher*  
*2 = Performed behaviors independently most of the time*

Circle Day: Mon–Tue–Wed–Th–Fri

	Class/Subject	Teacher Ratings			Teacher Initial & Notes
1.		0	1	2	
2.		0	1	2	
3.		0	1	2	
4.		0	1	2	
5.		0	1	2	
6.		0	1	2	
7.		0	1	2	
Comments:					

# School Supports for ADHD

Two federal laws guarantee certain services or protections for eligible students with disabilities in the US:

1. Section 504 of the Rehabilitation Act of 1973 is *a federal civil rights statute* that says schools cannot discriminate against children with disabilities.

- To qualify under Section 504, a child's disability must impact one of life's major activities, such as learning.
- Schools that receive federal dollars must provide children with disabilities with access to any activity in which their non-disabled peers participate.
- The school must provide appropriate accommodations based on the child's individual needs.

## 2. The Individuals with Disabilities Education Act (IDEA) is the federal law that guarantees a free and appropriate public education (FAPE) for an eligible child with a disability.

- Services received under IDEA are often referred to as “special education.”
- Children eligible to receive services under IDEA are given an Individualized Education Program (IEP) which is designed specifically for them to receive agreed upon services that help them achieve goals for learning.
- Under IDEA children are assigned an “eligibility code.” Often children with ADHD will qualify under the Other Health Impairment (OHI) category.

# IEP vs. 504

- IEP may be required if child has difficulty learning or other developmental delays and requires specialized instruction.
- IEP should be considered when behavior prevents learning (or interferes with other students' learning). ARD team must consider use of positive behavioral supports.
- 504 may be appropriate if child's difficulties have little to do with learning, but they need accommodations or modifications to programs, facilities, or testing.
- Schools may try to encourage 504 over IEP because it is less burdensome for the school, but parent has the right to advocate to meet child's needs.

# ADHD Treatment

- Behavioral interventions alone may not be enough to effectively manage ADHD symptoms
- Stimulant medications considered first-line treatments



# ADHD Treatment: Medication

- FDA approved medications for children and adolescents with ADHD:
  - Methylphenidate
  - Amphetamine
  - Atomoxetine
  - Extended-release guanfacine
- Other non-FDA approved medications with limited evidence from randomized, controlled studies:
  - Bupropion
  - Clonidine
  - Guanfacine
  - Tricyclic antidepressants

## Medications Used in the Treatment of ADHD

Approved by the US FDA



### Methylphenidate-based stimulants

Delivery	Brand Name	Duration	Form	Available Dosage Strengths	Concerns & Side Effects
<b>Immediate release</b>	<b>Focalin®</b> <i>(generic available)</i>	4–6 hours	tablet	2.5 mg 5 mg 10 mg	Common side effects include: <ul style="list-style-type: none"> <li>• headache</li> <li>• decreased appetite</li> <li>• stomach ache</li> <li>• nervousness</li> <li>• trouble sleeping</li> <li>• nausea</li> </ul>
	<b>Methylin® Oral Solution</b> <i>(generic available)</i>	3–4 hours	liquid	5 mg/5ml 10 mg/5ml	
	<b>Ritalin®</b> <i>(generic available)</i>	3–4 hours	tablet	5 mg 10 mg 20 mg	
<b>Sustained release</b>	<b>Ritalin-SR®</b> <i>(generic available)</i>	4–8 hours	tablet	20 mg	Other serious side effects include: <ul style="list-style-type: none"> <li>• slowing of growth (height and weight) in children</li> <li>• seizures, mainly in patients with a history of seizures</li> <li>• eyesight changes or blurred vision</li> <li>• painful and prolonged erections</li> </ul>
	<b>Desoxyn®</b> <i>(generic available)</i>	4–8 hours	tablet	5 mg	
<b>Extended release</b>	<b>Aptensio XR™</b>	12 hours	capsule	10 mg 15 mg 20 mg 30 mg 40 mg 50 mg 60 mg	Heart-related problems: <ul style="list-style-type: none"> <li>• sudden death in patients who have heart problems or heart defects</li> <li>• stroke and heart attack in adults</li> <li>• increased blood pressure and heart rate</li> </ul> Mental (Psychiatric) Problems: <b>All Patients</b> <ul style="list-style-type: none"> <li>• new or worse behavior and thought problems</li> <li>• new or worse bipolar illness</li> <li>• new or worse aggressive behavior or hostility</li> </ul> <b>Children and Teenagers</b> <ul style="list-style-type: none"> <li>• new psychotic symptoms (such as hearing voices, believing things that are not true, are suspicious) or new manic symptoms</li> </ul> Circulation problems in fingers and toes
	<b>Concerta®*</b> <i>(generic available)</i>	10–12 hours	tablet	18 mg 27 mg 36 mg 54 mg	
	<b>Cotempla™XR-ODT</b>	12 hours	tablet	8.6 mg 17.3 mg 25.9 mg	
	<b>Daytrana®</b>	10–12 hours (9 hours applied + up to three hours after)	transdermal patch	10 mg 15 mg 20mg 30mg	
	<b>Focalin XR®</b> <i>(generic available)</i>	6–10 hours	capsule	5 mg 10 mg 15 mg 20 mg 30 mg 40 mg	
	<b>Metadate CD®</b> <i>(generic available)</i>	8–10 hours	capsule	10 mg 20 mg 30 mg	
	<b>Ritalin LA®</b> <i>(generic available)</i>	8–10 hours	capsule	10 mg 20 mg 30 mg 40 mg	
	<b>QuilliChew ER™</b>	8 hours	chewable tablet	20 mg 30 mg 40 mg	
	<b>Quillivant XR®</b>	8, 10, and 12 hours	liquid	10 mg 20 mg	

\*The FDA issued a [report](#) that two generic versions of Concerta delivered the active medication at a slower rate and might not work as well as the brand version.

*The lists of side effects are provided by the Food and Drug Administration (FDA) and are not a complete list of all possible side effects. If you are experiencing unusual symptoms, consult your doctor or prescribing health care provider. Follow links for more information.*

# ADHD Resources: Websites

- ADDitude Magazine [www.additudemag.com](http://www.additudemag.com)
- Attention Deficit Disorders Association – Southern Region (ADDA-SR)  
<http://www.adda-sr.org/>
- Children and Adults with Attention-Deficit/Hyperactivity Disorder (CHADD)  
<http://www.chadd.org/>
- Navigate Life Texas [www.navigatelifetexas.org](http://www.navigatelifetexas.org)
- Understood.org [www.understood.org](http://www.understood.org)
- Wrightslaw [www.wrightslaw.com/](http://www.wrightslaw.com/)

# ADHD Resources: Books

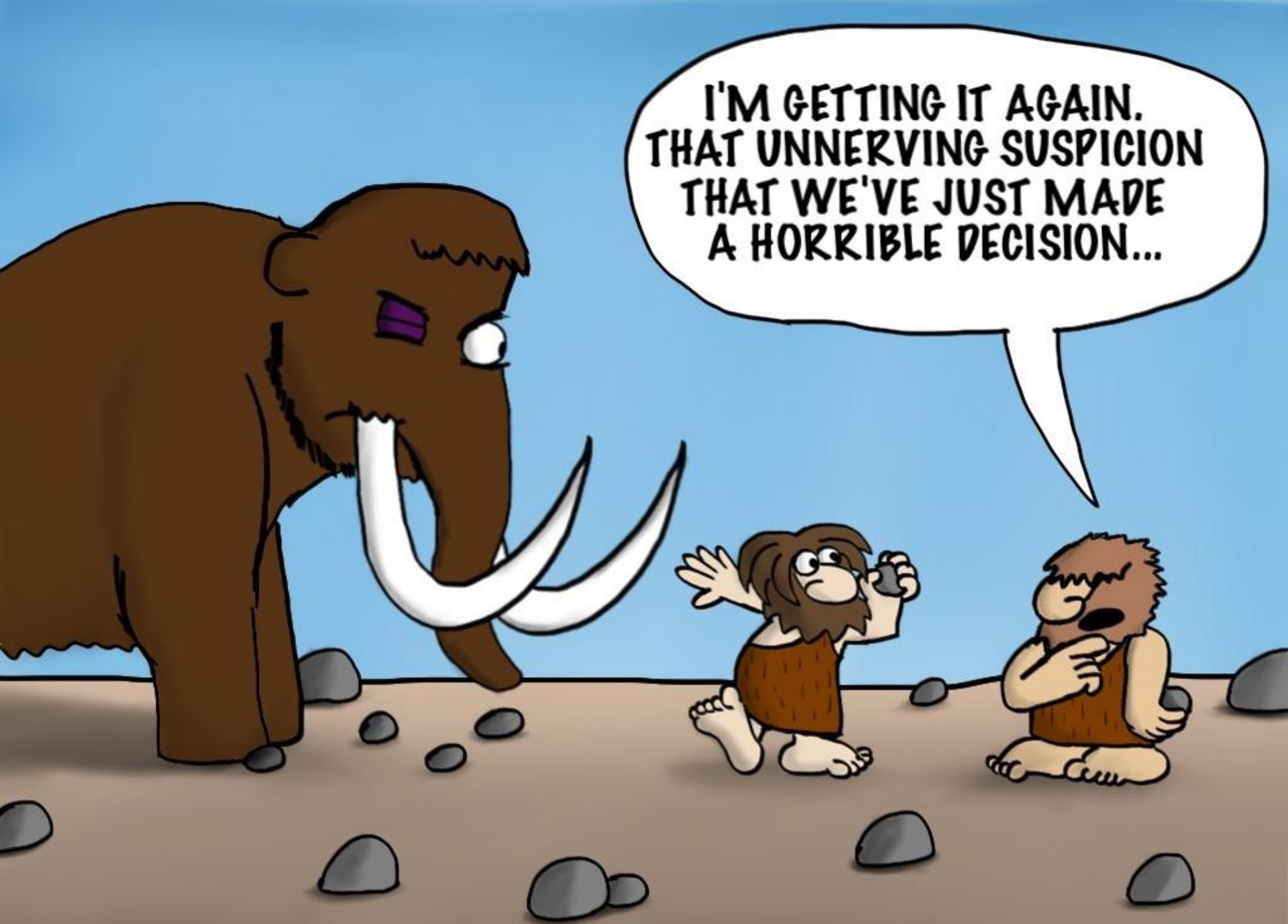
- *Taking Charge of ADHD* by Russel Barkley
- *Smart but Scattered* by Dawson & Guare
- *Unstuck and On Target!: An Executive Function Curriculum to Improve Flexibility, Planning, and Organization, 2<sup>nd</sup> Ed* by Cannon, Kenworthy, Alexander, Adler & Anthony
- For teens:
  - *Smart but Scattered Teens* by Guare, Dawson, and Guare
  - *ADD-Friendly Ways to Organize Your Life* by Judith Kolberg & Kathleen Nadeau.
  - *Your Defiant Teen: 10 Steps to Resolve Conflict and Rebuild Your Relationship* by Barkley and Robin

# Part 2: Anxiety

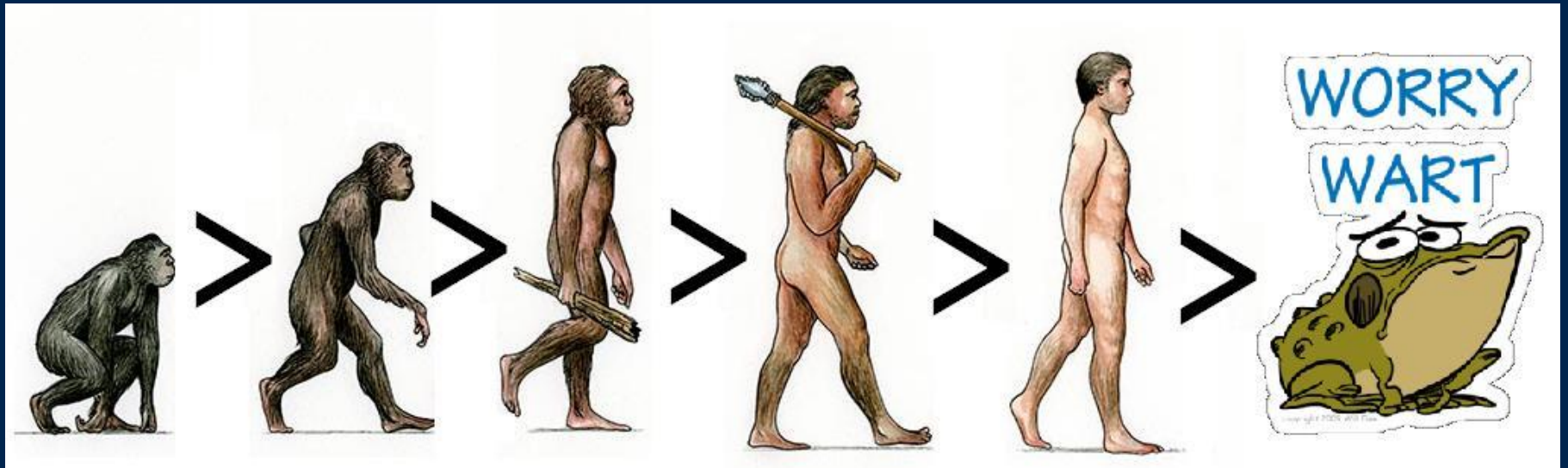
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# Where does anxiety come from?

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Fear and anxiety keep us alive



# Developmental Pattern of Fears

Age		Fears	Symptoms
Early infancy	0-6 m	-Loss (e.g., of caregivers) -Sensory	
Late infancy	6-8 m	-Shyness Anxiety with strangers	
Toddlerhood	12-18 m	Separation anxiety	Sleep disturbance, oppositional behavior
	2-3 y	-Thunder, lightening, water, fire, darkness, nightmares, animals, separation	Crying, clinging, withdrawing, avoiding, enuresis
Early childhood	4-5 y	Death, dead themes	General worrying, panic
	5-7 y	-Specific, natural disasters, illness, traumatic events/accidents, -School performance	Withdrawal, timid, extreme shyness, shame
Adolescence	12-18 y	-Rejection from peers	-Fear of negative evaluation

# Anxiety

## •Physical

- Fast heartbeat
- Sweating
- Dry mouth
- Muscle tension
- Shaking/trembling
- Nausea/feeling in stomach
- Headaches/ physical complaints
- Trouble sleeping, waking up

## •Thinking

- Worrying, thinking about what might happen

## •Doing

- Staying away from things that make one scared





# Symptoms of Anxiety

- Emotional

- Anxiety, worry, fear, not feeling right, panicky

- Physiological

- Headaches, stomachaches, butterflies, nausea, tension, restlessness, BP/HR, lightheadedness

- Cognitive

- Negative outcomes, future oriented, exaggeration of outcomes, exaggerated consequences
- Recurrent, intrusive thoughts (images)

- Behavioral

- Avoidance, clinging, withdrawing, aggression, oppositional, inattention

- More than others of a similar age

- Frequent

- Severe

- Distressing

- Interferes with life

# Generalized Anxiety

- A lot of worry about a lot of things
  - Excessive
  - Uncontrollable



# Social Anxiety



- Fear of being evaluated negatively or embarrassed in social and performance situations
- Common anxiety disorder- think public speaking

\*\*\*Not the same as reduced social interest as observed for some youth with ASD

# Panic



- Repeated abrupt onset of physiological symptoms
- “Out of the blue”

# Obsessive Compulsive Disorder

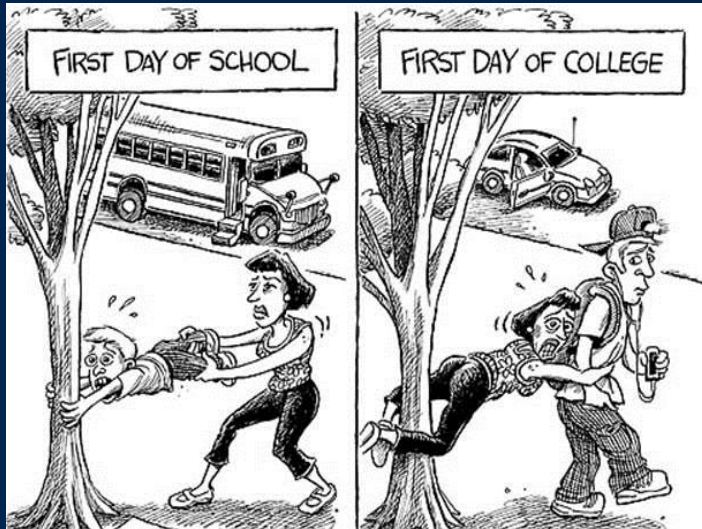


- Intrusive and distressing thoughts, images, or impulses
- Repetitive behavior (mental or physical) to reduce distress

\*\*\*Different from circumscribed interests characteristic of ASD, which have a pleasurable vs. distressing quality



# Separation Anxiety



- Anxiety from being away from attachment figures
- Fear that harm will come to themselves or loved one

# Specific Phobia



- Irrational and intense fear of certain, specific things

- Most people have irrational fears, but has to interfere with life in some way to be a disorder



# Anxiety and ASD

- Anxiety disorders affect up to 80% of youth with ASD
  - Anxiety could be an important treatment focus (e.g., Bellini & Peters, 2008; Sofronoff et al., 2005; Volkmar & Klin, 2000).
- Often, additional comorbid disorders coincide with anxiety disorders in the ASD population (e.g., oppositional defiant disorder), resulting in complex and severe clinical presentations (de Bruin et al, 2007; Klin et al., 2005; Muris et al., 1998).

# ASD and Comorbid Anxiety Disorders

- **Generalized anxiety disorder** (characterized by disabling worry) affects at least 35% of those with ASD.
- **Separation anxiety disorder** (intense fear of separating from caregivers) affects at least 38%.
- **Obsessive-compulsive disorder (OCD)**; characterized by intrusive thoughts and rituals) affects at least 37%.
- **Social phobia** (characterized by fear of humiliation and corresponding avoidance of specific social situations) affects at least 30%. (de Bruin et al., 2007; Green et al., 2000; Klin et al., 2005; Leyfer et al., 2006; Muris et al., 1998)
- Anxiety is the second most highly cited problem reported by parents of children with ASD (Mills & Wing, 2005).

# How Anxiety Interacts with ASD

- Anxiety disorders lead to significant functional impairment in youth with ASD.
- Youth with ASD who had higher anxiety levels exhibited more social skills deficits (Belleni, 2004).
- Several large studies of children with ASD found strong linkages between high anxiety and increased severity of ASD symptoms such as
  - *repetitive behaviors* (e.g., Sukholdosky et al., 2008)
  - *sensory symptoms* (Ben-Sasson et al., 2008)
  - *total ASD symptoms*
- Additional areas frequently (and *negatively*) impacted by anxiety disorders include
  - *school attendance*
  - *family cohesion*
  - *academic performance* (e.g., Kearney, 2007; Langley et al., 2004)

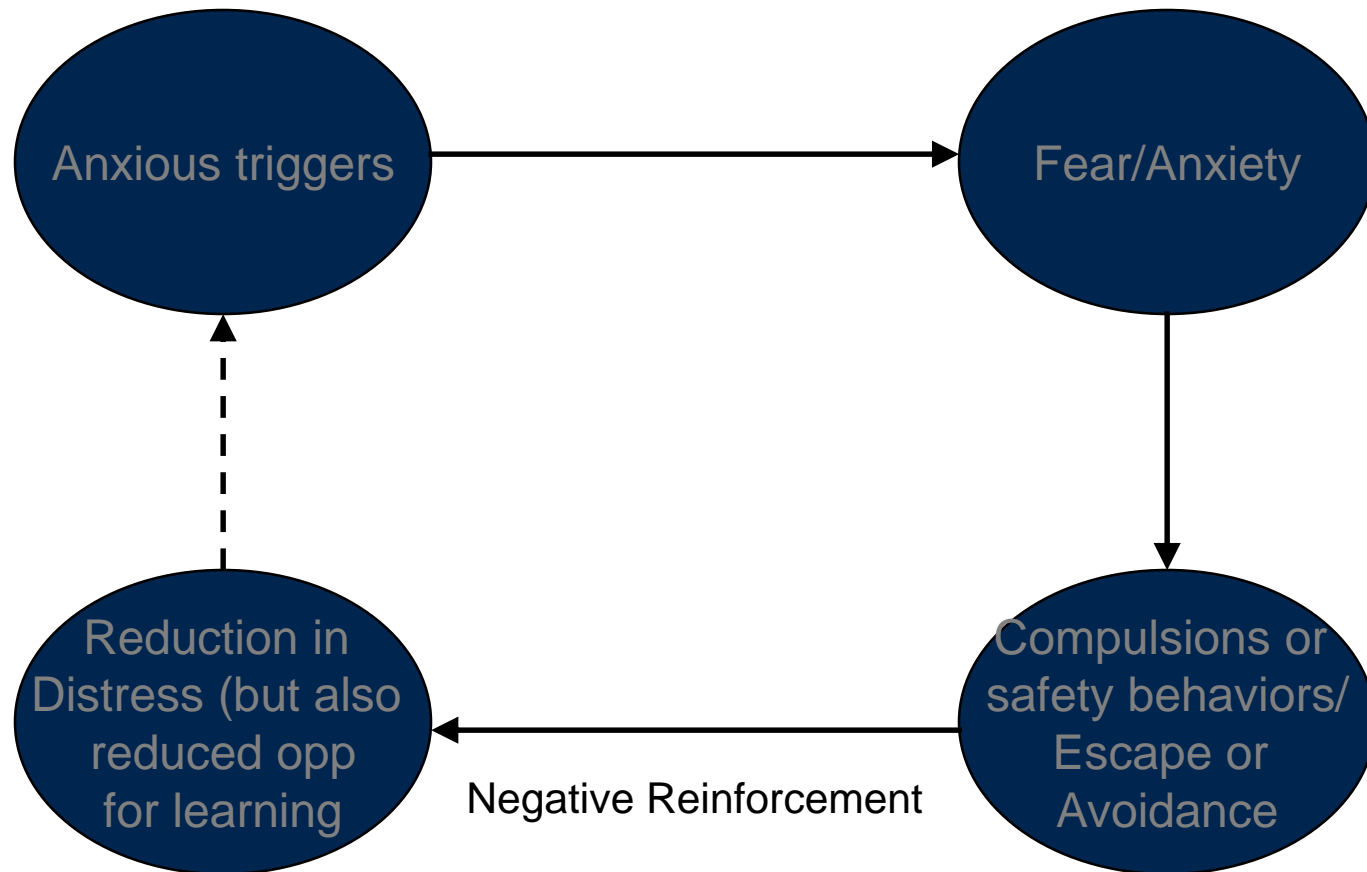
# Anxiety Treatment

- Psychotherapy

- Adapted Cognitive Behavioral Therapy (CBT)
- Parent Management Training

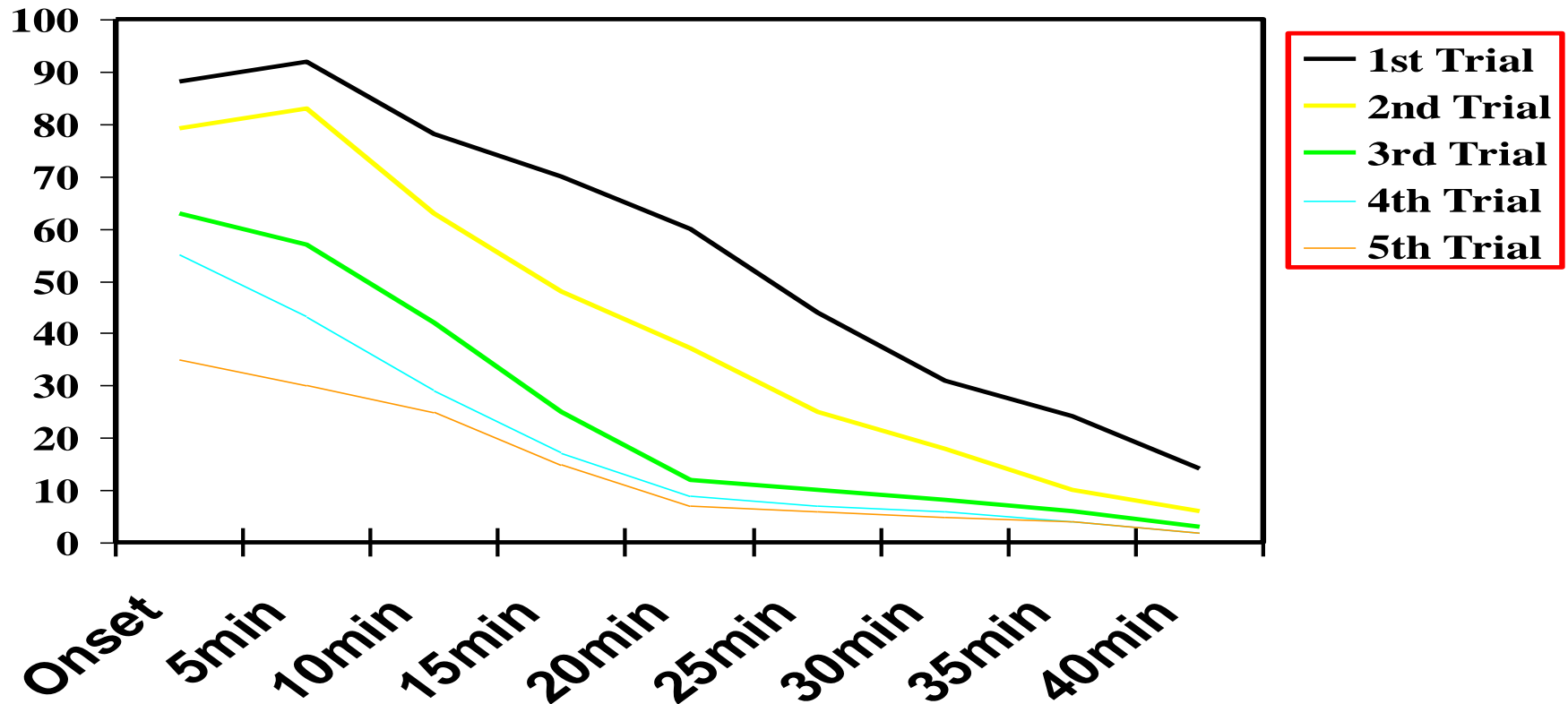
- Medication

# The Anxiety Cycle



# Exposure Therapy

Gradual exposure to anxiety-provoking stimuli while refraining from engaging in rituals/avoidance behavior.





# Overview of Treatment: BIACA

- Behavioral Interventions for Anxiety in Children with Autism (BIACA; Wood & Drahota, 2005; Wood et al., 2008)
- 16-weekly sessions / up to 90 minute session structure
- Therapy modules selected by therapist on a session-by-session basis to address the child's most pressing clinical needs.
- For all cases, minimum of 3 sessions spent on basic coping skills, and 8 on in vivo exposure.
- Sessions delivered in individual child/family format depending on needs of child.

# Elements of Treatment: BIACA

BIACA utilizes core CBT elements including:

- Identifying thoughts and feelings
- Developing a fear hierarchy
- In vivo exposure
- Encouraging independence



## Sample exposure hierarchy for a patient with specific phobia (animal type)

Activity	Fear level (0 - 100)
Letting several large dogs lick my face	90
Petting several dogs in an enclosed space	85
Letting a large dog lick my face	80
Giving a large dog a treat	75
Petting a large dog	70
Going inside the dog park and letting dogs brush up against me	65
Going to a dog park and standing outside the park	60
Watching Animal Planet dog shows	55
Watching a real-life dog children's movie	40
Watching a cartoon dog movie	35
Looking at pictures of small and large dogs	30

# Elements of Treatment: BIACA

BIACA utilizes core CBT elements including:

- Positive reinforcement module
- Relaxation
- Making Friends
- Parent involvement
  - Parent-training is among the most efficacious modalities used for childhood anxiety, conduct problems, and ASD.

# ASD-Related Skill Deficits and Corresponding Treatment Elements

- Poor social functioning is a key autism-related deficit that may reduce the efficacy of traditional CBT unless modifications are made
- Social skills in children with ASD are most likely to be generalized and maintained through in vivo exposure
- CBT should incorporate friendship skills training that focuses on one-to-one playdates
- Peer intervention at school is an important treatment element

# ASD-Related Skill Deficits and Corresponding Treatment Elements

- Caregiver-mediated social coaching can enhance understanding and generalizability
- Circumscribed interests and stereotypies are core ASD symptoms that can interfere with the development of positive peer relationships (Attwood, 2003)
- Disruptive behavior also needs to be addressed using evidence-based practices if global clinical improvement is to be achieved

# Study 1

## The Effect of Cognitive-behavioral Therapy Versus Treatment as Usual for Anxiety in Children With Autism Spectrum Disorders: A Randomized Controlled Trial

Storch et al. (2013)

J Am Acad Of Child & Adult Psychiatry, 52(2), 132-142

# Study 1: Overview

- 45 children age 7 to 11 years
- Participants met criteria for ASD and an anxiety disorder.

## Treatment Conditions

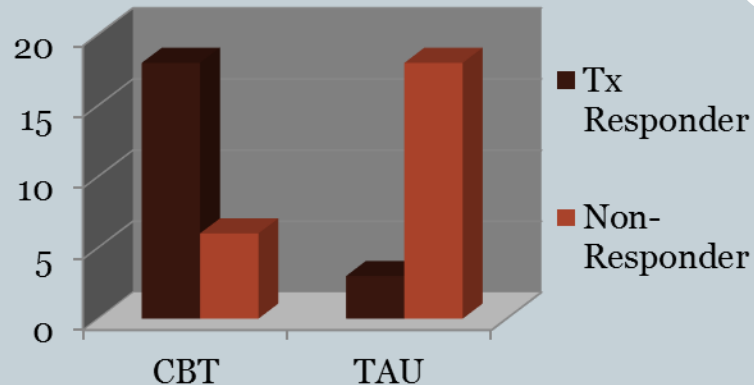
- 24 youth were assigned to immediate CBT
  - *Behavioral Interventions for Anxiety in Children with Autism* CBT program (BIACA)
- 21 youth were assigned to the waitlist condition (TAU)
  - Free to continue receiving/seek out any interventions desired (e.g., psychotherapy, social skills training, behavioral interventions, family participation in family therapy or a parenting class, or pharmacological interventions)



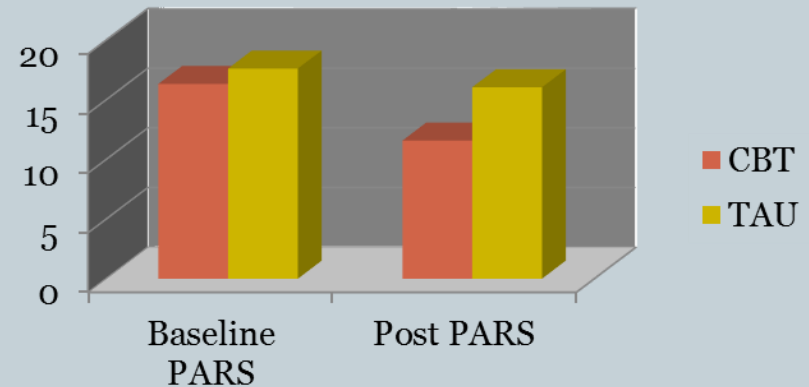
## Pediatrics



# Study 1: Results



➤ In the CBT condition, 75% of participants were considered much improved or very much improved compared to 14% in the TAU condition.



➤ A 29% reduction in anxiety severity as measured by the PARS for the CBT group compared to a 9% reduction for the TAU group ( $d = 1.03$ )

➤ 38% (9/24) of those in the CBT group achieved clinical remission at post-treatment versus only 5% (1/21) of the TAU arm ( $d = 1.37$ ).

# Study 2

## Cognitive-Behavioral Therapy for Early Adolescents with Autism Spectrum Disorders and Clinical Anxiety: A Randomized Controlled Trial

Jeffery J. Wood, Ph.D., Jill Ehrenreich-May, Ph.D., Michael Alessandri Ph.D., Cori Fujii, Ph.D., Patricia Renno, Ph.D., Elizabeth Laugeson, Psy.D., John C. Piacentini, Ph.D., Alessandro S. De Nadai, M.A., Elysse Arnold, B.A., Adam B. Lewin, Ph.D., ABPP, Tanya K. Murphy, M.D., and Eric A. Storch, Ph.D.

(2015). Behavior therapy, 46(1), 7-19

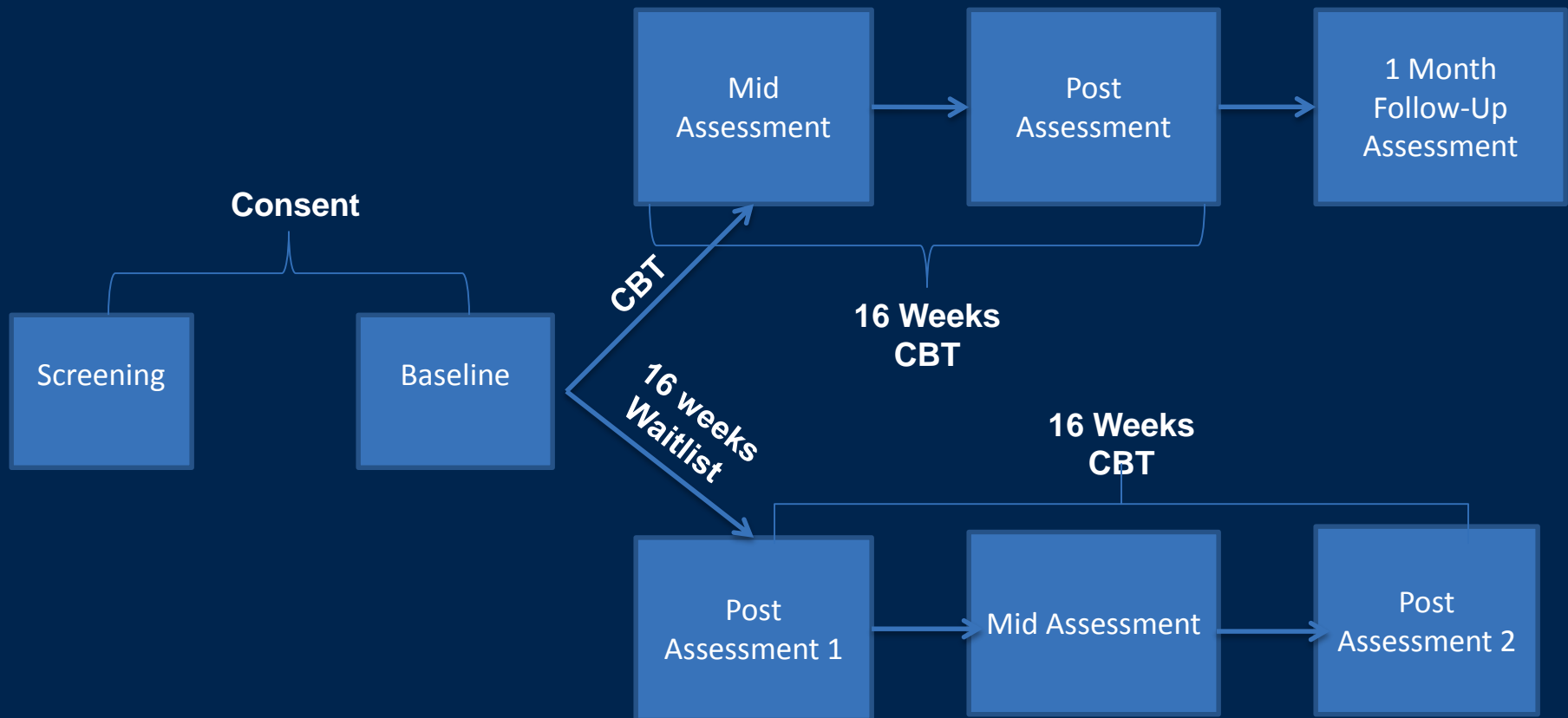
# Study 2: Overview

- 33 adolescents between 11-15 years were enrolled
- All children met criteria for at least one clinically significant anxiety disorder as well as ASD.

## Treatment Conditions

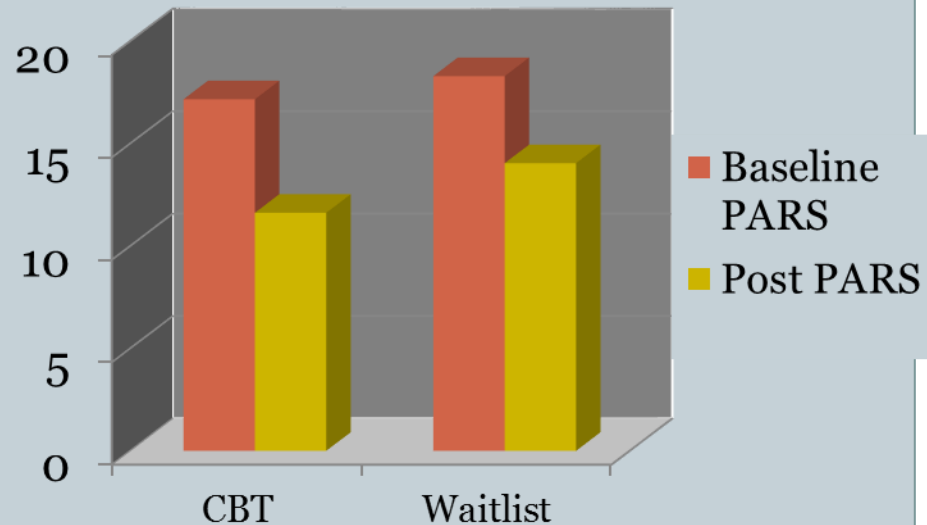
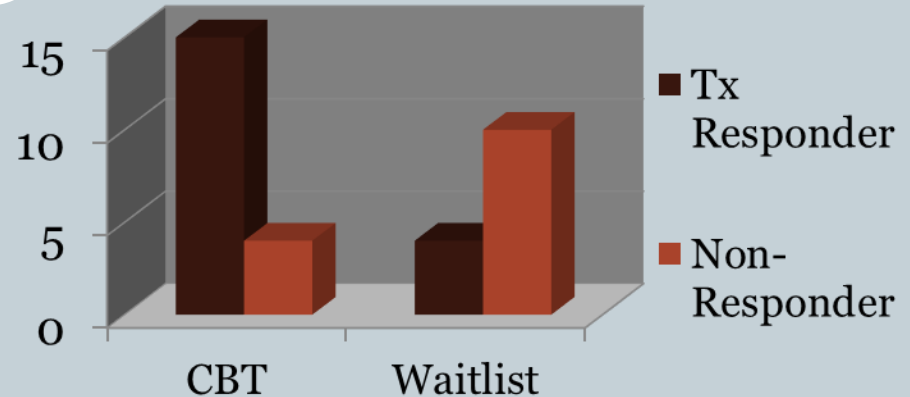
- 19 adolescents were assigned to immediate CBT  
CBT provided was a developmentally modified version of BIACA (same therapy as in Study 1)
- 14 youth were assigned to the waitlist condition (TAU)

# Study 2: Design



# Study 2: Results

- 79% of CBT participants were considered treatment responders compared to 28.6% in the Waitlist condition
  - In the CBT group, 6/19 (32%) achieved remission versus 3/14 (21%) in Waitlist group
- 32% reduction in anxiety severity as measured by the PARS for the CBT group compared to a 23% reduction for the Waitlist group
- At follow-up, 10/13 (77%) participants maintained treatment responder status in the CBT group



# How Families Can Help



# Normalize



Remember those cave guys?



# ENCOURAGE



# Face Fears

- Break down big fears into small steps
  - Create a fear ladder
- Confront fears again and again without 'escape'
- Have fun and reward!



# Use Logic



# Celebrate



# What Not To Do

- Shame
- Punish/threaten
- Change routines
- Continuously reassure
- Do it for them



# Medication for Anxiety in Children

## •SSRIs

(Selective serotonin reuptake inhibitors)

- Fluoxetine (Prozac)
- Fluvoxamine (Luvox)
- Sertraline (Zoloft)
- Paroxetine (Paxil)

## •SNRIs

(Serotonin norepinephrine reuptake inhibitors)

- Venlafaxine ER (Effexor)
- Duloxetine (Cymbalta)

## •Tricyclic Antidepressants

- Clomipramine (Anafranil)
- Imipramine (Tofranil)

## •Benzodiazepines

- Clonazepam (Klonopin)
- Lorazepam (Ativan)



# Anxiety Resources

- *Freeing Your Child From Anxiety* by Tamar Chansky
- *Helping Your Anxious Child* by Ronald Rapee
- Understood.org [www.understood.org](http://www.understood.org)
- Kidshealth.org  
<https://kidshealth.org/en/parents/anxiety-disorders.html>

# Locating ASD Specialists/Providers

## National Organizations

[Autism-society.org](http://Autism-society.org)

[AutismSpeaks.org](http://AutismSpeaks.org)

## State and Local Organizations

[FEAT-Houston.org](http://FEAT-Houston.org)

The ARC of Greater Houston ([aogh.org](http://aogh.org))

[Knowautism.org](http://Knowautism.org)

[NavigateLife Texas.org](http://NavigateLifeTexas.org)

## Local Universities or Hospitals

UH Clear Lake  
([hsh.uhcl.edu/CADD](http://hsh.uhcl.edu/CADD))

UT: Children's  
Learning Institute  
Autism Center

Texas Children's  
Hospital  
Autism Center



# Questions?

To Subscribe to TCH's Autism Center and Meyer Center  
e-newsletter: <http://bit.ly/ACMCenews>

