#### E THE UNIVERSITY OF ALABAMA AT BIRMINGHAM.

# Adapting Evidence-Based Interventions for Autistic Individuals

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# **Disclosures**

- I have no conflicts of interest to disclose.
- I do not plan to discuss commercial products in which I have any financial interest.



# **Objectives**

- Participants will identify key features of autism in adolescents and adults.
- Participants will be able to identify how symptoms of autism may impact co-morbid symptoms of anxiety, depression, and anger.
- Participants will be able to identify features associated with autism that can impact response to interventions.
- Participates will increase their knowledge of strategies that can be used to adapt traditional evidence-based methods to meet the needs of individuals with autism.



# If you've met one individual with autism you've met one individual with autism.

**Stephen Shore** 

# **Notes on Terminology**

Neurodiversity and personfirst language "Autistic" or "person with autism"



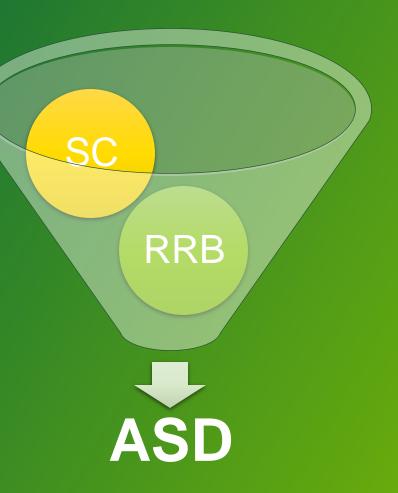
# **ASD REVIEW**

What is Autism?



# What is ASD?

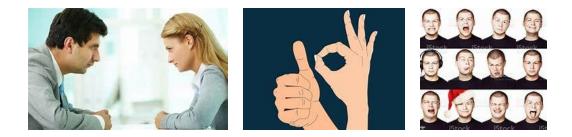
DSM–5 Criteria



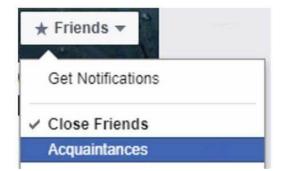
## **DSM-5 Criteria:** A. Social Communication and Interaction

For Example: Conversation – Comforting Others

Social Back and Forth



Nonverbal Communication



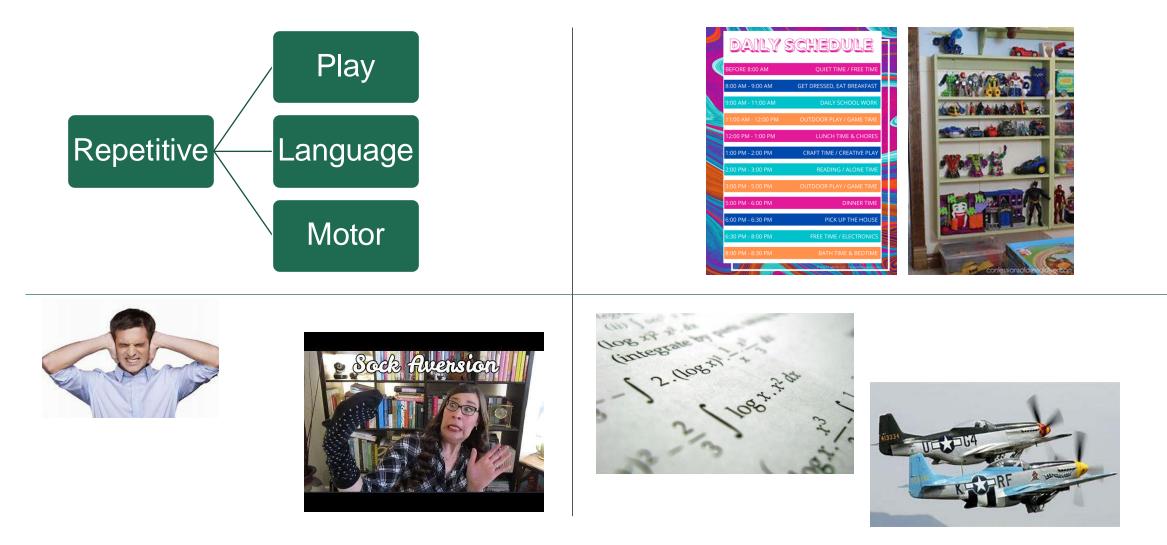
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Relationships/Play

### **DSM-5 Criteria:** B. Restricted, Repetitive Patterns of Behaviors & Interests

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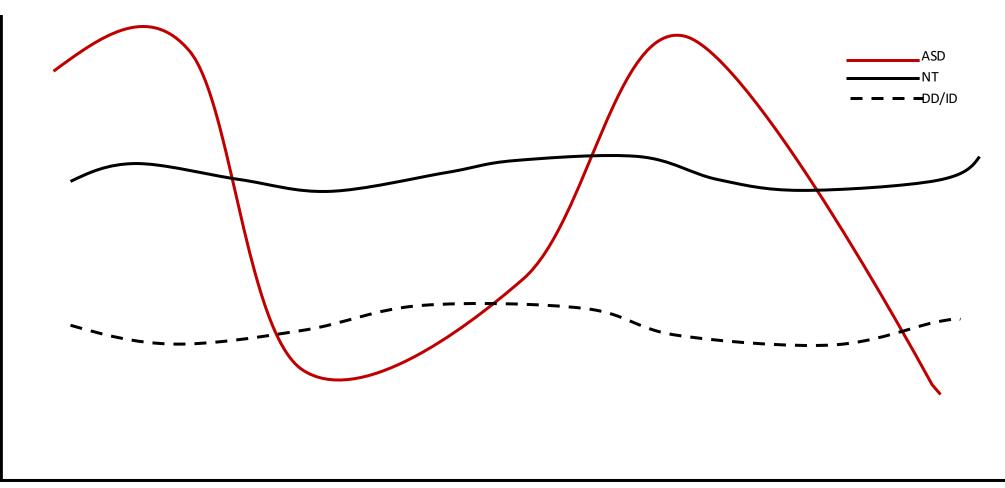
# **DSM-5 Criteria: Autism Spectrum Disorder**



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## Cognitive/Language Specifiers

# **Developmental Profiles**



Areas of Development (e.g., self-care, language, motor, math, reading, visual spatial skills)

Developmental Level

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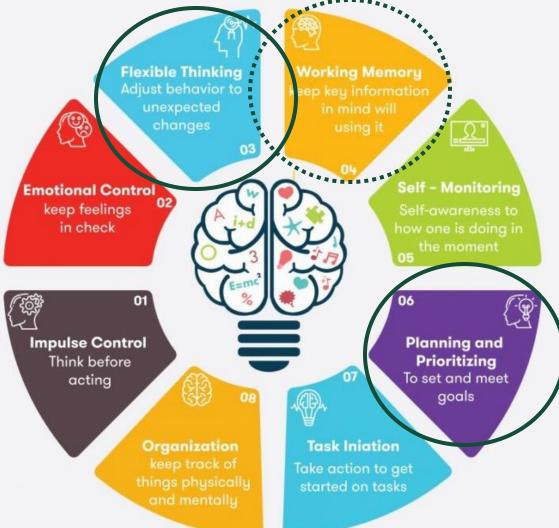
# What strengths can be associated with an autism spectrum disorder?



# **Associated Features**

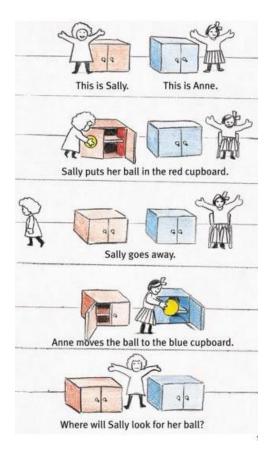
Executive Function, Theory of Mind, Implicit Learning, Medical Co-Morbidities, Mental Health Co-Morbidities

## Cognitive Processes: Executive Function



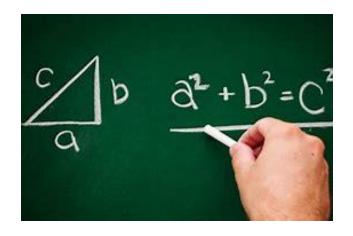
HEERSINK SCHOOL OF MEDICINE - PEDIATRICS

# **Cognitive Processes: Theory of Mind**



# **Cognitive Processes: Implicit Learning**

• Implicit vs. Explicit Learning







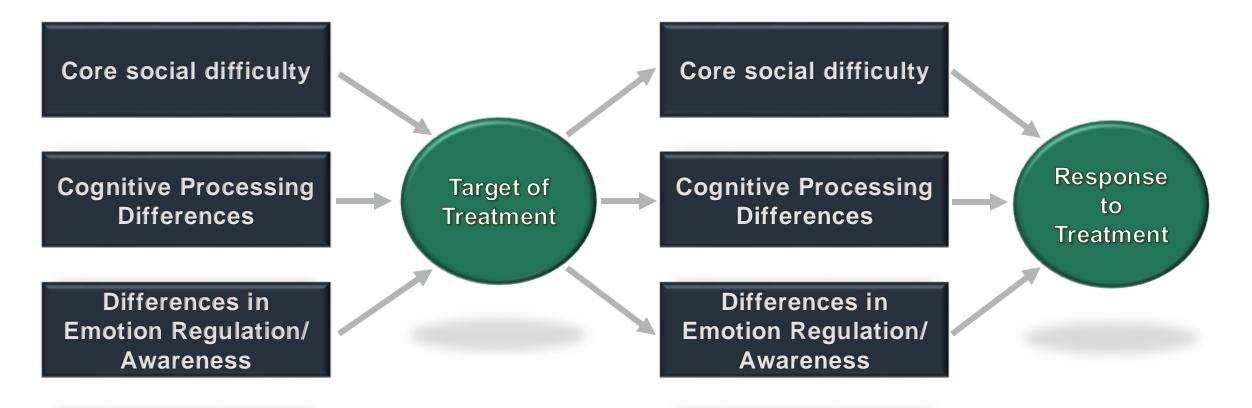
# How could the differences described contribute to symptoms?

## Addressing underlying cause of symptoms Anxiety Anger **Avoidant Behavior** Poor adaptive skills Sensory sensitivity Lack of social support Behavioral rigidity Lack of strategies to build relationships Uncertainty in social settings Poor executive function Unrealistic understanding of social relationships

# Understanding autism and response to treatment

Symptom development/continuation

Seek and respond to intervention



# **Core Symptom Difficulty**

#### **Contribution to symptoms**

- Misperception of social norms
- Difficulty forming and maintaining relationships
- Difficulty interpreting social situations
- Difficulty recognizing emotions/nonverbal cues in others
- Lack of social support
- Pressure to conform to ill-fitting social norms
- Rigidity around routines
- Sensory aversions/overwhelm
- Difficulty managing time spent on restricted interests
- Difficulty with self-advocacy

#### Impact on Response to Treatment

- Literal understanding of language
- Communication differences impact ability to describe self/struggles
- Unable to report where social situations went wrong
- Lack of social skills may reduce compliance with tasks that require interaction (e.g., seeking help)
- Rigidity around routines
- Sensory aversions/overwhelm
- Reinforcers may look different for autistic individuals
- Social goals may not be the same as neuro-typical patients
- Leave out relevant information that they don't realize the therapist needs

# **Cognitive Processing Differences**

#### **Contribution to symptoms**

- EF difficulty
  - contributes to poor adaptive skills
  - reduces problem-solving flexibility
  - limits ability to generalize skills
  - reduces ability to connect actions and consequences
  - Categorical thinking limits ability to think flexibly
- Implicit learning differences
  - Decrease ability to navigate new social situations
  - Inappropriate behavior in social settings
- Theory of Mind impairments
  - Difficulty determining their role in negative social interactions

#### Impact on Response to Treatment

- EF difficulty
  - Limits ability to plan and implement coping strategies
  - Limits ability to generalize skills learned
  - Impacts attendance in sessions
- Implicit learning differences
  - May not know how to implement strategies that require social interactions
- Theory of Mind impairments
  - May not be able to understand humor/metaphors used in session
  - May not understand implied meanings in indirect language

# **Emotion Regulation and Awareness**

#### **Contribution to symptoms**

- May have low frustration tolerance
- May not be aware of their own emotions
- May not recognize subtle escalations in their own emotional state

#### Impact on Response to Treatment

- May not be able to identify emotions or situations that trigger those emotions
- May not recognize escalations in their own emotions
- May not be able to link irrational thoughts with emotions



# **Evidence-Based Interventions**

**CBT**, Motivational Interviewing

# **General Strategies**

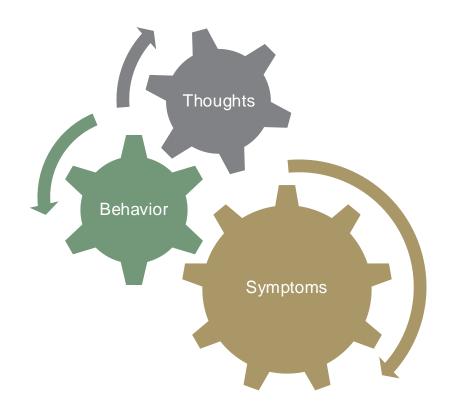
- Developing rapport
  - Let them be experts in themselves and their restricted interests
  - Explore their goals work towards their goals
  - Reinforce that true independence is not the lack of a need for help
  - Validate their experience
  - Reinforce that not all awkward interactions are the result of the autistic individual's behavior
- Interaction styles
  - Direct vs. open-ended questions
  - Literal language
  - Use of agendas for sessions
  - Use visuals (write it/draw it) and let them take it home

# **General Strategies**

- Obtaining buy-in
  - Psychoeducation
  - Relate constructive feedback to goals
    - "If you do X, people will react \_\_\_\_"
  - Incorporate restricted interests
  - Let them take visuals home and process
- Manage your own emotions
  - Progress may be slower due to difficulty generalizing



# **Cognitive Behavior Therapy**



Research suggests CBT is effective with children<sup>1</sup> and adults<sup>2</sup> with ASD

<sup>1</sup> Danial & Wood, 2013

<sup>2</sup> Spain, Sin, Chalder, Murphy, & Happe (2015)



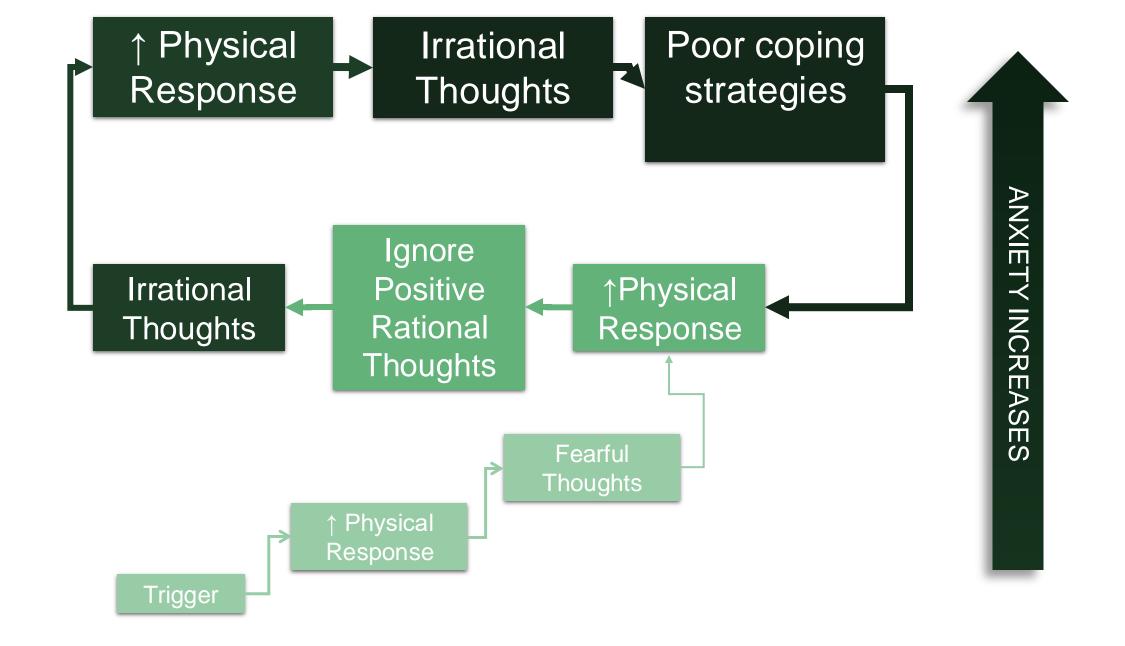
# **Adapting CBT**

#### **Cognitive components**

- May have difficulty reporting their own thoughts
- Irrational thoughts may be tied to other symptoms (limited social insight, cognitive rules they've generated)
- What's the worst thing that could happen?
- What are the changes it will happen?

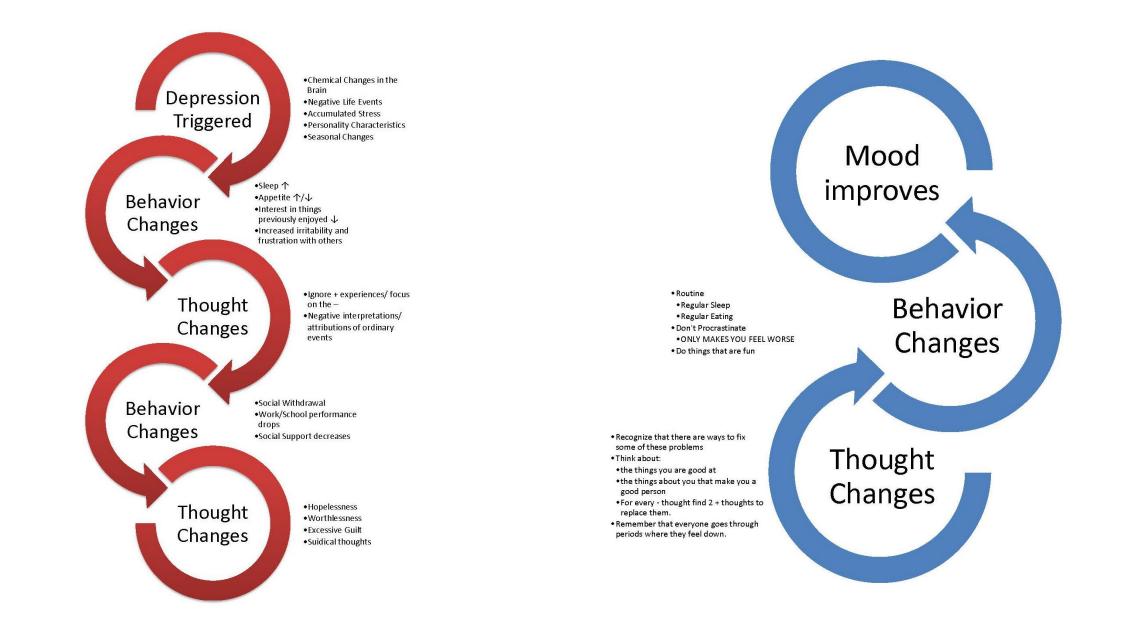
#### **Behavioral components**

- May have to address EF barriers to completing outside activities.
- May need more in session practice for behavioral strategies to slow breathing and heartrate



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# **Teaching Emotional Control**

- Develop a "routine" for expressing negative emotions and staying in control
  - Where to go

- Strategies for calming down
- Clear beginning and end
- Non-intrusive signal
- Practice during calm times
- After teaching in one setting, generalize to other settings

# **Challenging Behavior has a purpose**

People engage in challenging behavior because "it works" for them Challenging behavior results in the individual gaining access to something or someone or avoiding something or someone Assumptions related to what the individual is communicating, accessing, or avoiding may be different in people with ASD

# **Social Stories/Scripts/Comic Strips**

#### **Social Stories**

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- Written in the 1<sup>st</sup> person
- Explain what to expect in situations in concrete ways
- Include instructions for appropriate interactions/solutions to problems (i.e., scripts)
- Avoid absolutes (i.e., will, always, never)

#### Comic Strip Conversations

 Uses comic strips to outline conversation exchanges and what each party is thinking during the interaction

#### Social Scripts

 Explicit dialogue for use in specific situations (i.e., greeting new people, initiating interactions with peers)

# **TEACCH – University of North Carolina**

- Culture of Autism"
  - Strength processing visual information, Attention to detail, Difficulty combining ideas, Difficulty organizing ideas and materials, Difficulty with attention, Communication difficulty, Preference for routine
- Structure the physical environment (i.e., blocking out unnecessary stimuli)
- Visually structure routines (i.e., visual schedules)
- Visually structure work expectations
- Therapy agenda

# **Daily Schedule: Moderate Language**

| 8:15-8:45       | Breakfast                      | Am I ready fo         |
|-----------------|--------------------------------|-----------------------|
|                 | Morning assignment             | the day?              |
| 8:45-9:00       | Spelling                       | Pencil<br>sharpened   |
| 9:00-9:45       | Math                           | Homework<br>completed |
| 9:45-<br>10:30  | Science                        |                       |
| 10:30-<br>11:00 | Band                           | •                     |
| 11:00-<br>11:25 | Study Hall                     |                       |
| 11:25-<br>11:55 | English                        | Do I have:            |
| 11:55-<br>12:25 | Lunch                          | Books                 |
| 12:30-<br>1:15  | Social Studies                 | □Assignment<br>book   |
| 1:15-2:00       | Reading                        | Homework              |
| 2:00-2:45       | Computer                       |                       |
| 2:55-3:10       | Pack up to go home<br>Load bus |                       |

# **College Level Visual Supports**

|       | Monday                           | Tuesday                       | Wednesday | Thursday         | Friday  |
|-------|----------------------------------|-------------------------------|-----------|------------------|---------|
| 10/10 | Math HW<br>Lab ECE 380 (pre-lab) | GN HW                         |           | GN HW            | Math HW |
| 10/17 | Math HW<br>Lab ECE 380 (pre-lab) | CS 350 Project                |           | GN HW            | Math HW |
| 10/24 | Math HW<br>Lab ECE 380 (pre-lab) | GN HW<br>Math Exam<br>GN Exam |           | GNHW             | Math HW |
| 10/31 | Math HW<br>Lab ECE 380 (pre-lab) | GN HW                         |           | GN HW            | Math HW |
| 11/7  | Math HW<br>Lab ECE 380 (pre-lab) | GN HW                         |           | GN HW            | Math HW |
| 11/14 | Math HW<br>Lab ECE 380 (pre-lab) | GN HW<br>Math Exam            |           | GN HW<br>GN Exam | Math HW |
| 11/21 | Math HW<br>Lab ECE 380 (pre-lab) | GN HW                         |           | GN HW            | Math HW |
| 11/28 | Math HW<br>Lab ECE 380 (pre-lab) | GN HW                         |           | GN HW            | Math HW |
| 12/5  | Math HW<br>Lab ECE 380 (pre-lab) | GN HW                         |           | GN HW            | Math HW |
| 12/12 | GN Final (3:30-6)                | Math Final (11:30-2)          |           |                  |         |

# **Countering resistance**

- Motivational Interviewing
- Understanding their goals and how their actions may be counterproductive
- How do they want to be perceived?
- How do they perceive friendships?
- What is their perception of what reaching their goals would look like?
- Everyone needs help, being an adult does not mean complete independence, it means knowing how to get help.

# **Take home recommendations**

- Understand their goals
- Help them understand how their behavior is interpreted others
- Not all awkward social interactions are the result of the autistic person's actions
- Everyone needs help!
- When in doubt draw/write it out
- Be explicit
- Be literal/consider the accuracy of your language
- Don't assume

- Cognitive-Behavioral Therapy for Adult Asperger Syndrome by Valerie Gaus
- Taking the Mystery Out of Medications in Autism/Asperger Syndromes by Luke Tsai
- Autism Society of Alabama website:
  - Autism-alabama.org
- Autism Speaks Website:
  - Autismspeaks.org
- Organization for Autism Research Website
  - Researchautism.org

- <u>Smart But Scattered: The Revolutionary "Executive Skills" Approach to Helping Kids Reach their</u> <u>Potential</u>, by Peg Dawson, provides suggestions for building executive functioning skills in children.
- <u>To Be Me: Understanding what it's like to have Asperger's Syndrome</u>, by Rebecca Etlinger, is a book written for children with Asperger's Syndrome to help them understand the disorder.
- <u>Asperger's... What Does It Mean To Me?</u>, by Catherine Faherty, is a workbook for children with Asperger's to help increase self-awareness and understanding of the disorder, with instructions for parents and teachers on how to use the book with a child.
- <u>Confessions of a Former Bully</u>, by Trudy Ludwig, is a book for children about bullying that includes tips on recognizing and responding to bullying.
- <u>The Complete Guide to Asperger's</u> by Tony Attwood provides an overview of symptoms that might be experienced by high-functioning individuals with an ASD
- <u>Realizing the College Dream with Autism or Asperger Syndrome</u> by Ann Palmer provides tips for transitioning from high school to college. It was written by the mother of a student who has since successfully completed college.
- <u>Succeeding in College with Asperger Syndrome: A student guide</u> by John Harpur, Maria Lawlor, and Michael Fitzgeral provides additional information regarding the transition to college.

- *Thinking in Pictures* by Temple Grandin, Ph.D.
- *Different...Not Less* by Temple Grandin, Ph.D.
- *The Unwritten Rules of Social Relationships* by Temple Grandin, Ph.D. and Sean Barron
- *Pretending to be normal* by Lliane Holliday Willey
- Look Me in The Eye by John Elder Robison
- Freaks, Geeks, and Asperger Syndrome by Luke Jackson
- Parenting Across the Autism Spectrum: Unexpected Lessons We Have Learned
  Maureen Morrell & Ann Palmer
- The Journal of Best Practices: A Memoir of Marriage, Asperger Syndrome and One Man's Quest to Be a Better Husband by David Finch

- Community Resources
  - Project Search
  - Horizons School
  - Triumph Services
  - <u>Glenwood</u>
  - Vocational Rehabilitation/Easter Seals
  - UA-ACTS



Danial, J. & Wood, J. (2013). Cognitive Behavioral Therapy for Children With Autism: Review and Considerations for Future Research. *Journal of Developmental & Behavioral Pediatrics, 34,* p 702-715, DOI: 10.1097/DBP.0b013e31829f676c

Spain, D. Sin, J., Chalder, T., Murphy, D. & Happe, F. (2015). Cognitive behaviour therapy for adults with autism spectrum disorders and psychiatric comorbidity: A review. *Research in Autism Spectrum Disorders, 9*, pg. 151-162. DOI: <a href="https://doi.org/10.1016/j.rasd.2014.10.019">https://doi.org/10.1016/j.rasd.2014.10.019</a>



# Thank you!