Learners with Autism and Other Developmental Disabilities Who Have Anxiety: Key Considerations and Best Practices

Daniel W. Mruzek, PhD, BCBA-D
March 16, 2022
Learning Objectives

1. Participants will demonstrate knowledge of different types of anxiety diagnoses, discuss case conceptualization, and link to behavior in the classroom and other instructional settings.
2. Participants will describe a model for understanding “anxiety-related” behavior and relate this to intervention, supports, and modifications.
3. Participants will identify key classroom supports for learners with anxiety, including those that incorporate positive reinforcement of self-advocacy, development of specific coping skills, visual supports, and systematic relaxation strategies.
4. Participants will demonstrate a working knowledge of how to integrate their professional service efforts with the practice of other helping professionals (e.g., healthcare professionals), in supporting a learner with maladaptive levels of anxiety.
5. Participants will recognize the most common barriers to treatment of challenging behaviors related to anxiety, as well as strategies that aid in overcoming these barriers.
Autism Spectrum Disorder

Motor Difficulties

Communication Difficulties

Sensitivity to Change and Stimulation

Repetitive Behavior

Social Impediments

#AutismAwarenessMonth
Co-occurring Conditions
EXECUTIVE FUNCTIONING

1. Impulse Control
   Think before acting

2. Emotional Control
   Keep feelings in check

3. Flexible Thinking
   Adjust behavior to unexpected changes

4. Working Memory
   Keep key information in mind and use it

5. Self-Monitoring
   Self-awareness to how one is doing in the moment

6. Planning and Prioritizing
   To set and meet goals

7. Task Initiation
   Take action to get started on tasks

8. Organization
   Keep track of things physically and mentally

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Your kit will include:
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- (2 boxes/120 soft gels)
- Information packet
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Brief Word Of Caution

Identification, Evaluation, and Management of Children With Autism Spectrum Disorder

Susan L. Hyman, MD, FAAP; Susan E. Levy, MD, MPH, FAAP; Scott M. Myers, MD, F AAP; COUNCIL ON CHILDREN WITH DISABILITIES, SECTION ON DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS

Introduction

Autism spectrum disorder (ASD) is a category of neurodevelopmental disorders characterized by social and communication impairment and...
Anxiety (Hagopian & Jennett, 2008)

“Anxiety is a constellation of responses that normally occur in the face of a potential threat. Broadly speaking, an anxiety disorder is characterized by a fear response that is out of proportion relative to the actual threat, and/or extreme in its intensity to the extent that it significantly disrupts the individual’s functioning.”
Anxiety

- Verbal report of unrest, discomfort
- Aversive physiological responses
- Subjective experiences (e.g., fear)
- Cognitions of worry/dread
- Overt behaviors, especially, but not always, those with an escape and avoidance function
Specific Diagnoses

**Anxiety Disorders** (separation anxiety, selective mutism, specific phobia, social phobia, panic disorder, agoraphobia, generalized anxiety disorder)

**Obsessive-Compulsive Disorders** (OCD, body dysmorphic disorder, hoarding, trichotillomania, excoriation disorder)

**Trauma and Stressor-Related Disorders** (reactive attachment disorder, disinhibited social engagement disorder, PTSD, acute stress disorder, and adjustment disorder)
Why is this important?

39.6% of youth with ASD have at least one diagnosable anxiety disorder.

A Scoping Review of Anxiety in Young Children with Autism Spectrum Disorder

Roma A. Vasa, Amy Keefer, Rachel G. McDonald, Michelle C. Hunsche, and Connor M. Kerns

Research on anxiety in children and adolescents with autism spectrum disorder (ASD) has burgeoned in the past 15 years. Most of the research has focused on school-age children, ages 6 to 18 years. Yet, recent studies suggest that anxiety can emerge in young children, under 6 years, with ASD. This scoping review synthesized the literature on anxiety in young children with ASD. Three domains of anxiety research were reviewed: (a) prevalence/severity, phenomenology, and course; (b) correlates; and (c) treatment. Four online databases were searched from the start of the database until March 2020. Keywords pertaining to anxiety, autism, and young children were entered. The search identified 44 articles for inclusion. These studies varied with respect to sample source, informants, and measures to assess anxiety. The overall prevalence of anxiety ranged from 1.6 to 62%. Sixteen of 17 studies found that young children with ASD had higher levels of anxiety compared to various control groups. A variety of DSM anxiety symptoms and disorders were present in young children with the most common symptoms being specific, social, and generalized fears. Correlates of anxiety included sensory over-responsivity, sleep disturbance, aggression/defiance, and attention deficit/hyperactivity disorder. Three cognitive behavioral treatment studies for anxiety and one developmental intervention targeting ASD symptoms showed promise in reducing anxiety. Findings indicate an early emergence of anxiety in some children with ASD. Further research on the measurement, pathophysiology, and treatment of anxiety in early childhood is critical to improving outcomes in children with ASD. Autism Res 2020, 13: 2038–2057. © 2020 International Society for Autism Research and Wiley Periodicals LLC.

Lay summary: This scoping review synthesizes the literature on anxiety in young children with autism spectrum disorder (ASD). Results indicate that children with ASD have higher levels of anxiety than children without ASD. Potential factors that could be contributing to anxiety include sensory, sleep, and behavioral problems. Preliminary studies show that anxiety can improve with cognitive behavioral treatment. These findings suggest that research on anxiety in young children with ASD should be prioritized to improve mental health outcomes.

Keywords: anxiety; autism; review; young children
• Anxiety symptoms can worsen with age
• Significant negative impact
• Treating anxiety early = better outcome
• Interventions can be effective
• Correlates include aggression, sleep difficulties, ADHD, sensory over-responsivity, social and language functioning, GI functioning, eczema.
• Meta-analytic study
• + Correlation b/w IQ and Anxiety
• Supports our notion that visual supports, structure, and routines are supportive for many learners with ASD.
Proactive Support: Transitions

- Consider transitions as key moments of day
- Plan ahead (e.g., positioning)
- Work as a team (e.g., consult with teacher or consultant)
- Use transition supports
- Recognize that lasting progress is often gradual
- Encourage patience
Visual and Other Adaptive Supports

**MY DAY**

- 7:00: Wake Up
- 8:00: School
- 2:30: Field Trip
- 3:00: Snack
- 3:15: Homework
- 4:00: TV Time
- 5:00: Outside Play
- 5:30: Set Table
- 6:00: Bedtime
- 8:30: Bedtime

First:
- Magnetic numbers: 2 + 4 = 6

Then:
- Ball bounce
Choice Board
Promoting Communication Skills...Examples include:

• Asking for items/activities
• Requesting help
• Indicating need for bathroom, water, or discomfort
• Getting others’ attention
• Indicating need for a break
• “Yes” and “No”
We have the potential to be positively impactful!
Secret Word

• Relax
Case Conceptualization
Biopsychosocial Model


Multidisciplinary Effort

- Individual
- Family
- Friends
- Educators
- Therapists
- Medical Providers
- Administrators
Recognition of Anxiety in Learners with ASD

- Discuss concerns with parents/caregivers
- Refer to a medical or psychological professional for thorough evaluation, particularly as relates to potentially “diagnosable” illness.
- Nonetheless, we know our students... and, with some diligence, we can recognize some of the sources of angst in their lives.
“Rule-Outs”

- Concerns related to mood (e.g., depression, grieving);
- Stereotypies (i.e., intense interest in behavior itself, rather than relief that it provides);
- Genuine disinterest in setting or activity (e.g., a teen who does not enjoy the store; dearth of reinforcement associated with event);
- Physiological status (e.g., hunger, poor sleep);
- Skill deficit (e.g., greeting, navigation);
- Medication effects;
- Trauma.
Scotty

- CA = +18
- ASD + Moderate ID
- Vocational training
Assessment of Anxiety-Related Behavior: Principles

- Take your time. Consider multiple visits and especially systematic exploration of presentation.
- Practice “developmentally appropriate” assessment.
- Consider range of behaviors that may be consistent with anxiety (not just escape/avoidance).
- A multi-informant/multiple sources of data approach will be critical.
Groden Stress Survey

THE STRESS SURVEY SCHEDULE FOR PERSONS WITH AUTISM AND DEVELOPMENTAL DISABILITIES
The Groden Center, Inc.

Please rate the intensity of the stress reaction to the following events by filling in the appropriate circle:

1. Receiving a present...
2. Having personal objects or materials out of order...
3. Waiting to talk about desired topic...
4. Having a change in schedule or plans...
5. Being in the vicinity of noise or disruption by others...
6. Waiting for preferred events...
7. Having a cold...
8. Being touched...
9. Having personal objects or materials missing...
10. Having a change in task to a new task with new directions...
11. Going to the store...
12. Being prevented from completing a ritual...
13. Having a change in environment from comfortable to uncomfortable...
14. Being prevented from carrying out a ritual...
15. Moving from one location to the next...

Symptoms in the Context of Development

Review

The treatment of anxiety symptoms in youth with high-functioning autism spectrum disorders: Developmental considerations for parents

Judy Reaven*

JFK Partners, Dept. of Psychiatry, University of Colorado School of Medicine, 13121 E. 17th Avenue/Campus Box C234, Aurora, CO 80045, USA
“Developmentally Appropriate”

• Consider how signs of anxiety may present in an individuals with varying levels of verbal and cognitive status.

• In children, for example, anxiety responses may take the form of aggression directed at “unrelated” others.

• Some individuals engage in behavior to avoid the onset of acute anxiety....Intuitively: “What do I need to do to avoid a panic attack?”
How would we react? (Consider “Psychosocial Masking” and “Diagnostic Overshadowing”)

- Consider learner’s possible difficulties in reporting their anxiety and discomfort.
- Consider how professionals may overlook symptoms of anxiety in one with ASD and/or other IDD.
Legend

• CA = 15
• DX = ASD, Intermittent Explosive Disorder, ODD
• Setting = Specialized residential setting and school
In one sense, when anxiety is implicated as a cause for concern...

• The functional assessment is “easy”; it’s typically escape, avoidance, or termination of a noxious circumstance;

• But, as professionals and family members, we have a special task – identifying in very specific, operational terms, what elements of a circumstance is the individual escaping and avoiding?

• This is not always obvious or intuitive....so, don’t rush through your assessment process!
Stressor Occur in a Context

- Events at home or school
- Nutrition
- Sleep
- Task demands
- Ambient noise
- Unpredictable behavior of others
- Noxious smells
- Personal history, sometimes traumatic
Setting Events – Circumstances that influence the relationship between immediate triggers and an anxiety response.

When “anxiety” is part of your concerns for your student, pay particular attention to setting events that compromise physiological stress and/or decrease the individual’s ability to cope with immediate demands.

A. Pharmacological
- side effects
- main effects
- recent change in medication or dosage
- long term effect (e.g., tardive dyskinesia)
- erratic or wrong administration of medicine

From URMC Community Consultation QI Project 2017
Setting Events

B. Physiological/Medical
- poor sleep/fatigue
- nutrition/eating habits
- hunger/missed meals
- sensory systems (e.g., vision, hearing)
- constipation/diarrhea
- dehydration/thirst
- illness (e.g., flu, cold)
- dental problems
- infection (e.g., ear, sinus, urinary tract)
- allergies
- menses
- lack of exercise
- physical pain (e.g., headache)
- hypothyroidism/hormonal changes
- seizure
- motor problems
- neurological impairment (e.g., dementia)
- chronic health condition
### Setting Events

<table>
<thead>
<tr>
<th>C. Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>academic demands (i.e., quality, quantity, pace)</td>
</tr>
<tr>
<td>noise</td>
</tr>
<tr>
<td>activity level</td>
</tr>
<tr>
<td>staffing pattern</td>
</tr>
<tr>
<td>independent vs. group activity</td>
</tr>
<tr>
<td>proximity of others (e.g., crowded)</td>
</tr>
<tr>
<td>transitions</td>
</tr>
<tr>
<td>time of day</td>
</tr>
<tr>
<td>boring setting</td>
</tr>
<tr>
<td>temperature hot or cold</td>
</tr>
<tr>
<td>music</td>
</tr>
<tr>
<td>location in room (e.g., back of class)</td>
</tr>
<tr>
<td>arriving late</td>
</tr>
<tr>
<td>multiple materials/need for organization</td>
</tr>
<tr>
<td>particular staff person</td>
</tr>
<tr>
<td>uncomfortable clothing (e.g., too tight)</td>
</tr>
<tr>
<td>disruption in routine</td>
</tr>
<tr>
<td>number of transitions</td>
</tr>
<tr>
<td>homework expectations</td>
</tr>
</tbody>
</table>
Setting Events

D. Mental Health

- mood
- anxiety
- OCD/OCD-like
- alcohol/substance abuse
- personality disorder
- schizophrenia/thought disorder
- adjustment problems
- history of trauma
- Tourette’s or Tic disorder
### Setting Events

**E. Social**

- prolonged hospital stay
- change in school, classroom, teacher etc.
- residential move
- new person in home or someone leave
- transportation problems
- change in finances (e.g., loss of SSI)
- physical or mental illness in family
- bullied or teased
- history of conflict with others
- difficulty with a specific person
- death of a family member or other
- losing a game
- disappointed (e.g., cancelled outing)
- refused a desired object/activity
- reprimanded
- "made" to do something
- exciting activity, albeit enjoyable
- little opportunity to socialize with others
- level of prompting/redirection by others
- little opportunity to relax alone
- denied access to object of interest or obsession
- overhears comments about self from others
- another person in vicinity engages in challenging behavior
- sexual or romantic interest in another person
James

- Dx include ASD and OCD
- General Education Middle School

- Consider how others view behavior of concern; politely challenge when helpful
- Our intervention efforts include education and advocacy
- Monitor for behavior consistent with health and well-being
- Promote adaptive behavior (i.e., coping) through instruction

“He’s a great historian!”
FIRST CONSIDERATION IN TREATMENT:

Coping Skills

- Functional communication
- Asking for help
- Requesting a break
- Self-management
- Identifying one’s concerns
- Self-advocacy
Teach the Learner How to Use These Skills

THE MOST POWERFUL LEADERSHIP TOOL

POSITIVE REINFORCEMENT

5 KEYS FOR EFFECTIVE DELIVERY

#1
Make it PERSONAL
Reinforcement must mean something to the person receiving it.

#2
Make it IMMEDIATE
The longer you wait the less effective it is.

#3
Make it FREQUENT
If you're reinforcing correctly, it will never be too much.

#4
Make it SOCIAL
Any interaction without the use of gifts that lets the performer know that they are valued.

#5
Make it EARNED
It must be contingent on some accomplishment.

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Bringing Out the Best™
Prompting is the extra help we provide our learner, in order that they engage in the target behavior and receive the available reinforcer.
Thoughtful use of the prompt hierarchy provides your students with opportunities to be increasingly independent and successful.
Initiate Supports Here: **Precursor Behaviors**

Monitor for precursor behaviors, as often these will be the signal to the individual and those around him or her to initiate a specific intervention.
Tony and his “No Schlicking” Behavior Plan

• CA = 9
• Dx = ASD + ADHD
• Self-contained 12:1:1 classroom
• Monitor for “multiply-driven” behavior that is mediated by an anxiety response.
• Consider, among other things, ways of supplanting the need to engage in the challenging behavior.
• Be active, not reactive... Watch for those precursor behaviors.
Treatment

- Antecedent Manipulation (e.g., environmental change)
- Positive practice
- Progressive Relaxation
- Problem-Solving
- Social Stories and Cognitive Picture Rehearsal
Treatment of anxiety in autism spectrum disorders using cognitive behaviour therapy: A systematic review

Russell Lang, April Register, Stacy Lauderdale, Kristen Ashbaugh, & Anna Haring

Abstract
Objective: To review studies involving the treatment of anxiety in people with autism spectrum disorders (ASD) using Cognitive Behaviour Therapy (CBT) with the intent to inform practice and to identify areas for future research. Methods: Systematic searches of electronic databases, reference lists and journals identified nine studies. Each identified study that met pre-determined inclusion criteria was analysed and summarized in terms of: (a) participants, (b) intervention procedures, (c) dependent variables, (d) results of intervention and (e) certainty of evidence. To assess the certainty of evidence, each study's design and related methodological details were critically appraised. Results: Positive outcomes were ubiquitous, suggesting CBT is an effective treatment for anxiety in individuals with Asperger's. However, data involving other ASD diagnostic sub-types is limited. Conclusions: CBT has been modified for individuals with ASD by adding intervention components typically associated with applied behaviour analysis (e.g. systematic prompting and differential reinforcement). Future research involving a component analysis could potentially elucidate the mechanisms by which CBT reduces anxiety in individuals with ASD, ultimately leading to more efficient or effective interventions.

Keywords: Cognitive behaviour therapy, Asperger's syndrome, autism, anxiety, systematic review, applied behaviour analysis
CBT Model of Anxiety

Marla, CA = 11
Keep it simple.
Cognitive Picture Rehearsal (Groden)

A way of priming coping behavior, in anticipation of the occurrence of noxious circumstances.
CPR for Fire Drills

A—- When the fire alarm goes off, I know what to do!

B—- I.....

Take a slow breath and relax my muscles.
Say to myself, “It’s OK. I can handle it.”
I put my earplugs in my ears.
Walk to the door and stand in line.
Walk out of the school with my classmates.

C---- I did it! The fire alarm went off, and I stayed in control! I get a special coupon to take home to my Mom and Dad....I am proud of myself, and so are my teachers!
Second Secret Word

Gratitude
Teaching Relaxation Skills: Key Considerations

Skills can be taught like other skills (systematically!)

May take considerable time with no immediate benefit.

Generalization must be systematically promoted.

Use simple but objective data systems to monitor progress

- Teaching shallow breathing during relaxation exercises
- Allowing instruction to become a frustrating experience
- Teaching relaxation skills in-vivo before student is ready
- Not modeling the relaxation behaviors for student
Systematic Relaxation

Relaxation Training: Abbreviated Procedure

Date: ______________________

Trainer: __________________________________

Target Duration of Relaxation: __________ seconds

• Hands on lap or arm rests
• palms down, fingers loosely curled
• Arms bent, resting on lap, table, arm rests
• Legs straight; feel flat on floor
• Breathing slower and deeper than baseline
• Positive Statement about self and/or circumstance
• Positive reinforcement delivered by Trainer for demonstration of skills

Poppen, 1988
Example of Relaxation Procedure

1. Back: Spine perpendicular to floor; back touching back of chair;
2. Head: Upright and motionless; nose in midline with body;
3. Arms: Bent approximately 120 at elbow with wrists resting on thigh
4. Legs: Straight & feet flat on floor with approximately 90 angle at knees & ankles
5. Eyes: Eyelids are lightly closed with a smooth appearance
6. Mouth: lips parted at center of mouth from 1/4 inch to 1 inch
7. Throat: Absence of motion
8. Hands: On armrest of chair or lap, fingers curled
9. Quiet: No vocalizations or loud respiratory sounds
10. Breathing: Slower than baseline

Poppen (1998), Behavioral Relaxation Training and Assessment (2nd Ed.)

Note: Program must be individualized. For many children, fewer steps may be taught. For example, “arms...legs...hands...breathing” may be taught.
Example of Relaxation Instruction: 8 Year-Old Male with Autism

**Fig. 1: Subject 1**
Percentage of Correct Relaxed Behaviors During Probes

<table>
<thead>
<tr>
<th>Session</th>
<th>Baseline</th>
<th>Acquisition</th>
<th>Modified BRT (Five Behaviors)</th>
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<tbody>
<tr>
<td>1</td>
<td>0%</td>
<td>30 secs.</td>
<td>80%</td>
</tr>
<tr>
<td>2</td>
<td>10%</td>
<td>45 secs.</td>
<td>80%</td>
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<tr>
<td>3</td>
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<td>80%</td>
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<td>6</td>
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<tr>
<td>17</td>
<td>80%</td>
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</table>

Percent Correct
Important Note....

Correct implementation of systematic relaxation training requires considerable training and expertise. One would not be able to implement such a program based solely on today’s presentation.

References for further study:


Problem-Solving Procedure

1. Define the problem.
2. Discuss ("brainstorm") possible, tangible solutions.
3. Select a solution and implement it. Collect data.
4. Evaluate outcome and identify next steps.
GILBERT'S PROBLEM-SOLVING PROCEDURE

When I have a problem, I know what to do....

I stop and take a deep, slow breath....

I ask a trusted adult to help me, and....

I name the problem.

Then, I brainstorm solutions.... (At least two)...

And, I choose a solution....

And, I try it out!

If it works – GREAT!
Problem-Solving: Supports

- Notebook between classroom and counseling
- Be sure to agree on the goals
- Identify and respond to barriers
- Visual supports prompting problem-solving
- Modeling problem-solving
- Guided support of PS – when student is calm
- Reinforcement of PS behavior
Reframing and Attribution Shaping

- Habits of thinking are not forever
- Take positive steps to problem solve situation
- Taking action is good way to manage helpless feelings.
- People can choose the way they reframe a situation.
- Reframing the situation enhances a person’s outlook and emotional/physical well being.
We have the potential to be positively impactful!
Thank you!

I appreciate your time and attention, as well as your great service to learners and their families!

dmruzek@ur.rochester.edu