



VANDERBILT KENNEDY CENTER

Cognitive Behavioral Strategies for Autistic Students (Adolescent)



This toolkit is intended for educators and school teams working with adolescent students. This could include teachers, school staff, administrators, paraeducators, school psychologists, and others working with autistic students and students with developmental disabilities. A more detailed review of this material and additional resources can be found in the interactive online course. Learn more at triad.vklearning.org/en-us/Toolkits.

Identity-first language is used throughout this pamphlet. For more information visit: triad.vumc.org/identity-language.

Introduction to Autism

Autism is a neurodevelopmental condition characterized by differences in social communication and the presence of restricted and repetitive patterns of behavior. Currently, autism is diagnosed in about 1 in 31 children.

Although not part of the diagnostic criteria, some autistic students may experience a high level of co-occurring mental health conditions. Autistic students often have difficulty navigating social, academic, and work environments, particularly where social expectations are not made explicit. In addition, environments that do not support developmental differences can also cause additional difficulties including feeling overwhelmed and anxious. Some autistic students may have difficulty identifying, understanding, and managing their emotions which can contribute to the social difficulties experienced. These, along with the difficulties autistic individuals often face when coping with changes in routines, are all potential risk factors for developing co-occurring mental health conditions.

Autism and Mental Health

Mental health conditions have been on the rise. Globally one in seven 10 to 19-year-olds experiences a mental health condition (National Library of Medicine, 2022). Nearly 85% of autistic students have a co-occurring mental health condition, with the most common including attention deficit hyperactivity disorder, anxiety, and depression (Romero et al., 2016).

Mental health concerns, including emotional and behavioral health problems, can impact many areas of a student's life.

- Mental health concerns can impact cognitive processes such as paying attention, persevering with tasks, and following

- school routines, which over time can affect academic achievement.
- Mental health concerns can interfere with a student's ability to make friends and develop social relationships, which over time can lead to feelings of isolation and loneliness.
- Mental health concerns can increase difficulty communicating wants and needs and can lead students to experience frustration, anger, and subsequent acting out behaviors (e.g., aggression, tantrums).
- The transition from early adolescence to young adulthood requires social skills and executive functioning skills that when impaired can lead to difficulties with schoolwork, social relationships, and managing life skills independently. When individuals learn to manage their mental health, it leads to success in many areas, including relationships, employment, physical health, and community well-being.
- For adolescent students, they might have co-occurring autism and anxiety/depression and have difficulty planning, prioritizing, and completing long-term or multi-step assignments.
- They might struggle to participate in group activities and be unsure of how to solicit help.

Connecting to Tennessee-Social and Personal Competency (SPC) Standards

Mental health includes a student's emotional, psychological, and social well-being. It affects how students think, feel, and act and includes learning healthy social skills and ways of coping when there are problems (CDC, 2019). Mental health is a continuum and is not simply the absence of a mental or emotional disorder. All students can benefit from learning skills and strategies to support mental health and emotional well-being. Research shows that explicitly teaching students social, emotional, and behavioral skills leads to increased academic performance and mental wellness, along with many other benefits (Durlak, et al., 2023).

The Tennessee Social and Personal Competency (TN SPC) standards are a set of standards designed to empower students to be successful in life. These are social and emotional skills that can support students in managing themselves, their relationships, and life. There are 5 core standards (self-awareness, self-management, social awareness, relationship skills, and responsible decision-making), but this handout will focus on self-awareness and self-management, as these two standards directly support student mental health and wellbeing.

According to the TN SPC standards, "**self-awareness** is the ability to accurately recognize one's emotions, thoughts, and values and their influence on behavior. This includes accurately assessing one's strengths and limitations and possessing a grounded sense of confidence, optimism, and a 'growth mindset.'" (TN SPC Resource Guide, 2017).

Self-awareness supports mental health and well-being by teaching students to recognize and manage their emotions and identify and communicate their feelings/emotions while recognizing situations that trigger uncomfortable emotions or behaviors.

According to the TN SPC standards, "**self-management** is the ability to regulate one's emotions, thoughts, and behaviors effectively in different situations. This includes managing stress, controlling impulses, motivating oneself, and setting and working towards achieving personal and academic goals." (TN SPC Resource Guide, 2017).

Self-management supports mental health and well-being by helping students understand and use strategies for managing their emotions and behavior constructively.

Introduction to Cognitive Behavioral/ Instructional Strategies (CBIS)

CBISs are interventions based on the simple principle that thinking (internal behavior) impacts emotions/feelings and controls overt actions (external behavior). These are interventions used to teach learners to support their self-awareness and self-management skills.

CBISs are considered evidence-based practices (EBPs) for autism because they are supported by a large body of empirical research demonstrating positive effects with autistic children and youth experiencing a range of emotional and behavioral difficulties.

Considerations for Teaching Cognitive Behavioral/ Instructional Strategies

It is important when teaching skills pertaining to mental health to consider the role and impact culture, religion/spirituality, socio-economic status, and trauma history can have on a student's mental health and well-being. Here are several resources that provide more detailed explanations of the impact these topics can have on mental health. We recommend that you take some time to familiarize yourself with these topics.

Cultural Competency and Culturally-Informed Practices

Self-Assessment Checklist
<https://bit.ly/4dv8NnG>

Tennessee Department of Education
Culturally Inclusive Practices
tn.gov/education/families/student-support/special-education/culturally-inclusive-practices.html

Trauma-Informed Practices

The National Child Traumatic Stress Network
nctsn.org/trauma-informed-care

Brief 1: A Focus On Trauma-Informed Practices
nctsn.org/print/2858

Foundational Classroom Practices

To support students' emotional wellbeing in the classroom, we recommend adopting foundational classroom practices and management strategies that are grounded in both trauma-informed and positive behavioral approaches.

The skills in this toolkit should be taught and practiced when both the adult and child/adolescent are calm and relaxed. These skills will not be as effectively taught or used for the first time when either individual is in an escalated emotional state.

When teaching autistic students, it is important to incorporate evidence-based practices designed to facilitate understanding and learning. The National Clearinghouse on Autism Evidence & Practice published an updated report synthesizing intervention research published between 1990 and 2017.

When working with and teaching autistic students, here are some general evidence-based practices to keep in mind.

- Use visual supports and decrease verbal language
- Use written rules with pictures
- Use visual schedules
- Teach strategy using Explicit Instruction
- Video Modeling: Using a video-recorded demonstration of the targeted behavior or skill shown to the student to assist learning or engaging in a desired behavior or skill.
- Reinforce: The application of a consequence following a student's demonstration of a response or skills that increases the likelihood that the student will show the response/skills in the future.

Skill One: Emotion Awareness

What is the skill?

Emotion awareness skills are aimed at teaching students why we have emotions/feelings, the benefits and challenges of emotions, and how to identify different types and levels of emotional expression in oneself and others.

Why is it important for autistic learners?

- Emotion awareness skills help learners understand the connection between their emotions and behaviors across different situations.
- Emotion awareness skills can support mental health by increasing social engagement, emotional wellbeing, and the use of coping skills for students. It can also help promote mental health and resilience skills that enable learners to cope effectively with stress and adversity.
- Additionally, autistic students may struggle to recognize and understand different emotional responses. For example, autistic students might perceive negative or unpleasant emotions as anger, or they might struggle to identify the reason for an emotion. Prior to teaching emotion awareness skills, if you become aware that the student cannot describe emotions in a concrete manner or does not connect emotions to a specific thought and behavior (e.g., if no one talks to me during lunch, I will be sad...), then consider teaching a lesson on the purpose of emotions.

Strategy: Five-Point Scale

- A five-point scale is a strategy that teaches autistic students social and emotional understanding by using a numbered or leveled scale to explain degrees of emotional responses (e.g., feeling calm, to feeling slightly agitated, to feeling out of control) while defining social expectations.
- It allows abstract social and emotional concepts to be made concrete, personal, and presented visually and can be used to support emotional understanding, social understanding, and relationship skills.
- A five-point scale supports autistic students' emotional awareness by helping to connect their responses (emotional, behavioral, cognitive, and/or physiological) to different situations. It also teaches self-regulation and management by providing strategies students can use to cope effectively when challenges arise.
- A five-point scale increases student independence because it is a visual support that can be a permanent reminder or prompt for a student, reducing the need for another person to prompt or remind the student.

How to Use a Five-Point Scale to Teach Emotion Awareness

Gather resources needed to complete the task

(e.g., Five-point scale template, cards if the child prefers to have cards instead of a single sheet

- When introducing the scale, it can be helpful to use a social narrative to help the student understand the purpose and use of the scale.
- See the following steps for creating a five-point scale with a student.

Identify focus of five-point scale

With the student's input or information from your observations, identify (a.) a social or emotional problem that is negatively impacting the student or is presenting a challenge for the student and (b.) a skill, concept, or behavior that could be taught to support student success.

- The focus of the scale can be broad and not context-specific, such as an anxiety, stress, or anger five-point scale OR
- The focus of the scale can be situation-specific, such as understanding and coping with emotions when presented with an academic task, or when dealing with difficult social interactions, such as gaming with peers online.

Identify the “Looks like/Sounds Like” column

With input from the student and your observations of the student's responses, support the student in identifying some behavioral descriptors for each level of the scale. If the student has a difficult time coming up with behavioral descriptors at each level of the scale, you can share your observations of what the student looks like and sounds like at different levels of the scale. You can also provide a model by sharing some of your own behavioral descriptors at each level of the scale.

Identify the “How I feel” column

With input from the student, identify how the student feels at each level of the scale, one to five. Some students may have a hard time describing how they feel at each level. If that is the case, connecting the “How I feel” column to a special or preferred interest may be helpful. For example, using a picture of a relaxed dog laying on its back as a visual picture to represent level one for a student who loves dogs or animals. With the “How I feel” column, the student does not have to use emotion words, you just want a description that the student understands and connects to each level of the scale. If the student is struggling to come up with descriptor words, you can provide a model of how you feel at each level of the scale. You can also refer to the looks like / sounds like column to see if the student can connect those observations with their internal experience.

Identify the “I can try to” column

Create a “I can try to” column that tells the student what they can do at each level of the scale to support self-regulation. For example, a level one “I can try to” strategy could be “Smile and relax” or “Relax and enjoy the feeling” or “Feel good and confident in my work.” A level three “I can try to” strategy could be “I can try to look at my coping cards and use deep breaths” or “I can try to ask for a break.”

Teaching the use of the scale

One way of teaching the use of the five-point scale is through a sorting and matching activity, where the student sorts and matches different situations to each level of the scale. For this activity, you would provide different situations or scenarios and have the student match the different situations or scenarios to the different levels one to five on the scale. You can guide the student to match different situations to different levels on the scale. This can be a great way to check the student's understanding of each level of the scale and what situations can trigger different emotional reactions.

Case Scenario

Jacob is a fourteen-year-old male in 9th grade. He receives special education services under the category of autism and struggles with anxious feelings when he must be around peers and is expected to speak or initiate social contact with them. He has been known to become agitated and run from class when he becomes overly stressed. Let's take a look at how a teacher developed a five-point scale with Jacob.

With Jacob's input, his teacher helped him identify what his behavior looked like and/or sounded like during class at each level of the five-point scale. His teacher used examples and pictures to help Jacob describe his behavior at each level.

- 5- I feel like I need to run away.
- 4- My palms are sweaty, my knees are weak, and my arms are heavy.
- 3- I cannot hear myself think.
- 2- The anxiety is becoming noticeable and is starting to bother me.
- 1- Relaxing, smiling

Then, using pictures and guided discussion, Jacob's teacher helped him identify how he felt (his internal sensations) during class at each level of the five-point scale.

- 5- I feel very nervous.
- 4- I feel nervous.
- 3- I feel a little bit nervous.
- 2- I am starting to feel uncomfortable.
- 1- I feel good!

Putting both together, Jacob's responses are below:

	Looks Like/Sounds Like	Feels Like
5	My arms and fists are tense; I am pacing the room.	I feel very nervous.
4	My palms are sweaty; I am breathing heavily.	I feel nervous.
3	My head is down on my desk; my legs are shaking.	I feel a little bit nervous.
2	I am tapping my fingers on my desk; my heart is starting to beat faster.	I am starting to feel uncomfortable.
1	Relaxing, smiling	I feel good!

Finally, Jacob's teacher used guided discussion to help Jacob identify coping strategies he could try to use at different levels of the scale to support his self-regulation. The completed scale, with the "I can try to" column looks like this:

	Looks Like/Sounds Like	Feels Like	I can try to...
5	My arms and fists are tense; I am pacing the room.	I feel very nervous.	I can step away briefly to practice my breathing exercises.
4	My palms are sweaty; I am breathing heavily.	I feel nervous.	I can talk to an adult I trust or listen to calming music in my headphones.
3	My head is down on my desk; my legs are shaking.	I feel a little bit nervous.	I can refer to my coping cards to help myself calm down.
2	I am tapping my fingers on my desk; my heart is starting to beat faster.	I am starting to feel uncomfortable.	Remind myself that I can do this.
1	Relaxing, smiling	I feel good!	Smile and relax!

To check for understanding, Jacob's teacher wrote different situations/scenarios on slips of paper and had Jacob match each scenario to a level on the scale. This is how Jacob arranged the different scenarios:

	Different Scenarios
5	I am in the cafeteria, I see the group of students I usually sit with, and the table is full
4	I am in the cafeteria, and I do not see the group of students I usually sit with
3	I am leaving the classroom and am beginning to head towards the cafeteria
2	I am aware that the lunch period is coming up, and I am starting to think about going into the hallway with everyone
1	I'm in class enjoying my work

Skill Two: Behavioral Coping and Self-Regulation

What is the skill?

Behavioral coping and self-regulation skills aim to teach students ways to manage stress and cope with the physical aspects of stress and difficult emotions through relaxation.

Why is it important for autistic learners?

- These skills can help autistic students manage their emotions, thoughts, and behaviors in adaptive ways and across different situations.
- Students learn to manage stress, control impulses, and set and work towards achieving personal and academic goals.

- Students learn to employ specific behavioral coping strategies to support self-regulation.

Strategy: Grounding

- Grounding is a mindfulness and behaviorally based strategy that teaches students to focus on the present moment with sustained attention.
- It allows students to use their five senses to stay in the present and to help reorient to the here-and-now.
- It serves as a momentary distraction for current difficulties.
- It teaches students how to use all their five senses to self-soothe and self-regulate.

How to Use Grounding to Teach Behavioral Coping and Self-regulation

Gather resources needed to complete the task

(e.g., A visual representation of the five senses- images of eyes, hand, ear, nose, mouth, and script)

Describe and share the purpose for the strategy

Example: "We are going to learn a strategy called Grounding. Grounding can help shift your thoughts from Busy and Distracted to Calm and Focused. We will do that by exploring the room and focusing on each of the 5 senses. We will use these pictures to help us explore the room and our surroundings with our eyes, hands, ears, nose, and mouth. Paying attention to the room and our surroundings can help us feel safe, calm, or focused."

Model the strategy for student(s)

Show how to use the five senses grounding strategy using a visual task analysis to support teaching. Example: "First, I'll show you how I use my senses to feel safe, calm, or focused. I'll use my eyes to see 5 things in the room. I'll use my hands to touch 4 things. I'll use my ears to hear 3 things (listen for 10 seconds, name clear sounds). I'll use my nose to smell 2 things. I'll use my mouth to taste 1 thing." Point to each of the 5 senses on visual representation.

Guided practice

Have students practice with you moving through the five senses grounding exercise. You might step independently into another room or another space for a different sensory experience. Example: Using a visual task analysis, have students practice the grounding exercise with you. "Now, let's try together. We'll use our eyes to find 5 things in the room [continue with 4 things to touch, 3 things to hear, 2 things to smell, 1 thing to taste]."

Independent practice

Have students practice independently using the same visual task analysis you used during the model and guided practice. Provide an opportunity for students to reflect on the activity and how it felt for them. Modify the types of questions and response options based on the student's learning profile and communication preferences. Some examples of questions could be: "On a scale of 1-10, one being super easy and 10 being super hard, how hard was this strategy to do?" "Point to the picture/sense that was easiest to focus on." "Point to the picture/sense that was hardest to focus on."

Once the student can demonstrate the skills in a one-on-one setting, choose times where the student can practice this skill throughout their day. Make sure practice opportunities are when the student is typically in a calm, well-regulated state.

Skill Three: Cognitive Coping and Self-Regulation

What is the skill?

Cognitive Coping and Self-Regulation skills are aimed at teaching learners how to manage their thoughts and emotions to adapt to unexpected situations and to increase goal-directed behavior.

Why is it important for autistic students?

These skills can help autistic students support and improve their self-regulation. They can learn to manage their feelings of stress and to cope with the cognitive aspect of difficult emotions by using thought-based strategies.

What are some ways of teaching the skill?

One way of teaching cognitive coping and self-regulation skills is the thought challenging strategy.

Strategy: Thought Challenging Strategy

- The Thought Challenging strategy can help students learn to recognize when thoughts are helpful or unhelpful.
- By identifying helpful and unhelpful thoughts, students can then progress toward adapting or changing their unhelpful thoughts.
- This activity allows students to practice identifying and changing unhelpful thoughts by identifying with their favorite characters, if helpful.

How to Use the Thought Challenging Technique to Teach Cognitive Coping and Self-regulation

First, ensure the student has a basic understanding of how our thoughts, feelings, and behaviors work together to impact our mood.

Model

Provide an example of an unhelpful thought for the student. Next, model or show the student how to challenge that thought. Example: "I walked into a room and two of my friends were laughing. I thought they were laughing at me, so I felt sad. Then I thought about how they might have been laughing at a funny video they watched together, and that made me feel a lot less sad."

Guided practice

- Guide the student through the practice of identifying an unhelpful thought together and then challenging the thought.
- This can be done by using a scenario that the student's favorite character might face.

Independent practice

Invite the student to identify a scenario where they are likely to have an unhelpful thought(s) and ask them how they might challenge that thought. Provide the student with feedback.

Additional practice and generalization

- Have the student identify several scenarios in real life where they became upset or emotionally dysregulated.
- Have them identify what their unhelpful thoughts were at that time.
- Have them identify how they can challenge those thoughts.

Exposure

- Have the student identify three scenarios or activities you can role-play together that might trigger some unhelpful thoughts.
- Work your way through the scenarios/activities one at a time.
- Let the student identify unhelpful thoughts as they arise and work together to challenge those thoughts.
- Reinforce the student for their successes.

Conclusion

We hope this handout provides helpful suggestions of how to integrate cognitive behavioral/instructional strategies (CBIs) to support mental health for adolescent autistic students. Remember, you play a very important role in the social and emotional growth of the children and adolescents you serve, and these CBIs can have positive impacts for your students. We hope that this information will raise your confidence around the supports you can provide to neurodivergent students and allow you to provide a much-needed service to them.

Resources

- Introduction to Autism Spectrum Disorders
triad.vkclearning.org/en-us/Intro-to-Autism
- Evidence-Based Practices for Children, Youth, and Young Adults with Autism
unc.live/4a81P54
- Incredible 5-Point Scale
ocali.org/project/resource_gallery_of_interventions/page/5_point_scale
- 5-Point Scales: Strategies for Self-Regulation
vkc.vumc.org/assets/files/triad/tips/5-Point_Scales.pdf
- Using a Social Story™ Tip Sheet
vkc.vumc.org/assets/files/triad/tips/Social-Story-Tips.pdf
- Introduction to Tools for Supporting Emotional Wellbeing in Children and Youth
nap.nationalacademies.org/resource/other/dbasse/wellbeing-tools/interactive/index.html

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OCALI | Autism Center Grab and Go Resource Gallery of Interventions | Incredible 5-Point Scale. (n.d.). ocali.org/ocali.org/project/resource_gallery_of_interventions/page/5_point_scale

This publication was authored by Ryan Coleman, PhD, LEND (Leadership Education in Neurodevelopmental Disabilities) and TRIAD (Treatment and Research Institute for Autism Spectrum Disorders) fellow; Verity Rodrigues, PhD, Assistant Professor of Pediatrics, TRIAD; Pablo Juárez, BCBA-D, Senior Associate in Pediatrics, Psychiatry and Behavioral Sciences, and Special Education, TRIAD Co-Director.

This toolkit was edited and designed by the Communications staff of the Vanderbilt Kennedy Center for Excellence in Developmental Disabilities. This publication may be distributed in its original form at no cost. Cover photo by Adobe Stock.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number T73MC30767, Vanderbilt Consortium LEND. This information or content and conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government. June 2024