

The Autistic Experience Across the Lifespan: Considerations for Improved Clinical Practice

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unlocking potential

For over 75 years, WPS has been the leading independent publisher of educational and psychological assessments and related intervention resources in the areas of autism, speech and language, school and clinical psychology, and occupational therapy.

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Ann K. Rogers has a PhD in School Psychology with specializations in Neuropsychology and Developmental Psychology. She is a Nationally Certified School Psychologist. Dr. Rogers has worked in the field of assessment for over 25 years, in various roles with test publishers, as a practitioner in schools and in private agencies, in neuroscience pharma medical education program development, and as an adjunct university instructor for school psychology training programs. Dr. Rogers is currently a Business Development Manager with Western Psychological Services (WPS)—the premier provider of resources for assessing Autism Spectrum Disorder (ASD).



Snapshot: Mental Health

Mental Health

- Suicide claims the lives of more than 700,000 people worldwide every year.¹
- The U.S. suicide rate in kids and young adults ages 10 to 24 years jumped significantly in the past 10 to 15 years. The numbers rose from 6.8 deaths per 100,000 people in 2007 to 10.7 deaths in 2018, an increase of almost 60%.²
- In the United States, suicide is the second leading cause of death in children and young adults ages 10 to 34.³

¹ World Health Organization. (2021, June 17). *Suicide*. <https://www.who.int/news-room/fact-sheets/detail/suicide>

² Curtin, S. C. (2020). State suicide rates among adolescents and young adults aged 10-24: United States, 2000-2018. *National Vital Statistics Reports*, 69(11). <https://www.cdc.gov/nchs/data/nvsr/nvsr69/NVSR-69-11-508.pdf>

³ Weber, A. N., Michail, M., Thompson, A., & Fiedorowicz J. G. (2017). Psychiatric emergencies: Assessing and managing suicidal ideation. *Medical Clinics of North America*, 101(3). <https://doi.org/10.1016/j.mcna.2016.12.006>

Mental Health *(cont.)*

- A study published in the *Journal of Developmental & Behavioral Pediatrics* found that “children with ASD were twice as likely to report suicidal thoughts as children who don’t have the condition”.¹
- Experts say children with autism have not historically been screened for suicide risk.²

¹ Rybczynski S., Ryan, T. C., Wilcox, H. C. et al. (2021). Suicide risk screening in pediatric outpatient neurodevelopmental disabilities clinics. *Journal of Developmental & Behavioral Pediatrics*. Advance online publication. <https://doi.org/10.1097/dbp.0000000000001026>

² Zahid, S., & Upthegrove, R. (2017). Suicidality in autistic spectrum disorders. *Crisis*, 38(4). <https://doi.org/10.1027/0227-5910/a000458>

Webinar Objectives

Following this webinar, you will:

- Recognize the salient mental health challenges for autistic individuals during childhood, adolescence, and adulthood.
- Learn to integrate various assessment methods in a comprehensive evaluation for autism spectrum disorder.
- Understand at least one intervention method for use in addressing mental health challenges in childhood, adolescence, and adulthood.

Evaluation Components

- The following six components of a comprehensive diagnostic evaluation are recommended by the National Autism Center:
 - Review of relevant medical, psychological, and/or school records
 - Parent/caregiver interview
 - Cognitive/developmental assessment
 - Direct play observation
 - Measurement of adaptive functioning
 - Comprehensive medical examination

<https://www.nationalautismcenter.org/autism/>

Autism Spectrum Disorder Prevalence Update

Autism Spectrum Disorder Prevalence Overview

2018 Autism and Developmental Disabilities Monitoring (ADDM) Network Surveillance Summary (December 2021)

- One in 44 children aged 8 years was estimated to have ASD (surveillance year 2018).
- Overall male-to-female prevalence ratio was 4.2.
- ASD prevalence estimates have increased from 6.7 (one in 150) per 1,000 children aged 8 years at ADDM Network sites in surveillance years 2000 and 2002 to 18.5 (one in 54) in surveillance year 2016, and (one in 44 in 2018).

Centers for Disease Control and Prevention. (2021, December 3). Prevalence and characteristics of autism spectrum disorder among children aged 8 years—autism and developmental disabilities monitoring network, 11 sites, United States, 2018. *Surveillance Summaries*, 70(11),1–16. <https://www.cdc.gov/mmwr/volumes/70/ss/ss7011a1.htm>

Autism Spectrum Disorder Prevalence Overview *(cont.)*



- The percentage of American schoolchildren receiving special education services as a result of an autism diagnosis doubled over 10 years (2008 to 2018).
- Data from the U.S. Department of Education show that 10.51% of all students with disabilities ages 6 to 21 in 2018 were identified as having autism. A decade earlier, that figure was at 4.97%.
- The numbers come from a collection of “fast facts” on autism by the Education Department’s Office of Special Education Programs based on data collected from each state as mandated under the Individuals with Disabilities Education Act (IDEA).

Individuals with Disabilities Education Act. (2020, March 4). *OSEP fast facts: Children identified with autism*. <https://sites.ed.gov/idea/osep-fast-facts-children-with-autism-20/>

Autism Spectrum Disorder Prevalence Overview *(cont.)*



- Rubenstein et al. (2017) compared trends in 12 categories of special education eligibility by sex and race/ethnicity using ADMM data from surveillance years (2002, 2006, 2008, and 2010).
 - Of 6,010 children with ASD, more than 36% did not receive an autism eligibility in special education in each surveillance year.
 - Compared with other racial/ethnic groups, Hispanic children had the largest increase in proportion with autism eligibility from 2002 to 2010.
 - The authors concluded: “Although most children with ASD had autism eligibility, many received special education services under other categories, and racial/ethnic disparities persisted. To monitor trends in ASD prevalence, public health officials need access to comprehensive data collected systematically, not just special education eligibility.”

Rubenstein, E., Daniels, J., Schieve, L., Christensen, D., Braun, K., Rice, C., Bakian, A., Durkin, M., Rosenberg, S., Kirby, R., & Lee, L. (2017). Trends in special education eligibility among children with autism spectrum disorder, 2002–2010. *Public Health Reports*, 133(1), 85–92. <https://doi.org/10.1177/0033354917739582>

Autism Spectrum Disorder Prevalence Overview *(cont.)*



- Hambly and Fombonne (2012) compared the social abilities and language levels of children with ASDs from bilingual and monolingual environments. They found that bilingually exposed children with ASDs did not experience additional delays in language development.¹
- Valicenti-McDermott et al. (2013) conducted a review of the multidisciplinary evaluations done in toddlers who were diagnosed with autism spectrum disorder. In this study, bilingualism (English–Spanish) did not negatively affect language development in young children with autism spectrum disorder.²

¹ Hambly, C., & Fombonne, E. (2012). The impact of bilingual environments on language development in children with autism spectrum disorders. *J Autism Dev Disord*, 42(7), 1342–1352. <https://pubmed.ncbi.nlm.nih.gov/21938563/>

² Valicenti-McDermott, M., Tarshis, N., Schouls, M., Galdston, M., Hottinger, K., Seijo, R., Shulman, L., & Shinnar, S. (2013). Language differences between monolingual English and bilingual English–Spanish young children with autism spectrum disorders. *J Child Neurol*, 28(7), 945–948.

Autism Spectrum Disorder Prevalence Overview *(cont.)*



- A study from the Centers for Disease Control and Prevention (CDC) estimated the prevalence of autism spectrum disorder (ASD) among adults aged 18 years and older in the United States in 2017 and estimated prevalence at 5,437,988 (2.21%).

Dietz, P. M., Rose, C. E., McArthur, D., & Maenner M. (2020). National and state estimates of adults with autism spectrum disorder. *Journal of Autism and Developmental Disorders*. <https://doi.org/10.1007/s10803-020-04494-4>

Autism Spectrum Disorder Prevalence Overview *(cont.)*



Adults on the autism spectrum may remain unrecognized for different reasons.

- They may have never been referred to child or adult psychiatric services (i.e., missed diagnoses).
- They may have been incorrectly diagnosed with other psychiatric disorders over the course of their life (i.e., misdiagnoses).
 - The psychiatric disorder in question may be present in comorbidity with the autistic condition, thus partially covering ASD core symptoms (i.e., psychiatric comorbidity).

Fusar-Poli, L., Brondino, N., Politi, P., & Aguglia, E. (2020). Missed diagnoses and misdiagnoses of adults with autism spectrum disorder. *European Archives of Psychiatry and Clinical Neuroscience*. https://doi.org/10.1007/s00406-020-01189-w#auth-Laura-Fusar_Poli

DSM-5 Diagnostic Criteria Autism Spectrum Disorder

DSM-5 Text Revision (DSM-5-TR)

- The first text revision in the new DSM-5-TR adds two words to the description under Criterion A: “as manifested by **all of** the following.”
- The second change is within the “specifiers.” DSM-5 wording instructed clinicians to specify if a person’s autism is “associated with another neurodevelopmental, mental, or behavioral disorder.”¹ The DSM-5-TR version instructs: “associated with a neurodevelopmental, mental, or behavioral **problem**.”² Although codes are still encouraged, the requirement for a diagnosable condition has been removed.

¹ Hess, P. (2022, March 17). *DSM-5 revision tweaks autism entry for clarity*. Spectrum News. <https://doi.org/10.53053/JALY5388>

² American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders (DSM-5-TR)* (5th ed. Text Revision).

DSM-5 Criterion A

Persistent deficits in social communication and social interaction across multiple contexts...

- Example: “Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers.”

DSM-5 Criterion A (*cont.*)

- While both boys and girls with ASD are socially excluded more than peers, boys appear more overtly socially excluded, whereas girls appear more overlooked.¹
- On the playground, girls with ASD stay in close proximity to peers, whereas boys with ASD play alone.²

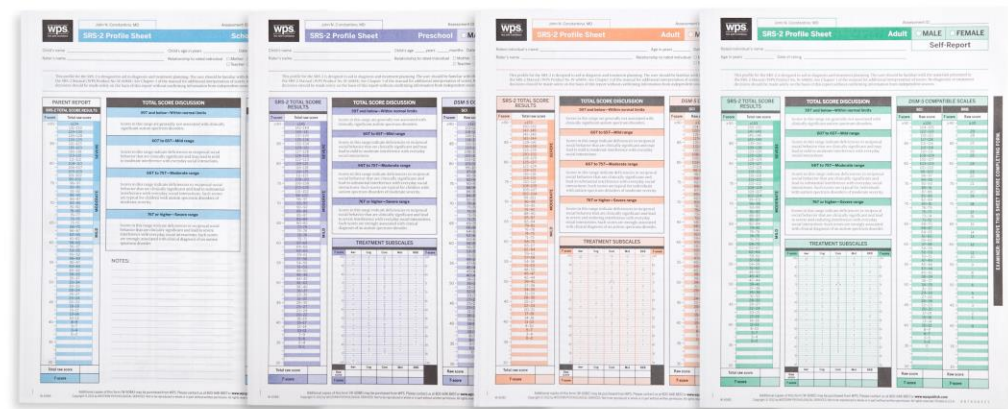
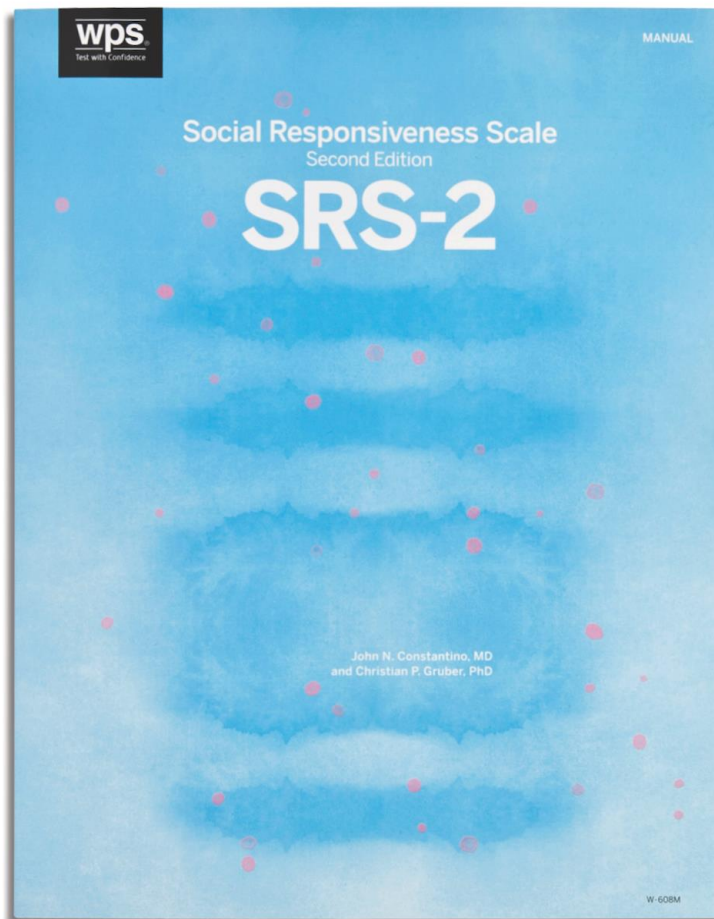
¹ Dean, M., Kasari, C., & Shih, W. (2014). The peer relationships of girls with ASD at school: comparison to boys and girls with and without ASD. *Journal of Child Psychology and Psychiatry*, 55(11), 1218–1225.

² Dean, M., Harwood, R., & Kasari, C. (2016). The art of camouflage: Gender differences in the social behaviors of girls and boys with autism spectrum disorder. *Autism*, 21(6), 678–689.

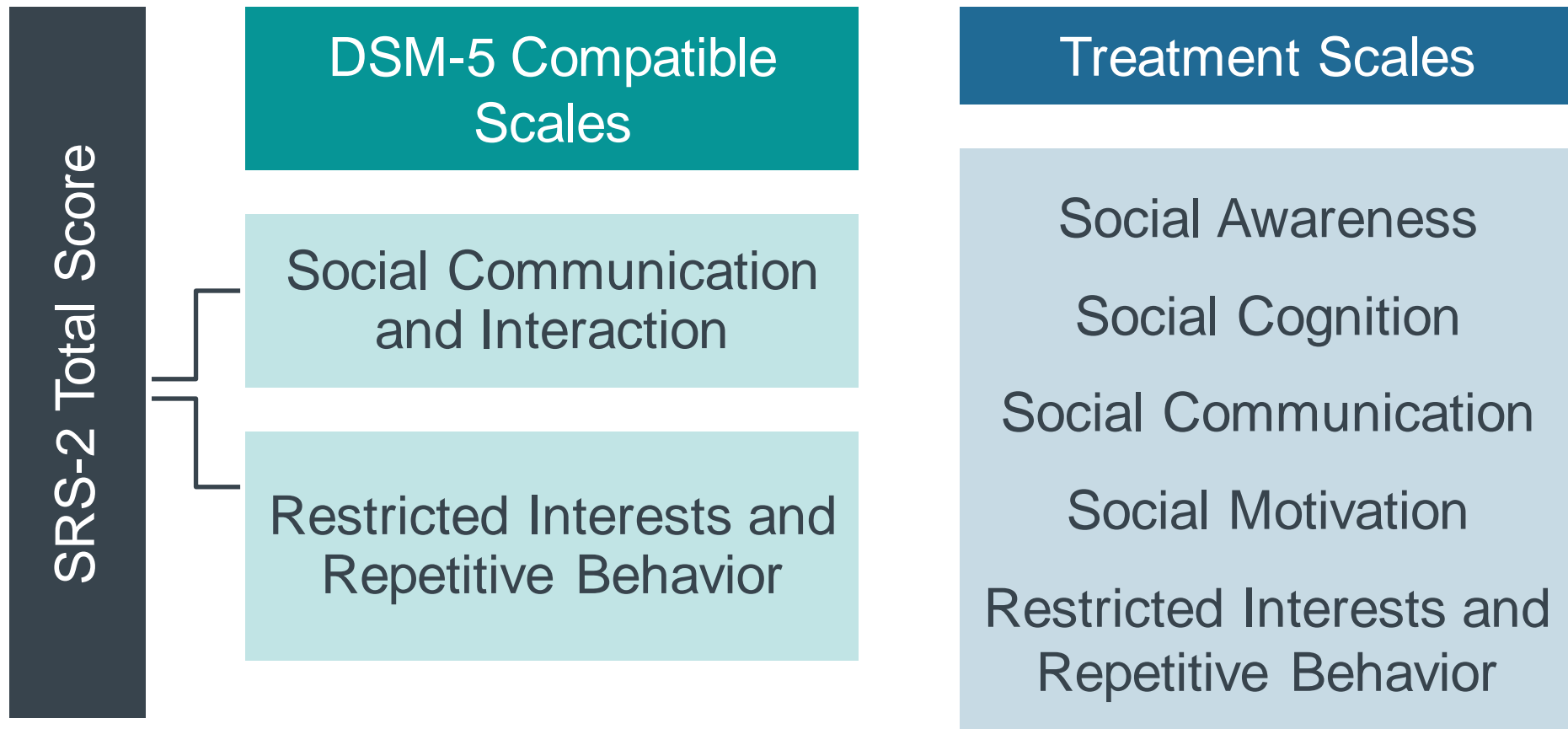
Social Responsiveness Scale, Second Edition (SRSTM-2)

John N. Constantino, MD

SRS-2



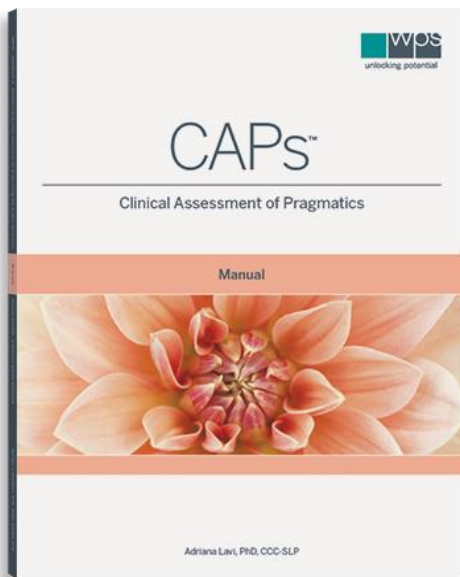
SRS-2 (cont.)



Clinical Assessment of Pragmatics (CAPs™)

Adriana Lavi, PhD, CCC-SLP

CAPs



Examiner Record Form

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Clinical Assessment of Pragmatics
Adriana Lavi, PhD, CCC-SLP

Name	Gender	Grade			
School	<input type="checkbox"/> Female <input type="checkbox"/> Male	Year	Month	Day	
Examiner's name	Date tested				
Examiner's title	Date of birth				
	Age				

Subtest and Index Performance	Raw score	Scale rank	Scaled score	SEM	Pragmatic Judgment Index	Pragmatic Performance Index	Paralinguistic Index
Instrumental Performance Appraisal (Overview of Basic Social Function)					1		
Social Context Appraisal (Heating/Cooling Card)					1		
Paralinguistic Description (Heating/Cooling Card)						1	
Instrumental Performance (Using Social-Function Language)					1		
Affective Expression (Stimulus Sentences)					1		
Paralinguistic Signals (Using Stimulus Card)						1	
Total of scaled scores							
CORE PRAGMATIC LANGUAGE COMPOSITE					3		

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CAPs *(cont.)*

- Individually administered performance test for individuals ages 7 to 18 years that measures comprehensive pragmatic language skills using a video-based format.
- The CAPs measures judgment (comprehension) and performance (expression) of pragmatic language and yields scores across six areas of pragmatic skills.
- The CAPs videos mimic actual social exchanges and identify strengths and weaknesses in higher-level language expression, inferential thinking, and understanding of the minds of others when given verbal and nonverbal cues.

CAPs (cont.)



DSM-5 Criterion C

Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life)...

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.).
<https://doi.org/10.1176/appi.books.9780890425596>

Criterion A and C

- “Autistic masking is an emerging research area that focuses on understanding the conscious or unconscious suppression of natural autistic responses and adoption of alternatives across a range of domains.”¹
- Masking “may relate to negative outcomes, including late/missed diagnosis, mental health issues, burnout, and suicidality.”¹
- Masking is proposed as one explanation for gender disparities in autism diagnosis, late diagnosis, and has been linked to negative outcomes for autistic adults, such as mental health difficulties, burnout, and suicidality.²

¹ Pearson, A., & Rose, K. (2021). A conceptual analysis of autistic masking: Understanding the narrative of stigma and the illusion of choice. *Autism in Adulthood*, (3)1. <https://doi.org/10.1089/aut.2020.0043>

² Miller, D., Rees, J. & Pearson, A. (2021). “Masking is life”: Experiences of masking in autistic and nonautistic adults. *Autism in Adulthood*, (3)4. <https://doi.org/10.1089/aut.2020.0083>

Criterion A and C *(cont.)*

Thompson Center for Autism and Neurodevelopmental Disorders sponsored a webinar 11-11-21 with Haley Moss. Topic was Masking.

- According to Haley, the “price” of Masking includes:
 - People (especially women, people of color, and gender nonconforming individuals) go undiagnosed
 - Mental and physical exhaustion that can lead to burnout or meltdowns
 - Suppressing stimming and other coping and regulating mechanisms
 - Depression and anxiety
 - Loss of identity
 - Inauthentic social acceptance

Criterion A and C (*cont.*)

- A study with adults using the *Autistic Traits Questionnaire* (CAT-Q) found that greater self-reported camouflaging was associated with poor mental health outcomes.
- No moderating effect of gender was found.
- The association between camouflaging and poor mental health appeared to be linear, with the likelihood of poor mental health increasing across the entire range of scores.

Hull, L., Levy, L., Lai, M. C., Petrides, K. V., Baron-Cohen, S., Allison, C., Smith, P., & Mandy W. (2021). Is social camouflaging associated with anxiety and depression in autistic adults? *MolecularAutism*, 12, 13. <https://doi.org/10.1186/s13229-021-00421-1>

Criterion A and C *(cont.)*

- “Autistic fatigue” and “autistic burnout” are terms that came from autistic people, and we are learning from the experiences of autistic adults.
- Fatigue, and then subsequent burnout, can happen to anybody. Autistic people, however, can be more susceptible to both, due to the pressures of everyday life, having to navigate social situations, and sensory overload.
- Trying to cope with these pressures can lead to exhaustion (autistic fatigue), and over time this can lead to extreme exhaustion or autistic burnout.

National Autistic Society. *Autistic fatigue – a guide for autistic adults.*

<https://www.autism.org.uk/advice-and-guidance/topics/mental-health/autistic-fatigue/autistic-adults>

Criterion A and C (*cont.*)

- Autistic people have described various ways that autistic fatigue and burnout have affected them. Autistic fatigue has often been described as exhaustion with additional difficulties such as:
 - increased meltdowns and sensory sensitivity
 - physical pain and headaches
 - physically shutting down, including the loss of speech
- Autistic burnout affects all aspects of a person's life, and this makes it different from professional burnout, which is related to work.

Criterion A and C *(cont.)*

There are various things that can cause autistic fatigue. Autistic adults suggest several causes, including:

- sensory overload
- dealing with social situations
- masking or camouflaging their autistic traits
- suppressing stimming
- a sense of not meeting other people's/society's expectations of them

Changes in routines or day-to-day life, such as a change of school or job, can increase anxiety and can be additional causes for autistic fatigue and burnout.

National Autistic Society. *Autistic fatigue – a guide for autistic adults.*

<https://www.autism.org.uk/advice-and-guidance/topics/mental-health/autistic-fatigue/autistic-adults>

Criterion A and C (*cont.*)

- A wide range of life stressors contributes to autistic burnout, according to a study led by Portland State University researcher Dora M. Raymaker.
 - Those include being forced to hide their autistic traits (“masking”), managing the disabling aspects of autism, and coping with a world that expects autistic people to perform at the same level as their non-autistic peers.

Raymaker, D. M. et al. (2020). “Having all of your internal resources exhausted beyond measure and being left with no clean-up crew”: Defining autistic burnout. *Autism in Adulthood*, 2(2), 132–143. <https://doi.org/10.1089/aut.2019.0079>

Criterion A and C (*cont.*)

What Autistic Burnout may look like in children

- Decreased vocabulary
- Emotional volatility
- Increased stimming
- Reduced eye contact
- Withdrawal from activities

What Autistic Burnout may look like in adults

- Emotional dysregulation
- Decreased self-care
- Increased frequency of autistic traits
- Irritability
- Low motivation

DSM-5 Criterion B

Restricted, repetitive patterns of behavior, interests, or activities...

- Example: “Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment.”

Criterion B (*cont.*)

- In a retrospective video analysis study, unique patterns of differential sensory response at 12 months of age were identified, including diminished responses (e.g., visual orienting and response to name-call), over-responsiveness (e.g., aversion to touch), and sensory seeking (e.g., excessive mouthing of objects).¹
- Sensory features are among the earliest observable indicators of autism, with atypical responses to sensation observable within the first year of life.²

¹ Baranek, G. T. (1999). Autism during infancy: A retrospective video analysis of sensory-motor and social behaviors at 9–12 months of age. *Journal of Autism & Developmental Disorders*, 29, 213–224. <https://doi.org/10.1023/A:1023080005650>

² Baranek, G. T., Woynaroski, T. G., Nowell, S., Turner-Brown, L., DuBay, M., Crais, E. R., & Watson, L. R. (2018). Cascading effects of attention disengagement and sensory seeking on social symptoms in a community sample of infants at-risk for a future diagnosis of autism spectrum disorder. *Developmental Cognitive Neuroscience*, 29, 30–40. <https://doi.org/10.1016/j.dcn.2017.08.006>

Watch for Repetitive Behaviors



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Criterion B *(cont.)*

- Kirby et al. (2022), using a sample of 25,627 four- or eight-year-old autistic children identified through the Autism and Developmental Disabilities Monitoring Network (2006–2014), found that 74% of the children had documented differences in how they responded to sensory stimuli.
- In addition, problems in the areas of adaptive behavior, motor development, attention, emotional states, hyperactivity, fear, sleeping, and eating were associated with increased odds of sensory features.

Kirby, A. V., Bilder, D. A., Wiggins, L. D., Hughes, M. M., Davis, J., Hall-Lande, J. A., Lee, L. C., McMahon, W. M., & Bakian, A. V. (2022). Sensory features in autism: Findings from a large population-based surveillance system. *Autism Research*. <https://doi.org/10.1002/aur.2670>

Criterion B *(cont.)*

- Rossow et al. (2021) found that in a sample of autistic preschoolers, externalizing mental health symptoms, such as hyperactivity, were related to sensory seeking, and internalizing mental health symptoms, such as depression, were related to sensory hyper-reactivity.
 - Results also showed that while the relationship between externalizing symptoms and sensory seeking was seen across participants, the relationship between internalizing symptoms and sensory hyper-reactivity was seen only in autistic preschoolers who used few to no words.

Rossow, T., MacLennan, K., & Tavassoli, T. (2021). The relationship between sensory reactivity differences and mental health symptoms in preschool-age autistic children. *Autism Research*. <https://doi.org/10.1002/aur.2525>

Psychosocial vs. Sensory



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Sensory Processing Measure, Second Edition (SPM -2)[™]

L. Diane Parham, PhD, OTR/L, FAOTA
Cheryl L. Ecker, MA, OTR/L
Heather Kuhaneck, PhD, OTR/L, FAOTA
Diana A. Henry, MS, OT/L, FAOTA
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SPM-2 (cont.)



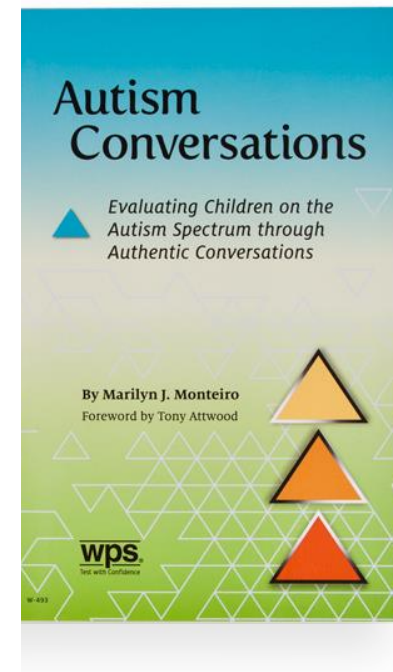
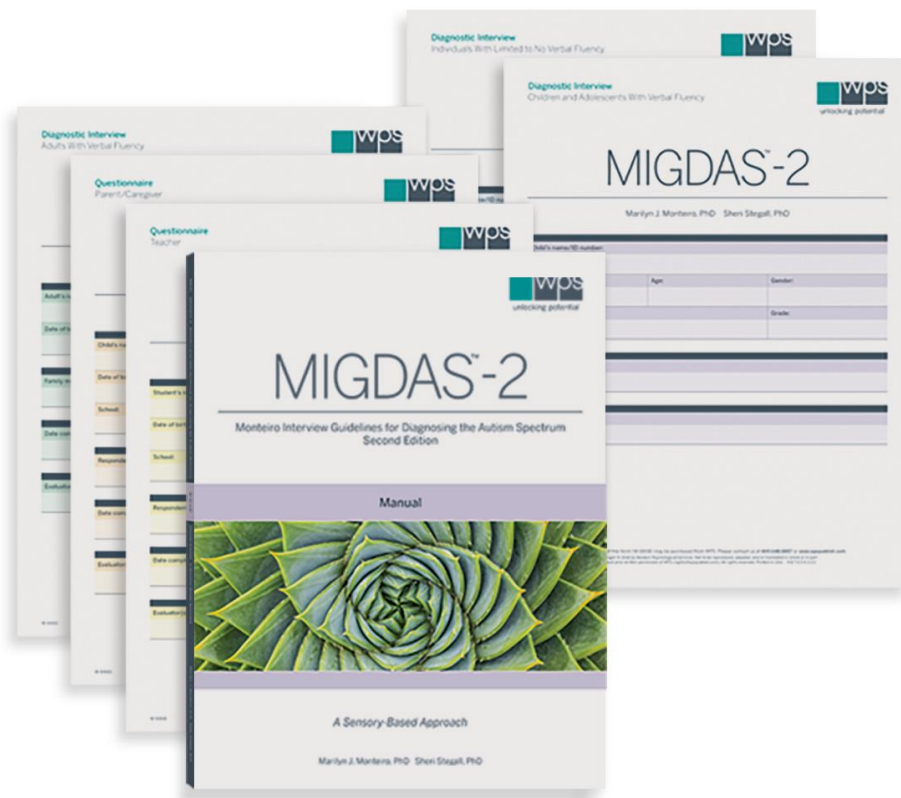
SPM-2 *(cont.)*

- Measurement of sensory functioning, praxis, and social participation across the lifespan in home, school, and community environments
 - Sensory Systems
 - Sensory Integration vulnerabilities
- SPM-2 provides a complete picture of sensory integration and processing difficulties in multiple environments.
- SPM-2 Quick Tips™ offers item-level intervention strategies to help with sensory integration and processing challenges.

Monteiro Interview Guidelines for Diagnosing the Autism Spectrum, Second Edition (MIGDAS™-2) *A Sensory-Based Approach*

Marilyn J. Monteiro, PhD
Sheri Stegall, PhD

MIGDAS-2



MIGDAS-2 *(cont.)*

- The MIGDAS-2 is a sensory-based process for gathering and organizing the qualitative information needed to diagnose autism in children, adolescents, and adults.
- The process includes guidelines for gathering information from parents/caregivers and teachers, and for conducting a sensory-based interview with the individual being evaluated.
- The result is a comprehensive behavioral profile that describes the individual's distinct way of relating to the world, supplementing assessment scores and informing diagnosis and treatment planning.

MIGDAS-2 *(cont.)*

- Across age and ability levels, when provided with multiples of sensory objects, individuals on the autism spectrum engage in systematic, repetitive routines.
 - These sensory-based, object-focused routines are not evident in interactions between evaluators and individuals who do not have autism spectrum brain style differences.
 - The contrast between object-focused interactions and social interactions becomes readily apparent.

ASD Brain Styles



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DSM-5 (DSM-5-TR) Additional Conditions

Additional neurodevelopmental, mental, or behavioral conditions should also be noted...

- Examples: “Attention-deficit/hyperactivity disorder; impulse-control or conduct disorders; anxiety, depressive disorders...”¹
- The DSM-5-TR version instructs: “associated with a neurodevelopmental, mental, or behavioral **problem**.”²

¹ American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>

² American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders (DSM-5-TR)* (5th ed. Text Revision).

Additional Conditions (*cont.*)

- ASD commonly co-occurs with other developmental, psychiatric, neurologic, chromosomal, and genetic diagnoses.¹
 - The co-occurrence of one or more non-ASD developmental diagnoses is 83%.
 - The co-occurrence of one or more psychiatric diagnoses is 10%.
- One study estimated that the prevalence of the co-occurring of ASD and ADHD is about 37–85% of children with ASD.²

¹ Centers for Disease Control and Prevention. (2021, December 2). *Data & statistics on autism spectrum disorder*. U.S. Department of Health and Human Services. <https://www.cdc.gov/ncbddd/autism/data.html>

² Leitner, Y. (2014). The co-occurrence of autism and attention deficit hyperactivity disorder in children—what do we know? *Front Hum Neurosci.*, 8:268. <https://doi.org/10.3389/fnhum.2014.00268>

Additional Conditions (*cont.*)

- A large proportion of autistic children experience their first mental health symptoms prior to the age of 5.¹
- DSM-5 reports prevalence rates of comorbid mental health disorders in autistic children of up to 70%, and 40% with multiple comorbidities; however, many clinical, self-, and parent-report studies have reported rates as high as 95%.²

¹ Green, S. A., & Ben-Sasson, A. (2010). Anxiety disorders and sensory over-responsivity in children with autism spectrum disorders: Is there a causal relationship? *Journal of Autism and Developmental Disorders*, 40, 1495–1504. <https://doi.org/10.1007/s10803-010-1007-x>

² Rossow, T., MacLennan, K., & Tavassoli, T. (2021). In: The relationship between sensory reactivity differences and mental health symptoms in preschool-age autistic children. *Autism Research*. <https://doi.org/10.1002/aur.2525>

Additional Conditions (*cont.*)

- A recent study published in the *Journal of Clinical Psychiatry* noted that nearly 78% of children with autism in the study had at least one mental health condition and nearly half had more than that.
- Mental health conditions were present in 44.8% of pre-school age children with autism—a group among which prevalence had not previously been established using a large, population-based sample.

Kerns, C. M., Rast, J. E., & Shattuck, P. T. (2020). Prevalence and correlates of caregiver-reported mental health conditions in youth with autism spectrum disorder in the United States. *Journal of Clinical Psychiatry*, 82(1). <https://doi.org/10.4088/JCP.20m13242>

Additional Conditions (*cont.*)

- Among children with ASD, anxiety disorders, attention-deficit/hyperactivity disorder (ADHD), and oppositional defiant disorder (ODD) predominate as comorbid disorders.¹
- The prevalence of anxiety problems remains high with the transition to adulthood, but rates of externalizing problems reduce, and risk of depression greatly increases.¹
- Depression and anxiety are the two most common psychiatric problems for autistic adults.²

¹ Simonoff, E., Pickles, A., Charman, T., Chandler, S., Loucas, T., & Baird G. (2008). Psychiatric disorders in children with autism spectrum disorders: prevalence, comorbidity, and associated factors in a population-derived sample. *J Am Acad Child Adolesc Psychiatry*, 47(8), 921–929. <https://doi.org/10.1097/CHI.0b013e318179964f>

² Croen, L. A., Zerbo, O., Qian, Y., Massolo, M. L., Rich, S., Sidney, S., & Kripke, C. (2015). The health status of adults on the autism spectrum. *Autism*, 19(7), 814–823. <https://doi.org/10.1177/1362361315577517>

Additional Conditions *(cont.)*

- A clinical sample of young children with ASD with and without intellectual disability was reviewed to determine the rate and type of psychiatric disorders and possible association with risk factors.
- 101 children (57 males, 44 females) ages 4.5 to 9.8 years. 90.5% of the sample met the criteria.
- Most common diagnoses were generalized anxiety disorder (66.5%), specific phobias (52.7%), and attention-deficit/hyperactivity disorder (59.1%). Boys were more likely to have oppositional defiant disorder.
- Higher IQ was associated with anxiety disorders, and older age with agoraphobia.

Additional Conditions *(cont.)*

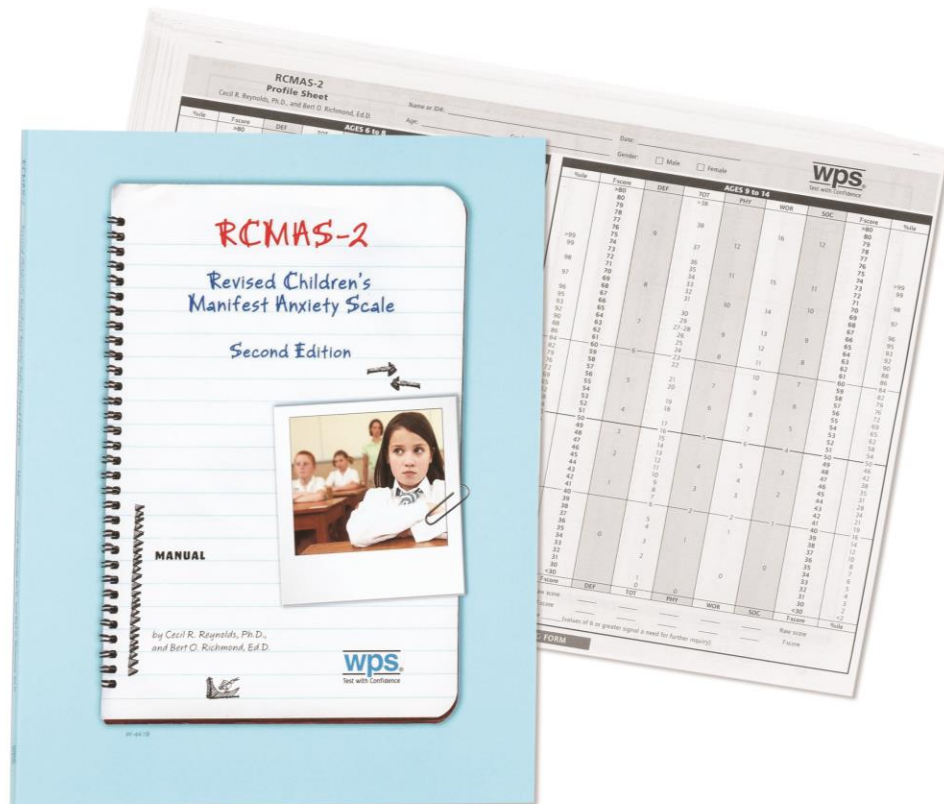
- Researchers reviewed 31 studies that focused on the presence of anxiety disorders in children under 18 years old with ASD.
- Researchers concluded that about 40% of children with ASD had at least one comorbid diagnosis of anxiety disorder.
- The prevalence of specific anxiety disorders in youth with ASD was found at the following rates:
 - Specific Phobia: 30%
 - Obsessive-Compulsive Disorder: 17%
 - Social Anxiety Disorder/Agoraphobia: 17%
 - Generalized Anxiety Disorder: 15%
 - Separation Anxiety Disorder: 9%
 - Panic Disorder: 2%

Van Steensel, F. J. A., Bogels, S. M., & Perrin, S. (2011). Anxiety disorders in children and adolescents with autistic spectrum disorders: A meta-analysis. *Clinical Child and Family Psychology Review*, 14, 302–317. <https://doi.org/10.1007/s10567-011-0097-0>

Revised Children's Manifest Anxiety Scale, Second Edition (RCMAS™-2)

Cecil R. Reynolds, PhD
Bert O. Richmond, EdD

RCMAS-2



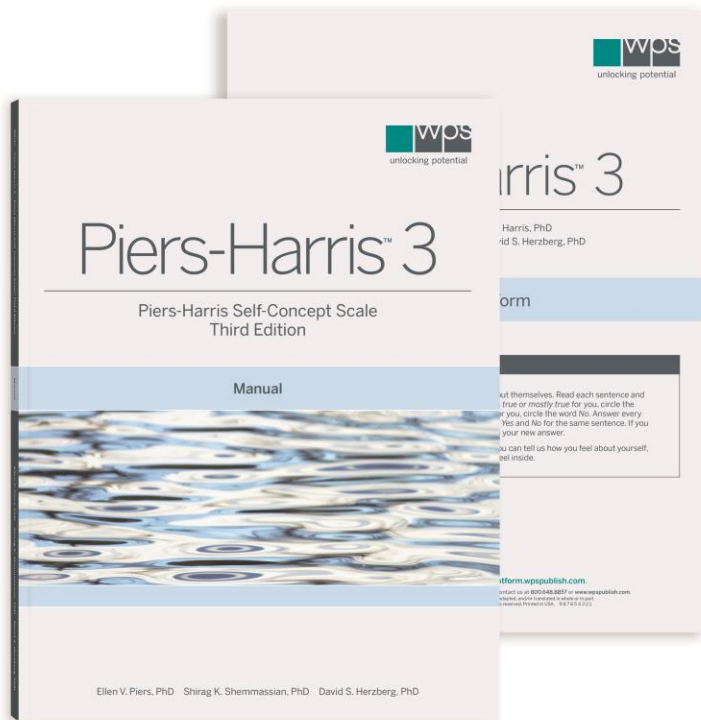
RCMAS-2 *(cont.)*

- Self-Report
- Ages 6–19 years
- Scores:
 - Total Anxiety
 - Physiological Anxiety
 - Worry
 - Social Anxiety
- Two Validity Scales:
 - Defensiveness
 - Inconsistent Responding
- The first 10 items of the RCMAS-2 can be administered as a short form that yields a Short Form Total Anxiety score.

Piers-Harris Self-Concept Scale, Third Edition (Piers-Harris TM3)

Ellen V. Piers, PhD
Shirag K. Shemmassian, PhD
David S. Herzberg, PhD

Piers-Harris 3



Piers-Harris 3 (*cont.*)

- Self-report
- Ages 6–22 years
- Total score (an overall measure of self-concept)
- Six domain scale scores:
 - Behavioral Adjustment
 - Freedom From Anxiety
 - Happiness and Satisfaction
 - Intellectual and School Status
 - Physical Appearance and Attributes
 - Social Acceptance (labeled *Popularity* in Piers-Harris 2)
- Validity scales:
 - Inconsistent Responding (INC) index
 - Response Bias (RES) index



Intervention Examples and Resources

Intervention and Resources: Autism CRC



Interventions for children on the autism spectrum: **A synthesis of research evidence**

Andrew Whitehouse
Kandice Varcin
Hannah Waddington
Rhylee Sulek
Cathy Bent
Jill Ashburner
Valsamma Eapen
Emma Goodall
Kristelle Hudry
Jacqueline Roberts
Natalie Silove
David Trembath

November 2020



Australian Government
Department of Industry, Science,
Energy and Resources

Business
Cooperative Research
Centres Program

autismcrc.com.au

Autism CRC has published a report for families, clinicians, researchers and policy makers. Available high-quality evidence about interventions for children on the autism spectrum is reviewed.

The Cooperative Research Centre for Living with Autism (Autism CRC) is the world's first national cooperative research centre focused on autism.

<https://www.autismcrc.com.au/interventions-evidence>

Intervention and Resources

(cont.)



- Medical Model
- Social Model
- Biopsychosocial Model
- Neurodiversity Model

<https://www.autismcrc.com.au/interventions-evidence>

Intervention and Resources: Unstuck and On Target



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[Curriculum](#)

[Executive Functions](#)

[Resources](#)

[About Us](#)

[Research](#)

[Search Results](#)

A photograph of several students sitting at a desk, focused on their work. They are using various colored highlighters and pens on papers. The scene is dimly lit, with the primary light source coming from the front, highlighting their hands and the papers.

UNSTUCK CURRICULUM

UNSTUCK AND ON TARGET

For students with executive function challenges, problems with flexibility and goal-directed behavior can be major obstacles to success in school and in life. With the second edition of this popular curriculum, you'll explicitly teach flexibility, problem-solving, coping, and goal setting through fun, field-tested lessons that work for learners with autism, ADHD, and other challenges that affect executive function. A school-based intervention for students ages 8–11, this evidence-based curriculum gives you 21 ready-to-use lessons that boost cognitive flexibility in everyday situations, from compromising with peers to coping with frustration.

A school-based intervention for students ages 8–11. This evidence-based curriculum provides 21 ready-to-use lessons that boost cognitive flexibility in everyday situations, from compromising with peers to coping with frustration.

Intervention and Resources: Unstuck and On Target

The screenshot displays the website for 'UNSTUCK AND ON TARGET'. The navigation bar includes 'PRODUCT', 'ABOUT US', 'TESTIMONIALS', and 'BUY NOW'. The main content area features a large heading: 'Welcome to the e-Unstuck and on Target Program' and a sub-heading: 'AN INNOVATIVE ONLINE PLATFORM FOR PARENTS OF CHILDREN WITH AUTISM SPECTRUM DISORDER'. A 'PURCHASE NOW' button is visible. Three overlapping window previews are shown: 1) 'Goal, Why, Plan, Do, Check' with a checklist and explanatory text; 2) 'Coping Strategies' with an illustration of a group of people; 3) 'Executive Function Overview' with a checklist of skills (Flexibility, Organization, Planning, Initiation, Working Memory, Inhibition, Self-Monitoring, Emotional Control) and a brain diagram with gears.

UNSTUCK AND ON TARGET

PRODUCT ABOUT US TESTIMONIALS BUY NOW

Welcome to the e-Unstuck and on Target Program

AN INNOVATIVE ONLINE PLATFORM FOR PARENTS OF CHILDREN WITH AUTISM SPECTRUM DISORDER

[PURCHASE NOW](#)

Solving Executive Function Challenges

Simple Ways to Get Kids with Autism Unstuck & on Target

- Goal
- Why
- Plan
- Do
- Check

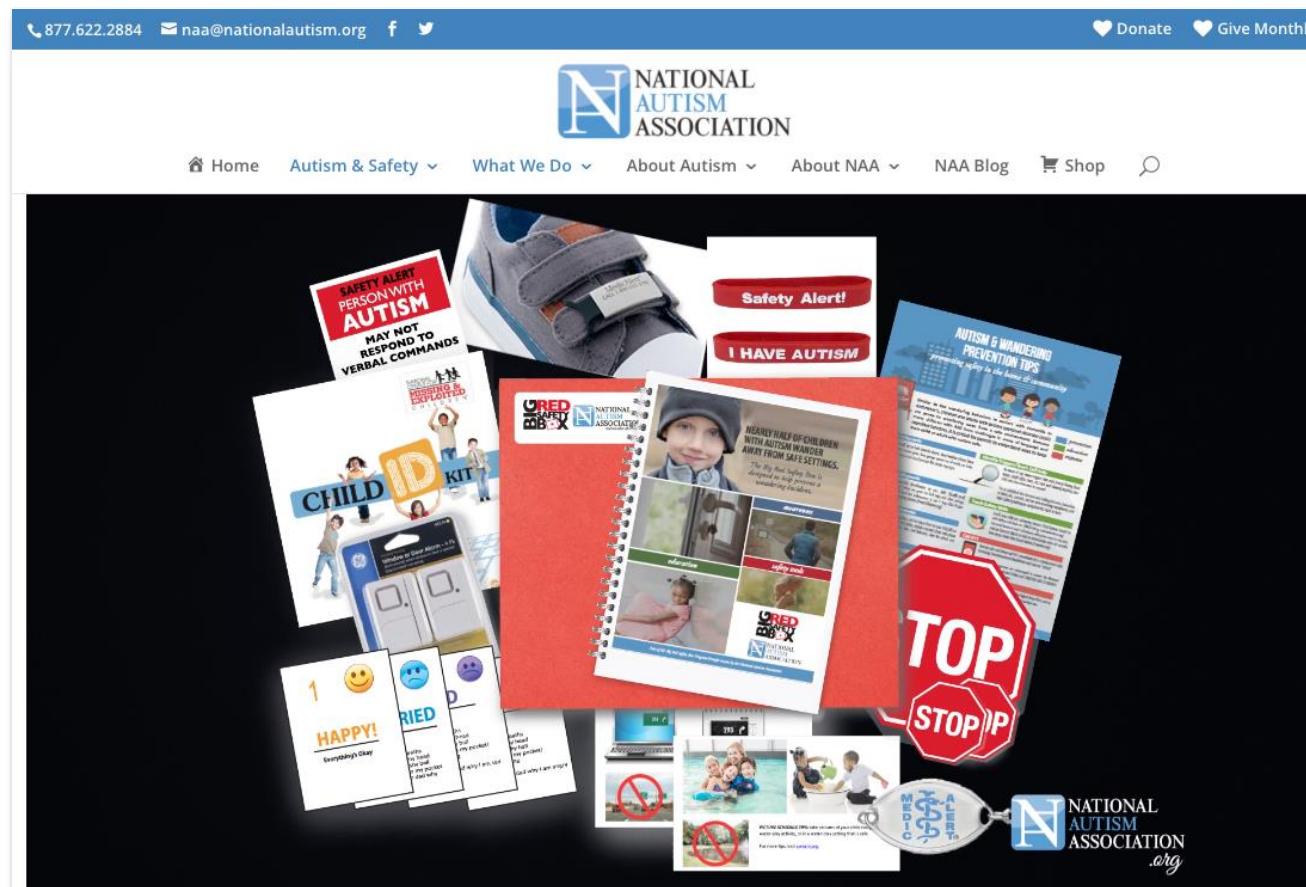
Coping Strategies

Executive Function Overview

- Flexibility
- Organization
- Planning
- Initiation
- Working Memory
- Inhibition
- Self-Monitoring
- Emotional Control

Interactive e-learning course for parents to support executive functioning and behavior regulation in children with Autism Spectrum Disorder. Program works with the parent book Solving Executive Function Challenges and the school intervention program Unstuck and On Target!

Intervention and Resources: Big Red Safety Box National Autism Association



National Autism Association. *Big Red Safety Box*. <http://nationalautismassociation.org/big-red-safety-box/>

Intervention and Resources: Kentucky Autism Training Center

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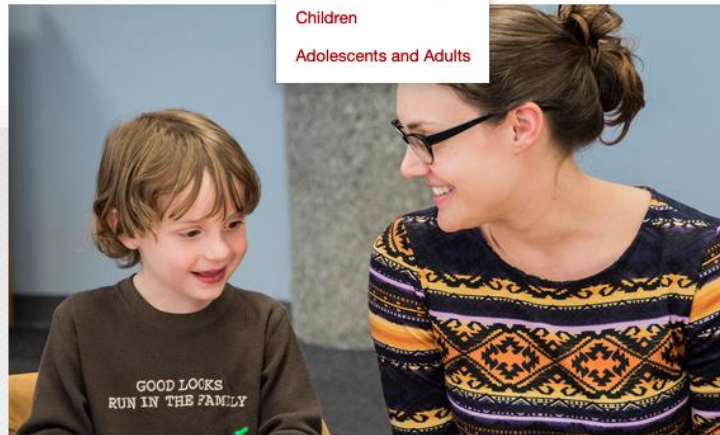
Search Search pages, people

Kentucky Autism Training Center

HOME ABOUT KATC RESOURCES AND SUPPORTS FOR FAMILIES PROFESSIONALS TRAINING EVENTS RESOURCES

ASD PROVIDER DIRECTORY

- Information for all ages
- Children
- Adolescents and Adults



Support for Families

The Kentucky Autism Training Center is dedicated to giving Kentucky families access to information, services, training and support.



UNIVERSITY OF LOUISVILLE

APPLY DONATE CAMPUSES

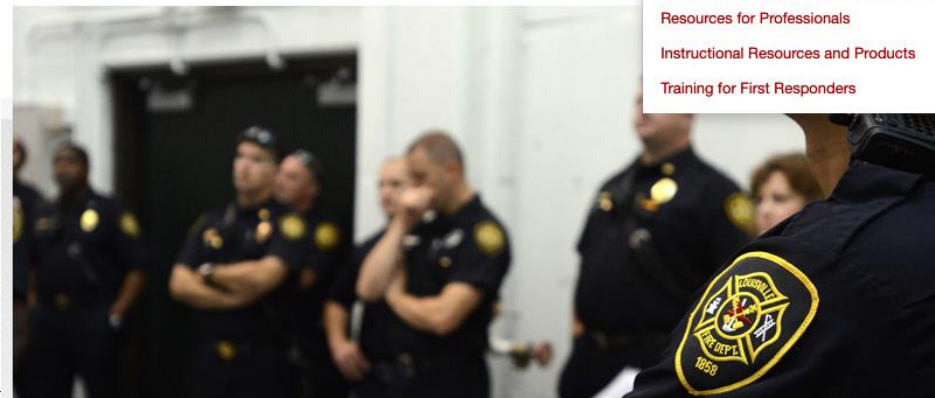
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HOME ABOUT KATC RESOURCES AND SUPPORTS FOR FAMILIES PROFESSIONALS TRAINING EVENTS RESOURCES

ASD PROVIDER DIRECTORY

- Supporting College Students with Autism
- Resources for Professionals
- Instructional Resources and Products
- Training for First Responders



Autism Training for First Responders

The Kentucky Autism Training Center provides the Autism and First Responders training as approved by the Kentucky Board of Emergency Medical Services (KBEMS).

[Learn More...](#)



Intervention and Resources

National Autistic Society

- [Autistic fatigue—a guide for autistic adults](#)
- [Autistic fatigue—a guide for parents and carers](#)
- [Autistic fatigue—a guide for professionals](#)



National Autistic Society. *Autistic fatigue and burnout*. <https://www.autism.org.uk/advice-and-guidance/topics/mental-health/autistic-fatigue>



Intervention and Resources

(cont.)



Accommodating Employees

Questions to Consider:

- What limitations is the employee experiencing?
- How do these limitations affect the employee and the employee's job performance?
- What specific job tasks are problematic as a result of these limitations?
- What accommodations are available to reduce or eliminate these problems? Are all possible resources being used to determine possible accommodations?
- Once accommodations are in place, would it be useful to meet with the employee to evaluate the effectiveness of the accommodations and to determine whether additional accommodations are needed?
- Do supervisory personnel and employees need training?

Intervention and Resources (cont.)

By Limitation	By Work-Related Function
> Air Quality/Irritants	
▼ Communicate	
<ul style="list-style-type: none">• Aide/Assistant/Attendant• Behavior Modification Techniques• On-site Mentoring• Service Animal• Verbal Responses	
➔ Learn more about this work related function	
> Light	
> Noise	
> Policies	
> Stress	

By Limitation	By Work-Related Function
> Attentiveness/Concentration	
> Executive Functioning Deficits	
> Managing Time	
> Memory Loss	
> Noise Sensitivity	
> Organizing/Planning/Prioritizing	
> Photosensitivity	
> Respiratory Distress/Breathing Problem	
> Stress Intolerance	

Intervention and Resources

(cont.)



Autistic fatigue—a guide for autistic adults

- **Use energy accounting**
 - Energy accounting is a system used to set manageable limits on your energy levels so you do not deplete yourself to the point of burnout.
- **Time off and rest/relaxation**

National Autistic Society. *Autistic fatigue – a guide for autistic adults*. <https://www.autism.org.uk/advice-and-guidance/topics/mental-health/autistic-fatigue/autistic-adults>



Intervention and Resources

(cont.)



■ At work

- It can be helpful to think about some of the following ways to help manage stress levels at work:
 - Keep track of your workload, and tell your manager if it is becoming unmanageable.
 - Take regular breaks from work/tasks, and make sure you plan and take annual leave.

■ Time without having to mask

■ Reducing expectations

National Autistic Society. *Autistic fatigue – a guide for autistic adults*. <https://www.autism.org.uk/advice-and-guidance/topics/mental-health/autistic-fatigue/autistic-adults>



Intervention and Resources

Centers for Disease Control and Prevention

Treatment and Intervention Services for Autism Spectrum Disorder

- Behavioral
- Developmental
- Educational
- Social–Relational
- Pharmacological
- Psychological
- Complementary and Alternative

Centers for Disease Control and Prevention. (2022, January 28). *Treatment and intervention services for autism spectrum disorder*. U.S. Department of Health and Human Services. <https://www.cdc.gov/ncbddd/autism/treatment.html>



Intervention and Resources

(cont.)



Behavioral Approaches

- Behavioral approaches focus on changing behaviors by understanding what happens before and after the behavior. Behavioral approaches have the most evidence for treating symptoms of ASD. They have become widely accepted among educators and healthcare professionals and are used in many schools and treatment clinics. A notable behavioral treatment for people with ASD is called **Applied Behavior Analysis (ABA)**. ABA encourages desired behaviors and discourages undesired behaviors to improve a variety of skills. Progress is tracked and measured.

Centers for Disease Control and Prevention. (2022, January 28). *Treatment and intervention services for autism spectrum disorder*. U.S. Department of Health and Human Services. <https://www.cdc.gov/ncbddd/autism/treatment.html>



Intervention and Resources

(cont.)



Behavioral Approaches

- Two ABA teaching styles are **Discrete Trial Training (DTT)** and **Pivotal Response Training (PRT)**.
 - DTT uses step-by-step instructions to teach a desired behavior or response. Lessons are broken down into their simplest parts, and desired answers and behaviors are rewarded. Undesired answers and behaviors are ignored.
 - PRT takes place in a natural setting rather than clinic setting. The goal of PRT is to improve a few “pivotal skills” that will help the person learn many other skills. One example of a pivotal skill is to initiate communication with others.

Centers for Disease Control and Prevention. (2022, January 28). *Treatment and intervention services for autism spectrum disorder*. U.S. Department of Health and Human Services. <https://www.cdc.gov/ncbddd/autism/treatment.html>



Intervention and Resources

(cont.)



Developmental Approaches

- Developmental approaches focus on improving specific developmental skills, such as language skills or physical skills, or a broader range of interconnected developmental abilities. Developmental approaches are often combined with behavioral approaches.
- **Speech and Language Therapy**

Centers for Disease Control and Prevention. (2022, January 28). *Treatment and intervention services for autism spectrum disorder*. U.S. Department of Health and Human Services. <https://www.cdc.gov/ncbddd/autism/treatment.html>



Intervention and Resources

(cont.)



Developmental Approaches

- **Occupational Therapy** teaches skills that help the person live as independently as possible. Skills may include dressing, eating, bathing, and relating to people. Occupational therapy can also include:
 - **Sensory Integration Therapy**
 - **Physical Therapy**
 - The Early Start Denver Model (ESDM) is a broad developmental approach based on the principles of Applied Behavior Analysis. It is used with children 12–48 months of age. Parents and therapists use play, social exchanges, and shared attention in natural settings to improve language, social, and learning skills.

Centers for Disease Control and Prevention. (2022, January 28). *Treatment and intervention services for autism spectrum disorder*. U.S. Department of Health and Human Services. <https://www.cdc.gov/ncbddd/autism/treatment.html>



Intervention and Resources (cont.)



Social–Relational Approaches

- Social–relational treatments focus on improving social skills and building emotional bonds. Some social–relational approaches involve parents or peer mentors.
- The **Developmental, Individual Differences, Relationship-Based** model (also called “**Floor time**”) encourages parents and therapists to follow the interests of the individual to expand opportunities for communication.
- The **Relationship Development Intervention (RDI)** model involves activities that increase motivation, interest, and abilities to participate in shared social interactions.

Centers for Disease Control and Prevention. (2022, January 28). *Treatment and intervention services for autism spectrum disorder*. U.S. Department of Health and Human Services. <https://www.cdc.gov/ncbddd/autism/treatment.html>



Intervention and Resources (*cont.*)



Social–Relational Approaches

- **Social Stories** provide simple descriptions of what to expect in a social situation.
- **Social Skills Groups** provide opportunities for people with ASD to practice social skills in a structured environment.

Centers for Disease Control and Prevention. (2022, January 28). *Treatment and intervention services for autism spectrum disorder*. U.S. Department of Health and Human Services.
<https://www.cdc.gov/ncbddd/autism/treatment.html>



Intervention and Resources (cont.)



Psychological Approaches

- Psychological approaches can help people with ASD cope with anxiety, depression, and other mental health issues. **Cognitive-Behavior Therapy (CBT)** is one psychological approach that focuses on learning the connections between thoughts, feelings, and behaviors. During CBT, a therapist and the individual work together to identify goals and then change how the person thinks about a situation to change how they react to the situation.

Centers for Disease Control and Prevention. (2022, January 28). *Treatment and intervention services for autism spectrum disorder*. U.S. Department of Health and Human Services.
<https://www.cdc.gov/ncbddd/autism/treatment.html>



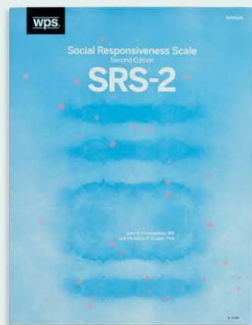
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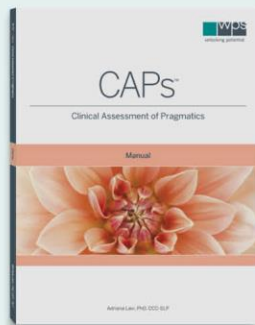
SRS™-2

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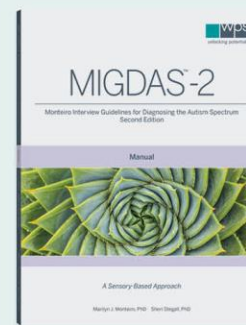
SPM™-2 SPM-2 Quick Tips™

Sensory Processing Measure,
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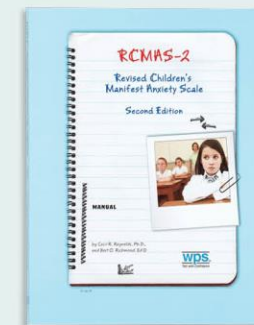
MIGDAS™-2

Monteiro Interview Guidelines for
Diagnosing the Autism Spectrum,
Second Edition



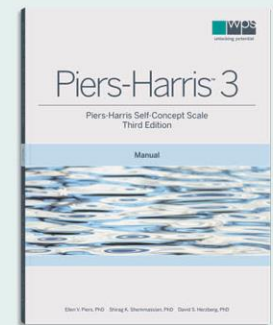
RCMAS™-2

Revised Children's Manifest
Anxiety Scale, Second Edition



Piers-Harris™ 3

Piers-Harris Self-Concept Scale,
Third Edition



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