The Assessment of Autism Spectrum Disorder in Adults

Sam Goldstein Ph.D.
Neurology, Learning and Behavior Center
University of Utah School of Medicine

www.samgoldstein.com
info@samgoldstein.com
drsgoldstein
@doctorsamgoldstein

Relevant Disclosure

• Co-author of the Autism Spectrum Rating Scales (MHS, 2009).
• Co-author/presenter Assessment of Autism Spectrum Disorders CEU (APA, 2009).
• Co-author of the Autism Spectrum Evaluation Scales (in development, MHS).
• Compensated speaker.

Goals For Today

• Briefly discuss the historical theories of Autism Spectrum Disorders (ASD).
• Briefly touch on new research relative to adults with ASD
• Briefly discuss a core theory of ASD.
• Briefly review hypothesized causes.
• Define ASD and new DSM 5 criteria as they pertain to adults.
• Briefly discuss symptoms of ASD in adults.
• Discuss unique adult issues in ASD including issues of aging and camouflage.
• Discuss data from the ASRS and ASRS 2, among the largest epidemiological/standardization samples collected of normal children and adults with and without ASD.
• Discuss methods for assessment, diagnosis and treatment of ASD in adults.
Is There a Need To Assess ASD in Adults?

- In the fall of 2010, 369,774 American children ages 6 through 21 received services under the special education classification of "Autism" (U.S. Department of Education, Office of Special Education Programs, Data Analysis System 2011).
- As a further reminder of this growing public health issue, the per capita lifetime incremental cost of autism is estimated at $3.2 million. Twenty-one percent is attributed to care for the adult with ASD and 30.7% to loss of the individual with ASD's productivity during adult life (Ganz 2007).

We are social beings.

What Benefits Do We Derive From Socialization?

- Support
- Survival
- Affiliation
- Pleasure
- Procreation
- Knowledge
- Friendship
The social development of autistic persons is qualitatively different from others.

In normal individuals perceptual, affective and neuro-regulatory mechanisms predispose young infants to engage in social interaction from very early on in their lives.

Socialization Begins Early: Reina and Her Mother
Why do infants engage us?

Adrian, my seatmate on a recent flight.

Adrian
Adrian

See what I can do? Wanna take me home?

Why do some children not point?

Imitation is more than flattery.
Where are Autism’s Roots?

- In the bible?
- In ancient cultures?
- In history?
- In religion?
- Portrayed in art?

Les âges de l’ouvrier

Léon FRÉDÉRIC 1895

Les âges de l’ouvrier
Is this child portrayed as autistic?

Which woman is her mother?

**Autism’s First Child**

As the number of autistic kids grows, so do fears about the effects of autism on children. The new field of autism research is exploring how autistic parents and children are affected. Some parents of autistic children have suggested that the first person to be diagnosed with autism may hold some blame.

By John Darzen and Gary Zucker

*Atlantic Monthly, October 2010*
Little is Known About Older Adults With ASD

• Little is known about people with ASD above 50 years old. Small studies suggest the symptoms remain stable (Wise et al., 2017).
• A 2015 study from Lisa Croen of Kaiser Permanente described health issues of people with ASD in the Kaiser Permanente system (Croen et al., 2015).
• Subsequent mortality studies (Guan & Li, 2017; Hirvikoski et al., 2016) suggest a diminished lifespan for people with ASD.
• Studies from in the United Kingdom found much higher rates of suicide and debilitating depression in people with ASD (Cusack et al., 2016).

Is Social Information Processing at the Core of ASD (Crick and Dodge, 1994)?

• Encoding of relevant stimuli.
• Interpretation of cues (both cause and intent).
• Goal setting.
• Comparison of the present situation to past experience.
• Selection of possible responses.
• Acting on a chosen response.

Why Spectrum?

Autism is now referred to as a Spectrum Disorder in which individuals can present problems ranging from total impairment to near reasonable functioning.
In a Spectrum Disorder genetic and phenotypic factors predispose certain individuals to express certain Central Nervous System vulnerabilities leading to poorly adapted variations in development and behavior.

In a Spectrum Disorder all symptoms are considered relevant to the extent they present in each disorder. Thus a symptom is not exclusive to a disorder.

The form that a Spectrum Disorder assumes is determined by its composite symptoms. These symptoms often have complex relationships.
Core DSM and ICD Core ASD Symptoms in All Ages

- Impaired social relations.
- Impaired communication skills.
- Impaired behavior.

Symptoms Present Before 24 Months
Children with ASD Struggle to:

- Orient to name
- Attend to human voice
- Look at face and eyes of others
- Imitate
- Show objects
- Point
- Demonstrate interest in other children

Symptoms Present Before 36 Months
Children with ASD:

- Use of other's body to communicate or as a tool
- Stereotyped hand/finger/body mannerisms
- Ritualistic behavior
- Failure to demonstrate pretend play
- Failure to demonstrate joint attention
Meet Kevin

Kevin Draws His Family

Kevin Adds Faces
Capacity to Pretend Play in Autism

- Limited, often absent
- When present usually characterized by: repetitive themes, rigidity, isolated acts, one-sided play, limited imagination.

EPIC Players

Theater as a Medium to Develop Social Skills

- Theater arts offer an opportunity for individuals with ASD to venture into the community in a win-win relationship.
- EPIC’s performances help the general community better understand the nature of having ASD.
- At the same time, actors with ASD have the opportunity to interact in a medium that we believe will foster not only the development of self-esteem, but appropriate social interaction—the latter very clearly being the primary hurdle to successful adult transition for those with ASD.
- EPIC hopes to quantify our initial experiences of the benefits of theater for those with ASD through a long-term, qualitative study measuring the associative effects of theater arts, training on social skills, sense of purpose and independence in daily life activities.
A Brief Current Research Update of ASD in Adults

Epidemiology of Autism Spectrum Disorders in Adults in the Community in England

Teresa S. Rogers, MD, PhD, FRCPych, Sally Cooper, MD, John Conner, MD, PhD, FRCGP, Howard Abuljila, MD, FRCPych

Epidemiology of autism in adults across age groups and ability levels*

* Authors: Teresa S. Rogers, Sally Cooper, John Conner, Howard Abuljila, Howard Abuljila, PhD, FRCPych, Howard Abuljila, MD, FRCPych

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Anxiety and depression in adults with autism spectrum disorder: a systematic review and meta-analysis

Matthew J. Hobbs1,2,*, Pascal Lich1,2,*, Hanna Manger1 2, Richard Manger-Geddes1 2,*, 3

Abstract

Adults with autism spectrum disorder (ASD) are thought to be at increased risk for developing major health comorbidities, with anxiety and depression being considered most prevalent among them. However, systematic reviews have been rarer than true in maximum rates of both anxiety and depression, focusing specifically on adults with ASD. This systematic review and meta-analysis examined the rates of anxiety and depression in adults with ASD and the impact of intervention such as assessment methods and the use of various mental health disorders. The results showed that the prevalence of anxiety and depression in adults with ASD is significantly higher than in the general population. The study also found that there was a significant difference in the prevalence of anxiety and depression between males and females with ASD. The findings highlight the importance of early intervention and support for individuals with ASD who are at risk of developing anxiety and depression. The study also recommends further research to better understand the factors that contribute to these conditions in adults with ASD.
Some people with autism have abnormalities at a specific site on the 16th chromosome known as 16p11.2. Deletion or duplication of a small piece of chromosome at this site is one of the most common identified genetic causes of autism spectrum disorder.

Assessment of Adult ASD

- Autism is a dimensional condition; traits are distributed across the entire population, but with a cut-off point at the extreme end guiding clinical identification.
- All individuals in the general population possess some level of autistic traits.
- Some with an above average number may successfully cover or camouflage these to varying extent there by reducing impairment.
- Camouflaging is similar to impression management, where behaviors occurring in front of others are manipulated in order to make a better impression. This requires theory of mind.
- Individuals with ASD engage in impression management to a lesser degree than non-autistic individuals.

Assessment of Adult ASD

- High levels of co-morbidity require a comprehensive assessment including: intellect, neuropsychological abilities, achievement, emotional status, personality and protective factors.
- A careful history is essential.
- Well developed, reliable and valid measures must be used to the extent they are available.
- DSM 5 or ICD 11 criteria must be met.
Making the Diagnosis of Adult ASD

- Meets DSM 5 or ICD 11 Criteria (they are more alike than different).
- Coping behaviors assessed.
- Co-morbid behaviors and disorders assessed.
- Corroborating data obtained about child and adulthood.
- Intellectual, achievement and neuropsychological data collected if warranted.

DSM 5 Autism Spectrum Disorder

- Combined social and communication categories.
- Tightened required criteria reducing the number of symptom combinations leading to a diagnosis.
- Omitted Rett's and Childhood Disintegrative Disorders.
- Clarifies co-morbidity issues.
- Eliminated PDD NOS and Aspergers in favor of Autism Spectrum Disorder.
- Created Social Pragmatic Communication Disorder.
- Still no specified profile for adults, just guidelines.

DSM 5 Autism Spectrum Disorder

- Five criteria.
- Seven sets of symptoms in the first two criteria – Social/Communication and Restrictive/Repetitive behaviors, interests or activities.
- All three symptoms are required to meet the first criteria (although a typo omits this).
- Two out of four are needed for the second criteria.
- Some symptoms have been combined.
- Sensory sensitivity has been added.
DSM 5 ASD Criteria A

Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history (examples are illustrative, not exhaustive; see text):

1. Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation, to reduced sharing of interests, emotions, or affect, to failure to initiate or respond to social interactions.

2. Deficits in nonverbal communicative behaviors used for social interaction, ranging, for example, from poorly integrated verbal and nonverbal communication, to abnormality in eye contact and body language or deficits in understanding and use of gestures, to a total lack of facial expressions and nonverbal communication.

3. Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulty 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 ASD Criteria B

Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following, currently or by history (examples are illustrative, not exhaustive; see text):

1. Stereotyped or repetitive motor movements, use of objects, or speech (e.g., simple motor stereotypies, lining up toys, or flapping objects, echolalia, idiosyncratic phrases).

2. Insistence on sameness, inflexible adherence to routine, or ritualized patterns of verbal or nonverbal behavior (e.g., extreme distress at changes, difficulties with transitions, repetitive speech or rituals, stereotyped eating or grooming habits).

3. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g., strong attachment to unusual objects; excessively circumscribed or perseverative interests).

4. Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment (e.g., apparent indifference to pain/temperature; apparent indifference to typical sounds such as clanging dishes, or keen eagerness to examine or investigate unusual sounds, visual fascination with lights or movement).

DSM 5 ASD Criteria C, D, E.

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)

D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

E. These disturbances are not better explained by intellectual disability (intellectual developmental disorder) or global developmental delay. Intellectual disability and autism spectrum disorder frequently co-occur; to make co-morbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level.
DSM 5 Autism Spectrum Disorder

- Specify if:
  - With or without accompanying intellectual impairment.
  - With or without accompanying language impairment.
  - Associated with a known medical or genetic condition or environmental factor.
  - Associated with another neurodevelopmental, mental, or behavioral disorder.
  - With catatonia.

The Three Functional Levels of Autism

<table>
<thead>
<tr>
<th>ASD Level 1</th>
<th>ASD Level 2</th>
<th>ASD Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requiring Support</td>
<td>Requiring Substantial Support</td>
<td>Requiring Very Substantial Support</td>
</tr>
<tr>
<td>difficulty initiating social interactions</td>
<td>social interactions limited to narrow special interests</td>
<td>severe deficits in verbal and nonverbal social communication skills</td>
</tr>
<tr>
<td>organization and planning problems can hamper independence</td>
<td>frequent restricted/ repetitive behaviors</td>
<td>great distress/difficulty changing actions or focus</td>
</tr>
</tbody>
</table>

Applying DSM 5 With Adults (page 54)

- “Many adults with ASD without intellectual or language disabilities learn to suppress repetitive behavior in public.”
- “Special interests may be a source of pleasure and motivation and provide avenues for education and vocation later in life.”
- “Diagnostic criteria may be met when restricted, repetitive patterns of behavior, interests or activities were clearly present during childhood. . . even if symptoms are no longer present.”
- “Among adults with ASD with fluent language, the difficulty in coordinating non-verbal communication with speech may give the impression of odd, wooden or exaggerated body language.”
Applying DSM 5 With Adults (page 56-57)

- Symptoms are “clear in the developmental period.”
- “In later life interventions or compensations, as well as current supports, may mask these difficulties in at least some contexts.”
- “However symptoms remain sufficient to cause current impairment in social, occupational or other important areas of functioning.”
- “ASD is diagnosed four times more often in males than females.”
- “Girls without accompanying intellectual impairment or language delays may go unrecognized.”

DSM IV TR Autism and Asperger Syndrome

Data from the Autism Spectrum Rating Scales Epidemiologic Sample (2009)

Lorna Wing: Godmother of Autism
Autism vs. Asperger

- ASRS means for ages 2-5 years were typically somewhat higher for children with Autism than those with Asperger’s syndrome.
- Exception being Unusual Behaviors where the two groups were similar.
- ASRS means for ages 6-18 years were consistently higher for children with Autism than those with Asperger’s syndrome.
Autism vs Asperger (6-18 years)

DSM 5 Social (Pragmatic) Communication Disorder

Criteria A

Persistent difficulties in the social use of verbal and nonverbal communication as manifested by all of the following:

- Deficits in using communication for social purposes, such as greeting and sharing information, in a manner that is appropriate for the social context.
- Impairment of the ability to change communication to match context or the needs of the listener, such as speaking differently in a classroom than on a playground, talking differently to a child than to an adult, and avoiding use of overly formal language.
- Difficulties following rules for conversation and storytelling, such as taking turns in conversation, rephrasing when misunderstood, and knowing how to use verbal and nonverbal signals to regulate interaction.
- Difficulties understanding what is not explicitly stated (e.g., making inferences) and non-literal or ambiguous meanings of language (e.g., idioms, humor, metaphors, multiple meanings that depend on the context for interpretation).

Criteria B

The deficits result in functional limitations in effective communication, social participation, social relationships, academic achievement, or occupational performance, individually or in combination.

Criteria C

The onset of the symptoms is in the early developmental period (but deficits may not become fully manifest until social communication demands exceed limited capacities).

Criteria D

The symptoms are not attributable to another medical or neurological condition or to low ability in the domains of word structure and grammar, and are not better explained by autism spectrum disorder, intellectual disability (intellectual developmental disorder), global developmental delay, or another mental disorder.

No discussion of this diagnosis in adults.
Conducting an Evaluation for ASD

Google It!

https://www.autismresearchcentre.com/arc_tests

Downloadable Tests

Various tests have been devised by ARC for use in the course of our research. Some of these tests are made available here for download.

You are welcome to download these tests provided that they are used for genuine research purposes, and provided due acknowledgement of ARC as the source is given.

Please note:

Our tests are designed for our website to enable free access to autism researchers, those who diagnose, or anyone working in the field of autism research. In the case of research, please ensure that you consult with an expert. For all other use, please contact the author. Please see our Terms and Conditions for translations.
Cambridge Behavioural Scale

Autism Spectrum Disorder as Reflected in the Autism Spectrum Rating Scales (Goldstein and Naglieri, 2009)

Exploratory and Confirmatory Factor Analyses
Validity of the Factors

• Factor analysis is a valuable tool to understand how items group.
• But we also need to know if the items have validity, that is do they measure what they purport to measure?
• Discriminating individuals with ASD from the regular population is important.
• Discriminating individuals with ASD from those who are not in the regular population (e.g., they suffer from other conditions) but not ASD is equally important.

ASRS Profiles

• A scale like the ASRS should differentiate adults with ASD from the normal population.
• Comparison to regular individuals should demonstrate that those with ASD have high scores.
• Comparisons to other clinical groups should also show differences from those with ASD.
• Comparisons of the ASD to regular and other clinical samples provides an essential examination of validity.

ASRS Validity for ages 2-5

[Graph showing data analysis for ASRS validity across different age groups and clinical types]
ASRS Validity: Ages 6-18 Parents

ASRS Validity: Ages 6-18 Teachers

Autism Spectrum Rating Scales 2nd Edition (ASRS 2)

Pilot Adult Data Analysis Results
ASRS 2 Adult Data collection

- Pilot Data collection for the ASRS 2 took place in 2016-2018
- Data was collected from General Population and Clinical Samples
- Data was collected from:
  - Individuals 19 years and older (For the Self-Report form)
  - The individual’s spouse, parent or family member (For the Observer-Report Form)
- Data collection resulted in:

<table>
<thead>
<tr>
<th>Form</th>
<th>General Population</th>
<th>ASD</th>
<th>Other Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Report</td>
<td>466</td>
<td>30</td>
<td>47</td>
</tr>
<tr>
<td>Observer-Report</td>
<td>452</td>
<td>22</td>
<td>26</td>
</tr>
</tbody>
</table>

Other Clinical Groups Included in the Pilot

- Attention Deficit Hyperactivity Disorder (ADHD)
- Major Depressive Disorder (MDD)
- Generalized Anxiety Disorder (GAD)
- Bipolar Disorder
- Obsessive Compulsive Disorder (OCD)
- Adjustment Disorders

Initial Analysis Suggests that the Empirical Scales For the Adult ASRS 2 Pilot Match Our Child Data

- Social/Communication
- Unusual Behaviors
- Self-Regulation
Rationale Scales For The Adult ASRS 2 Pilot are Similar as Well

• Atypical Language
• Attention
• Behavioral Rigidity
• Sensory Sensitivity
• Socialization
• Social/Emotional Reciprocity
• Stereotypy
• DSM 5 ASD

Scale Reliability

Summary of the Reliability of each scale as measured by Cronbach’s alpha (a measure of internal consistency, that is, how closely related a set of items are as a group).

Overall, the alpha values indicate high level of reliability for each scale.

<table>
<thead>
<tr>
<th>Scales</th>
<th>Self-report</th>
<th>Observer-report</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General</td>
<td>Clinical</td>
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<tr>
<td>Atypical Language</td>
<td>0.85</td>
<td>0.87</td>
</tr>
<tr>
<td>Attention</td>
<td>0.86</td>
<td>0.86</td>
</tr>
<tr>
<td>Behavioral Rigidity</td>
<td>0.90</td>
<td>0.94</td>
</tr>
<tr>
<td>Sensory Sensitivity</td>
<td>0.85</td>
<td>0.90</td>
</tr>
<tr>
<td>Socialization</td>
<td>0.85</td>
<td>0.92</td>
</tr>
<tr>
<td>Social/Emotional Reciprocity</td>
<td>0.90</td>
<td>0.93</td>
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<tr>
<td>Self-Injurious Behavior</td>
<td>0.86</td>
<td>0.79</td>
</tr>
<tr>
<td>Stereotypy</td>
<td>0.87</td>
<td>0.91</td>
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<tr>
<td>DSM 5 ASD</td>
<td>0.92</td>
<td>0.96</td>
</tr>
</tbody>
</table>

Clinical Group Differences (Raw scores)
For the most part, large $d$-values are observed across comparisons, indicating the ability of the assessment to identify individuals with ASD.

We are collecting data for additional new scales for the Adult ASRS 2 including camouflage or coping behaviors and anxiety.
Evaluating Compensatory Behaviors: Social Camouflage in ASD

• Social camouflaging is defined as the use of strategies by autistic people to minimize the challenges of autism during social situations (Lai et al. 2011).
• Social camouflaging has recently been a focus of researchers, but has been recognized by clinicians as coping strategies for some time. It is now recommended that clinicians evaluate masking or coping behaviors when assessing autism in the newly released 11th edition of the International Classification of Diseases (Zeldovich 2017).
• This phenomena may be a widespread in ASD, especially in intellectually strong individuals.

Social Camouflage in ASD

• Social camouflaging reflects an explicit effort to ‘mask’ or ‘compensate’ for autistic characteristics; and to use conscious techniques to minimize an autistic behavioral presentation (Hull et al. 2017; Lai et al. 2017; Livingston and Happé 2017).
• Examples of camouflaging behaviors described in the current literature include as example: forcing oneself to make eye contact during a social interaction; pretending that one is doing so by looking at the space between someone’s eyes or at the tip of their nose; or using working memory strategies to develop a list of appropriate topics for conversation.

Social Camouflage in ASD: Unanswered Questions

• Do autistic females camouflage more than males, and does this partly account for gender disparities in the rate and timing of diagnosis (Begeer et al. 2013; Loomes et al. 2017)?
• What is the relationship between camouflaging and mental health outcomes?
• How should camouflaging be accurately measured? Is a discrepancy method sufficient to assess the the gap between how a person with ASD mediates their internal autistic status and their overt behavior (external autistic presentation)?
Measuring Social Camouflage

Livingston and Happé (2017) suggest that camouflaging is a component of social compensation. The “processes contributing to improved behavioral presentation of a neurodevelopmental disorder such as ASD, despite persisting core deficit(s) at cognitive and/or neurobiological levels”. As such they should be measured at the behavioral, cognitive, and maybe in the future, neurobiological levels.

Performance on tests of cognition relevant to autism, or scores on self-reported measures of autism traits can only serve as a proxy measure of internal autistic status.

Measuring Social Camouflage

- An alternative to the discrepancy approaches is one based on observational recognition of camouflaging; measuring the specific behaviors and experiences which represent camouflaging.
- Observational/reflective methods circumvent the limitation of being unable to measure an individual’s internal autistic state. Camouflaging can be measured consistently and compared between individuals, and behaviors can be identified regardless of how successful they may be.
- This approach to camouflaging has the advantage of allowing for variation in camouflaging behaviors and their success. Techniques learned and used in some situations may not be successful in others.
- An individual’s overall camouflaging skill may partly depend on their flexibility/generalizable capacity to adapt to different situations.
Measuring Social Camouflage

• Both the discrepancy and observational/reflective approaches offer ways to define and measure camouflaging in ASD.
• All the methods used or suggested have their own strengths and weaknesses, thus combining multiple methods may allow for greater accuracy in measuring and identifying a complex phenomenon such as camouflaging.

Camouflaging Autistic Traits Questionnaire (CAT-Q)

• Compensation
• Masking
• Assimilation

Social Camouflage: Compensation

• Copy others facial expression or body language.
• Learn social clues from media.
• Watch others to understand social skills.
• Repeat others phrasing and tone.
• Use script in social situations.
• Explicitly research the rules of social engagement.

Social Camouflage: Masking

- Monitor face and body to appear relaxed.
- Adjust face and body to appear relaxed.
- Monitor face and body to appear interested in others.
- Adjust face and body to appear interested in others.
- Pressured to make eye contact.
- Think about impression made on others.
- Aware of impression made on others.

Social Camouflage: Assimilation

- Feel a need to put on an act.
- Conversation with others is not natural.
- Avoid interacting with others in social situations.
- "Performing" e.g. not being oneself in social situations
- Force self to interact with others.
- Pretending to be normal.
- Need support of others to socialize.
- Cannot be oneself while socializing.

CAT-Q Sample Items: Compensation

- When I am interacting with someone, I deliberately copy their body language or facial expressions.
- I learn how people use their bodies and faces to interact by watching television or films, or by reading fiction.
- I have tried to improve my understanding of social skills by watching other people.
- I will repeat phrases that I have heard others say in the exact same way that I first heard them.
- I practice my facial expressions and body language to make sure they look natural.
- I have spent time learning social skills from television shows and films, and try to use these in my interactions.
CAT-Q Sample Items: Masking

• In my own social interactions, I use behaviors that I have learned from watching other people interacting.
• I have researched the rules of social interactions to improve my own social skills.
• I have developed a script to follow in social situations.
• I monitor my body language or facial expressions so that I appear relaxed.
• I adjust my body language or facial expressions so that I appear relaxed.
• I monitor my body language or facial expressions so that I appear interested by the person I am interacting with.

CAT-Q Sample Items: Compensation

• I adjust my body language or facial expressions so that I appear interested by the person I am interacting with.
• I don’t feel the need to make eye contact with other people if I don’t want to (Reversed scored).
• In social interactions, I do not pay attention to what my face or body are doing (Reversed scored).
• I always think about the impression I make on other people.
• I am always aware of the impression I make on other people.

CAT-Q Sample Items: Related Behaviors

• I rarely feel the need to put on an act in order to get through a social situation (Reverse Scored).
• When talking to other people, I feel like the conversation flows naturally (Reverse Scored).
• When in social situations, I try to find ways to avoid interacting with others.
• In social situations, I feel like I’m “performing” rather than being myself.
• I have to force myself to interact with people when I am in social situations.
Table 6  Correlations between CAGT Total and factor scores and autistic traits (BPQ: social anxiety (LSA)), odd behavior (OCF/DSP/BS), depressive (PHQ), and generalized anxiety (GAD) for the autistic (N = 38) and non-autistic (N = 68) subsamples.

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<tr>
<th></th>
<th>Total BPQ</th>
<th>BPQ Absol</th>
<th>BPQ pag</th>
<th>BPQ req</th>
<th>BPQ rigid</th>
<th>Total LASS</th>
<th>WES/DVS</th>
<th>PHQ</th>
<th>GAD</th>
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<td>0.27***</td>
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<td>0.62**</td>
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<td>0.65**</td>
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<td>0.56***</td>
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<td>0.54***</td>
<td>0.42**</td>
<td>0.32***</td>
<td>0.46***</td>
<td>0.46***</td>
<td>-0.53**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Maiding</td>
<td>0.52***</td>
<td>0.54***</td>
<td>0.31***</td>
<td>0.32***</td>
<td>0.30***</td>
<td>-0.23***</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Assimilation</td>
<td>0.78***</td>
<td>0.77***</td>
<td>0.62***</td>
<td>0.39***</td>
<td>0.60***</td>
<td>0.19**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ***p < .001
To ADOS or Not to ADOS

To ADOS or Not to ADOS
### Reciprocal Social Interaction

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1. Unusual Eye Contact</td>
<td>0</td>
<td>Appropriate eye contact with adults, siblings, or caregivers.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Poor eye contact with adults, siblings, or caregivers.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Marked avoidance of eye contact with adults, siblings, or caregivers.</td>
</tr>
<tr>
<td>L2. Language Production and Linked Nonverbal Communication</td>
<td>0</td>
<td>Normal speech and nonverbal communication.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Marked impairment in speech and nonverbal communication.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Total impairment in speech and nonverbal communication.</td>
</tr>
</tbody>
</table>

### Imagination

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1. Imagination/Creativity</td>
<td>0</td>
<td>Normal range of imagination and creativity.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Impaired imagination and creativity.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Marked impairment in imagination and creativity.</td>
</tr>
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</table>

### Stereotyped Behaviors and Restricted Interests

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1. Unusual Sensory Interests</td>
<td>0</td>
<td>Normal range of sensory interests.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Marked preoccupation with unusual or restricted sensory interests.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Total preoccupation with unusual or restricted sensory interests.</td>
</tr>
<tr>
<td>S2. Hand and Finger and Other Complex Motor Movements</td>
<td>0</td>
<td>Normal range of motor movements.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Impaired hand and finger movements.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Marked impairment in hand and finger movements.</td>
</tr>
<tr>
<td>S3. Self-Injurious Behavior</td>
<td>0</td>
<td>Normal range of self-injurious behavior.</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Marked self-injurious behavior.</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Total self-injurious behavior.</td>
</tr>
</tbody>
</table>
To ADOS or Not to ADOS

### Converting the Communication Total, Social Interaction Total, and Communication x Social Interaction Total to the ADOS-2 Classification

<table>
<thead>
<tr>
<th>Communication Total</th>
<th>Social Interaction Total</th>
<th>Communication x Social Interaction Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To ADOS or Not to ADOS (New Algorithm)

**ADOS Algorithm for DSM-5/CBCL-11 Autism Diagnosis**

- Language and Communication
  - Communication (A-8)
  - Emphatic or Emotional Gestures (A-10)
- Reciprocal Social Interaction
  - Unusual Eye Contact (B-1)
  - Facial Expressions Directed to Examiner (B-2)
  - Communication of Own Affect (B-5)
  - Insight into Typical Social Situations and Relationships (B-7)
  - Quality of Social Overtures (B-9)
  - Quality of Social Response (B-11)
  - Amount of Reciprocal Social Communication (B-12)
  - Overall Quality of Rapport (B-13)
- Social Affect Total

Continued
To ADOS or Not to ADOS (New Algorithm)

Continued

Restricted and Repetitive Behaviours

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech Abnormalities Associated with Autism</td>
<td>(A-2)</td>
</tr>
<tr>
<td>Stereotyped Idiosyncratic Use of Words or Phrases</td>
<td>(A-4)</td>
</tr>
<tr>
<td>Unusual Sensory Interest in Play Material Person</td>
<td>(D-1)</td>
</tr>
<tr>
<td>Hand and Finger and Other Complex Mannerisms</td>
<td>(D-2)</td>
</tr>
<tr>
<td>Excessive Interest in or References to Unusual or Highly Specific Topics or Objects or Repetitive Behaviours</td>
<td>(D-4)</td>
</tr>
</tbody>
</table>

Restricted and Repetitive Behaviour Total

To ADOS or Not to ADOS (New Algorithm)

Continued

Social Affect and Restricted and Repetitive Behaviour Total

<table>
<thead>
<tr>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case #</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADOS Classification:</td>
</tr>
<tr>
<td>Overall Diagnosis:</td>
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</table>

Broadly Considering Comorbid Conditions in ASD

International Classification of Diseases, Ninth Revision codes from patients aged at least 15 years and a diagnosis of ASD were obtained from electronic medical records. These codes were aggregated by using phenotype-wide association studies categories and processed into 1350-dimensional vectors describing the counts of the most common categories in 6-month blocks between the ages of 0 to 15. Hierarchical clustering was used to identify subgroups with distinct courses.


doi: 10.1542/peds.2013-0819
### Four subgroups were identified. The first was characterized by seizures ($n = 120$)
- The second ($n = 197$) was characterized by multisystem disorders including gastrointestinal disorders, auditory disorders and infections.
- The third was characterized by psychiatric disorders ($n = 212$)
- The last group ($n = 4316$) could not be further resolved. The prevalence of psychiatric disorders was uncorrelated with seizure activity ($P = .17$), but a significant correlation existed between gastrointestinal disorders and seizures ($P < .001$). The correlation results were replicated by using a second sample of 496 individuals from a different geographic region.

### Case #1: Kyle (age 34)
- Kyle reported that he has been told he was evaluated at three years of age and was delayed in development.
- As a preschooler he was fearful of tornadoes and sirens. He often talked excessively with peers to the point of annoyance and was bullied both verbally and physically for poor hygiene and disheveled appearance.
- He reported that he had temper tantrums as a youth and excessive bouts of anxiety and frustration.
- He would strike out at objects.
- As a youth he reported problems with language delay.
- His kindergarten teacher thought he had odd eccentricities.
- Kyle recalled being anxious, worried and inattentive as a youth.
- He described having few friends, being withdrawn, restless, irritable and difficulty concentrating.
- His medical history has been generally unremarkable.

---

### Considering Co-morbidity
- Considerable overlap exists between ASD and other mental health disorders.
- High rates of overlap are significant as they affect the nature and types of problems displayed by persons with ASD.
- ADHD, Anxiety and Depressive Disorders are the most common.
- ASD symptom presentation is similar whether ASD occurs alone or with other conditions.
- Multiple assessments are often required to make co-morbid diagnoses.
- Symptoms of ASD often emerge earlier in development than other conditions.
Case #1: Kyle

- Kyle reported he was confused by social dynamics in middle school and as a youth often alone.
- He noted, however, he had one or two friends.
- He disliked school. His best areas were in math, English, research and writing. He struggled with physics and making presentations.
- He graduated from Champagne Central High School in with a strong grade point average.
- He dated some in high school but was generally socially isolated.
- He wanted to go on a proselytizing mission for his church but did not go. He expressed concern that he never felt "worthy" to enter the missionary service.
- Kyle is not active in any church currently.

Case #1: Kyle

- Kyle noted difficult engaging in small talk with others.
- He reported that others often mistake his comments for negative intentions.
- Nonetheless, as a youth he was able to engage in imaginative play.
- He rarely initiated interactions.
- He acknowledged that he has had interests that at times are excessive.
- He was evaluated by a psychologist over twenty years ago and briefly participated in counseling.
- Kyle noted problems with sadness, depression, anxiety, nervousness, stress, sleep problems and getting angry quickly.
- He saw a psychiatrist as a young adult and was treated with Prozac and Klonopin.

Case #1: Kyle

- Kyle is single and has never married.
- He does not have ongoing relationships and spends most of his free time alone.
- Kyle reported, however, that he has girlfriend whom he sees once a week. She is a single mother and 15 years older than him. They text daily but rarely talk. They met about a year ago.
Case #1: Kyle

- Kyle noted that it is difficult for him to figure out how to do new things, problem solve, plan ahead, change a plan and think quickly when needed.
- He has a hard time doing things in the right order.
- He has difficulty with word finding and expressing his thoughts. Kyle reported problems being unaware of time, distractible, losing his train of thought easily and difficulty doing more than one thing at a time.
- He reported difficulty making decisions and problems with short term memory.
- He tends to lose and misplace things daily.
- He noted problems being easily frustrated and at times not caring.
- He noted headaches from caffeine ingestion.

Case #1: Kyle

- Kyle is an assistant librarian at Stevens Henneger College.
- He noted it is stressful for him to deal with people.
- He enjoys the work.
- He also works as a shelver and customer service specialist for the Salt Lake County Library.
- Kyle enjoys role playing games.
- He spends quite a bit of time online with a gaming group.

Case #1: Kyle

- Kyle tended to sit stiffly in the chair.
- No habitual mannerisms were noted.
- Activity level was normal. Kyle was not distracted.
- He appeared moderately confident in his abilities.
- Comprehension was good.
- Kyle related adequately with the examiner.
- He smiled appropriately.
- His thoughts appeared logical, focused and generally relevant.
Case #1: Kyle

- Eye contact was generally average.
- Kyle maintained and initiated conversation, although conversation often was one sided. Receptive and expressive language appeared adequate.
- Kyle was neither anxious or sad. Overall his affect was generally neutral.
- Kyle was emotionally stable.
- He shared joint attention, body and object use as well as visual and listening response were normal.
- No atypical sensory behaviors were observed. Instrumental and informative gestures at times were excessive.
- Quality of social overture and social response were somewhat limited as was reciprocal social communication.

Case #1: Kyle

- Kyle is able to engage in nearly all activities of every day living without significant problems.
- He struggles to handle unexpected changes and interact with people.
- Kyle reports challenges with behaviors related to executive functioning involving flexibility, self-monitoring and working memory.
- He notes symptoms of depression, anxiety and inattention.
- Kyle demonstrates superior vocabulary with above average oral language.
- Memory, however, was assessed as well below average, primarily due to marked variability in subtest scores.
- Kyle also experienced mild difficulty on a task of sustained attention.
- His personality profile is characteristic of individuals who struggle with social and personal attainments, characteristic of social pragmatic communication problems accompanied by anxiety.

Case #1: Kyle

- On the ADOS he struggled with conversation and empathic gestures.
- He had a difficult time with social overture and reciprocal social communication.
- His presentation is characteristic of an Autism Spectrum Disorder in an adult.
- Kyle meets the DSM-5 diagnostic criteria for:
  - Autism Spectrum Disorder, w/o intellectual deficits
  - Unspecified Anxiety Disorder
  - Unspecified Attention Deficit Hyperactivity Disorder
### Case #1: Kyle

#### Communication

<table>
<thead>
<tr>
<th>Factor</th>
<th>Score</th>
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<tr>
<td>Nonverbal Communication: Use of Words or Phrases</td>
<td>1</td>
</tr>
<tr>
<td>Conversation</td>
<td>2</td>
</tr>
<tr>
<td>Description, Gestural, Instrumental or Involuntary Gestures</td>
<td>0</td>
</tr>
<tr>
<td>Emphasis or Repeatability of Gestures</td>
<td>0</td>
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</tbody>
</table>

#### Nonverbal Social Interaction

<table>
<thead>
<tr>
<th>Factor</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocal Tone (Volume)</td>
<td>9</td>
</tr>
<tr>
<td>Vocal Tone (Rhythm)</td>
<td>9</td>
</tr>
<tr>
<td>Vocal Tone (Quality)</td>
<td>7</td>
</tr>
<tr>
<td>Words Uttered When Singing</td>
<td>7</td>
</tr>
<tr>
<td>Quality of Vocal Interaction</td>
<td>7</td>
</tr>
<tr>
<td>Quality of Vocal Projection</td>
<td>7</td>
</tr>
<tr>
<td>Quality of Vocal Projection/Imitation</td>
<td>7</td>
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<tr>
<td>Quality of Vocal Projection/Evaluation</td>
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#### Generalized Social Interaction

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<thead>
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<th>Factor</th>
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<tbody>
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<td>Verbal Interactions Between Multiple Persons</td>
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<tr>
<td>Generalized Verbal Interactions Between Multiple People</td>
<td>9</td>
</tr>
<tr>
<td>Verbal Interactions Between Multiple People</td>
<td>9</td>
</tr>
<tr>
<td>Generalized Verbal Interactions Between People</td>
<td>9</td>
</tr>
<tr>
<td>Verbal Interactions Between People</td>
<td>9</td>
</tr>
<tr>
<td>Generalized Verbal Interactions</td>
<td>9</td>
</tr>
<tr>
<td>Verbal Interaction</td>
<td>9</td>
</tr>
<tr>
<td>Generalized Verbal Interaction</td>
<td>9</td>
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<tr>
<td>Verbal Interaction</td>
<td>9</td>
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</table>

#### Test of Memory and Learning

<table>
<thead>
<tr>
<th>Index</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td>Verbal Memory Index</td>
<td>77</td>
</tr>
<tr>
<td>Non-Verbal Memory Index</td>
<td>82</td>
</tr>
<tr>
<td>Composite Memory Index</td>
<td>76</td>
</tr>
<tr>
<td>Verbal Delay Recall Index</td>
<td>76</td>
</tr>
<tr>
<td>Attention Concentration</td>
<td>97</td>
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<tr>
<td>Sequential Recall</td>
<td>79</td>
</tr>
<tr>
<td>Free Word Recall Index</td>
<td>97</td>
</tr>
<tr>
<td>Associative Recall Index</td>
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<tr>
<td>Learning Index</td>
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</table>

#### Woodcock-Johnson IV: Tests of Cognitive Ability

**Standard Scores (mean = 100; s.d. = 15)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Vocabulary</td>
<td>121</td>
</tr>
<tr>
<td>Number Memory</td>
<td>125</td>
</tr>
<tr>
<td>Coding Comprehension</td>
<td>121</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>128</td>
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</table>

**Standard Scores (mean = 100; s.d. = 15)**

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td>Picture Vocabulary</td>
<td>121</td>
</tr>
<tr>
<td>Oral Comprehension</td>
<td>97</td>
</tr>
<tr>
<td>Understanding Directions</td>
<td>98</td>
</tr>
<tr>
<td>ORAL LANGUAGE</td>
<td>130</td>
</tr>
<tr>
<td>BRILLIANT LANGUAGE</td>
<td>197</td>
</tr>
<tr>
<td>LISTENING/LISTENING</td>
<td>97</td>
</tr>
<tr>
<td>VERBAL^DAY</td>
<td>130</td>
</tr>
</tbody>
</table>
Lydia: Case #2 (Age 53)

- Lydia noted that she has always had difficulty interacting with people.
- Her medical history is noted by a compressed skull fracture at age eighteen. She is uncertain if this adversely affected her cognitive functioning.
- She had her thyroid removed in 2017. She currently takes thyroid medication.
- Lydia has tried multiple psychiatric medications but has disliked the side effects. She notes that St. John's Wort is beneficial.
- Lydia is single and has never married.
- She has not dated in twenty years.
- She described herself as a “rabid feminist” and noted that “no one ever asked me to marry them.”
- Lydia noted that she has always been argumentative in relationships.
- Most relationships have not worked out.
- Lydia indicated seven years ago she had a few dates from “a website.”
- Lydia has no close friends or family

Lydia: Case #2

- As a youth, Lydia described herself as clumsy.
- She has always had trouble with small talk.
- She is blunt in relationships.
- She does not have a “clue” about her earlier childhood communication.
- She recalled that as a child she believed she joined in games.
- She is still friendly with some of her childhood friends but is rarely visited by friends.
- She reported that she has not been emotionally stable until she moved to her current city.
- She noted that she has difficulty keeping her apartment clean.

Lydia: Case #2

- Lydia was alert, attentive and concentrated reasonably well.
- Her ability to share joint attention was adequate.
- Reciprocal social communication was generally appropriate.
- No muscular tension nor habitual mannerisms were noted.
- Lydia’s thought processes appeared focused and relevant.
- She was teary multiple times during the history session when retelling her life story.
Lydia: Case #2

- This profile is characteristic of someone who may be apprehensive and distancing from others. Individuals with this profile often markedly deprecate their self-worth.
- They are generally socially shy and awkward. They often want closeness and affection from others but fear abandonment and experience a recurrent pervasive despondency, a general state of sadness and mood disharmony.
- Deprecation of aptitudes and sporadic avoidance of independent behavior are noted by individuals with this personality profile. They are often conciliatory and submissive to others.
- Their self-image is often weak, fragile, anxious and depressive. They typically seek a passive life style. They are often apathetic and indifferent.
- Such individuals are very conscientious, abiding by what they view as social propriety and decorum. They often attend closely to the behavior of others. This pattern of presentation is characteristic of a schizoid personality.

Lydia: Case #2

- Lydia recalled a troubled childhood, including a mother with chronic mental health problems and abusive treatment at home.
- Nonetheless, she graduated successfully from college and has been able to work at multiple jobs throughout the world.
- For the last eleven years she has worked at a job that is consistent and predictable but below her capabilities.
- Lydia does not report significant challenges with activities of every day living other than interacting with others and socializing.
- She acknowledges she has become increasingly more socially withdrawn.

Lydia: Case #2

- Current assessment suggests that her presentation, while just below the autism cutoff on a screening measure for adult autism is above the threshold for consideration of Autism Spectrum Disorder.
- Further, current testing suggests Lydia experiences problems with sustained attention, an issue that is characteristic of some individuals with Autism, as well as individuals with the Inattentive Type of Attention Deficit Hyperactivity Disorder.
- Lydia reports minimal symptoms of depression and anxiety.
- Her current personality profile is characteristic of a somewhat schizoid pattern. Such individuals are often apprehensive and distancing from others. They deprecate their self-worth. They tend to be generally shy and awkward.
- Lydia meets the DSM-5 diagnostic criteria for Autism Spectrum Disorder with average intellect and minimal support needs.
Lydia: Case #2

• Lydia’s TOVA results are not within normal limits and are suggestive of attentional problems. Omission errors and response variability were below expected for typical individuals.
• Beck Depression Inventory - II Total Score - 3 (minimal symptoms)
• Beck Anxiety Inventory - II Total Score - 1 (minimal symptoms)

Autism Spectrum Disorder in Adults: Diagnosis, Management and Health Services Development

We conclude that health services research for adults with ASD is urgently warranted. In particular, research is required to better understand the needs of adults with ASD, including health, aging, service development, transition, treatment options across the lifespan, sex, and the views of people with ASD. Additionally, the outcomes of recent international legislative efforts to raise awareness of ASD and service provision for adults with ASD are to be determined. Future research is required to identify high-quality, evidence-based, and cost-effective models of care. Furthermore, future health services research is also required at the beginning and end of adulthood, including improved transition from youth to adult health care and increased understanding of aging and health in older adults with ASD.

Employment is fundamental to the well-being of individuals including those with autism spectrum disorder (ASD). The purposes of this review are to provide an overview of employment-related research in individuals with ASD and increase our understanding of the factors that affect the employment situation of this population. Topics explored are employment outcomes revealed from adult outcome studies and national datasets as well as internal and external challenges that people with ASD may face in finding and maintaining employment. Social difficulties, comorbidity, education level, family support, employers’ attitudes, access to services, and disability incentives have been implicated as factors that play an important role in predicting employment. Existing research evidence for specific employment training programs and strategies to successful employment are also introduced in regards to supported employment, transition services, assistive technology, and multidisciplinary collaboration. Finally, implications from both clinical practice and research perspective are provided.

Formulating a Treatment Plan for Adult ASD

- Structured behavioral treatment
- Counseling support (CBT?)
- Family involvement
- Support through transition
- Intensive intervention
- Social skill development
- Focus on generalization of skills
- Vocational training
- Appropriate school or work setting
- Medication?
Some Possible Challenges to Treating Adult ASD

- Concrete thinkers
- Difficulty with humor
- Problems regulating affect
- Difficulty interpreting other’s feelings
- Rule bound
- Diminished empathy
- Decreased desire to please others.

Pharmacotherapy with Adult ASD

Pharmacotherapy of ADHD in Adults With Autism Spectrum Disorder: Effectiveness and Side Effects

J. J. Munk, N. Bothel, and C. C. Kan

Abstract

Objectives: Symptoms of ADHD are expected to be more difficult to treat in patients with a combination of ADHD and autism spectrum disorder (ASD) as opposed to only ADHD. Little evidence is available on the influence of ASD on the effects of pharmacotherapy in adults with ADHD. This study addresses this gap. Methods: 80 adults with ADHD and concurrent ASD were selected from an outpatient clinic and compared with 32 adults from the same clinic with only ADHD. Similar treatment regimens were received. Results: Significant decreases in symptoms of ADHD were found in both groups. A diagnosis of ASD did not affect the reduction in symptoms of ADHD. No significant group differences in side effects or drop-out rates were found. Conclusions: Findings show that medication for ADHD is effective and safe regardless of the presence of concurrent ASD. Suggestions for future research are discussed. © 2019 Elsevier Ltd. All rights reserved.

Self Help Volumes
Clinical Volumes

Challenging Behaviors Tool Kit

Sometimes, people with autism display behaviors that are challenging to understand and address. The Challenging Behaviors Tool Kit will provide you with strategies and resources to address these behaviors and help support you during difficult situations.

The kit includes ten different sections. You may want to read the kit in its entirety or work through a section at a time.

- Why are some behaviors considered Challenging?
- What are the positive strategies for managing a crisis situation?
- What are some common triggers that lead to Challenging behaviors?
- What are some common solutions and resources to help address Challenging behaviors?
Postsecondary Educational Opportunities Guide

Deciding what to do after high school can be a difficult process. This guide will help you and your family answer the decision questions you face.

The guide provides a closer look at four-year universities, community colleges, vocational/trade schools, adult education programs, and more. This information will help you find the program that is right for you.

The Postsecondary Educational Opportunities Guide is broken up into the following sections:

- Introduction
- Preparing for Postsecondary Education
- Types of Postsecondary Education Programs
- How to File for Financial Aid
- Life on Campus
- Learning as an Independent Learner
- Advice for Parents
- Resources Learning for People With Autism: A Person's Perspective
- A Perspective on Postsecondary Educational Opportunity
- Resources

Employment Tool Kit

Autism Speaks would like to help you find the right job by providing you with tools and resources, including the Employment Tool Kit.

We have written this tool to help you research, find, and keep employment. We compiled job-related advice, tips, and information from a collaboration of people, including adults with autism.

Although this guide is written for adults, we know that it will also be helpful for family members, service providers, business leaders, and anyone who is helping someone with autism to find and keep a job.

The Employment Tool Kit is divided into the following sections:

- Introduction
- Self-Advocacy
- What to Do When You Have No Work
- Learning about the Job Before You Apply
- Employment Models: What Option is Best for You?
- Your Job Search
- Your First Interview
- Your First Day
- Navigating Unemployment
- Resumes, Cover Letters and Applications
- Job Interview

Resources and Downloads

- Resume/Interview
- Contacting the Local Elements of Your Job

Autism After Age 21

What happens when my child is no longer in school?

How will I be when my child turns twenty-one?

What is going to happen to my child when I’m no longer around, or able to care for them?

These are just a few questions that parents have. This autism transition resource is designed to provide information to parents of children with autism. Most children with autism are able to remain special education services through the school system until age 21. However, important decisions of where and how

Resources

- Information and Programs
- Autism Resources
- Autism Info

Explore Resources

- Autism Information
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Sung by Arnold

Where They lay There at Night

There is a hidden fold where every one
Is gazing, gazing you, like one killed by the sky
All sumptuous eyes a thorn grey oak glove to be seen
Pining incited and doomed

Some very-wax, twine, picture, photograph, collection
To view each silence broken, a pleasant in the headline
Great-Ashi: East of this and Cross and

Purify huge with disposition and peace even one day
But the grey only remain ignored
An ugly thicket in a creeping mind
The rose red, shinyl knower

And they saw the entrance of the field
For when light falls the fauna snails in the river
To give in the dark

www.samgoldstein.com
Questions?

www.samgoldstein.com
info@samgoldstein.com
@dramgoldstein
@doctorsamgoldstein

TEDx: https://www.youtube.com/watch?v=istfw6LJ-eWM