

• **IN THE NAME OF GOD**



Adolescent with ASD

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ASD is a neurodevelopmental condition in which challenges with social communication and restrictive and repetitive behaviors manifest early in development, but may not be apparent **until the social demands exceed capabilities.**



There is a tremendous amount of **variation (heterogeneity)** in terms of both symptom presentation and **functional ability** in individuals with autism spectrum disorder (ASD).

The challenges faced by adolescents and emerging adults with ASD can be better understood by considering the unique **sociocultural changes** that most individuals experience within these stages.







Adolescents and young adults
with ASD have :

- poor social relationships
outcomes
- poor employment outcomes
- poor independent living outcomes


In early childhood, clinical concerns revolve around **communication**, **social and adaptive capabilities**, and maladaptive behaviors associated with ASD, such as **aggression**, **self-injurious** behavior, and **hyperactivity**.



In preschool and later school years, children with ASD often experience difficulties with forming **relationships with peers**, exacerbated by co-occurring **hyperactivity** or problems with **emotion regulation**.



Adolescence increased social demands.
Early challenges experienced by younger children become more pronounced as the **social environment increases in complexity** and as children are expected to have more **autonomy**.



Many adults with ASD live at home after high school, are not employed or in education, and face challenges establishing friendships.

Studies reported age-related differences or changes in the severity of autism symptoms, with a **general pattern of improvement with age**.

Autism symptoms in young adulthood are less severe than reported in early and middle childhood.

A circular inset image showing a group of people holding a large yellow banner with the text "Teenagers & Autism". The banner is held by several individuals, and the text is written in a large, bold, black font. The background of the image shows a blurred outdoor setting with a metal railing.

**Teenagers
& Autism**



Adolescence and young adulthood appear to form the **most difficult period** in the lives of high-functioning individuals with autism spectrum disorders.

The challenges often faced by those without intellectual disabilities appear to result from the **demands of social relationships, academics, employment,** and **independent living** in those with ASD, which **may exacerbate core ASD deficits or co-occurring conditions.**

Outcome

For adolescents and young adults, the outcome literature in young adulthood is reasonably extensive.

As first noted by Kanner, Rodriguez, and Ashenden (1972), some individuals with autism make noteworthy gains in adolescence while a minority appear to lose skills (Howlin, 2013).

In up to 50 % of cases, there are overall gains in communication and adaptive skills as well as reduced symptom severity; this is most likely if the overall IQ is > 55.





For those individuals **losing skills** in adolescence,

the onset of seizure disorder and mental health comorbidities may pose difficulties in adolescence.

More individuals with ASD are now entering college and post-secondary programs, resulting in increased opportunities for adult self-sufficiency and higher levels of occupation.

Findings include that although virtually all sample members met the criteria for Autistic Disorder earlier in their childhood, just over half (54.8%) would have met autism criteria if current scores were used to complete the diagnostic algorithm; that adolescents were more likely to improve in the Reciprocal Social Interaction domain than the adults, whereas the adults were more likely to improve in the Restricted, Repetitive Behaviors and Interests domain, and there were no differences in severity of symptoms between cohorts in the Communication domain.

- First, the adult cohort appeared at present to be less severely impaired than the adolescent cohort in the manifestation of **abnormal symptoms, including verbal symptoms and many restricted, repetitive behaviors** and interests.
- The developmental course of the abnormal behaviors of autism may be one of reduction of symptoms from adolescence into adulthood.
- This pattern is similar to the **course of schizophrenia**, in which positive symptoms (bizarre behavior, hallucinations, delusions) tend to abate over time.
- The literature would lead us to expect continued development in **social and communicative skills** from adolescence to adulthood in individuals with autism, rather than the pattern of poorer functioning of adults than adolescents was evident in this sample.

- IQ increases from late childhood to adult life points to ongoing development in the **second** decade of lifepoint





The relationship between the severity of early symptoms of autism and the outcome remains **unclear**, with at least a few studies suggesting that the **severity of social skills impairment** is the most significant outcome predictor.

In one study, 480 individuals (adolescent to middle-aged adults) were surveyed, that showed :

high rates of anxiety (45 %)

depression (27.9 %)

one-third indicated they believed they had an **undiagnosed** mental health condition

over 80 % received more than one medication

45 % attending some post-high school educational program

60 % continue to live with their families

one-third had had romantic relationships and in a **few** cases had been married (sometimes with offspring)

Most of the sample reported **major** limitations in social connections

Even for the most able adults, limitations in social interaction, adaptive/daily life skills, and occupational status were striking

Social relationships

- Adolescents with ASD tend to have low friendship **quality**, if they have any friends, and to be on the **periphery** of social networks at their school, if not isolated.
- Adolescents with ASD sometimes describe friendships in terms suggesting social and emotional reciprocity, such as mutual caring, responsiveness, and forgiveness, they often focus on **concrete areas** like common interests.
- Individuals with ASD may identify making friends as their **greatest social challenge**, which may relate not only to knowing how to make **appropriate choices** regarding compatible social status groups or personalities, but also to failing to **initiate** social interactions, and **passively waiting for others** to approach to avoid social rejection.

- One critical challenge in forming and maintaining relationships lies in conversational skills.
- Many, if not most, adolescents and adults with ASD have a **pedantic** speaking style.
- They also often have difficulty **articulating** phrasing, **stress**, and **tone** when speaking.
- Other difficulties include **inappropriately formal**, **irrelevant**, or **inappropriate detail**, **out-of-sync content** and **unannounced topic shifts**, **topic perseveration**, **unresponsiveness to others' cues**, **little reciprocal exchange**, and **absent or inappropriate intonation or gaze**.

- Children with ASD may show deficits in **resolving ambiguity**, understanding **inferential language**, and using **linguistic flexibility** to produce speech acts limited by the communicative **context**.
- Adults with ASD may demonstrate difficulties in **interpreting figurative language** and producing relevant speech acts. Moreover, linguistic impairments appear mostly related to specific **pragmatic** deficits rather than general linguistic abilities, as individuals with ASD may **not** demonstrate impairments in **general narrative abilities like story length and syntactic complexity**, but may not use the gist well to **organize the story cohesively**.

Sex difference

- Findings may suggest that girls with ASD **perceive** more problems with themselves than their **peers**, while boys are less different in that respect from their peers.
- Supporting evidence could come from patterns found in the emotional functioning of adolescents in the general population, according to which **girls** have **superior** capacities for **perspective-taking and empathy** than boys.
- Also girls **experience** more problems in social functioning than boys.
- **Girls** presented a **poorer ability to maintain** reciprocal conversation and to **maintain friendships** and relationships.
- Girls may also tend to assess themselves more harshly due to experiencing more disapproval from their peers.

- No sex differences in recognizing emotions were found in adolescents with ASD.
- Adolescents with emotional disorders, girls demonstrated more impairments in social activity participation and lower peer acceptance.

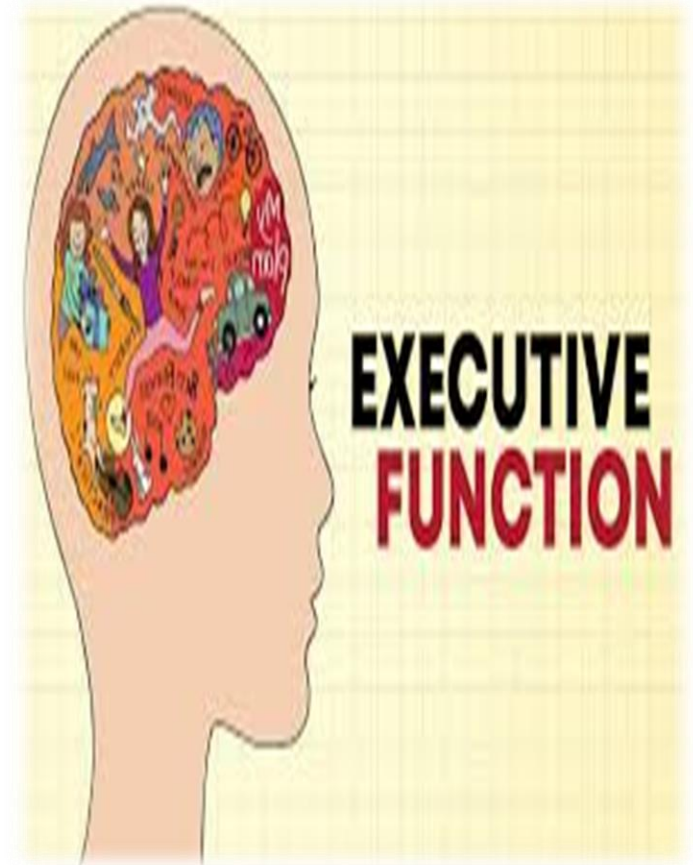
Restricted, Repetitive Behaviors and Interests

- In the restricted interests and repetitive behaviors domain, repetitive behaviors are **less frequent and less severe** among older than younger individuals.



Executive function

- Executive function domains, include inhibition, working memory, flexibility, fluency, and planning.
- Given the **dramatic developmental changes** in the brain regions that support EF during adolescence.
- Difficulties in executive functioning, involving **both cognitive and behavioral deficits** are often seen in adolescents with ASD.
- EF will impact academic functioning.





Deficits have been noted in the areas of inhibition, initiation of efficient strategies and cognitive switching, impulse control, planning, shifting, and attention control, and using internal language to guide behavior when presented with a novel or complex task.

- Students will also struggle with social-emotional self-regulation (perspective-taking, social perception, motivation, and initiation), which can impact the non-academic, or co-curricular aspects of college life (housing, dealing with roommates, negotiating with faculty, joining activities, etc.).
- Thus, the difficulty students with ASD experience in college may be the result of an inability to self-regulate in the social domain tied to EFD.



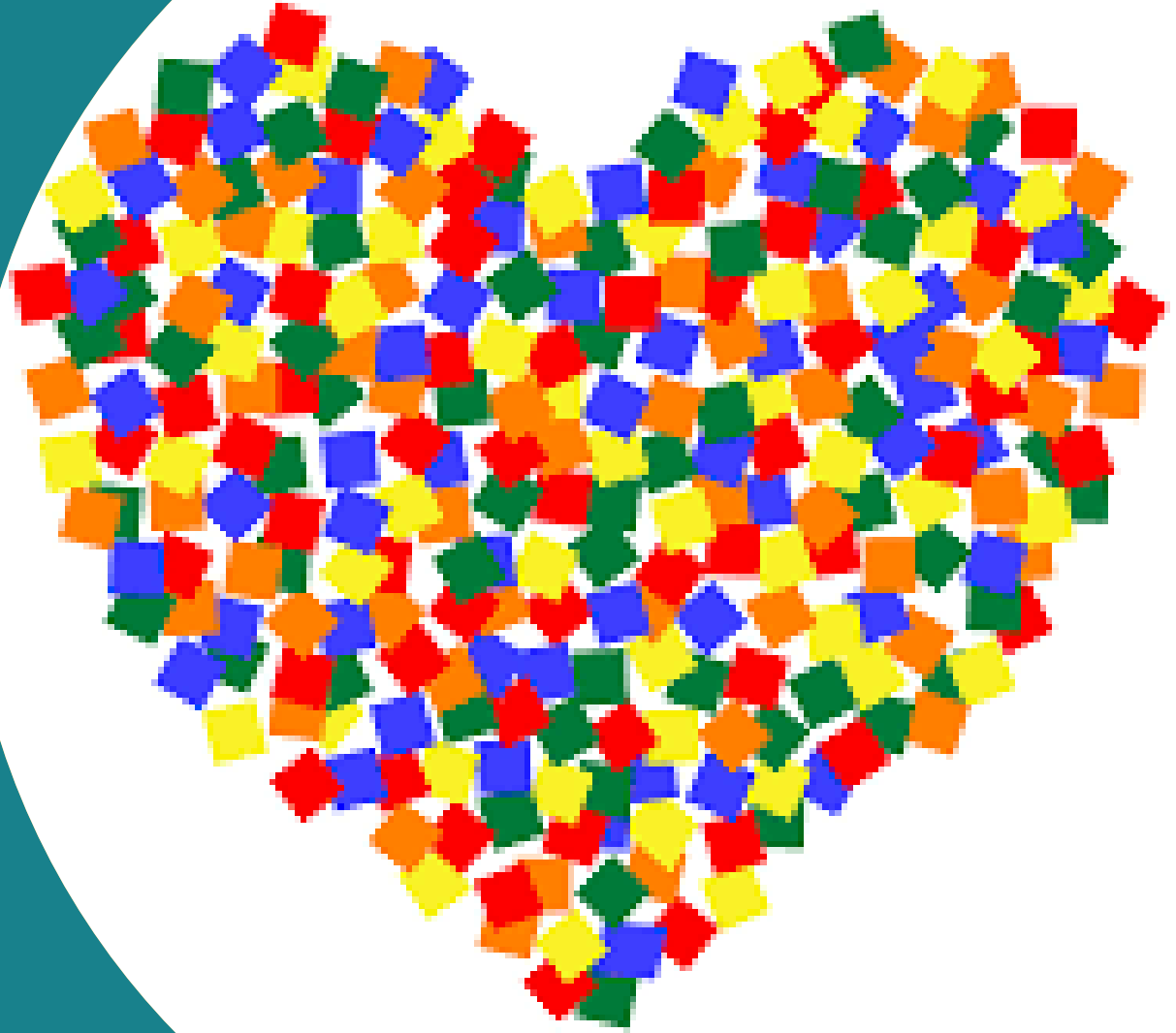
- **Romantic Relationships, Sexuality**

Sexual development in individuals with ASD parallels typical sexual development, with some differences.

Research suggests that **sexuality is common among both** the typical population and the population with ASD, with individuals with ASD experiencing some sexual behaviors **less** frequently.

Despite the growth of sexuality during puberty among adolescents with ASD, there is not a natural, corresponding growth of **sexual knowledge**.

This often leads to **embarrassing and inappropriate** behaviors, which can contribute to **peer rejection** and other **poor outcomes**.





Sex education

Sex education is a necessity for this population to combat these poor outcomes.

There are **significant risks** of not addressing sexual issues in this population, including an increased risk of contact with the law as victims of sexual **abuse** or perpetrators of sexual **crimes**.

- sex education for individuals on the
- autism spectrum may also benefit from including the following issues



Puberty and body changes

Individuals with ASD show more difficulties with body changes during puberty, including growth, erections, pubic hair, and so on.

Preparation for body changes in addition to appropriate behaviors for dealing with these situations (e.g., itchy pubic hair, erections) should be addressed in sex education programs.



Privacy Issues

Growth of sex drive that typically occurs during puberty is not accompanied by a corresponding growth in the field of social “**know-how**” and this can lead to inappropriate behavior. Adolescents and adults with ASD display more **inappropriate sexual behaviors** than their peers. For example, without intervention, they may engage in **fewer privacy behaviors** (such as not seeking privacy for undressing), have poorer knowledge regarding **privacy rules** (such as knocking rather than entering closed doors and not touching oneself in public), and engage in inappropriate socio-sexual behaviors (such as **speaking** about sexual activities in public) more frequently than their typical peers.



Masturbation is the most common form of sexual behavior in individuals with ASD, and many studies report inappropriate masturbation behaviors to be common in this population, such as engaging in masturbation in public locations.

Hygiene, menstruation, and self-care (changing underwear, grooming, washing, and other hygienic behaviors) require attention regarding sexuality for some individuals with ASD. While there is a range in skill ability regarding self-care and hygiene, some individuals with ASD have difficulties in these areas and thus they should be addressed in a sex education program.





Safety

Understanding risky behavior and recognizing offences and inappropriate behavior are likely to reduce bullying, peer harassment, and sexual abuse commonly experienced by individuals with ASD.

Respect and socially inappropriate sexual behaviors also need to be taught simultaneously to typically developing children, adolescents, and adults, so that abuse toward individuals with disabilities is reduced.



Bullying

Other types of victimization include bullying or peer harassment, and because victimization is often **more difficult to identify** in individuals with autism and developmental disabilities.

The results of one study indicated that social naivety exhibited in the sample appeared to be frequently used for exploitative purposes by other students.

These experiences may produce a **negative cycle** in which students experience increasing levels of social isolation.



Technology

This arena may also present interesting challenges for individuals with ASD. For example, although some individuals with autism may prefer the computerized aspects of social networking, face-to-face interactions can be difficult.

These challenges are compounded by the **impersonal** nature of social networking, where many **visible social cues are absent** and communication may be more **nuanced and difficult to interpret**.

sexual orientation

- KEY POINTS Individuals with ASD show a greater diversity in sexual orientation compared with healthy controls and this accounts especially for ASD women.
- Fewer individuals with ASD have a sexual or romantic relationship, whereby this accounts especially for ASD men.
- Most individuals with ASD report about previous sexual experiences, most frequently solitary sexual behaviors, for example, masturbation.
- Individuals with ASD report problematic sexual behaviors, including hypersexuality, paraphilic disorders, asexuality, and gender-nonconforming feelings.

Transition plan

- An outcome-oriented system based on the child's strengths, areas of interest, and accommodations.
- A transition plan that is monitored and revised as the child gets older.
- A team approach based on the specific services the child needs.
- A process that cannot be changed or modified without the parent's knowledge and consent (that is until your child reaches the age of 18 and can independently make changes for themselves).
- Involvement of the autistic learner to ensure their goals and needs are addressed
Services that help address the skills and accommodations needed to prepare for transitioning post-high school.

A circular inset image showing a vibrant green aurora borealis (Northern Lights) against a dark, starry night sky. The aurora consists of several horizontal, wavy bands of light that appear to be flowing across the sky.

Thank You