



Violent behavior in autism spectrum disorder: Is it a fact, or fiction?

A spasm of school violence brought a putative link between autism spectrum disorder (ASD) and violent crime into public consciousness—even though no specific association exists between autism and violent crime. When a person with ASD commits a violent act, a key step in your workup is to identify or exclude a comorbid psychiatric disorder that might, in fact, explain the offending behavior.

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When Kanner first described autism,¹ the disorder was believed to be an uncommon condition, occurring in 4 of every 10,000 children. Over the past few years, however, the rate of autism has increased substantially. Autism is now regarded as a childhood-onset spectrum disorder² characterized by persistent deficits in social communication, with a restricted pattern of interests and activities, occurring in approximately 1% of children.³

In DSM-IV-TR, Asperger's disorder (AD), first described as "autistic psychopathy,"⁴ is categorized as a subtype of ASD in which the patient, without a history of language delay or mental retardation, has autistic social deficits that do not meet full criteria for autism.

DSM-5 eliminated AD as an independent category, including it instead as part of ASD.⁵ The label "high-functioning autism" is sometimes used to refer to persons with autism who have normal intelligence (usually defined as full-scale IQ >70), whereas those who have severe intellectual and communication disability are referred to as "low-functioning." I use "high-functioning autism" and "Asperger's disorder" interchangeably.

Violent crime and ASD/AD

Reports in the past 2 decades have described violent behavior in persons with ASD/AD. Because of the sensational and unusual nature

²Given the term pervasive developmental disorders (PDD) in the DSM-IV-TR, the spectrum includes autistic disorder, Asperger's disorder, and pervasive developmental disorder not otherwise specified.²



Violence in ASD

Clinical Point

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Table

What are distinctive features of offending behavior in people who have ASD?^a

They make no attempt to conceal offending behavior

Their behavior is often based on special interests

They are naïve and difficult to understand

Their offending behavior results from misreading social cues

Their offending behavior is often the result of other factors, such as depression and psychosis

^aNot all features seen in all affected people

of these criminal incidents, there is a perception by the public that persons with these disorders, especially those with AD, are predisposed to violent behavior. (Incidents allegedly committed by persons with ASD include the 2007 Virginia Tech campus shooting and the 2012 Newtown, Connecticut, school massacre.⁶)

Yet neither the original descriptions by Kanner (of autism) and Asperger, nor follow-up studies based on the initial samples studied, showed an increased prevalence of violent crime among persons with ASD/AD.⁷

In this article, I examine the evidence behind the claim that people who have ASD/AD are predisposed to criminal violence. At the conclusion, you should, as a physician without special training in autism, have a better understanding of when to suspect ASD/AD in an adult who is involved in criminal behavior.

When should you suspect ASD/AD in an adult?

Although autism is a childhood-onset disorder, its symptoms persist across the life span. If the diagnosis is missed in childhood, which is likely to happen if the person has normal intelligence and relatively good verbal skills, he (she) might come to medical attention for the first time as an adult.

Because most psychiatrists who treat adults do not receive adequate training

in the assessment of childhood psychiatric disorders, ASD/AD might be misdiagnosed as schizophrenia or another psychotic disorder. What clues help identify underlying ASD/AD when a patient is referred to you for psychiatric evaluation after allegedly committing a violent crime?

Clue #1. He makes no attempt to deny or conceal the act. The behavior appears to be part of ritualistic behavior or excessive interest (*Table*).

Often, the alleged crime occurs when the patient's excessive interests "get out of control," perhaps because of an external event. For example, a teenager with AD who is fixated on video games might stumble upon pornographic web sites and begin making obscene telephone calls. Particular attention should be paid to a history of rigid, restricted interests beginning in early childhood.

These restricted interests change over time and correlate with intelligence level: The higher the level of intelligence, the more sophisticated the level of fixation. Examples of fixations include computers, technology, and scientific experiments and pursuits. Repeated acts of arson have been reported to be part of an autistic person's fixation with starting fires.⁸

Clue #2. He appears to lack sound and prudent judgment despite normal intelligence.

Although most patients with ASD score in the intellectually disabled or mentally retarded range, at least one-third have an IQ in the normal range.⁹ Examine school records and reports from other agencies when evaluating a patient. Pay attention to a history of difficulty relating to peers at an early age, combined with evidence of rigid, restricted fixations and interests.

It is important to obtain a reliable history going back to early childhood, and not rely just on the patient's mental status; presenting symptoms might mask underlying traits of ASD, especially in higher-functioning adults. (I once cared for a young man with ASD who had been fired a few days after landing his first job selling used cars because he was "sexually harassing" his colleagues. When questioned, he said

that he was only trying to be “friendly” and “practicing his social skills.”)

Clue #3. He has been given a diagnosis of schizophrenia without a clear history of hallucinations or delusions.

Differentiating chronic schizophrenia and autism in adults is not always easy, especially in those who have an intellectual disability. In patients whose cognitive and verbal skills are relatively well preserved (such as AD), the presence of intense, focused interests, a pedantic manner of speaking, and abnormalities of nonverbal communication can help clarify the diagnosis. In particular, a recorded history of “childhood schizophrenia” or “obsessive-compulsive behavior” going back to preschool years should alert you to possible ASD.

Scales and screens. Apart from obtaining an accurate developmental history from a variety of sources, you can use rating scales and screening instruments, such as the Social and Communication Questionnaire¹⁰—although their utility is limited in adults. It is important not to risk overdiagnosis on the basis of these instruments alone: The gold standard of diagnosis remains clinical. The critical point is that the combination of core symptoms of social communication deficits and restricted interests is more important than the presence of a single symptom. A touch of oddity does not mean that one has ASD/AD.

Is the prevalence of violent crime increased in ASD/AD?

It is important to distinguish violent crime from aggressive behavior. The latter, which can be verbal or nonverbal, is not always intentional or malevolent. In some persons who have an intellectual disability, a desire to communicate might lead to inappropriate touching or pushing. This distinction is particularly relevant to psychiatrists because many people who have ASD have an intellectual disability.

Violent crime is more deliberate, serious, and planned. It involves force or threat of force. According to the Federal Bureau of Investigation Uniform Crime Reporting

Program, violent crime comprises four offenses: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault.¹¹

Earlier descriptions of ASD/AD did not mention criminal violence as an important feature of these disorders. However, reports began to emerge about two decades ago suggesting that people who have ASD—particularly AD—are prone to violent crime. Some of the patients described in Wing’s original series¹² of AD showed violent tendencies, ranging from sudden outbursts of violence to injury to others because of fixation on hobbies such as chemistry experimentation.

Reports such as these were based on isolated case reports or select samples, such as residents of maximum-security hospitals. Scragg and Shah, for example, surveyed the male population of Broadmoor Hospital, a high-security facility in the United Kingdom, and found that the prevalence of AD was higher than expected in the general population.¹³

Recent reports have not been able to confirm that violent crime is increased in persons with ASD, however:

- In a clinical sample of 313 Danish adults with ASD (age 25 to 59) drawn from the Danish Register of Criminality, Mouridsen and colleagues found that persons with ASD had a lower rate of criminal conviction than matched controls (9%, compared with 18%).¹⁴

- In a small community study, Woodbury-Smith and colleagues examined the prevalence rates and types of offending behavior in persons with ASD. Based on official records, only two (18%) had a history of criminal conviction.¹⁵

The role of psychiatric comorbidity

Psychiatric disorders are common in persons who have ASD. In one study, 70% of a sample of 114 children with ASD (age 10 to 14) had a psychiatric disorder, based on a parent interview.¹⁶ Although people with mental illness are not inherently criminal or violent, having an additional psychiatric disorder independently

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Any patient with ASD/AD who is evaluated for criminal behavior should be screened for a comorbid psychiatric disorder

Related Resources

- Autism Speaks. No link between autism and violence. www.autismspeaks.org/science/science-news/no-link-between-autism-and-violence.
- Haskins BG, Silva JA. Asperger's disorder and criminal behavior: Forensic-psychiatric considerations. *J Am Acad Psychiatry Law*. 2006;34(3):374-384.
- Newman SS, Ghaziuddin M. Violent crime and Asperger syndrome: the role of psychiatric comorbidity. *J Autism Dev Disord*. 2008;38:1848-1852.
- Wing L. Asperger's syndrome: a clinical account. *Psychol Med*. 1981;11(1):115-129.

increases the risk of offending behavior.¹⁷ For example, the association of attention-deficit/hyperactivity disorder with criminality is well established.¹⁶ Some patients with severe depression and psychotic disorders, including schizophrenia, also are at increased risk of committing a violent act.

To examine the contribution of mental health factors to the commission of crime by persons with ASD, Newman and Ghaziuddin¹⁸ used online databases to identify relevant articles, which were then cross-referenced with keyword searches for "violence," "crime," "murder," "assault," "rape," and "sex offenses." Thirty-seven cases were identified in the 17 publications that met inclusion criteria. Out of these, 30% had a definite psychiatric disorder and 54% had a probable psychiatric disorder at the time they committed the crime.¹⁸

Any patient with ASD/AD who is evaluated for criminal behavior should be screened for a comorbid psychiatric disorder. In adolescents, stressors such as bullying in school and problems surrounding dating might contribute to offending behavior.

What are management options in the face of violence?

Managing ASD/AD when an offending behavior has occurred first requires a correct diagnosis.¹⁹ Professionals working in the criminal justice system have little awareness of the variants of ASD; a defendant with an intellectual disability and a characteristic facial appearance (for example, someone with Down syndrome) can be easily identified, but a high-functioning person who has mild autistic features of-

ten is missed. This is more likely to occur in adults because the symptoms of ASD, including the type and severity of isolated interests, change over time.

Here is how I recommend that you proceed:

Step #1. Confirm the ASD diagnosis based on developmental history and the presence of persistent social and communication deficits plus restricted interests.

Step #2. Screen for comorbid psychiatric and medical disorders, including depression, psychosis, and seizure disorder.

Step #3. Treat any disorders you identify with a combination of medication and behavioral intervention.

Step #4. Carefully examine the circumstances surrounding the offending behavior. Involve forensic services on a case-by-case basis, depending on the type and seriousness of the offending behavior (see *Related Resources* for information on the role of forensic services). When the crime does not involve serious violence, lengthy incarceration might be unnecessary. Because psychopathy and ASD/AD are not mutually exclusive, persons who commit a heinous crime, such as rape or murder, should be dealt with in accordance with the law.

Need for greater awareness of the complexity of ASD

Patients who have ASD/AD form a heterogeneous group in which the levels of cognitive and communication skills are variable. Those who are low-functioning and who have severe behavioral and adaptive deficits occasionally commit aggressive acts against their caregivers.

Most patients with ASD/AD are neither violent nor criminal. Those who are at the higher end of the spectrum, with relatively preserved communication and intellectual skills, occasionally indulge in criminal behavior—behavior that is nonviolent and results from their inability to read social cues or excessive preoccupations.



Violence in ASD

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Most reports that link criminal violence with ASD are based on isolated case reports or on biased samples that use unreliable diagnostic criteria

Most reports that link criminal violence with ASD are based on isolated case reports or on biased samples that use unreliable diagnostic criteria. In higher-functioning persons with ASD, violent crime is almost always precipitated by a comorbid psychiatric disorder, such as severe depression and psychosis.

In short: There is a need to increase our awareness of the special challenges faced by persons with ASD/AD in the criminal justice system.

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Bottom Line

Most people who have an autism spectrum disorder (ASD) do not commit violent crime. When violent crime occurs at the hands of a person with ASD, it is almost always precipitated by a comorbid psychiatric disorder, such as severe depression or psychosis. Treating a person with ASD who has committed a violent crime is multimodal, including forensic services when necessary.

Was this article useful to you?

For insights on autism spectrum disorder from CURRENT PSYCHIATRY, read:

Cases that Test Your Skills: The angry patient with Asperger's

Author Raj K. Kalapatapu, MD, notes:

"Problem behaviors in patients with pervasive developmental disorders include aggression and self-injury. These behaviors may improve with behavioral or pharmacologic interventions."

Find it in the February 2009 issue and the Archive at CurrentPsychiatry.com.