Antisocial personality disorder: Epidemiology, clinical manifestations, course, and diagnosis

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INTRODUCTION

Antisocial personality disorder (ASPD) is defined as a pattern of socially irresponsible, exploitative, and guiltless behavior that begins in childhood or early adolescence and is typically fully manifest by the late 20s or early 30s. The disorder is usually lifelong and causes disturbance in functioning (eg, family relations, school, and work) [1,2].

Typical behaviors include criminality and failure to conform to the law, failure to sustain consistent employment, manipulation of others for personal gain, and failure to develop stable interpersonal relationships. Other features of ASPD include lacking empathy for others, rarely experiencing remorse, and failing to learn from the negative results of one's experiences [3,4].

This topic describes the epidemiology, pathogenesis, clinical manifestations, course, assessment, and diagnosis of antisocial personality disorder. Treatment of antisocial personality disorder is discussed separately. (See "Antisocial personality disorder: Treatment overview".)

TERMINOLOGY

Antisocial personality disorder — Antisocial personality disorder (ASPD) is characterized by behaviors constituting a pervasive pattern of disregard for and violation of the rights of others that begins in childhood or early adolescence and is manifested by disturbances in many areas

of life, including family relations, schooling, work, military service, and marriage. Sociopathy is a lay term essentially synonymous with antisocial personality disorder that has been used less over time.

Psychopathy — Psychopathy has been described as a clinical construct distinct from ASPD. It is defined by a constellation of antisocial behaviors and psychological symptoms, such as lack of emotional connection with others and an incapacity for guilt or remorse [5,6]. In contrast, except for "lacking remorse," the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria for ASPD mainly focus on observable behavioral manifestations. Psychopathy indicates a particularly malignant form of ASPD and appears to fall at the severe end of the antisocial behavior spectrum [7]. Most psychopaths meet criteria for ASPD, but not all persons with ASPD are psychopathic.

Conduct disorder — ASPD overlaps conceptually and diagnostically with conduct disorder, a mental disorder of childhood and adolescence. Conduct disorder is diagnosed in children and adolescents with a repetitive and persistent pattern of behavior violating basic rights of others or major societal norms or rules. While most children with conduct disorder do not develop adult ASPD, they are at risk to do so, with an estimated 25 percent of girls and 40 percent of boys eventually developing ASPD [8].

EPIDEMIOLOGY

Large epidemiologic surveys conducted in the United States and United Kingdom have shown that 2 to 5 percent of the adult population met criteria for lifetime antisocial personality disorder (ASPD). Based on these data, males have greater risk of ASPD than do females [8]. As an example, in the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) study, the risk of ASPD was 3 times greater among men than women [9].

The Epidemiologic Catchment Area (ECA) survey of five United States cities found 2 to 4 percent of men and 0.5 to 1 percent of women met these criteria [10]. Two nationally representative surveys of United States adults, the National Comorbidity Study and the NESARC study, estimated prevalence rates of 3.5 and 3.6 percent, respectively; the latter survey found a rate of 5.5 percent for men and 1.9 percent for women [11,12]. The British National Survey of Psychiatric Morbidity reported a prevalence of 2.9 percent for ASPD in the United Kingdom [13].

Special settings — Survey results may underestimate the prevalence of ASPD in the general population because they lack data on institutionalized and incarcerated persons. A study conducted in the in the United States adult prison population in the 1970s found that as many

as 80 percent of incarcerated men and 65 percent of incarcerated women had ASPD [14]. Data suggest that the prevalence of ASPD in prisons in the United States may have declined over the past decade as the prison population has increased and sentencing laws have become harsher. As an example, only 35 percent of prisoners assessed with a structured instrument in 2010 were diagnosed with ASPD [15].

Studies have found a high prevalence of ASPD among certain patient groups. As examples, the prevalence of ASPD in persons with alcohol use disorder has ranged between 16 percent and 49 percent, and the prevalence for ASPD among individuals dependent on heroin and drugs is even higher [16]. Homelessness is associated with the presence of ASPD [17], which may reflect impoverishment related to a poor work record, inability to fulfill obligations (eg, rent payments), or because of co-occurring substance misuse [18].

Socioeconomic correlates — ASPD is associated with low socioeconomic status, which can be attributed in part to poor educational achievement, poor job performance, and frequent unemployment [8]. In the NESARC study, respondents with lower educational levels and lower income levels were at increased risk for ASPD [12]. People with ASPD are also more likely than those without ASPD to receive public assistance. Financial dependency persists even among those who have symptomatically improved suggesting the enduring consequences of ASPD affect future employability and self-sufficiency [19].

Surveys have found higher rates of ASPD among younger compared to older adults [10]. Findings on the association between racial/ethnic status and ASPD are mixed [2,12].

Comorbidity — Persons with ASPD have high rates of other psychiatric diagnoses, including substance misuse, mood and anxiety disorders, attention deficit hyperactivity disorder (ADHD), specific learning disorders, gambling disorder, and other personality disorders (eg, borderline personality disorder) [8,20-24].

- In a large, nationally representative study in the United States, a current alcohol disorder was nearly five times more likely among individuals with ASPD than persons without ASPD, and the risk for a current drug use disorder was nearly 12 times expectation [22].
- On a lifetime basis, nearly 84 percent of antisocial persons surveyed in the ECA study had some form of substance use disorder [23].
- In the NESARC study, 23 percent of persons with pathological gambling also met criteria for ASPD [22].

- In a study of 797 persons in Iowa, 35 percent of persons with ASPD had a lifetime history of major depression and 27 percent had a phobic disorder [25].

- In a follow-up study of adult outcome of 85 hyperactive boys, the risk of ASPD was four times greater among those with ADHD than among controls [26].

PATHOGENESIS

The cause of antisocial personality disorder (ASPD) is unknown, but research suggests that both genetic and nongenetic factors are involved in its development.

Genetics — Family, twin, and adoption studies support a genetic diathesis for ASPD [27-31].

- Family studies have shown that nearly 20 percent of first-degree relatives of patients with ASPD have the disorder themselves [27].

- Data from twin studies have found monozygotic concordance of nearly 67 percent compared with 31 percent concordance for dizygotic twins [29].

- Adoption studies have found that ASPD was more frequent in male adoptees with biologic relatives with ASPD, but that dysfunctional family life in the adopted family increased the likelihood of ASPD developing in the adoptee [31]. Elements of family dysfunction in the studies included a member of the adoptive family with ASPD, divorced adoptive parents or caregivers, and low socioeconomic status in the adoptive home.

An analysis of data on 1,048 male and female twins found that three “externalizing disorders” (substance misuse, ASPD, and “disinhibited personality”) shared a common heritability, with a measure of heritability of 0.81 [32]. A study of 2794 Norwegian twins found that a highly heritable (51 percent) common factor could account for the correlations among the seven section A ASPD criteria, thereby supporting its validity as a diagnostic construct [33]. Gambling disorder has been proposed as part the spectrum of externalizing disorders [34]. This research supports the hypothesis that the disorders may share common genetic risks with environmental factors, influencing which, if any, disorder may develop.

A study of the molecular genetics of antisocial behavior examined variants of a gene influencing levels of monoamine oxidase A (MAO-A) [35]. In a large sample of abused children, 85 percent of children with a low-activity variant of the gene exhibited antisocial behavior in adulthood. In contrast, children who experienced similar abuse but had a high-activity variant of the gene rarely exhibited antisocial behaviors in adulthood. Another study, of male twins, found that low

activity of the MAO-A gene increased the risk for conduct disorder in the presence of childhood adversity [36].

Neurodevelopment — Autonomic underarousal has been proposed as underlying psychopathy for a subset of individuals who experience ASPD with a poor prognosis [5,6]. This model posits that psychopathic persons require greater sensory input to produce normal brain functioning than in normal subjects, possibly leading these individuals to seek potentially dangerous or risky situations to raise their level of arousal to more desired levels. Research findings supporting this theory include:

- Antisocial adults and youth with conduct disorder have low resting pulse rates, low skin conductance, and increased amplitude on event-related potentials [37,38]. Studies of individuals with ASPD have found nearly half to have electroencephalographic (EEG) abnormalities [39].
    - As an example, a study of 15-year-old English school children found that those who committed crimes during the subsequent nine years were more likely to have had at baseline a low resting pulse, reduced skin conductance, and more slow-wave EEG activity than the others [40].
- Individuals with ASPD studied have high rates of minor facial anomalies, learning disorders, persistent enuresis, and behavioral hyperactivity [39,40].

  Subtle injury to the developing brain in utero has been proposed to predispose offspring to antisocial behavior. Potential causes of injury include maternal smoking during gestation, leading to fetal exposure to lower levels of oxygen and chemicals generated from tobacco [41]. A sample of individuals exposed in utero to maternal starvation were more likely than a control group to exhibit antisocial behavior [42].

Neurotransmission and neuroimaging — Central nervous system (CNS) neurotransmitters are believed to have a role in mediating antisocial behavior.

Serotonin has been linked with impulsive and aggressive behavior and may mediate some antisocial behavior.

- Low levels of cerebrospinal fluid 5-HIAA, a major metabolite of serotonin, have repeatedly been associated with violent or impulsive behavior, as have other measures of central serotonin system function [37].
- Genetic disturbances in serotonin function may predispose to impulsive and aggressive behavior [43]. One possibility is that serotonin serves to help dampen impulsive and

violent behavior, which is released by its relative deficiency.

Other evidence suggesting abnormal CNS functioning in antisocial individuals comes from brain imaging studies. As a group, the studies implicate several brain regions including the prefrontal cortex, the superior temporal cortex, the amygdala-hippocampal complex, and the anterior cingulate cortex [44]. Examples of these findings include the following:

- A positron emission tomography (PET) study of Marine and Navy personnel who had assaulted others or made suicide attempts found that the most aggressive men had low glucose metabolism in the right temporal lobe [45].
- A study that compared 21 individuals with ASPD with 34 control subjects using structural magnetic resonance imaging (MRI) found antisocial subjects to have reduced prefrontal gray matter [46].
- A study of 18 men with ASPD and psychopathy found smaller orbitofrontal cortex volume using structural MRI compared to healthy controls [47].

While research points to evidence of subtle structural and functional deficits in the neural circuits that may help mediate antisocial behavior, the clinical significance of these findings is unclear [48]. Data interpretation is complicated by the considerable heterogeneity among the studies both in terms of imaging method used and the study population. It is possible that frontal deficits (prefrontal cortex and anterior cingulate cortex) contribute to impulsivity, poor judgment, and irresponsible behavior, while dysfunction in the temporal regions (amygdala-hippocampal and superior temporal cortex) predispose to antisocial features such as inability to follow rules and deficient moral judgment.

Testosterone — Antisocial behavior has been associated with abnormal circulating levels of testosterone. Significant correlations have been found between risk-taking behavior, competition outcome, and aggression [49]. High levels have been reported in youth with conduct disorder which could contribute to the development of ASPD. One study showed that high levels of plasma testosterone in boys age 12 to 14 predicted antisocial behavior at 16 years [50].

Family and social factors — The parents or caregivers of persons who develop ASPD often have poor parenting skills, or are abusive or absent [3,5-8,10-13,20,51-54]. Parents or caregivers of behaviorally troubled children exhibit higher levels of antisocial behavior themselves; in comparison to parents or caregivers of children without such problems, they have higher rates of alcoholism, criminal records, divorce or separation, or absence from the child's life [51]. Erratic or inappropriate parental discipline and inadequate supervision have been linked with

antisocial behavior in children [55,56]. Parents or caregivers with antisocial personality disorder may be unlikely to effectively monitor their child's behavior, set rules and ensure that they are obeyed, check on the child's whereabouts, or steer them away from troubled playmates.

Child abuse has been reported to contribute to the development of ASPD. People with ASPD are more likely than others to report histories of childhood abuse, consistent with findings that many grew up with neglectful and sometimes violent parents [57]. In one study, 14 to 21 percent of adults who reported abusing or neglecting their children were antisocial [58].

Disturbed peer relationships are an important and often overlooked factor associated with the development of antisocial behavior. This is referred to as the "birds of a feather" phenomenon wherein troubled youth seek the companionship of other similarly troubled youth. As an example, one study found that 98 percent of 500 delinquent boys had delinquent friends, compared with 7 percent of 500 nondelinquent peers [51]. The delinquent boys were also more likely to report that they had been gang members (56 versus 1 percent). This pattern of association usually begins during the elementary school years.

Another study of over 200 middle school children found that youth who were attracted to antisocial peers engaged in antisocial behavior themselves in order to gain their acceptance [59]. While it is difficult to tease out cause and effect, these relationships can encourage and reward aggressive behavior. Gangs may be attractive to those who feel neglected by their families and peer group.

There has been concern that exposure to violent media or video games have a causal relationship with aggression and antisocial behaviors. While such exposure is fairly common, among aggressive children, teens, and young adults, data suggest that it is more likely that those who act out are otherwise predisposed to doing so [60].

CLINICAL MANIFESTATIONS

The behavioral manifestations of antisocial personality disorder (ASPD) begin early, often during the preschool years, and generally by age 8. By age 11, 80 percent of future cases have had a first symptom [2]. Childhood symptoms include:

- Fights with peers
- Conflicts with parents or caregivers and other authority figures
- Stealing
- Vandalism
- Fire setting

- Cruelty to animals or other children
- School-related behavior problems
- Poor academic performance
- Running away from home

As the antisocial youth attains adult status, problems develop reflecting age-appropriate roles and responsibilities, which include:

- Poor job performance (unreliability, frequent job changes, losing jobs through quitting or being fired)
- Pathological lying and the use of aliases [4]
- Sexual promiscuity and sexual activity at a younger age than their peers [20]
- Unstable marriages, characterized by physical or emotional abuse of the spouse, leading to high rates of separation and divorce [20,61]

Clinical symptoms of ASPD and their prevalence in 94 males and females are shown in a table (table 1) [20]. Antisocial behaviors range from relatively minor acts, such as lying or cheating, to heinous acts including torture, rape, or murder.

Alcohol and drug use disorders, which frequently co-occur in persons with ASPD, can aggravate the person's antisocial symptoms. (See 'Comorbidity' above.)

Antisocial persons who join the Armed Forces can experience difficulty because of their inability to accept military discipline [20,62]. In a follow-up study of 36 men with ASPD who joined the Armed Forces, 35 had disciplinary or other problems, and they were much more likely than controls to be absent without leave, court-martialed, or dishonorably discharged.

Criminality is very common in people with ASPD. Offenses vary but ranged from nonviolent property offenses to acts of extreme violence, which may include sodomy, rape, or murder.

COURSE

Antisocial personality disorder (ASPD) is usually a lifelong disorder that begins in childhood (where it is diagnosed as conduct disorder) and is fully expressed by the late 20s or early 30s [2]. An estimated 25 percent of girls and 40 percent of boys diagnosed with conduct disorder eventually develop ASPD [8]. The more extensive the variety and severity of childhood antisocial

behavior, and the earlier the onset, the greater the likelihood that the child will develop ASPD [20].

Most youth diagnosed with conduct disorder have been found to develop "adolescence-limited" antisocial behavior, which is less severe and typically arises in the context of teenage peer group pressure. These teens have little or no history of earlier antisocial behavior, and tend to spontaneously improve, explaining why most children with conduct disorder never develop adult ASPD.

Longitudinal studies of individuals diagnosed with ASPD suggest that while the most dangerous and destructive behaviors associated with ASPD may improve or even remit in some individuals, other troubling symptoms may remain [20,21,63]. As an example, involvement in criminal behavior among antisocial men has been found, on average, to peak in their late teens or early twenties; older antisocial persons participate in relatively fewer crimes [8,64]. Thus, while older individuals with ASPD may be less troublesome to their families and communities, many remain symptomatic, and some fail to improve at all [21]. When improvement or remission occurs, it typically comes after years of antisocial behavior has stunted their educational and work achievement, possibly explaining why they continue to have low socioeconomic status [1]. A small percentage of men (approximately five percent in one study) with ASPD have been described with earlier onset, more severe behavioral problems, and a greater variety of problems, which do not remit [65]. Examples of longitudinal studies follow:

- A 30-year follow-up of 82 individuals with ASPD, originally seen in a child guidance clinic, found the disorder to be a chronic condition [20]. Major findings included:
  - Symptoms of the disorder were found to be worse earlier in its course; patients tended to improve with advancing age.
  - At a mean of 45 years of follow-up, 12 percent had remitted (ie, had no antisocial behaviors at the time of interview) and another 20 percent had improved, whereas the rest were at least as severely ill as at study onset.
  - The median age for improvement to occur was 35 years, though improvement occurred at later ages [66]. Although nearly one third of the sample experienced improvement, most were not trouble-free. Many continued to report interpersonal difficulties, irritability, and hostility towards spouses, neighbors, and organized religion [66].
  - Individuals with ASPD began life at a disadvantaged level. Their social class continued to decline as adults, even falling below that of their parents or caregivers [8].

- In a study, 71 antisocial men originally admitted to an academic hospital inpatient unit were reevaluated after a mean of 29 years [21]. The mean age at follow-up was 56 years. Major findings included:

  - At follow-up, 27 percent of the men had experienced remission (ie, had no antisocial behaviors at the time of interview), 31 percent had improved, and 42 percent were unimproved.

  - Men experiencing improvement were more likely to have lower severity of ASPD at baseline and were older at follow-up.

  - Among some patients, the more outwardly directed antisocial behaviors, including criminal arrests and convictions, remitted but problems in other domains (eg, marital discord, substance use disorder) endured [21].

  - The ASPD sample was compared to a patient sample consisting of individuals hospitalized at the same facility with schizophrenia or depression. Individuals with ASPD were more likely to be married and to have their own housing than individuals with schizophrenia, but they were as likely as individuals with schizophrenia to perform poorly in the workplace, and to have disabling psychiatric symptoms.

Mortality — Antisocial persons often die prematurely from accidental deaths, suicides, or homicides [20,67]. A 2018 study found that among 420 subjects, ASPD was a strong predictor of all-cause mortality, including natural causes (eg, malignant neoplasms, human immunodeficiency virus [HIV] infections) and suicides [68]. In this study, the elevated death rate among antisocial persons from natural causes suggests that some antisocial persons may neglect their medical problems, fail to comply with medical treatment, or lack adequate health insurance.

Factors related to outcome — Longitudinal research has found that the variety and severity of childhood behavioral problems were the single best predictors of adult antisocial behavior [20]. As examples:

- A 2015 study of 268 low income men followed from adolescence to early adulthood showed that aggressive symptoms (versus rule breaking) best predicted the development of ASPD compared with age at onset, the presence of callous-unemotional traits [69].

- A 30-year follow-up of 82 individuals with ASPD found that only patients with moderately severe antisocial behavior in childhood, as measured by having six or more kinds of antisocial behavior, four or more episodes of antisocial behavior, or an episode of such

behavior serious enough that it might have led to a court appearance, were diagnosed with ASPD as an adult.

Among the few variables predictive of long-term adjustment in ASPD, longitudinal studies have found greater improvement to be associated with:

- Older age at follow-up [20,70]
- Better family ties and community involvement [20]
- Greater job stability [51]
- Marital attachment [51]

Marriage may have a buffering effect on antisocial behavior. In the 30-year follow-up of 82 individuals with ASPD, 53 percent of married subjects improved, but no unmarried subjects improved. A longitudinal study of 289 twin pairs enrolled in the Minnesota Twin Family Study found that those who had married engaged in less antisocial behavior than their unmarried co-twin [71].

Childhood socialization may be associated with outcome. A 10-year follow-up study of juvenile delinquents with conduct disorder found that socialized subjects (ie, children with the ability to develop group loyalty) were less likely to be convicted of a crime or to be imprisoned as adults compared to nonsocialized subjects [72,73].

ASSESSMENT

The patient's history is the most important basis for diagnosing antisocial personality disorder (ASPD) [4]. The diagnosis is made, in part, based on a history of chronic and repetitive behavioral problems beginning in childhood or early adolescence. In obtaining a thorough history, family members and friends can be helpful informants. One study showed that family members are more accurate in describing their relatives' antisocial behavior than patients with the disorder [74]. Records for previous clinic or hospital visits can provide additional diagnostic clues.

The possibility of ASPD should be considered when patients present with drug-seeking behavior, signs of malingering, substance use disorder [75], injuries from reckless behavior [76], recurrent sexually transmitted disease [77], or if there is evidence of physical abuse of children for which they provide care. Comorbid psychiatric disorders, including depression, alcoholism, or substance use disorder, are frequently present.

Family history of any psychiatric disorder is important to gather, because families of individuals with ASPD have higher rates of depression, alcoholism, drug addiction, and attention deficit hyperactivity disorder as well as ASPD. As an example, if the family history reveals a history consistent with ASPD in a relative, then that should raise the level of suspicion of ASPD in the patient.

Other aspects of the psychiatric examination warranting additional emphasis include the presence and history of substance use disorder. Because antisocial persons are at increased risk for suicide attempts and completed suicide, they should specifically be asked about current suicidal thoughts and past suicidal behaviors [78].

Psychological testing — Psychological testing is usually unnecessary when sufficient history is available. Psychological tests may be helpful when a patient refuses to allow interviews with relatives, or when such informants are unavailable.

The Minnesota Multiphasic Personality Inventory (MMPI) yields a broad profile of personality functioning. A certain pattern of results is typical of ASPD, with elevated scores on psychopathic deviance and hypomania (known as the “4-9 profile”) [79].

In selected individuals, particularly those seen in a forensic setting such as a prison, administration of the Psychopathy Checklist may be helpful in measuring the individual’s severity of psychopathy. In these populations, the scale appears to predict recidivism and parole violations. The parent instrument is relatively lengthy and requires special training to administer, but a shorter version is available. (See 'Psychopathy' above.)

Juvenile delinquents and criminals, groups that overlap with ASPD, generally score about ten points lower than people without ASPD on traditional IQ tests. They are more likely to have specific cognitive deficits that may inhibit their school or job performance. Understanding the patient’s specific learning disabilities may help provide goals for therapy or rehabilitation services.

Medical history and examination — An initial evaluation of a patient presenting with symptoms of ASPD should receive a thorough medical history and physical examination, including a neurological exam. Perhaps reflecting their tendency to engage in impulsive or risky behaviors, persons with ASPD are at increased risk for:

- Sexually transmitted diseases including HIV
- Liver disorders (eg, hepatitis C)

- Accidents and other physical trauma that can result in fractures, lacerations, and closed head injuries [80,81]

The presence of tattoos has been widely associated with ASPD for many decades. More recently, because tattoos have become popular in the general population, they can no longer be considered signs of ASPD. However, in keeping with past findings, more recent data in a forensic setting found that persons with ASPD had more tattoos, and more total body surface area tattooed [82]. Tattoos are often "prison themed" and may indicate individual or group identity.

DIAGNOSIS

Two sets of criteria are used to diagnose a personality disorder in DSM-5 [3]. The first describes general characteristics of a personality disorder. The second describes features specific to antisocial personality disorder.

Personality disorder

- A. An enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture. This pattern is manifested in two (or more) of the following areas:
  - 1. Cognition (ie, ways of perceiving and interpreting self, other people, and events)
  - 2. Affectivity (ie, the range, intensity, lability, and appropriateness of emotional response)
  - 3. Interpersonal functioning
  - 4. Impulse control
- B. The enduring pattern is inflexible and pervasive across a broad range of personal and social situations.
- C. The enduring pattern leads to clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- D. The pattern is stable and of long duration, and its onset can be traced back at least to adolescence or early adulthood.

- E. The enduring pattern is not better explained as a manifestation or consequence of another mental disorder.

- F. The enduring pattern is not attributable to the physiological effects of a substance (eg, a drug of abuse, a medication) or another medical condition (eg, head trauma).

DSM-5 diagnostic criteria specific to antisocial personality disorder are described below.

Antisocial personality disorder — Antisocial personality disorder (ASPD) is diagnosed based on DSM-5 criteria [3], as shown below.

- A. A pervasive pattern of disregard for and violation of the rights of others, occurring since age 15 years, as indicated by three (or more) of the following:

  - 1. Failure to conform to social norms with respect to lawful behaviors, as indicated by repeatedly performing acts that are grounds for arrest.

  - 2. Deceitfulness, as indicated by repeated lying, use of aliases, or conning others for personal profit or pleasure.

  - 3. Impulsivity or failure to plan ahead.

  - 4. Irritability and aggressiveness, as indicated by repeated physical fights or assaults.

  - 5. Reckless disregard for safety of self or others.

  - 6. Consistent irresponsibility, as indicated by repeated failure to sustain consistent work behavior or honor financial obligations.

  - 7. Lack of remorse, as indicated by being indifferent to or rationalizing having hurt, mistreated, or stolen from another.

- B. The individual is at least age 18 years.

- C. There is evidence of conduct disorder with onset before age 15 years.

- D. The occurrence of antisocial behavior is not exclusively during the course of schizophrenia or bipolar disorder.

Differential diagnosis — The differential diagnosis of ASPD includes other personality disorders (eg, borderline personality disorder), substance use disorders, psychotic or mood disorders, intermittent explosive disorder, and medical conditions such as temporal lobe epilepsy [83].

- ASPD should be distinguished from borderline personality disorder (BPD), though the two may overlap and the patient may meet criteria for both disorders. ASPD is outwardly directed in that many symptoms put the individual in conflict with society (eg, crime, violence), whereas BPD is inwardly directed and indicates inner distress (eg, mood swings, self-harm, abandonment fears). (See "Borderline personality disorder: Epidemiology, pathogenesis, clinical features, course, assessment, and diagnosis".)

- Chronic or intermittent alcohol or drug use can contribute to the development of antisocial behavior, either as a byproduct of the intoxication or to maintain a drug habit in the absence of sufficient financial resources. In ASPD, antisocial behavior is seen when the patient is not intoxicated and in ways that do not support the acquisition of drugs. (See "Risky drinking and alcohol use disorder: Epidemiology, clinical features, adverse consequences, screening, and assessment" and "Substance use disorders: Clinical assessment".)

- Psychoses or mania can lead to violent, assaultive, or criminal behavior, but such behavior typically results from psychotic thought processes. (See "Schizophrenia in adults: Clinical features, assessment, and diagnosis" and "Bipolar disorder in adults: Clinical features".)

- Intermittent explosive disorder involves isolated episodes of assaultive or destructive behavior, but there is usually no history of childhood conduct disorder, or other features of ASPD, such as chronic irresponsibility or failure to honor obligations. According to DSM-5 criteria, intermittent explosive disorder should only be diagnosed in the absence of ASPD. (See "Intermittent explosive disorder in adults: Clinical features, assessment, and diagnosis".)

  Medical explanations for antisocial behavior need to be ruled out. In an adult with new onset antisocial behavior, diagnostic alternatives to ASPD include temporal lobe epilepsy, which can cause random outbursts of violence, and brain tumors or strokes, which could lead to personality changes [84]. (See "Focal epilepsy: Causes and clinical features" and "Overview of the clinical features and diagnosis of brain tumors in adults".)

ASPD is distinguishable from normal behavior. Isolated acts of misbehavior are inconsistent with the diagnosis of ASPD, which involves repetitive misbehavior over time beginning in childhood. Rather than receiving a DSM-5 diagnosis of antisocial personality disorder, adults who develop criminal or antisocial behavior in the absence of childhood conduct disorder are identified by a Z code (“adult antisocial behavior”), which identifies factors influencing health status and contact with health services but are not recognized psychiatric disorders [3].

SOCIETY GUIDELINE LINKS

Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "Society guideline links: Personality disorders".)

SUMMARY AND RECOMMENDATIONS

- **Terminology**
  - **Antisocial personality disorder (ASPD)** - ASPD is defined as a pattern of socially irresponsible, exploitative, and guiltless behavior that begins in childhood or early adolescence. It is characterized by behaviors constituting a pervasive pattern of disregard for and violation of the rights of others, and is manifested by disturbances in many areas of life. (See 'Terminology' above.)
  - **Conduct disorder** – ASPD represents the adult continuation of conduct disorder. Conduct disorder is diagnosed in children and adolescents with a repetitive and persistent pattern of behavior violating basic rights of others or major societal norms or rules. Some, but not all, children with conduct disorder meet diagnostic criteria for ASPD later in their lives. (See 'Terminology' above.)
- **Epidemiology** – Large epidemiologic surveys have estimated that 2 to 5 percent of the adult population in the United States and United Kingdom meet criteria for lifetime antisocial personality disorder. The prevalence of the disorder in males is greater than in females. (See 'Epidemiology' above.)

  Studies have found a high prevalence of ASPD among individuals with substance use disorders such as alcohol use disorder and opioid use disorder. (See 'Special settings' above.)
- **Comorbidity** – Persons with ASPD have high rates of other comorbid psychiatric diagnoses, including substance use disorders, mood and anxiety disorders, attention deficit hyperactivity disorder (ADHD), pathological gambling, and other personality disorders. Specific learning disorders are also common. (See 'Comorbidity' above.)
- **Pathogenesis** – The cause of ASPD is unknown, but research suggests that genetic and nongenetic factors are involved in its development. (See 'Pathogenesis' above.)

- **Clinical manifestations** – Irresponsible, exploitative, and guiltless behaviors characteristic of ASPD are seen in many areas of life (eg, family relations, school, work, military service, and marriage). They can range from relatively mild behaviors to heinous acts. (See 'Clinical manifestations' above.)

- **Mortality –** ASPD appears to be a predictor of all-cause mortality, including natural causes (eg, malignancy, HIV infection), accidental deaths, and suicide. (See 'Mortality' above.)

- **Differential Diagnosis** – The differential diagnosis of ASPD includes borderline personality disorder, substance use disorders, psychoses, mania, intermittent explosive disorder, temporal lobe epilepsy, brain tumors, and strokes. (See 'Diagnosis' above.)

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