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## **Aggressive Behavior in Children and Adolescents**

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# Aggressive Behavior in Children and Adolescents

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Author Disclosure  
Drs Zahrt and Melzer-Lange have disclosed no financial relationships relevant to this article. This commentary does contain a discussion of an unapproved/investigative use of a commercial product/device.

**Objectives** After completing this article, readers should be able to:

1. Describe the developmental stages of aggressive behavior in children.
2. Know how to provide parents with support and resources in caring for a child who displays aggressive behavior.
3. Delineate the prognosis for children who have aggressive behaviors.

## Introduction

Pediatricians see children and adolescents who have a variety of behavioral or mental health concerns, and one of the most challenging is aggression. Aggressive behavior may represent a normal developmental stage or indicate a serious, ongoing mental health disorder that poses a safety concern. In this article, we discuss the definitions, risk factors, related psychiatric disorders, assessment, intervention, and outcomes of aggressive behaviors in children and adolescents.

## Definitions

Classified as a disruptive behavior, aggressive behavior stands out in the eyes of the parent and clinician. Aggressive behavior can be either **impulsive** (reacting to a trigger) or proactive (**premeditated**). Temper tantrums, physical aggression such as **hitting or biting** other children, **stealing** other children's possessions, and **defiance of authority** are distressing to families and school personnel. Often, it is in the school or child care setting that the behaviors become troublesome; the behaviors may interfere with family or peer relationships and school performance. Approximately **3% to 7% of children and adolescents manifest aggressive signs**. During the course of normal development, families may experience periods when a child exhibits temper tantrums during toddler years or rebellion during adolescent years. These behaviors, when limited in time, are considered normal developmental occurrences. When they form a pattern over time, they are considered psychiatric disorders.

**Oppositional defiant disorder** (ODD) (Table) is defined in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders Fourth Edition* (DSM-IV) (1) as including ongoing symptoms of **"negativistic, defiant, disobedient, and hostile behaviors toward authority figures."** Affected children **tend to break the rules at school, lose their tempers easily, blame others for their errors, pick on other children, argue with authority figures and adults, and display excessive anger.**

When children who have ODD become more persistently angry and heighten their behavioral outbursts, they are described as having **conduct disorder** (CD), which is defined in the DSM-IV as "a repetitive and persistent pattern of behavior in which the basic rights of others or major age appropriate social rules are violated." Behaviors include displays of **significant aggression toward others, hurting animals, intentional destruction of property, school truancy, stealing, and running away from home.** Children who have CD are more likely to be **suspended from school or have police involvement.** The young child who demonstrates ODD as a preschooler may develop CD as he or she enters middle school. Some children exhibit signs of both disobedience and anger, components of both ODD and CD. The overall prevalence of CD in the United States ranges from 6% to 16% for males and from 2% to 9% for females.

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Table. **Diagnostic Features of Aggressive Behavior in Children and Adolescents**

	Oppositional Defiant Disorder (ODD)	Conduct Disorder (CD)	Antisocial Personality Disorder (ASPD)
Onset	Usually before age 8 y, no later than early adolescence	Child onset before age 10 y Adolescent onset after age 10 y but rarely after age 16 y	Adulthood
Symptoms	Trouble with authority Breaks school rules Always seems angry Argumentative Easily annoyed Noncompliant	Significant aggression toward others Animal cruelty Destruction of property Theft Setting fires Serious violation of rules Law breaking Substance abuse Poor school performance	Disregard for others Criminal offenses Substance abuse Poor school performance
Duration of Symptoms for Diagnosis	For at least 6 mo	3+ incidents within the last 12 mo with at least one in the past 6 mo	Pervasive pattern since age 15 y

Antisocial personality disorder (ASPD) is defined by DSM-IV as “a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood.” Symptoms include poor school performance, truancy, poor self-esteem, low frustration tolerance, persistent lying or stealing, frequent fighting, and an apparent lack of remorse or empathy. Young adults who have ASPD may have had a history of childhood CD.

## Risk Factors

### Neglect

Kotch and associates (2) conducted a large prospective study examining the association between early childhood neglect (birth to 2 y) and later childhood aggression at ages 4, 6, and 8 years and found that child neglect in the first 2 postnatal years may be a more important precursor of childhood aggression than later neglect or physical abuse at any age. The researchers noted that neglect, the most common form of child maltreatment, may have profound and long-lasting effects on a child’s development. Other researchers have failed to find an effect of both maltreatment and neglect together, yet found that childhood neglect predicted aggression in early adolescence.

### Psychological Maltreatment

Aggressive behaviors in childhood may result from psychological maltreatment that destroys a child’s sense of self and personal safety. Psychological maltreatment, a repeated pattern of damaging interactions between par-

ent and child, includes interactions such as belittling, rejecting, denying emotional attachment, and modeling of inappropriate behaviors. In addition, witnessing intimate partner violence is another form of psychological maltreatment that may lead to aggressive behavior in children and adolescents.

### Parental Discipline

A family history of aggressive behavior, including a history of incarceration, places children at increased risk. Parental use of physical discipline provides children with a model for using aggressive behavior as a solution to conflict. This example can lead to future aggressive behavior in the child. For example, research has shown that the use of physical discipline by caregivers is associated with teacher reports of aggressive behaviors in third-grade students.

### Media

Exposure to violence in the media has been shown to contribute to aggressive behaviors in youth, and media violence adds to the cumulative risk for antisocial behavior. Huesmann and colleagues (3) conducted a longitudinal study, following middle-school children into young adulthood. They found that even after controlling for socioeconomic status, academic skills, and aggression, violent television viewing during childhood predicted adolescent and adult aggression. In a hallmark study by Boxer and associates, (4) childhood and adolescent violent media preferences contributed significantly to self, teacher, and parent or guardian reports of violence and

general aggression in the young person. The high-school students were asked to recall their media preferences when they were 7 or 8 years of age as well as their current media preferences. Media included television shows, movies, video games, and music videos. Violent media preferences (past and present) significantly correlated with reports of violent behavior and aggression in these students. Considering the developmental processes of childhood, the same researchers found, in a meta-analysis of aggression and media studies, that media violence has short- and long-term effects in shaping the development of the human brain, which can become “wired” for aggression. (5) They noted that “the theoretical premise is that the same processes operate when children are exposed to media violence as when they are exposed on the street, in their home, or among their peers.”

### Lead Exposure

Although the prevalence of lead exposure is decreasing, an estimated 25% of children younger than age 2 years still are exposed. The physiology of lead neurotoxicity is unknown, but **decreases in IQ, increases in aggressive symptoms, and decreases in balance and hearing** all are associated with even low levels of exposure to lead. Aggressive behavior reported by teachers has been linked to elevated blood lead levels. A higher number of youth living in juvenile detention centers have had exposure to lead compared with the general population.

### Related Psychiatric Disorders

Often children who display significantly disruptive behavior have symptoms of other disorders, particularly among those who have CD. A relationship between aggressive behaviors and **attention-deficit/hyperactivity disorder** (ADHD) has been described by many researchers. In a multi-informant short-term longitudinal study conducted during early childhood, a positive association was shown between ADHD symptoms and both relational and physical aggression. (6) ODD and CD very frequently occur in concert with ADHD and learning difficulties. Most commonly, symptoms of ADHD and CD tend to be comorbid, at least among boys. **An estimated 65% to 90% of boys who have conduct problems also have ADHD.**

Mood disturbances such as **depression** also may be associated with CD, and youth may exhibit rage or outbursts during depressive periods. Adolescents exhibiting depression in concert with CD may have difficulty with authority figures and with substance abuse. Depression in children who have CD also is associated with increased risk for suicidal ideation. The comorbidity of

depression and conduct problems is more common among girls than boys, especially during the adolescent years.

Children who manifest disruptive behaviors also are at risk for anxiety, although the association between CD and anxiety disorders is less consistent than that between CD and other disorders. Children who have **anxiety disorders** may perceive an event as threatening and react aggressively. Treatment of a child's anxiety may improve the aggression. Pediatricians also should consider that aggressive behaviors and ODD may occur in children who have bipolar disorder, temper dysregulation disorder with dysphoria, and **autism** spectrum disorder.

Decreased IQ, language deficits, and impaired executive functioning are associated with CD and ODD and may influence the clinical course through academic underachievement, which may be reflected in poor grades, retention, dropping out of school, or deficits in specific skill areas (eg, reading). Children who have CD also commonly experience disturbances in their social functioning, marked by poor interpersonal relations, diminished social skills, and higher levels of peer rejection. Patients who have language deficits, including children who have autism, may display aggressive behavior when struggling to express themselves.

### Assessment

It is not merely the presence of aggression that differentiates between “normal” and “abnormal” behavior because aggressive behavior can be symptomatic of a normal developmental stage (eg, temper tantrums in toddler years, rebellion in adolescence). **The disruptive behaviors associated with normal developmental stages usually are short-lived,** and normal aggressive behavior should not cause significant and persistent dysfunction. For some children, however, these behaviors persist over time or even escalate. In addition, the behaviors may occur at a greater frequency or with greater intensity than would be expected. Accurate assessment of a child who exhibits aggressive or disruptive behavior requires determination of the frequency, intensity, and chronicity of the behavior within the context of the developmental stage. The impact of the behavior on the child's functioning and those around him or her also should be examined.

A thorough evaluation of a child's aggressive behavior is essential to diagnose and intervene appropriately and effectively. Such an evaluation requires **knowledge of normal child development; an understanding of the child's and parents' temperaments; and acquisition of information regarding the characteristics, prevalence, and impact of the disruptive behaviors.** The evaluation

should include multiple sources of information, including parent interview, teacher interview, child interview, and the use of standardized rating scales.

The most common conditions to consider when assessing a child displaying aggressive behavior include ODD, CD, and ADHD. Given the relationship between disruptive behavior disorders and other conditions, it is important to assess for comorbid mood disorders. The possibilities of developmentally “normal” behavior or an acute stress reaction to a significant psychosocial stressor also should be kept considered.

### Parent Interview

The parent interview should include gathering information regarding the child’s temperament as an infant and young child because disruptive behaviors often begin early in life. An assessment of the child’s developmental history and current status is important for identifying any delays in language, cognition, or other areas that could affect a child’s behavior. For example, language delays often are associated with behavior problems in children who have normal cognitive abilities. Understanding of a child’s developmental level of functioning compared with his or her chronologic age helps to determine appropriate behavioral expectations that, in turn, aids in deciding whether a child’s aggressive behavior is out of the norm for his or her development.

Parents should be asked to provide specific information about the child’s disturbing behavior, such as when the behavior started and if there were any psychosocial stressors (eg, divorce, homelessness, death in the family, community violence, illness in the family) at that time that could be affecting the child’s behavior. In addition, information should be gathered about the frequency of the concerning behavior, its intensity, any changes over time, situations in which the behavior occurs, and possible exacerbating factors. Discussing parenting styles, strategies for dealing with disturbing behavior and with stress, and the family’s beliefs about appropriate and inappropriate behavior can be helpful.

### Teacher Interview

Information sought during the teacher interview is similar to that gathered during the parent interview. Teachers should be asked about the onset of the abnormal behavior as well as its frequency, intensity, changes over time, situations in which it occurs, and potential exacerbating factors. Because parents and teachers are likely to see different aspects of the child, it is important to obtain information from both sources to form a comprehensive

picture of the child. Information about the child’s academic performance also should be obtained.

### Child Interview

The child should be interviewed when possible, although what is obtained from this contact varies with his or her developmental level. With younger children, the interview provides an opportunity to observe the child’s behavior with someone other than a parent. A diagnosis should not be based on a child’s behavior in the evaluation; many children do not act out during a medical appointment. However, disruptive behavior during the evaluation suggests that the behavior is a significant issue in other settings. Older children and adolescents may be asked directly about their perceptions of the issue as well as about family and social functioning. Children showing significant aggressive behaviors may be particularly difficult to interview. Often they are reluctant to talk about their behavior and may be hostile. Because children younger than 10 years may not be reliable in their self-reports of behavior, diagnosis should not be based solely on their reports. However, their reports of internalizing symptoms, such as anxiety and depression, are more reliable and likely to be more valid than parent and teacher reports of these symptoms.

### Standardized Rating Scales

Older children, the child’s parents, and the teacher should be asked to complete standardized rating scales in addition to providing information during the interviews. Rating scales allow for a comparison of the child’s behavior with that of other children the same age. “Broad” rating scales often are administered first that assess for symptoms associated with a variety of disorders, such as depression, anxiety, aggression, withdrawal, inattention, hyperactivity, and delinquent behavior. The Youth Self Report, Child Behavior Checklist (Parent Report Form) and Teacher’s Report Form, the Behavior Assessment System for Children, and Conners’ Parent and Teacher Rating Scales – Revised are used commonly in primary care settings.

Of note, although rating scales can be helpful and informative, they are based on the opinions of others. Therefore, they should not be used in isolation for diagnosis. Rather, they should be used in combination with other sources of data (eg, interview data, academic grades) and interpreted in the context of the information obtained from other sources. Rating scales do provide an opportunity to gather information from people who have spent significant time with the child and to quantify their opinions.



### Next Steps in the Assessment Process

Once all of the information is obtained, the next step is to determine if the behavior is significant and in need of treatment. Factors that necessitate treatment include symptoms that have been troublesome for some time, that are evident in more than one situation, that are relatively severe, and that are likely to impede the child's functioning. Providing advice and related reading material may be sufficient for addressing mild behaviors. In more severe cases, the pediatrician must decide whether to treat the behavior personally or refer the child and family to a mental health professional. This decision is likely to be based not only on the severity and intensity of the child's behavior but also on whether the pediatrician has the clinical training, expertise, interest, and time for treatment. Another consideration is the availability of psychologists and psychiatrists who work with children in the community. Physical threats, family safety, involvement with the legal system, and school expulsion are indications for referral.

Regardless of whether the pediatrician treats the behavior directly or refers, he or she may wish to or be asked to provide parents with resources that can increase their understanding of the child's behavior and appropriate treatment. Book resources to consider for parents include *Your Defiant Child: Eight Steps to Better Behavior* by Russell Barkley, PhD, and Christine Benton; *The Explosive Child* by Ross Greene, PhD; and *The Kazdin Method for Parenting the Defiant Child* by Alan Kazdin, PhD. Pediatricians also can obtain materials and handouts for parents through the *Connected Kids: Safe, Strong, Secure* primary care violence prevention program sponsored by the American Academy of Pediatrics (AAP) ([www.aap.org/connectedkids](http://www.aap.org/connectedkids)). Parent-oriented websites include [www.healthychildren.org](http://www.healthychildren.org) and [www.actagainstvviolence.apa.org](http://www.actagainstvviolence.apa.org), which are sponsored by the AAP and the American Psychological Association, respectively.

### Intervention

Evidence-based interventions are available for addressing disruptive behavior problems in children. Research indicates that parent management training and cognitive behavior therapy, usually in the form of problem-solving skills training, are the most effective. (7) In addition, research has shown that the two interventions used together are more effective across a wider range of variables at home and with peers than either technique alone.

### Parent Management Training

The basis of parent management training is teaching parents techniques and strategies to alter their children's behavior and change the consequences of that behavior. Strategies include positive reinforcement (eg, social praise, tokens/points) for desired behavior; differential attention (ie, attending to desired or positive behaviors and actively ignoring mild inappropriate behaviors); effective instruction-giving, using appropriate consequences (ie, mild punishment); and consistency across caregivers, situations, and settings.

Although parent training emphasizes both presenting and taking away positives to encourage positive behavior and decrease inappropriate behaviors, emphasis is placed first on training parents to increase the positive attention and incentives they provide their children to encourage appropriate or desired behaviors. Without this foundation, most punishment methods lose their effectiveness. For example, time-out for inappropriate behaviors works by removing the child from opportunities to receive positive reinforcement, but this technique is possible only if the child first experiences a large amount of positive reinforcement. It is also important that the consequences for misbehavior be reasonable and developmentally appropriate as well as applied consistently. Overly harsh consequences and inconsistency are ineffective means of reducing deviant behaviors.

For older children, a token/point system (response/cost system) may be incorporated into the training. In these systems, tokens/points are earned for appropriate behavior and lost or taken away for inappropriate behaviors. The tokens/points are accumulated and traded in regularly for tangible rewards/reinforcers. Older children should be incorporated as participants in this aspect of the behavior training. Their role can include assisting in identifying and negotiating with parents about the behaviors to be targeted as well as identifying the rewards/reinforcers they consider motivating.

### Cognitive Problem-solving Skills Training

Aggressive behavior is not simply the reaction to environmental events. Rather, it is the interpretation, perception, and processing of the event that results in the aggressive response. Thus, cognitive processes, such as perceptions and attributions, often play a large role in the genesis of aggressive behavior. Children showing disruptive behavior focus more on aggressive stimuli, overattribute hostile intent, are deficient in social problem-solving skills, and often lack behavioral self-awareness. Training programs that focus on cognitive problem-solving skills address these issues by teaching children a

step-by-step approach to solving interpersonal problems by revealing the cognitive processes that underlie social behavior. Appropriate behaviors also are developed through modeling, role-playing, and reinforcement (eg, verbal praise).

### Medication

When behavioral interventions are insufficient or the aggressive behavior is severe, the clinician may consider the use of psychotropic drugs as an adjunct to behavioral therapy. Selection of medication should begin with insight into the biologic conditions that predispose the individual to aggression. In addition to the child's history, family history can be very helpful in determining the causes of a child's disordered behavior. ADHD with impulsivity, anxiety, and affective instability, including bipolar disorder, are underlying psychiatric diagnoses that may be present in aggressive children.

Although stimulants are a reasonable choice to address impulsive aggression in children believed to have underlying ADHD, guanfacine or clonidine may cause less irritability. Most general pediatricians are comfortable prescribing stimulants, and many are becoming familiar with guanfacine, with the recent advent of its long-acting form.

When the underlying issue is anxiety, selective serotonin reuptake inhibitors (SSRIs) can be helpful. Currently, only fluoxetine is approved by the United States Food and Drug Administration for children. Sertraline, citalopram, escitalopram, and others often are used off-label. Due to concerns about increased suicidality in children and adolescents, most general pediatricians prefer to consult a psychiatrist before prescribing these medications.

Mood stabilizers such as the antiepileptic drugs valproic acid and lamotrigine also can be helpful in treating aggressive children, as can atypical antipsychotics such as risperidone and aripiprazole. A psychiatrist should prescribe these medications and follow children who are taking them. When an aggressive child has a family history of bipolar disorder or serious substance problems, it is prudent to enlist a psychiatrist's support early.

The pediatrician's role in treating children taking any of these medications, particularly SSRIs, mood stabilizers, and antipsychotics, primarily involves familiarity with drug-drug interactions and possible adverse effects.

### Developmental Issues in Intervention

Although the principles and theory behind interventions for disruptive behaviors are largely the same across the

developmental span, it is important to highlight a few issues specific to particular developmental stages or ages.

One common behavior issue in infants and toddlers for which parents and caregivers seek assistance is biting. At this age, distraction and redirection through a change in activity or environment are the best means of discipline for discouraging inappropriate behavior. Any verbal directives or comments made in response to biting should be expressed in a neutral tone and kept simple (eg, "No biting"). The simplicity of what is said is necessary because of the child's developmental level, but a brief response also limits the potential for the child to receive additional adult attention that he or she could perceive as rewarding for the behavior. A child should never be bitten back. Adults caring for the child should praise appropriate behaviors and monitor for any cues before biting to prevent and interrupt behavior whenever possible.

Later in the developmental process, pediatricians may be asked to provide assistance or guidance with the management of bullying behavior. For parents and families, the AAP Connected Kids ([www.aap.org/connectedkids/](http://www.aap.org/connectedkids/)) program offers written materials. The Centers for Disease Control and Prevention Stop Bullying Now website ([www.stopbullyingnow.hrsa.gov](http://www.stopbullyingnow.hrsa.gov)) provides interactive tools for children, families, and teachers. Many interventions, however, must be undertaken at the child care, school, or community level. The Olweus Bullying Prevention Program is recognized as the leading bullying prevention program. Information on this program may be found at its website: [www.olweus.org](http://www.olweus.org). A close working relationship between the school and family is associated with improved outcomes in preventing violence while assisting an aggressive child.

### Outcomes

The young child who exhibits aggressive behavior across various settings is particularly at risk for the eventual development of CD and is more likely to have persistent aggressive behaviors into adulthood (as manifested by ASPD) than the youth who develops aggressive behavior for the first time during adolescence. Also, children who manifest aggressive behaviors earlier in life are more likely to have symptoms of greater severity and participate in more severe criminal offenses during adolescence and adulthood. In one study, the most problematic 10% of youth accounted for more than 50% of the criminal offenses. (8) Children who display symptoms of both ADHD and CD are at significant risk for poor outcomes. They display greater serious antisocial behaviors and are at greater risk for delinquent behavior and ASPD in

## Summary

- Based on strong research evidence, child neglect in infancy is associated with aggressive behavior in childhood. (2)
- Based on strong research evidence, children who display aggressive behaviors are more likely to manifest delinquent activity during adolescence. (6)

adulthood than children who have either ADHD or CD alone. Although the prognosis for aggressive children and adolescents is guarded, behavioral and pharmacologic interventions may improve outcomes in adulthood.

## References

1. *Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Text Revision (DSM-IV-TR)*. Washington, DC: American Psychiatric Association; 2000:645–650
2. Kotch JB, Lewis T, Hussey JM, et al. Importance of early neglect for childhood aggression. *Pediatrics*. 2008;121:725–773
3. Huesmann LR, Moise-Titus J, Podolski C, Eron LD. Longitudinal relations between children's exposure to television violence and their aggressive and violent behavior in young adulthood: 1977–1992. *Dev Psychol*. 2003;39:201–222
4. Boxer P, Huesmann LR, Bushman BJ, O'Brien M, Mocerri D. The role of violent media preference in cumulative developmental risk for violence and general aggression. *J Youth Adolesc*. 2009;38:417–428
5. Bushman BJ, Huesmann R. Short-term and long-term effects of violent media on aggression in children and adults. *Arch Pediatr Adolesc Med*. 2006;160:348–352
6. Ostrov JM, Godleski SA. Impulsivity-hyperactivity and subtypes of aggression in early childhood: an observational and short-term longitudinal study. *Eur Child Psychol Psychiatry*. 2009;18:477–483
7. Christopherson ER, Mortweet SL. *Treatments That Work With Children: Empirically Supported Strategies For Managing Childhood Problems*. Washington, DC: American Psychological Association; 2001
8. Farrington DP. The Twelfth Jack Tizard Memorial Lecture. The development of offending and antisocial behavior from childhood: key findings from the Cambridge Study of Delinquent Development. *J Child Psychol Psychiatry*. 1995;36:929–964

## HealthyChildren.org Parent Resources From the AAP

The reader is likely to find material to share with parents that is relevant to this article by visiting this link: <http://www.healthychildren.org/English/family-life/family-dynamics/communication-discipline/Pages/Aggressive-Behavior.aspx>.



## PIR Quiz

Quiz also available online at <http://pedsinreview.aappublications.org>.

6. Which of the following *most* likely represents developmentally normal aggressive behavior?
  - A. Biting in a 2-year-old.
  - B. Frequent fights at age 14 years.
  - C. Stealing bicycles at age 12 years.
  - D. Talking back to the teacher by a 10-year-old.
  - E. Temper tantrums in a 7-year-old.
7. A 2-year-old boy who frequently hits his companions in child care when angered is *most* likely to be diagnosed with conduct disorder at age 13 if:
  - A. He is placed in a foster home for parental neglect.
  - B. He never is spanked as a toddler.
  - C. His father leaves traffic tickets unpaid.
  - D. His parents divorce.
  - E. His parents withhold rewards for inappropriate behavior.
8. Very frustrated parents bring their 7-year-old son to see you, reporting that they have constant battles. The father states, "This kid is just always going to say no about everything!" This includes homework, where it is difficult to get him to start; getting ready to go anywhere; any requests they make of him to put things away; and when they ask him to stop playing video games. Occasionally, he is perfectly compliant "when it suits him." He frequently talks back to his teacher and has been suspended for this. Of the following, the *most* likely diagnosis is:
  - A. Anxiety disorder.
  - B. Attention-deficit disorder.
  - C. Conduct disorder.
  - D. Depression.
  - E. Oppositional defiant disorder.
9. The 7-year-old boy described in the previous question is *best* treated with:
  - A. Fluoxetine.
  - B. Lamotrigine.
  - C. Long-acting guanfacine.
  - D. Parent management training.
  - E. Risperidone.
10. You are seeing the 13-year-old adopted son of parents who have three other children because he is in trouble again. This time, he tried to pull a girl into the boy's bathroom at middle school, for which he received a 1-week suspension. He has a long history of getting into trouble in school for very oppositional behavior and walking out of classrooms when he gets angry. He generally does not seem to do what his parents want him to do. He has been physically threatening to his mother on several occasions and punched her once. He has stolen small items from school. Everyone who deals with him has the impression that he is not particularly upset or interested in apologizing for his many transgressions. When you ask him about being suspended from school, he laughs and says, "Why do you care?" Of the following, the *most* likely primary diagnosis is:
  - A. Anxiety disorder.
  - B. Attention-deficit disorder.
  - C. Conduct disorder.
  - D. Depression.
  - E. Oppositional defiant disorder.

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