The words attributed to Socrates resonate with the perspectives of many contemporary parents and clinicians. The endurance of the concern suggests something fundamental about the psychopathology of deviant, disruptive behavior of youth. Yet clinicians struggle to understand its origins, to help parents control their children, and to help the children control themselves. Clinically, this manifests in failed pharmacological treatments, incompleted courses of individual therapy, problems in engaging families in treatment, and controversies over which therapy is most effective.

Our youth now love luxury. They have bad manners and contempt for authority and disrespect for their elders. Children nowadays are tyrants.

—Socrates
Disruptive behavior, more frequently seen in males, is clinically significant behavior that interrupts the interpersonal context of the adolescent. Adolescents who display disruptive behavior have not acquired the ability to self-regulate affect and behavior, a prerequisite to social adaptation. This deficit in self-regulation is shaped by biological vulnerability (eg, temperament, genetics) and by the regulating, developmental influence of family function.\textsuperscript{2,3}

DSM-IV-TR designates a category of disruptive behavior disorders that includes attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), conduct disorder, and a not-otherwise-specified (NOS) category. The phenotype can be described through such categorization, but these maladaptive behaviors cut across diagnoses. Are disruptive behaviors part of a disease process or a problem in adaptation and adolescent development? This question has recently been addressed by McHugh,\textsuperscript{4} who looked at all DSM-IV diagnostic categories and concluded that some fit the disease model (eg, autism, schizophrenia, dementia) while others are best described as problems in behavior and adaptation (eg, conduct disorder, posttraumatic stress disorder [PTSD]).

This concept is best illustrated through the controversial topic of pediatric bipolar disorder that for many has become synonymous with deficiencies in self-regulation. While there is no debate
regarding the existence of bipolar disorder in youths, especially adolescents, the recent increase in the frequency of the diagnosis remains unexplained. The concern of some is that in current usage the neuropsychiatric disorder of bipolar disorder now includes developmentally mediated deficits in self-regulation. Why is this important? Routinely, bipolar disorder leads to an initial consideration of medication, while an emphasis on developmentally mediated disruptiveness indicates psychosocial mechanisms and treatments. A lack of diagnostic clarity can be associated with inadequate treatment response when medications are used to treat developmental or family relationship problems and when psychosocial interventions are used for biologically mediated symptoms.

**Components of disruptive behavior**

Disruptive behavior is a component of numerous disorders, yet a disease model fails to fully explain such behavior. Descriptive diagnostic statements inform clinicians what youth do. Yet they do not clarify why the behavior occurs nor do they map out treatments to manage the behavior. For that, one must turn to the emerging field of developmental psychopathology and the influence of family function on self-regulation.

Problematic externalizing behaviors, including lying, stealing, vandalism, truancy, arson, promiscuity, defiance toward authority, disinhibition (severe impulsivity), and aggression (threatening, bullying, fighting, rape), are some of the most common reasons for consulting a child and adolescent psychiatrist. The disruptive behavior may also be problematic for those outside the family, such as schoolmates and teachers.

The psychiatric assessment of children with disruptive behavior takes place within the traditional evaluation format, with special areas of investigation for the disruptive adolescent (Table 1). Gathering thorough psychiatric and medical histories of both the adolescent and his or her family is the first step in making a treatment decision. Other assessments can include a neuropsychological/psychological assessment, brain imaging (MRI, CT), or electroencephalography. Those affected by the adolescent’s disruptiveness (parents, schoolmates, extended family) provide essential information, such as age of onset, type of behavior (eg, aggressive), and precipitating factors. This allows the clinician to assess the interactional component: Who is affected? Where does disruption occur? When does it typically occur? Observing the interaction between the parent(s) and adolescent is essential. Harshness, inconsistency, or indulgence on the part of a parent can significantly influence the child’s behavior. A mental status examination that assesses intellectual ability and communication skills, aggressive/homicidal ideation, paranoia or other psychotic symptoms, and capacity for empathy should also be part of the evaluation.

The symptoms of disruptive behavior may be medically induced or induced by substance abuse. All of the following medical conditions may cause disruptive behavior:

- Neurological disorders: traumatic brain injury, seizures (temporal lobe epilepsy), tumors, vascular abnormalities
- Endocrinopathies: thyroid abnormalities (eg, hyperthyroidism)
- Infections: encephalitis/postencephalitic syndromes
- Metabolic disturbances: glucose dysregulation
- Systemic illness: systemic lupus erythematosus, Wilson disease

While these are rare, it is tragic for these potentially treatable illnesses to go undetected. At the University of Louisville Child and Adolescent Inpatient Unit during the past year, we have encountered adolescents whose disruptive behavior was caused by hyperthyroidism (with mood instability and aggression), juvenile Huntington chorea (manifested by cognitive and behavioral changes), and cannabis-induced psychotic disorder.

In addition, drugs can promote externalizing behaviors, such as violence and aggression. Common substances associated with aggression include alcohol, marijuana, cocaine, amphetamines, hallucinogens, phencyclidine, sedatives, inhalants, anabolic steroids, and ecstasy. For those DSM-IV disorders that are defined by disruptiveness, uncomplicated ADHD is a model neuropsychiatric disorder that responds to medication intervention and is a clear example of a disease model. Other psychiatric disorders may be comorbid with the disruptive disorders (eg, depression and conduct disorder). In addition, a number of disorders (eg, conduct disorder, ODD, disruptive behavior disorder NOS, ADHD, communication disorders, adjustment disorders, autism and pervasive developmental disorder, mood disorder, PTSD, psychotic disorders) have disruptive behaviors as part of the relevant diagnostic criteria, although the core disorder is not in the disruptive category. In these instances, using approved treatments for the primary disorder often
Assessing severity and comorbidities

While identifying disruptive behavior is not particularly difficult, assessing severity and comorbid problems can be challenging. Some of the more common means of identifying externalizing symptoms, such as the Conner Rating Scales or the Child Behavior Checklist, can guide the diagnostic assessment. These assessments can be supplemented by more in-depth psychological examinations (eg, projective testing) to solve a complex differential diagnostic problem, usually to assess a possible thought disorder.

Describing how disruptive youth behave is not the same as understanding why they behave as they do. The challenge for the clinician is to determine if there are unifying elements in understanding disruptive behavior. Are there identifiable developmental pathways that lead to the lack of
self-regulation that is so characteristic of disruptive youth? Can these pathways be linked to understanding the family dysfunctions that seem to accompany disruptive behavior? Both case vignettes illustrate a family interaction model that places children at risk for disruptive behavior. Such a model provides a way to understand the lack of self-regulated behavior, how disruptiveness is maintained, and how the child’s internalized world is formed, and it offers areas for intervention. This approach challenges a contemporary reductionism, whereby impulsivity and aggressive behavior are seen primarily as major mental illness requiring pharmacotherapy.

CASE VIGNETTE

J.C. is a white, 13-year-old boy who presented to the outpatient psychiatric clinic, accompanied by his mother. She reported that he no longer respected her authority, was struggling with anger control problems, and had severe outbursts every time she told him "no." J.C. lives with his single mother and has no contact with his biological father. He has witnessed significant violence between his mother and her abusive boyfriend. Through his early development, his mother gave in to most of his demands, largely because of guilt engendered by the negative impact of her decisions. This deprived and indulged teen acted on any impulse and became violent and aggressive. He had little empathy for his mother; instead, he became the abuser in the relationship. He met criteria for ADHD and conduct disorder of adolescent onset. Because of his mood lability, marijuana abuse, rage, and sense of entitlement, pediatric bipolar disorder had been diagnosed.

The therapist encouraged J.C.’s mother not to accept the disrespectful treatment. However, the mother’s guilt and passive personality impeded her progress. J.C. received common interventions for ADHD and was placed on a low dose of atypical antipsychotic to blunt aggressivity. It was difficult for him to engage in psychotherapy and he was often nonadherent with his medication regimen. However, his mother made strides in being more consistent in limit setting. She developed insight, understanding that her inability to set limits was related to her guilt for choosing father figures who were unavailable and even destructive. Perhaps more important, she began to see that her interactions with her son prevented his self-regulation. In individual and family therapy, J.C. was directed to be more respectful of his mother and she was encouraged to demand that respect. This learning process facilitated J.C.’s self-regulation.

A family model of self-regulation

Before describing the model of self-regulation and where it goes awry in families, several points must be made regarding family function. While the ensuing discussion focuses on the role of the environment in self-regulation, biological vulnerabilities (e.g., temperament) are important variables in eliciting parenting responses. The clinician must be able to see familial influence in 2 ways:

• Problematic interaction can be elicited by a child.

• Families can create problems for a child. Recent findings show the influence of parental depression on child psychopathology.

Specific epidemiological data indicate that a family intervention may be needed when there is a history of parental drug use, parental criminal behavior, child abuse and/or neglect, parental psychopathology, marital conflict, and single parenting.

Development is a process of the external becoming internal. The child moves from depending on his parents to regulate essentially all aspects of functioning to gradually taking over and self-regulating more and more of his or her own behavior. This certainly includes developing control over impulses.

Children listen best to parents with whom they feel safe, and their adherence is linked to pleasing their parents. When a parent is relatively unavailable, a child learns impulsivity and lack of self-control. As one child said, “I cannot wait for my needs to get met because they probably won’t be met.” An environment of relative deprivation fosters a narcissistic viewpoint and a lack of self-regulation. A secure attachment to a caregiver gives a safe context for the trial and error necessary to develop self-regulation in response to stress. A child literally learns how to control himself.

On one hand, when insecure attachment is coupled with harsh, inconsistent parenting, the chances for disruptive behavior are heightened. On the other hand, parental overindulgence that removes roadblocks and mitigates child distress compromises the child’s opportunity to learn to self-regulate responses to frustration. By immediately gratifying a need, the indulgent parent predisposes his child to disruptive behavior and impulsivity: the child is literally prevented from learning how to control himself.

Although the mechanisms remain somewhat unclear, it seems that both types of parental problems in attachment predispose to a disruptive child who becomes angry and labile when experiencing environmental limits. Hence, the frequent presenting complaint from parents: “Doctor, he rages
when he doesn’t get his way. He is fine if he gets what he wants.” These children are often clinically narcissistic, with a grandiose, yet fragile, sense of self.

**CASE VIGNETTE**

J.P. is a biracial, 12-year-old, adopted boy with a diagnosis of bipolar disorder. He came in for a second opinion consultation because he had not responded to numerous trials of pharmacotherapy (he had been treated with 6 different psychotropic medications since the diagnosis). J.P. refuses to do his homework and often takes hours to do work that could be done in an hour. His father often completes J.P.’s assignments. J.P. justifies his poor performance by complaining that the teachers are mean and “give us work that is too hard.”

When J.P. was adopted, his father was 43 years old and his mother was 40. This middle-class couple showered J.P. with affection and wanted to “see him happy.” As J.P. got older, he passively resisted many developmental challenges, and his parents acquiesced to his demands for assistance. His parents saw J.P.’s behavior as “cute.” His disruptive behavior increased as developmental demands increased. The therapist identified the parental adoration as incompatible with limiting J.P.’s disruptive behavior.

The early stages of treatment involved numerous discussions with the parents to help them understand the disease and available treatments. They were confused about the previous diagnosis of bipolar disorder. While that diagnosis was not summarily dismissed, the clinician helped the family see that J.P.’s problems in self-regulating his behavior had meaning in a family context.

J.P.’s medication was withdrawn with no observable adverse effects. His demand that his parents help him with his homework because it was “too hard” came to be seen for what it was—a significant deficit in the ability to handle stress. The parents worked on their own dynamics—his father thought his son was “cute and humorous” while his mother felt undermined when she attempted to set limits. They developed insight into their indulgence as having roots in J.P.’s adoption as a special, longed-for moment in their lives.

With the family’s consistency in setting limits and increased expectation of accountability, J.P. resisted and became angrier and physically and verbally threatening. His entitled behavior was countered with clear family expectations of self-control. Currently, J.P. has little insight into his own entitled behavior. By doing less for J.P., his family has prepared the way for his acquisition of self-regulation.

**The sequencing of treatments for disruptive behavior in adolescents**

Interventions should be integrated or sequenced in the treatment of disruptive youth. This proposed sequence involves some early family and parent work to interrupt individual symptom-maintaining family interactions, without which individual work founders:

- Stabilize behavior through pharmacology and parent management training.
- Work with the interactive process through family therapy.
- Identify individual family dynamics that require intervention.
- Encourage individual adolescent therapy (eg, cognitive-behavioral, interpersonal, psychodynamic, or supportive) as the adolescent gets older.

Acute behavior is stabilized through the treatment of medical illness, which addresses substance abuse when present and uses psychopharmacology to treat severe symptoms. Prescribing medication for nonspecific, developmentally mediated disruptiveness is off-label. However, prescribing medications for specific disorders (eg, ADHD, bipolar disorder, autism), which can include disruptive behavior as part of the core condition, is not off-label (Table 2).
### Table 2

*Common medications used to treat target symptom of impulsive aggression*¹⁸

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<th>Atypical antipsychotics</th>
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<tr>
<td>Risperidone</td>
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<td>Quetiapine</td>
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<td>Ziprasidone</td>
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<td>Aripiprazole</td>
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<td>Olanzapine</td>
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<th>Typical antipsychotics</th>
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<tr>
<td>Haloperidol</td>
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<tr>
<th>Mood stabilizers</th>
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<tbody>
<tr>
<td>Lithium</td>
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<td>Carbamazepine</td>
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<td>Valproic acid</td>
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<th>Stimulants</th>
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<td>Methylphenidate</td>
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<th>α-Agonists</th>
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<tr>
<td>Clonidine</td>
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<td>Guanfacine</td>
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¹⁸ Depending on the specific symptom and context, different medications may be used.
Parent management training with an adolescent focus should accompany these biological interventions. Such training provides immediate strategies for behavior control through the use of behavioral contingencies. Second, the assessment of the family often dictates a need for an intervention, informed by various schools and techniques of family therapy. Unfortunately, parent management interventions are often not implemented because of specific parental and marital dynamics.

When families impede an adolescent’s development of self-regulation, they facilitate specific cognitive sets that predispose the adolescent to enduring personality pathology. Both J.P. and J.C. were entitled youths who were increasingly disruptive and maladaptive in their relationships. Although too young for a formal diagnosis of personality disorder, both patients demonstrated precursors of a narcissistic disorder. It was anticipated that individual therapy would be increasingly relevant for these boys as they got older.

**Conclusion**

A multimodal sequenced series of interventions focused on helping the adolescent develop behavioral control may, in severe cases, include other environmental interventions. Coordinated multisystemic approaches include hospitalization, in-home interventions, school consultations, and out-of-home placements. The family emphasis of this article does not imply that family interventions are the only approach to children with disruptive disorders, although families must be involved in all aspects of treatment.

Cognitive-behavioral therapy and skills training may be helpful, especially when there is comorbidity (eg, depression). While psychodynamic psychotherapy provides a framework to understand the developmental constructs, it has not been shown to be effective as a sole treatment intervention. Finally, perhaps the most empirically validated modality is behaviorally oriented parent management training programs.

The ultimate goal in working with disruptive adolescents is to enhance self-regulation in all domains. Although this is difficult, it is the cornerstone of child and adolescent development. Such development takes place within the family, and any treatment must foster the efforts of the family who is raising children to confer the fundamental life skill of self-control.

**Drugs Mentioned in This Article**

- Amphetamine (Adderall)
- Aripiprazole (Abilify)
- Carbamazepine (Carbatrol, Tegretol, others)
- Clonidine (Catapres)
- Guanfacine (Tenex)
- Haloperidol (Haldol)
- Lithium (Eskalith, Lithane, Lithobid)
- Methylphenidate (Ritalin LA)
- Olanzapine (Zyprexa)
- Quetiapine (Seroquel)
- Risperidone (Risperdal)
- Valproic acid (Depakote)
- Ziprasidone (Geodon)

**References:**

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