

OPOSITIONAL DEFIANT AND CONDUCT DISORDERS

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Introduction

Disruptive behavior disorders (DBDs) are a cluster of disorders defined by the persistent presence of negative, defiant or rule-breaking behaviors which are disruptive to the youth's social, academic, familial or personal functioning. DBDs include oppositional defiant disorder (ODD) and conduct disorder (CD). A diagnosis of disruptive behavior disorder not otherwise specified (DBD-NOS) is available when patterns of behavior do not fit the criteria for ODD or CD, yet present significant disruption and impairment in functioning, and thus require intervention (American Psychiatric Association [APA], 2000). DBDs are associated with a pattern of escalating problem behaviors leading to negative life consequences, including social, academic, and occupational functioning, substance abuse and, potentially, incarceration (American Academy of Child & Adolescent Psychiatry [AACAP], 2007).

The *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)*, provides the standard criteria for a diagnosis of DBDs (APA, 2000). The criteria for ODD, CD and DBD-NOS are outlined in the paragraphs which follow.

Oppositional Defiant Disorder

According to Chandler (2002), ODD is a psychiatric disorder characterized by two different sets of problems: aggressiveness and a tendency to purposefully bother and irritate others. ODD is an enduring pattern of uncooperative, defiant and hostile behavior to authority figures without major antisocial violations (Christophersen & Mortweet, 2001). Youth must demonstrate at least four of the following behaviors for at least six months to meet criteria for a diagnosis of ODD:

- often loses temper;
- often argues with adults;
- often actively defies or refuses to comply with adult's requests or rules;
- often deliberately annoys people;
- often blames others for his or her mistakes or misbehaviour;
- is often touchy or easily annoyed by others;
- is often angry or resentful; and
- is often spiteful or vindictive (APA, 2000).

Oppositional behaviors almost always manifest in the home setting and with adults the youth knows well. Behaviors may or may not be present in the school and/or community settings, and thus may not be present in the mental health professional's office (APA, 2000). In addition to the presence of the prerequisite number of symptoms, significant distress or impairment in functioning must also be present in order to make a diagnosis of ODD or other DBDs. This may include impairment in academic functioning, inability to form and maintain appropriate peer relationships, and/or familial distress (APA).

Conduct Disorder

Children and adolescents with CD exhibit persistent and critical patterns of misbehavior. These youth may have an issue with controlling their tempers, like children with ODD; however, they also violate the rights of others (Center for the Advancement of Children's Mental Health at Columbia University, 2000). Behaviors exhibited by children with CD include aggression towards people or animals, destruction of property, deceitfulness, theft, or serious violation of rules (Murphy, Cowan & Sederer, 2001).

Children diagnosed with CD have more difficulty in areas of academic achievement, interpersonal relationships, drugs and alcohol use (Boesky, 2002). They also are often exposed to the juvenile justice system because of their delinquent or disorderly behaviors. For example, Ferguson and Horwood, (as cited in Boesky), found that 90% of children with three or more CD symptoms at age 15 were self-reported frequent offenders a year later, compared to 17% of children with no CD symptoms. In addition, according to Murphy, Cowan & Sederer (2001), 25 to 40% of children with CD have adult antisocial personality disorder later in life.

According to research compiled by Christophersen & Mortweet (2001), the diagnosis of CD is usually based on the persistence and the repetition of rule breaking and behaviors that violate the rights of others. CD may first occur in childhood or in adolescence and may have mild, moderate or severe classifications.

The information discussed in this paragraph is taken from Braithwaite, Duff & Westworth (2001). There are two specific subtypes of CD: childhood onset and adolescent onset. In the first, onset occurs before age 10, with the child's displaying one criterion. Youth diagnosed with childhood onset CD are typically male, often display physical aggression, have disturbed peer relationships, and may have had ODD during early childhood. These youth typically develop full criteria for CD before they reach puberty. In the second subtype, onset usually occurs during adolescence, and is defined by the absence of CD at the age of 10. These youth are less likely to display aggressive behaviors than youth in the first subtype. They will also have more normal peer relationships and are less likely to develop adult antisocial personality disorder.

Disruptive Behavior Disorder, Not Otherwise Specified (DBDNOS)

A diagnosis of DBD-NOS can be made when there is a clear indication of impairment or distress, but full diagnostic criteria for ODD or CD is not met. For example, ODD requires at least four symptoms be present for six months or longer. Youth who exhibit three criteria and have symptoms that cannot be explained by another disorder (e.g., attention deficit hyperactivity disorder [ADHD] or depression), and also experience significant problems in functioning, may be given a diagnosis of DBD-NOS rather than ODD. A diagnosis of DBD-NOS, ODD, or CD should not be given if the symptoms can be attributed to depression, anxiety, ADHD or adjustment disorder. Youth may exhibit increased irritability, loss of temper, and argue with adults during depressive episodes and should not be given a secondary diagnosis of ODD unless these behaviors occur persistently with concurrent reductions in depressive episodes (APA, 2000).

Causes and Risk Factors

The majority of the research on the causes of DBDs focuses on CD or on CD and ODD combined (AACAP, 2007). As with most psychiatric disorders, there is no single cause of DBDs. Rather, they arise out of a complex combination of risk and protective factors related to biological and environmental/social influences (AACAP). These risk factors, which are outlined in the following paragraphs, are believed to build gradually upon each other as the child develops (AACAP).

Biological Factors

Researchers agree that there is a strong genetic and biological influence on the development of DBDs. These and related behavioral disorders (e.g., ADHD, substance abuse disorders, and mood disorders) tend to cluster in families (AACAP, 2007). Research has consistently found that youth with DBDs have an underaroused baseline (e.g., low resting-heart rate) (Mawson, 2009). Several theories have tried to explain why underarousal may be associated with increased behavior problems. Some researchers suggest that underarousal results in sensation-seeking and perhaps in disruptive behaviors to maintain optimal arousal (Esyneck, 1997). Others have suggested that the underarousal results in an under-reaction of guilt or anxiety, which in turn would inhibit these behaviors in typically developed individuals (van Goozen, Snoek, Matthys, Rossum & Engeland, 2004). A third theory suggests that both underarousal and aggressive behaviors are results of deficiencies in the functioning of the prefrontal cortex, limiting the individual's reasoning, foresight, and ability to learn from experience (Raine, 2002).

Psychological Factors

Attachment theories of DBDs have not been consistently confirmed in studies of DBD (AACAP, 2007). Researchers have studied the relationship between DBDs, unresponsive parenting and attachment between the child and the caregiver. However, empirical findings have been inconsistent (AACAP). Youth with DBDs consistently exhibit deficiencies in social processing and problem-solving. Specifically, youth with DBDs tend to miss social cues, attribute hostile intentions to the behaviors of others, have difficulty formulating solutions to social problems, and expect reinforcement from aggressive behaviors (AACAP).

Social Factors

Several social factors have been associated with the development of DBDs, including include poverty, lack of structure, community violence, and dysfunctional family environment. Youth who are neglected through lack of parental supervision and positive parenting behaviors and/or who experience harsh treatment, including child abuse are at higher risk (AACAP, 2007). Those with deviant peer associations are also more likely to meet criteria for DBDs, typically because, in those relationships, youth learn deviant behaviors and have their negative behavior patterns reinforced. Youth with these peer relationships tend to experience poorer treatment outcomes (AACAP).

Assessment

The accurate diagnosis of DBDs requires an assessment involving at least two different assessment methods, such as behavior rating scales from multiple informants and structured diagnostic interviews (Christophersen & Mortweet, 2001). Interviews typically focus on the family's history and the caregivers' child-rearing practices. After interviewing the child and parents, the provider should interview teachers and evaluate the course of the child's development, including a review of school records. Particular attention should be paid to any oppositional or aggressive behavior that is not age-appropriate. In the course of assessment, the mental health provider may also identify co-occurring disorders.

For a diagnosis of ODD, a pattern of negative, hostile defiant behavior which reflects significant impairment in social and academic functioning and which has persisted for at least six months must be established. It must also be confirmed that the behavior has not occurred in the course of a psychotic or mood disorder (AACAP, 2007).

To make a diagnosis of CD, the provider must ascertain whether the child or adolescent has shown at least three major symptoms in the past three months, with one of the symptoms having occurred in the last six months. In addition, these symptoms must have occurred in various settings. The behavior must cause significant impairment in the child's social or academic life. Because CD usually occurs with another disorder, mental health clinicians should also look for other co-occurring disorders, such as ADHD. CD has no age limit and, in a child younger than age 10, the repetitive presence of only one of the 15 behaviors in the *DSM-IV* is sufficient for diagnosis (Tynan, 2010).

A functional analysis of the child's behavior will not only assist in making an appropriate diagnosis, but also aid in developing an effective treatment plan (Mash and Terdal, 2001, as cited in AACAP, 2007). This involves identifying antecedents and consequences of the child's problematic behavior through a parent interview and/or direct observation in environment where the behavior occurs. The functional analysis may help determine whether caregivers are inadvertently reinforcing negative behaviors or if the child lacks appropriate emotion regulation skills. Table 1 lists the suggested assessment tools for DBDs.

Comorbidity

Studies of the comorbidity rates for ODD have estimated that 14% of youth have comorbid ADHD, 14% have a comorbid anxiety disorder, and 9% have a comorbid depressive disorder (Angold, Costello & Erkanli, 1999). Opinions are mixed as to whether ODD and CD can be comorbid with each other (AACAP, 2007). Most children with CD begin with ODD-like behaviors (AACAP). Studies indicate that the majority of children with ODD do not develop CD, but ODD is usually present as a forerunner to childhood-onset CD. Research suggests that early intervention and treatment of ODD may avert the development of CD.

While some characteristics of ODD and CD overlap, there are important distinctions (Searight, Rottnek & Abby, 2001). Youth with ODD do not typically display significant physical aggression and may be less likely to have problems with the law (Searight, Rottnek & Abby). Moreover, because ODD is seen as a disorder of noncompliance and CD involves the violation of another's rights, it is helpful to view these mental health disorders as two points on a continuum, rather than as two separate mental health disorders.

Table 1

Suggested Assessment Tools for DBDs

Type	Name of Measure	Who Completes	What Is Learned
Clinical Interview	Washington University version of the Kiddie-Schedule for Affective Disorders and Schizophrenia	Clinician with youth and parent	Diagnoses
Clinical Interview	The Children’s Interview for Psychiatric Syndromes (ChIPS)	Clinician with youth and parent	Diagnoses
Clinical Interview	NIMH Diagnostic Interview Schedule for Children-IV (NIMH DISC-IV, 1997)	Parent	Diagnoses
Behavior Checklist	Achenbach System of Empirically Based Assessment (ASEBA; Achenbach & Rescorla, 2001) -Child Behavior Checklist (CBCL) -Youth Self-Report (YSR) -Teacher Report Form (TRF)	Parent, youth, teacher	Syndrome scale scores and competence scores
Behavior Checklist	Strengths & Difficulties Questionnaire	Parent, youth, teacher	Four problem scales and one “strengths” scale
Behavior Checklist	Behavior Assessment System for Children-2 nd edition (BASC; Reynolds & Kamphaus, 2004)	Parent, youth, teacher	Syndrome scale scores and adaptive scores

Sources: Achenbach & Rescorla, 2001; Reynolds & Kamphaus, 2004.

Symptom severity and treatment prognosis are generally influenced by the type of comorbid conditions. For example, youth with comorbid ADHD and ODD typically display more aggressive behaviors, experience greater academic difficulties and are rejected by peers more often than youth with ADHD alone (AACAP, 2007). Further, youth with both ADHD and ODD are more likely to transition to a diagnosis of CD (AACAP). Several studies have documented a strong association between DBDs and adolescent substance use, particularly in the face of treatment failures (AACAP).

Increases in oppositional and antagonistic behaviors are somewhat typical of adolescents, and youth with pervasive developmental disorders (i.e., autism spectrum disorders), anxiety or depression may be more likely to exhibit these symptoms (AACAP, 2007). Clinicians, therefore, should give careful consideration to determining whether oppositional behaviors represent a true comorbid condition or are manifestations of the primary disorder.

Connor (2002) found that language and learning disorders are a common precursor to DBDs. Youth with CD are more likely to show deficiencies in academics and a variety of cognitive processes. There is a strong relationship between CD and academic failure and possible learning disabilities (Tynan, 2010).

Gender and age are also crucial factors in determining and diagnosing comorbid conditions in youth with CD. Loeber, Burke, Lahey, Winters & Zera (2000) conducted a literature review of the co-morbidity of CD. Their review suggested a higher risk for adolescent females with CD and a relatively predictable association between their CD and comorbid conditions. Adolescent females are also more typically at risk for anxiety and depression.

Evidence-based Treatments

Although ODD, CD and DBD-NOS are considered separate diagnoses, the treatment principles for these disorders are very similar. Individualized treatment plans should be developed to address the particular problems and severity of each child and family situation. For this review, evidence-based treatments are divided into three categories: What Works and What Seems to Work and What Does Not Work. A summary of these treatments is both outlined in Table 2 and in the paragraphs which follow.

Table 2

Evidence-based Treatments for DBDs

What Works	Description
Assertiveness training: Group Assertive Training (Huey & Rank, 1984)	School-based group treatment for middle- school youth.
Parent management training programs: <ul style="list-style-type: none"> • Helping the Noncompliant Child (McMahon & Forehand, 1981); • Incredible Years (Webster-Stratton & Reid, 2003); • Parent-Child Interaction Therapy (Brinkmeyer & Eyberg, 2003); • Parent Management Training to Oregon Model (Patterson, Reid, Jones & Conger, 1975); and • Positive Parenting Program (Triple P; Sanders, 1999) 	Parent training programs focus on teaching and practicing parenting skills with parents or caregivers.
Multisystemic Therapy (MST) (Henggler & Lee, 2003)	MST is integrative, family-based treatment for youth with serious antisocial and delinquent behavior. Interventions last 3-5 months and focus on improving psychosocial functioning for youth and families.
Cognitive Behavioral Therapy (CBT) <ul style="list-style-type: none"> • Problem-Solving Skills Training (PSST; Kazdin, 2003) • Anger Control Training (Lochman, Barry & Pardini, 2003) 	CBTs emphasize problem solving skills and anger control/coping strategies.
CBT & Parent Management Training (PMT) (Kazdin et al., 1987; Kazdin, Siegel & Bass, 1992)	Combines CBT and PMT.
What Seems to Work	Description
Multidimensional Treatment Foster Care (Chamberlain & Smith, 2003)	Community-based program alternative to institutional, residential and group care placements for use with severe chronic delinquent behavior. Foster parents receive training and provide intensive supported treatment within the foster home setting.
What Does Not Work	Description
Atypical antipsychotics medications	Risperidone (risperdal), quetiapine (seroquel), olanzapine (zyprexa), and Abilify (aripiprazole). Limited evidence for effectiveness in youth with intellectual disability or pervasive developmental disorder.
Stimulant or atomoxetine	Methylphenidate; d-Amphetamine; atomoxetine. Limited evidence when comorbid with primary diagnosis of ADHD.
Mood stabilizers	Divalproex sodium; lithium carbonate. Limited evidence when comorbid with primary diagnosis of bipolar disorder.
Selective serotonin reuptake inhibitors (SSRIs)	Limited evidence when comorbid with primary diagnosis of depressive disorder.
Boot camps, shock incarcerations	Ineffective at best; can lead worsening of symptoms.
Dramatic, short-term or talk therapy	Little to no effect as currently studied.

Sources: Lochman, Barry & Pardini, 2003; Huey & Rank, 1984; McMahon & Forehand, 1981; Webster-Stratton & Reid, 2003; Chamberlain & Smith, 2003; Henggeler & Lee, 2003; Brinkmeyer & Eyberg, 2003; Patterson, Reid, Jones & Conger, 1975; Sanders, 1999; Kazdin, 2003; Kazdin et al., 1989; Kazdin, Siegel & Bass, 1992; Block, 1978; AACAP, 2007; Eyberg, Nelson & Boggs, 2008; Sanders, 1999; Children’s Mental Health Ontario, 2001; Tynan, 2010.

Psychosocial Treatment

Eyberg, Nelson & Boggs (2008) identified 16 evidence-based treatment programs for DBDs. Nearly all employ parent behavior management training as the primary intervention. According to AACAP (2007), the key strategies of these approaches include the following:

- identification and reduction of positive reinforcement of structured behavior;
- increased reinforcement of prosocial and compliant behavior;
- utilization of appropriate punishments for disruptive behaviors; and
- emphasis on predictability and immediacy of parental contingencies.

Treatment packages using these strategies for youth and families with DBDs have been tested with positive effects. Many of the treatment programs are available in easy-to-understand therapist manuals, self-help parenting books and/or video/DVD formats.

In addition to training parents to implement appropriate behavior management strategies, the clinician may need to intervene in the family system to bring about meaningful change. A myriad of family issues, including parents' substance abuse, may impact treatment success. Findings suggest the importance of helping parents make lasting changes to their own behavior and improved well-being in order to help their children. In these situations, a family-based approach, such as the Triple P Enhanced Treatment (Sanders, 1999), may be appropriate. Families may also benefit when parents engage in individual or couple's therapy to address individual psychopathology or marital discord that may be having an adverse effect on the youth and/or the youth's treatment (Eyberg, Nelson & Boggs, 2008).

Severe and persistent cases of ODD which develop into CD may require an alternative placement when the safety of the youth and and/or those around him or her are in jeopardy (AACAP, 2007). Youth may require out-of-home placement when they require crisis management or when their family is unable or unwilling to collaborate with treatment. When considering day treatment, residential treatment or hospitalization, the least restrictive setting should be selected for the shortest possible time to ensure safety and progress (AACAP). Other placements which may be considered are therapeutic foster care or respite care.

Pharmacological Treatment

Pharmacological treatments for DBDs have not been well-studied (AACAP, 2007). Stanford, Howard and the AACAP Workgroup on Juvenile Impulsivity and Aggression (Connor et al., 2006) recommended that medication only be used to treat youth with ODD or CD when evidence-based psychosocial treatments have failed. Medication should not be the sole treatment for CD or ODD (AACAP).

Medications may help, however, when there are co-occurring disorders, making it more likely that the youth will be able to participate and benefit from intervention strategies. Pharmacological interventions may be helpful, for example, when a child or adolescent has a disorder that is responsive to medication, such as ADHD or bipolar disorder. Medications often prescribed for ADHD, such as stimulants and atomoxetine, may help improve oppositional behaviors as well (AACAP, 2007). There is also limited research suggesting that mood stabilizers or selective serotonin reuptake inhibitors (SSRIs) may be helpful when there is a co-occurring mood disorder, such as bipolar or major depressive disorder (AACAP).

Despite the lack of research, atypical antipsychotics are the most commonly prescribed medication for aggression associated with ODD and CD (AACAP, 2007). It is important to note that aggression and oppositional behaviors can reflect temporary environmental changes. Utilizing medication during these circumstances may result in misattribution of improvement to the medication, rather than environmental stabilization, and thus result in an unnecessary risk of side effects (AACAP). Medications should be started only after an appropriate baseline of symptoms or behaviors has been obtained and only in conjunction with psychosocial treatment (AACAP).

Unproven Treatments

Research indicates that treatment of DBDs should be delivered with enough frequency and duration to produce the desired treatment outcomes (Children's Mental Health Ontario, 2001). There are several treatments for DBDs that have been untested, proven ineffective or proven to be harmful. Scare tactic approaches (e.g., boot camps, shock incarcerations) are ineffective and can even worsen symptomatic behaviors by heightening a fear-aggression reaction and/or modeling of even more deviant behaviors (AACAP, 2007). Boot camps have consistently demonstrated good initial results, but long-term declines, such as higher arrest rates and more serious crimes committed (Tynan, 2010). Moreover, group treatment may also have possible negative adverse effects. Poor long-term outcomes following this treatment may be due to group reinforcement of negative or criminal activity, accompanied by lack of family or community change (Tynan). Individual psychotherapy as a single treatment has not proven effective for CD, although individual sessions may facilitate treatment compliance (Tynan). Dramatic, one-time, time-limited or short-term interventions are also ineffective treatment approaches (AACAP).

Cultural Considerations

ODD and CD are more prevalent among adolescents from families with low socio-economic status (Loeber et al., 2000). CD is more common in neighborhoods characterized by social disorganization and high crime rates (Loeber et al.). More research is needed to assess the differences of CD and ODD in rural and urban environments, given that results from current research are mixed and the poor prognosis of CD is associated with urban areas (Loeber et al.).

Research has suggested that minority youth with anxiety and/or affective disorders are often diagnosed instead with DBD due, in part, to stereotypes and attributional biases for behavior (Lau, Garland, Yeh, McCabe, Wood & Hough, 2004). Youth with internalizing disorders (e.g., anxiety or depression) may exhibit symptoms of irritability and refuse to engage in situations perceived as fearful. These behaviors may be interpreted as oppositional behaviors without comprehensive assessment (Lau et al.). Careful assessment should be conducted to rule out the presence of other disorders.

Research on treatments for DBDs has adequate representation of African American children, suggesting that treatments are generally as effective with those populations as for Caucasian children (Eyberg, Nelson & Boggs, 2008). Latino children and children from other minority groups, however, have been under-represented in most studies of treatments for DBDs. In the absence of research on cultural-specific practices, clinicians should take care to ensure that treatment goals and strategies are in sync with cultural beliefs and practices for children of minority groups.

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Organizations

American Academy of Child & Adolescent Psychiatry (AACAP)

Facts for Families – Conduct Disorder

http://www.aacap.org/cs/root/facts_for_families/conduct_disorder

Facts for Families – Oppositional Defiant Disorder

http://www.aacap.org/cs/root/facts_for_families/children_with_oppositional_defiant_disorder

Mayo Clinic

<http://www.mayoclinic.com/health/oppositional-defiant-disorder/DS00630>

Mental Health America (MHA) (formerly National Mental Health Association)

Fact Sheet on Conduct Disorder

<http://www.nmha.org>

U.S. Department of Health and Human Services

Substance Abuse and Mental Health Services Administration

Conduct Disorder in Children and Adolescents

http://pathwayscourses.samhsa.gov/bully/bully_4_pg17.htm