Characteristics, Correlates, Causes, and Outcomes of Disruptive Behavior Disorders in Children and Youth

This chapter examines disruptive behavior disorders (DBDs) in terms of their characteristics, correlates, causes, and outcomes. I describe the negative impact that DBDs have on the children and youth who display them, their peers, family members, teachers, and school administrators. DBDs are just one class of problems that schools are called upon to solve that often are not of their own making. These problems include youth violence, school dropout, bullying, academic failure, and a host of mental health issues.

Schools and families are charged with raising and educating an increasingly diverse child population in terms of predominant attitudes and beliefs, behavioral styles, racial–ethnic backgrounds, socioeconomic levels, and risk status. Children and youth who develop challenging, disruptive behavior patterns at home and subsequently bring these behavior patterns to school can create considerable trouble for family members *and* school personnel. These behavior patterns not only create chaotic home and school environments, but also disrupt the learning and achievement of others. These children and youth can be extremely difficult to discipline and teach because many parents and school personnel often do not have a thorough understanding of the origins, characteristics, and developmental course of disruptive behavior patterns, which further complicates their appropriate reactions.

Despite this rather bleak picture of the pernicious effects of disruptive behavior patterns, there is reason for optimism based on the progress that has been made in understanding and developing solutions for

them. Over the past 10 years, we have made enormous strides in the assessment and intervention of DBDs, particularly early in their developmental course. Research based on randomized controlled trials, single case experimental designs, and longitudinal research designs has generated a wealth of knowledge regarding the most appropriate means of screening, assessing, and intervening upon DBDs (Dunlap & Fox, 2014; Leff, Waanders, Waasdorp, & Paskewich, 2014; Reid, Patterson, & Snyder, 2002; Seeley, Severson, & Fixen, 2014).

DBDs have been the subject of intense interest by researchers and practitioners in various disciplines and fields including school psychology, clinical psychology, psychiatry, social work, counseling, and education. The field of psychology especially has developed a powerful empirical literature around DBDs that can be used to assist families and schools in coping with these problematic behaviors. Unfortunately, this knowledge base has been adopted into child rearing and educational practices in only a limited fashion. A major goal of this book is to communicate and adapt this knowledge base for effective use by families and educators who must cope with the rising tide of DBDs in home and school settings.

DBDs Defined

DBDs can be characterized by problems in self-control of emotions and behaviors that create adjustment difficulties in personal and interpersonal domains. These disorders are manifested in behavioral forms or types that violate the rights of others (e.g., aggression, property damage, relational aggression) and/or bring individuals into significant conflict with societal norms and authority figures. The underlying causes of these problems in self-control of emotions and behaviors vary greatly among individuals, and no single intervention will be universally successful for all individuals.

Types of DBDs

DBDs consist of two fundamental types: (1) antisocial behavior pattern and (2) defiant/disrespectful behavior pattern. An antisocial behavior pattern involves the repeated violation of social norms across a range of contexts such as home, school, and community. This behavior patterns

also entails hostility and aggression toward others, a willingness to break rules, and defiance of adult authority. This behavior pattern is one of the most common forms of psychopathology among children and youth. It ranks as the most frequently cited reason for the referral of young people to mental health services, and accounts for nearly half of all such referrals. This behavior pattern also tends to be highly persistent over time, resistant to interventions, and frequently leads to rejection by peers, teachers, and caregivers. The long-term prognosis for youth with well-established conduct disorders is extremely bleak, and schools and families do not perform well in either buffering or reducing the social impact of DBDs (Cottle, Lee, & Heilbrun, 2001; Crews et al., 2007).

A defiant/disrespectful behavior pattern involves negative and resistant social interactions, especially with adults (teachers and parents). It is primarily a problem in *noncompliance* with adult commands or directives. Noncompliance refers to a failure to comply with a specific directive and is noted if (1) no response is forthcoming, (2) no response is produced or initiated within a prescribed time period (usually 10 seconds), or (3) some alternative, nonrequested behavior is performed instead (McMahon & Forehand, 2003). Noncompliance can assume four basic forms: (1) simple refusal, (2) direct defiance, (3) passive noncompliance, and (4) attempts to renegotiate the form or terms of the directive. High levels of noncompliance early in life often lead to much more serious behavioral issues later in life.

Tables 1.1 and 1.2 depict the behavioral characteristics of antisocial behavior pattern and defiant/disrespectful behavior pattern, respectively. Antisocial behavior pattern consists of two fundamental types based on age of onset: *childhood onset* (typically prior to 10 years of age) and *adolescent onset* (typically no behavioral characteristics prior to age 10). Individuals with an antisocial behavior pattern often display a lack of remorse or guilt, are unconcerned about others' feelings, are poorly motivated about their school performance, and show shallow or deficient affect. An antisocial behavior pattern can range from mild (two to three antisocial behavior problems), to moderate (four to six antisocial behavior problems), or severe (seven or more antisocial behavior problems). The defiant/disrespectful behavior pattern consists of three basic forms of behavior: (1) angry/irritable mood, (2) argumentative/defiant behavior, and (3) vindictiveness. This disorder can be *mild* (behaviors are confined to one setting such as home or school), *moderate* (behaviors expressed in at least two settings), or *pervasive* (behaviors exhibited in three or more settings).

TABLE 1.1. Antisocial Behavior Problems

- Bullies others.
- Fights with others.
- Uses weapons to harm others.
- Is cruel to others.
- Steals from others.
- Sets fires.
- Burglarizes homes.
- Shoplifts.
- Is truant.
- Cheats in games or activities.
- Lies.
- Intimidates others.
- Forces others to act against their will.

Prevalence of DBDs

There are varying estimates with regard to the prevalence rates of antisocial behavior pattern and defiant/disrespectful behavior pattern. One-year population prevalence estimates for antisocial behavior pattern range from 2% to more than 10% with a median prevalence estimate of about 4%. Prevalence rates of antisocial behavior increase from childhood to adolescence and are higher among males than among females (American Psychiatric Association, 2013).

The prevalence rate of defiant/disrespectful behavior pattern ranges from 1 to 11% with a median prevalence rate of about 5%. This prevalence rate varies depending on age and gender, with the disorder being more prevalent in males prior to adolescence.

TABLE 1.2. Defiant/Disrespectful Behavior Problems

- Frequently loses temper.
- Is resentful.
- Argues excessively with parents, teachers, and peers.
- Is noncompliant.
- Provokes others.
- Accuses others for own mistakes.
- Defies parents and teachers.
- Yells or talks out.
- Complains.

Based on the above prevalence estimates, it appears that about 9 or 10% of the school-age population would qualify for a diagnosis of DBDs with about equal numbers of individuals having antisocial behavior pattern and defiant/disrespectful behavior pattern. This would indicate that in a school population of 500 students, approximately 50 of them would be at risk for having a DBD. Schools that do not have identification and intervention plans to deal with these children will almost certainly have chaotic school and classroom environments. It is important to note that more than half of all school office disciplinary referrals are typically accounted for by this relatively small percentage of the school's total student population. This finding is similar to that for delinquency, wherein a majority of delinquent acts are accounted for by approximately 6% of the juvenile population. Thus, the social impact is extremely disruptive of school routines, severely stresses the management and teaching skills of school staff, and is disproportionate to the relatively small number of students with DBDs accounting for it.

The functional consequences of antisocial behavior pattern often lead to school suspensions and expulsions, contact with the juvenile justice system, sexually transmitted diseases, and physical injury from fights (Patterson, Reid, & Dishion, 1992). These problems may prevent attendance in ordinary schools or living in a parental or foster home. The functional consequences of oppositional defiant disorder leads individuals into frequent conflicts with parents, teachers, peers, and romantic partners. These problems often result in substantial impairments in an individual's emotional, social, and academic adjustment (Moffitt, 2003).

DBDs and Comorbidity

Comorbidity refers to the fact that individuals with a single disorder (e.g., conduct disorder or oppositional defiant disorder) may be at increased risk for a second disorder or multiple disorders, which may in turn negatively affect their developmental course (Eyberg, Nelson, & Boggs, 2008). Comorbidity represents perhaps the highest risk status for pernicious outcomes because the existence of multiple disorders (e.g., conduct disorder and depression or oppositional defiant disorder and attention-deficit/hyperactivity disorder [ADHD]) often produces a negative "multiplier effect."

An excellent example of the deleterious effects of comorbidity was highlighted and illustrated by Lynam (1996), who developed a theoretical formulation for future chronic offenders. Lynam reviewed and

synthesized empirical evidence that points to at-risk youth who fit the profile of conduct disorder mixed with ADHD. He argues that the presence of ADHD and conduct disorder dramatically increases risk for later, seriously destructive outcomes (e.g., school failure and social behavior problems) and that this combination of disorders produces a virulent strain of conduct disorder that is strongly associated with chronic offending.

Gresham and colleagues (Gresham, Lane, et al., 2001; Gresham, Lane, & Lambros, 2000; Gresham, MacMillan, Bocian, Ward, & Forness, 1998) have replicated Lynam's findings on comorbidity with a longitudinal sample of at-risk elementary-age students. These investigators found that those students who were comorbid for ADHD *and* conduct disorder were also at elevated risk on a host of social-behavioral measures compared with samples of students who manifested only one disorder or problem.

Both ADHD and oppositional defiant disorders are common in individuals with conduct disorders, and this comorbid pattern predicts worse outcomes for these individuals. Conduct disorders may also co-occur with one or more of the following disorders: *specific learning disabilities, anxiety disorders, depressive or bipolar disorders, and substance-related disorders* (American Psychiatric Association, 2013).

Oppositional defiant disorder is much higher in samples of children and adolescents with ADHD. Oppositional defiant disorder often precedes the development of conduct disorder—particularly in individuals with childhood-onset conduct disorder. Individuals with oppositional defiant disorder are also at increased risk for major depressive disorder and anxiety disorders due primarily to angry-irritable mood symptoms (American Psychiatric Association, 2013).

Developmental Pathways of DBDs

Much research conducted in the field of developmental psychopathology has enlightened our understanding of how DBDs develop over time. Longitudinal and descriptive studies in the United States and other countries have contributed enormously to our knowledge and understanding of the developmental course of DBDs (Lynam, 1996; Patterson, 2002; Reid, 1993; Reid et al., 2002). Loeber and his colleagues have identified three different pathways to the development of DBDs: (1) covert path, (2) overt path, and (3) defiant/disobedience path. Individuals on a *covert path* are characterized by stealth and concealment and typically direct

their deviant behavior toward property (vandalism, theft, arson), toward themselves (substance abuse), or both (Loeber, 1988; Loeber & Dishion, 1983) The dishonesty involved in the covert path (lying, cheating, stealing) is strongly objectionable to parents, teachers, and peers and often leads to social rejection.

In contrast, individuals on an *overt path* tend to direct their problem behavior toward other persons by confronting and victimizing them, acting aggressively, and using coercive tactics to get their way or to force their submission. Behaviors such as bullying, coercion, aggression, and physical fighting are strongly associated with this path. Individuals following the *defiance/disobedience path* display strong opposition to adult-imposed rules and expectations. This path is most common among individuals with or at risk for oppositional defiant disorder. Behaviors characterizing this path include arguing with adults, defiance, noncompliance, and an angry, resentful mood. Table 1.3 depicts behavioral examples of each of these three developmental pathways.

With respect to antisocial behavior problems, there are two fundamental types: (1) *childhood onset* (onset prior to age 10) and (2) *adolescent onset* (no symptoms prior to age 10). Although the onset of antisocial behavior may occur as early as the preschool years, typically the behavioral indicators of antisocial behavior emerge during mid-childhood through mid-adolescence. In terms of prognosis, the childhood-onset type of antisocial behavior has a much worse prognosis

TABLE 1.3. Developmental Pathways to DBDs

Covert pathway

- Stealing
- Lying
- Burglary
- Drug and alcohol involvement
- Vandalism
- Relational aggression

Overt pathway

- Aggression
- Coercion
- Manipulation of others

Defiance/disobedience pathway

- Noncompliance
- Oppositional defiant behavior
- Resistance to adult influence
- Deliberate annoyance of others

than the adolescent-onset type (Kazdin, 1987; Loeber, 1988). Individuals with childhood-onset antisocial behavior predict an increased risk of criminal behavior and substance abuse in adulthood. This type of antisocial behavior is also called the *aggressive/versatile pathway* and is characterized by the most severe antisocial behavior pattern. It is thought to begin in early childhood with the development of defiant/disrespectful behavioral problems (e.g., defiance, disobedience, noncompliance) which progresses toward early features of antisocial behavior (e.g., lying, stealing, fighting). Most children diagnosed with antisocial behavior also meet the diagnostic criteria for defiant/disrespectful behavior pattern (Lahey et al., 1990). It should be noted that there are wide differences among individuals with antisocial behavior pattern, with some engaging in more serious behaviors early in life (predictive of a worse prognosis) while other individuals develop this behavior pattern later in adolescence (predictive of a better prognosis).

The best predictor of the long-term persistence of antisocial behavior and aggression is early onset (Kazdin, 1987; Loeber & Dishion, 1983). Many children exhibiting this behavior pattern display aggression, hostility, and violation of social norms. This behavior pattern is highly resistant to intervention. As Kazdin (1987) has suggested, after about age 8 (grade 3), conduct disorders should be viewed as a chronic condition that cannot be "cured," but rather controlled and managed (e.g., diabetes) with appropriate interventions and supports.

The defiant/disrespectful behavior pattern is a common precursor to the childhood-onset antisocial behavior pattern, and children having it often display symptoms of ADHD as well. Lynam (1996) has described three models that explain the development of conduct problems: (1) a risk-factor model, (2) a stepping-stone model, and (3) a subtype model. Each of these models is briefly described in the following sections.

Risk-Factor Model

Symptoms of ADHD (hyperactivity/impulsivity/inattention, or HIA) are involved with the development of conduct problems in two ways. These symptoms may operate as risk factors that accelerate the development within a pathway or may act as stepping stones by serving as a first step along a developmental pathway (Lynam, 1996). HIA leads to situations that create problems for children that often escalate into antisocial behavior. HIA combined with defiant/disrespectful behavior pattern most certainly produces stress on parents and families that often leads them into a coercive style of parenting, which, in turn, frequently

produces antisocial behavior (Patterson, 2002). School entry for these children often leads to academic failure that can result in frustration, which increases the risk of aggressive behavior (Hinshaw, 1992). This behavior pattern frequently leads to peer rejection, social isolation, and peer conflicts that have deleterious long-term consequences on a child's social development (Parker & Asher, 1987).

HIA is one risk factor among many that is associated with this behavior pattern. Long-term exposure to such risk factors such as poor parenting, low academic achievement, peer rejection, and social isolation operate synergistically as powerful influences leading to the development of conduct disorders. This risk-factor model suggests several evidence-based intervention strategies. Parent management training based on the coercive family process model of Patterson (2002—to be described in detail later in this book) helps parents and children control behavior in the home. Another strategy would be to teach these children social problem-solving strategies that feature nonaggressive means of solving interpersonal problems (Kazdin, 1993). A third strategy might focus on academic interventions, particularly in reading, to counter the effects of school failure (Denton & Vaughn, 2010). A final strategy could focus on appropriate peer-group entry strategies that would teach the child to enter social networks from which they have been excluded (Coie, Dodge, & Kupersmidt, 1990).

Stepping-Stone Model

The stepping-stone model argues that HIA behaviors lead to the development of oppositional defiant disorder that subsequently evolves into an antisocial behavior pattern. Moffitt (1993) suggests that these children are born with difficult temperamental characteristics that prompt a series of problematic parent–child encounters, which in turn can create chaotic home environments. One implication of the stepping-stone model is that if one provides early treatment of HIA, then it can prevent the development of antisocial behavior pattern later. These early treatments would typically involve stimulant medication and behavioral parent training that have been shown to ameliorate the symptoms of HIA. One caveat, however, is that not all children who have HIA go on to develop antisocial behavior problems, and evidence suggests that stimulant medication shows little effect on the development of antisocial behavior in adolescence (Blouin, Bornstein, & Trites, 1978; Weiss, Kruger, Danielson, & Elman, 1975). Moreover, stimulant medication in childhood has not been shown to affect later peer rejection or academic

achievement (Jacobvitz, Sroufe, Stewart, & Leffert, 1990; MTA Cooperative Group, 2004).

It appears that the stepping-stone model provides an adequate explanation for some, but certainly not all, children who subsequently develop antisocial behavior problems. Some studies have shown that children with HIA and conduct problems have worse home/parenting environments than children with HIA-only behavior pattern in terms of family conflicts, harsh and inconsistent discipline, and lower socioeconomic status (Anderson, Williams, McGee, & Silva, 1987; Lahey et al., 1987; Moffitt, 1990). Based on the extant empirical evidence, it appears that neither the risk-factor model nor the stepping-stone model provides an adequate explanation for the development of conduct disorder, which suggests that a third model is required.

Subtype Model

Lynam (1996) has proposed an interesting third model, the subtype model, to explain the development of HIA and conduct disorder in some children. This model postulates that individuals showing symptoms of both HIA and conduct problems constitute a unique subtype of antisocial behavior problems that he calls "fledgling psychopaths." These children have what is called a "psychopathic deficit" that plays out in different behavior patterns as the child develops from early childhood into adolescence. According to Lynam (1996), this psychopathic deficit results in a failure to inhibit a dominant response (e.g., impulsivity or aggression) in the presence of changing environmental contingencies. These individuals are less likely to pause and incorporate new information when engaging in goal-directed behavior (Newman & Wallace, 1993).

Individuals with these behavioral deficits are low in what is called *constraint* (Tellegen, 1985). Persons high in constraint would describe themselves as cautious, restrained, and accepting of conventional social norms and mores of society. In contrast, persons low in constraint would describe themselves as being impulsive, adventurous, and inclined to reject the conventional social mores and norms of society.

Children with this psychopathic deficit begin life with low constraint levels that created difficulties in incorporating information and feedback from the environment to control their behavior. In early childhood, these individuals will show signs of the HIA behavioral complex in terms of impulsivity, hyperactivity, and inattention. Typically, a child will not respond to disciplinary overtures from parents due to

inattentiveness and will demand immediate gratification of their wants or desires (impulsivity). As the child develops and becomes more verbal, he or she will be less able to control anger, use obscene language, inhibit active avoidance responses, refrain from blaming others for mistakes, and avoid coercive behavior patterns with family members. Finally, in adulthood, these individuals will more likely show the signs and symptoms of psychopathy and will lie, manipulate, and blame others. Very often they will exhibit poor behavioral control and will engage in a variety of criminal activities (Lynam, 1996).

This subtype model of conduct problems would argue for the early identification and intervention with these individuals prior to the development of serious antisocial behavior patterns later in life. Early identification and assessment activities should seek to distinguish between individuals with the HIA–conduct problems complex from those individuals with HIA-only behavior pattern. For example, the subtype version of children with HIA–conduct problems should show more signs of impulsivity whereas HIA-only children should show more signs of inattention. Early intervention efforts for the conduct problems subtype should focus on behavioral parent training, social problem solving, early literacy interventions, and stimulant medication. It should be noted that empirical evidence for the validity of the subtype model of conduct disorder is incomplete and somewhat speculative at this point. Despite this reality, this explanation provides some valuable guidance for early identification, assessment, and intervention.

Origins and Development of DBDs

Historically, the origins of disruptive patterns of behavior among children in general, and among acting-out children in particular have been a subject of continuing debate and controversy. However, today we have a much better understanding of how this behavior pattern is acquired and evolves. Understanding why some children have an apparent immunity to the negative impact of high-risk family and socioeconomic conditions would provide important keys to prevention. For example, the quality of mother–child interactions, the availability of social support networks, and school-related academic competence appear to be three important factors in buffering the effects of stressful conditions that put children at risk for developing disruptive behavior patterns.

The most prominently mentioned causal theories of DBDs involve

temperamental factors, neurological factors, and *environmental factors*. It is well established that problems with temperament serve as a precursor to a host of social-behavioral adjustment problems later in a child's development. Restlessness, fussiness, irritability, and crying among infants and young children have been consistently identified as antecedents for later behavior problems, including ADHD, defiant/disrespectful behavior, and antisocial behavior. Children born with difficult temperaments are a challenge to parents and may negatively condition parents to avoid, neglect, suppress, and/or punish them. These temperamental difficulties are strongly related to low birth weight, maternal substance abuse, pregnancy complications, and prematurity. Anything that disrupts normal parenting practices is likely to put a child at risk for later adjustment problems. If severe enough, these disruptive influences can lay the foundation for the development of a disruptive, acting-out behavior pattern. Despite the predictive validity of poor temperament on the subsequent development of DBDs, there is no way to effectively intervene upon or change a poor temperament. In other words, a poor temperament is important as a predictor, but is also an unalterable variable in the development of DBDs.

Neurological factors are frequently cited as structural antecedents to social-behavioral adjustment problems. ADHD is an example of a neurodevelopmental disorder that has powerful social, behavioral, and learning manifestations and is considered to have a neurological basis (Barkley, 2006). Approximately 40% of children with ADHD have antisocial behavior patterns, and approximately 20% of these children have a specific learning disability (DuPaul, Laracy, & Gormley, 2014). Drug-affected babies present a huge, looming problem in our society because of the long-term negative impact of prenatal drug and alcohol exposure. Such exposed children suffer from severe attentional problems, agitated states, and hyperactivity that present difficulties for parents and schools to manage.

At present, we do not have the ability to precisely identify and differentially weight the causal factors that influence the development of DBDs. The role of these factors probably varies from case to case. In addition, we do not have the means to substantially affect or attenuate the causal roles of neurological factors on the development of DBDs. This suggests that we will enjoy the greatest success targeting environmental factors that clearly contribute to the development of DBDs.

There is a broad consensus in our society that environmental factors, including social and economic conditions that place children and families at risk for DBDs, are potent breeding grounds for the development

of acting-out behaviors. These risk factors commonly include poverty, neglect, abuse (physical and sexual), family dysfunction, criminal behavior of family members, and an unstable home environment. These conditions place great stress on a family and can severely disrupt normal parenting. Disrupted parenting often results in harsh discipline; weak monitoring of children's activities, their whereabouts, and whom they affiliate with; limited parental involvement with the child; and incompetent problem-solving and conflict resolution skills (Patterson, 2002; Synder & Stoolmiller, 2002).

It is clear that DBDs are associated with a host of temperamental, neurological, and environmental risk factors. It is also apparent that a child's behavior pattern is the result of a complex interaction of (1) temperamental predisposition to DBDs; (2) neurological causal mechanisms within the child; and (3) environmental risk factors such as poverty, abuse, neglect, and poor parenting. Trying to determine in what proportion of the child's behavior pattern is attributable to each of these sources is a futile and unnecessary task. DBDs can be changed very effectively without knowing the specific, original causes for their acquisition and development. Furthermore, these causal factors may no longer play a role in the maintenance of disruptive behavior patterns. A major purpose of this book is to present a set of practical strategies for use by parents, caregivers, and school personnel in effectively identifying, assessing, and remediating acting-out behavior patterns displayed by children and youth with DBDs.

The Role of Coercive Family Process in the Development of DBDs

Much to the dismay of parents/caregivers, classroom teachers, and school administrators, these adults often learn that behavior management procedures that have worked so well with typical students do not work well with students displaying DBDs, particularly for students with antisocial behavior patterns (Reid et al., 2002; Walker, Ramsey, & Gresham, 2004). In fact, many tried and true behavior management procedures often make the behaviors of antisocial students much worse! Do these students learn differently than typical students? Do they require interventions based on a completely different set of learning principles? Not really! As we shall see in the following sections and subsequent chapters, the contingencies and principles by which this behavior pattern is acquired and maintained are quite lawful and predictable.

A DBD behavior pattern is learned primarily through the process of behavioral *coercion*. That is, at-risk children learn to control their environment(s) and the individuals in it through the skillful use of extremely forceful *coercive behavioral tactics*. Once learned, these tactics are highly resistant to change because they are powerfully reinforced and supported naturally by the social environment. Typically developing children, as a general rule, learn through the processes of modeling, positive reinforcement, and encouragement. Positive reinforcement, such as social praise, use of rewards, recognition, and access to preferred activities, easily influence the behavior pattern of the typically developing child. Children with DBDs, however, learn primarily through the process of *negative reinforcement*. That is, by using coercive tactics, they learn to escape, avoid, delay, or reduce aversive demands placed on them by others. They are very skilled in using coercion to escape or avoid undesired demands, tasks, or activities. Remember, a negative reinforcement contingency is one in which a behavior produces the removal, termination, reduction, or postponement of an aversive stimulus, which leads to an increase in that behavior (Cooper, Heron, & Heward, 2007). For example, engaging in disruptive behavior to escape academic task demands, having a temper tantrum in response to parental demands to engage an activity (e.g., clean your room or do your homework), or defying the teacher in order to escape the classroom and be sent to the office are all examples of behaviors maintained by negative reinforcement.

Patterson and colleagues (1982, 2002; Patterson et al., 1992) have contributed the most complete, detailed, and empirically supported explanations of the causal events and processes that account for the development of DBDs. They present a causal model in which a host of stressors (e.g., poverty, divorce, drug/alcohol abuse, and the abuse of family members) pressure the family dynamics very severely. Under the influence of these stressors, normal parenting practices are disrupted and family routines become chaotic, negative, and unpredictable. Disrupted parenting practices, in turn, lead to escalated social interactions among family members that involve the use of coercive techniques to force the submission of others. Over time, such conditions provide a fertile breeding ground for the development of DBDs. Children from these homes come to school with negative attitudes toward schooling, a limited repertoire of cooperative behavioral skills, and a strong predilection to use coercive tactics to control and manipulate others. They are usually deficient in the school success skills that teachers expect and reinforce (e.g., cooperation, sharing, focusing on assigned tasks, complying with teacher directives, accepting criticism and feedback).

The coercive process that helps explain the development of DBDs can be characterized as the outcome of a five-step interaction between parent and child wherein (1) the child applies coercive tactics in order to achieve a social goal (e.g., control, dominance) or responds aversively to a parental directive; (2) the parent reacts negatively to the child's behavior; (3) the child then escalates the aversiveness and/or intensity of coercive tactics; (4) the parent "gives in" and allows child to have his way in order to reduce aversiveness and eliminate the coercion; and (5) the child in turn reduces the level of aversiveness and terminates the coercion. In this interaction, both parent and child are powerfully reinforced but through differing variations of the same reinforcement principle. That is, the parent succeeds in reducing the child's aversiveness and use of coercive tactics by giving in or by withdrawing or changing the directive (i.e., negative reinforcement) and the child is positively reinforced by getting his way (i.e., parent gives in).

In family contexts that produce antisocial children, this sequence is repeated literally thousands of times over the course of a DBP child's development, becomes a routine habit, and is frequently observed in public spaces such as grocery stores. The following example illustrates the point. A mother and her 4-year-old son enter a grocery store where the mother is stressed by her long grocery list and insufficient time to get through it. Within 5 minutes of entering the store, her son begins issuing a loud series of "I want" requests (called mands) to which she answers a consistent "no." This manding is highly disruptive and becomes more frequent and intense until the mother grants the most recent request in order to terminate this aversive process. Thus, in a very brief exchange, while managing to terminate an aversive interaction, the parent has taught and strengthened a class of child behaviors that will be more, rather than less difficult to manage over time—an example of winning the battle and losing the war! Through this coercive family process, the child learns to control and manipulate his or her environment very efficiently in order to achieve desired social goals, and/or to escape or avoid unwanted task demands and activities. As we have noted earlier, this set of coercive tactics accompanies the child to school where it can be at least as effective with peers and teachers as it is with family members (Walker, Colvin, & Ramsey, 1994). This transfer of learning process is described and illustrated in a later section of this book.

The Matching Law and Coercive Behavior

One of the most conceptually powerful learning principles used to explain behavior is known formally as the *matching law* (Herrnstein,

1970). In his original formulation, Herrnstein (1961) stated that the rate or frequency of any behavior matches the rate or frequency of reinforcement for that behavior. In other words, response rate matches reinforcement rate. Matching is studied in what are known as concurrent schedules of reinforcement. A concurrent schedule of reinforcement refers to the delivery of reinforcement for two or more different behaviors as related to two simultaneous, but different, schedules of reinforcement (i.e., concurrently). For example, if aggressive behavior is reinforced, on average, every third time it occurs and prosocial behavior is reinforced, on average, every fifteenth time it occurs, then the matching law would predict that, on average, aggressive behavior will be chosen 5 times more frequently than prosocial behavior (15÷3 = 5). Empirical research has consistently shown that behavior under concurrent schedules of reinforcement closely follows or tracks the matching law (Synder & Stoolmiller, 2002).

With respect to DBDs, the matching law involves a choice between engaging in coercive behaviors (e.g., threatening, hitting, bullying) that force the submission of others or engaging in prosocial forms of behavior (e.g., sharing, cooperating, asking questions, negotiating conflicts, solving problems) that are maintained by positive reinforcement from key social agents (i.e., parents, teachers, peers). Thus the probability that a child will engage in either of these behaviors depends directly on the relative rate of reinforcement for each type of behavior. Synder and Stoolmiller (2002) suggest that the utility of a given behavior can be calculated by counting how often the target behavior results in conflict termination divided by the frequency with which it occurs in conflict sequences. For example, if defiant and aggressive behavior results in conflict termination 8 out of 10 times, then defiance/aggression has a *utility index* of 80%.

By comparison, prosocial behaviors for children with DBDs are relatively ineffective in terminating conflict social interaction sequences (i.e., they have a low utility index). This means that parents and teachers dealing with such behavior have the odds stacked against them in trying to divert children from this well-established and highly effective pattern of coercion. Coercive interaction between children with DBDs and adults as well as peers is an important engine that drives a child's social development. Their use of highly aversive, coercive tactics that force the submission of others as a behavioral requirement for them to be terminated or withdrawn is a highly efficient behavior pattern that is richly rewarded by the natural social environment. Negative reinforcement, occurring on such strong schedules of reinforcement for terminating conflicts, is

an insidious process that leads to the development of conduct problems, delinquency, and criminality later in life. Results from research on the matching law have numerous implications for implementation of preventive and educational interventions. These implications and recommendations are fully described in subsequent chapters of this book.

Chapter Summary Points

- DBDs consist of two fundamental types: *conduct disorders* and *oppositional defiant disorder.*
- Antisocial behavior patterns are primarily a problem in *aggressive behavior* and is one of the most common forms of psychopathology in children and adolescents.
- Defiant/disrespectful behavior patterns are primarily a problem in *noncompliance* to adult commands, instructions, or directives.
- High levels of noncompliance early in life often leads to more serious behavior problems later in a child's development.
- Antisocial behavior pattern consist of two types: *childhood onset* (onset prior to age 10) and *adolescent onset* (onset after age 10).
- Childhood-onset antisocial behavior patterns have a much poorer lifetime prognosis than adolescent-onset conduct disorders.
- The median prevalence rate for antisocial behavior pattern is around 5% and the median prevalence rate for defiant/disrespectful behavior pattern is around 5%.
- Approximately 9–10% of the school-age population would qualify for a diagnosis of a DBD.
- Comorbidity (presence of more than one disorder in an individual) is quite common for DBDs.
- The defiant/disrespectful behavior pattern and ADHD have a high comorbidity rate in the school-age population.
- ADHD often co-occurs with antisocial behavior problems.
- Three developmental pathways have been identified for the development of DBDs: the covert pathway, the overt pathway, and the defiance/disobedience pathway.
- Three models have been identified to explain the comorbid presence of ADHD and conduct problems: (1) the risk-factor model, (2) the stepping-stone model, and (3) the subtype model.
- Three causal theories have been prominently mentioned for the development of DBDs: (1) temperamental causality, (2) neurological causality, and (3) environmental causality.

- DBDs can be changed effectively without knowing the specific, original causes of these disorders.
- DBDs are learned primarily through the process of behavioral coercion.
- Typically developing children learn through the process of positive reinforcement and encouragement.
- Children with DBDs learn primarily through the process in which aversive interactions with adults and peers are terminated by the target victim's submission or giving in to reduce the aversiveness of the child's coercive behavior.
- The matching law explains the presence of coercive behaviors maintained by negative reinforcement and the low frequency of prosocial behaviors maintained by positive reinforcement.