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## Behaviors and Disorders

All children sometimes refuse to comply. And a lot of children occasionally get involved in fights. Also, various children lie at times. Although these behaviors are inappropriate, from a clinical point of view, they need not be of great concern if they occur infrequently and in an isolated manner. However, when these behaviors occur in a cluster and repeatedly in a particular child, there is reason to be worried. In this chapter, we first look at the various types of socially inappropriate, disruptive behaviors that have been discerned, and then consider related clusters of behaviors or diagnostic categories that have been distinguished. Finally, we discuss appropriate behaviors that may be underdeveloped in children with maladjustment.

### Disruptive Behaviors

#### Oppositional Behavior

Oppositional behavior or noncompliance is behavior in which a child resists a caregiver. A range of oppositional behaviors may be discerned, from passive forms of noncompliance to active forms of noncompliance (Kochanska & Aksan, 1995). Thus, children may ignore a parental direction, which is an example of passive noncompliance, but children may also directly refuse a parental command, which is a form of mildly active noncompliance. In addition, children may angrily reject parental commands or prohibitions, which is a form of severe noncompliance or defiance. In preschool children, moreover, a distinction needs to be made between normative noncompliance and clinically significant noncompliance or oppositionality (Wakschlag & Danis, 2004). Normative noncompliance reflects the young child's self-assertion and is driven by the desire to do something autonomously (Wakschlag & Danis, 2004).

Normative or self-assertive noncompliance generally is short-lived, whereas clinically significant noncompliance is more intransigent (Wakschlag & Danis, 2004).

### **Aggressive Behavior**

Aggression is behavior deliberately aimed at harming people (Parke & Slaby, 1983). Hitting other children is an example of physical aggression. There are, however, other forms of aggression. Speech also may harm people, either as a possible precursor of physical aggression such as in verbal threats, or as a means to denigrate or provoke another child. For example, this occurs when children call each other names. Relational aggression is another form of aggressive behavior (Crick & Grotpeter, 1995). It is defined as damaging interpersonal relationships or feelings of inclusion. Malicious gossiping and threatening to withdraw friendship are examples of relational aggression. In this book, use of the term “aggression” implies physical or verbal aggression. When relational aggression is discussed, this is made explicit.

Among these various forms of aggressive behavior, distinction has been made between reactive and proactive aggression (for reviews, see Dodge, 1991; Kempes, Matthys, de Vries, & Van Engeland, 2005; Vitaro, Brendgen, & Barker, 2006). Reactive aggression is an impulsive aggressive response to a frustration, a perceived threat, or a provocation. On the other hand, proactive aggression is controlled aggressive behavior that anticipates a reward. Reactive aggression also has been called defensive or “hot-blooded” aggression, whereas proactive aggression has been called instrumental or “cold-blooded” aggression.

When considering aggression, one may distinguish differences in the underlying motivation (or the “whys” of aggressive behavior) from differences in the various forms of aggression (the “whats” of aggressive behavior) (Little, Jones, Henrich, & Hawley, 2003). Thus, the distinction between reactive and proactive aggression (the “whys”) may be applied both to physical, verbal, and relational aggression (the “whats”). One example of verbal reactive aggression in children is to get angry and swear at adults when corrected. One example of physical reactive aggression is to strike back when teased by a peer. To threaten another child in order to get his/her own way is an example of verbal proactive aggression. To incite other children to act against a child whom he or she dislikes is an example of proactive relational aggression. Although reactive aggression and proactive aggression are highly correlated, correlations drop dramatically after the distinction has been made between the form and the motivation of aggression (Polman, Orobio de Castro, Koops, van Boxtel, & Merk, 2007).

## Antisocial and Delinquent Behavior

Antisocial behavior is defined as behavior by which basic norms, rights, and rules are violated. Thus, when children lie, they violate the norm of speaking the truth; when they steal, they violate the right of the protection of one's property; and when they are truant, they violate a rule. "Antisocial behavior" is often used as a general term for the various inappropriate behaviors such as oppositional and aggressive behavior. When children repeatedly resist requests, instructions, or corrections given by adults, they indeed violate the norm to be obedient to their parents, elders, or teachers. Further, when children beat their peers, they violate their peers' right of physical integrity.

When antisocial behaviors are legal violations, they are called delinquent behaviors. Depending on the age of the child, behaviors such as theft, running away, truancy from school, and setting fires are considered to be delinquent. Legislation among countries, and among states within countries, largely vary, so that the same behavior, for example, drinking alcohol, is considered as illegal in one country or state but not in another.

## Psychopathic Features and Callous–Unemotional Traits

There is another term that is relevant here—"psychopathy." Psychopathy refers to personality characteristics such as an absence of empathy, an absence of guilt, an absence of anxiety, shallow emotions, and the inability to form and sustain lasting relationships (Cleckley, 1976; Hare, 1993). Thus, psychopathy does not refer to a specific set of behaviors but to underlying characteristics of individuals.

The construct of psychopathy in adults consists of various dimensions. The several dimensions which have been found to be useful in children and adolescents are callous–unemotional traits (for a review, see Frick, Ray, Thornton, & Kahn, 2014) and narcissism (Barry et al., 2007). Callous–unemotional traits are characterized by lack of guilt and remorse, lack of concerns for the feelings of others, shallow or superficial expressions of emotions, and lack of concern regarding performance in important activities (Frick, 2009). Callous–unemotional traits constitute the affective factor of psychopathy and designate a particularly aggressive subgroup of children and adolescents with antisocial behavior (Frick et al., 2014). Callous–unemotional traits have been found to have moderate stability in longitudinal research (Barry, Dunlap, Lochman, & Wells, 2009; Pardini, Lochman, & Powell, 2007). Among children and adolescents with antisocial behavior, those with high levels of callous–unemotional traits display more instrumental aggression and show a more stable pattern of antisocial behavior (Frick et al., 2014).

## Disruptive Behaviors

The inappropriate behaviors discussed in the foregoing section are also called disruptive behaviors. These behaviors not only disrupt child–child interactions and child–adult interactions, but when these behaviors occur frequently, the relations among children and the relations between children and adults are disrupted as well. “Externalizing behavior” is another general term for these inappropriate behaviors (Achenbach & Edelbrock, 1978). It is used to distinguish these behaviors from over-controlled or internalizing behaviors such as withdrawal and anxious behaviors.

In addition to the ones discussed in the preceding section, there are more types of behaviors that are disruptive. Impulsive behaviors such as interrupting others and having difficulty in waiting turn indeed are clearly disruptive. Hyperactive behavior, such as running about in the living room or leaving one’s seat in the classroom and during meals at home, are troublesome as well. Finally, attention problems may occur unnoticed such as the difficulty in sustaining attention, but other behaviors related to attention problems such as not following through on instructions are quite upsetting.

## Diagnostic Categories

Disruptive behaviors may occur either infrequently or in isolation in individual children and in these cases the behaviors can then be considered as “normative.” However, they may also occur as clusters. These clusters of co-occurring patterns of inappropriate behaviors or syndromes form the basis of the psychiatric categories from the classification systems DSM-5 (American Psychiatric Association, 2013) and ICD-10 (World Health Organization, 1996). Although these syndromes originate from hypotheses about covarying symptoms or behaviors derived from observations of patients by clinicians, factor analytic studies of child and adolescent problem behavior support how these behaviors are associated to each other (see further in this chapter).

In the DSM-IV, the two Disruptive Behavior Disorders (DBDs), i.e., oppositional defiant disorder (ODD) and conduct disorder (CD), with characteristic features of oppositional, aggressive, and antisocial behavior, were included in the chapter titled “Attention Deficit and Disruptive Behavior Disorders.” Attention deficit/hyperactivity disorder (ADHD), with characteristic features of hyperactive behavior, impulsive behavior, and attention problems, also was included in this chapter. In the DSM-5, however, ADHD is included in the chapter titled “Neurodevelopmental Disorder” while ODD and CD are part of the disruptive, impulse-control,

and conduct disorders together with pyromania, kleptomania, and intermittent explosive disorder.

Although the subject of this book is ODD and CD, we also will pay attention to ADHD. ODD and CD are related to ADHD with respect to their symptoms, and these disorders also often co-occur or are comorbid. Indeed, the odds ratio of ODD/CD–ADHD comorbidity in a meta-analysis of community-based samples is 10.7 (Angold, Costello, & Erkanli, 1999). Or, to put it in another way, about 50% of children and adolescents with ODD or CD are comorbid with ADHD, and vice versa (Kutscher et al., 2004). Therefore, in the assessment of children who are referred because of disruptive behavior problems, clinicians need to consider whether the child's inappropriate behaviors or symptoms are part of ODD or CD, of ADHD, or whether both disorders can be diagnosed. As we will describe in later chapters, the treatment of ODD or CD comorbid with ADHD is different from the treatment of ODD or CD without ADHD comorbidity.

### **Oppositional Defiant Disorder**

In DSM-5, ODD is defined as a pattern of angry/irritable mood, argumentative/defiant behavior, or vindictiveness lasting at least 6 months as evidenced by at least four symptoms. These symptoms are exhibited during interaction with at least one individual who is not a sibling. The persistence and frequency of the symptoms should exceed what is normative for the individual's age, gender, and culture. For children younger than 5 years, the behavior should occur on most days whereas for children aged 5 years and above, the behavior should occur at least once a week. However, for the vindictiveness symptom, it is specified that the behavior must occur at least twice in the past 6 months.

DSM-5 differentiates the various symptoms of ODD in three distinct groups (see Box 1.1). Research has shown that symptoms of negative mood and affective dysregulation (angry/irritable mood) can be distinguished from symptoms of headstrong, antagonistic, and oppositional behavior (argumentative/defiant behavior) (Rowe, Costello, Angold, Copeland, & Maughan, 2010), while studies disagree as to whether being spiteful (vindictiveness) loads on the behavioral dimension or not (Rowe et al., 2010; Stringaris & Goodman, 2009a). According to a recent study in young children, ODD is best characterized as two separate dimensions, one behavioral and one affective, which are comparable for both boys and girls (Lavigne, Bryant, Hopkins, & Gouze, 2015). Similarly, results from a study in elementary school children support a two-factor model composed of oppositionality and irritability; findings were robust across gender (Herzhoff & Tackett, in press). Thus, based on the

**Box 1.1 Symptoms of oppositional defiant disorder**

Angry/irritable mood

Loses temper

Is touchy or easily annoyed

Is angry and resentful

Argumentative/defiant behavior

Argues with adults

Actively defies or refuses to comply with adult's requests or rules

Deliberately annoys others

Blames others for his or her mistake or misbehavior

Vindictiveness

Is spiteful or vindictive

**Box 1.2 A case of oppositional defiant disorder**

Jimmy, an 8-year-old boy, was brought to the clinic by his single mother. She reported that he is often disobedient toward her at home and exhibits tantrums. Because of this misbehavior, she has become exhausted. According to his mother, Jimmy has been problematic from early childhood on. As an infant he often cried, and as a toddler he was irritable, highly distractible, and hyperactive. From age 3 years on, Jimmy also began to exhibit temper tantrums. Presently, these outbursts occur twice a week, usually in the context of being asked to complete chores. His refusal can escalate from ignoring to shouting, and crying. In addition, he argues with mother on an almost daily basis. At school, Jimmy has difficulty following the teacher's directions; these need to be repeated multiple times. He is easily provoked by peers and may deliberately annoy them. As a result, he has developed a poor reputation among his classmates. He gets good grades, and his distractibility and hyperactivity have decreased over the years.

heterogeneity of symptoms, ODD may be considered a mixed disorder of behavior and emotion (Matthys, Vanderschuren, Schutter, & Lochman, 2012; Matthys, Vanderschuren, & Schutter, 2013), a characteristic to which both clinicians and researchers need to pay more attention.

According to DSM-5, symptoms need not be present in more than one setting (e.g., either at home, at school, or in the community). However, if symptoms are confined to only one setting (e.g., only at home) the disorder is considered mild. If some symptoms are present in at least two settings (e.g., both at home and at school), the severity of the disorder is specified as moderate, and if some symptoms are present in three or more settings, the disorder is specified as severe (for a case, see Box 1.2).

The prevalence of ODD, that is, the percentage of cases at a given point in time, varies considerably between studies with a median of 3.2 (Lahey, Miller, Gordon, & Riley, 1999). Although gender differences for ODD are quite inconsistent across studies, most data suggest either somewhat higher rates in boys than in girls or no gender difference (Loeber, Burke, Lahey, Winters, & Zera, 2000).

### Conduct Disorder

In DSM-5, CD is characterized as a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated as evidenced by at least three symptoms in the past 12 months with at least one symptom in the past 6 months. Four groups of symptoms are distinguished: (1) aggression to people and animals, (2) destruction of property, (3) deceitfulness or theft, and (4) serious violations of rules (see Box 1.3). Some of the symptoms of CD, however, are not within the capacity of preschool children to perform such as forcible sexual activity, use of weapons, and breaking into houses (Wakschlag et al., 2007).

DSM-5 distinguishes three types of CD: the childhood-onset type with onset of at least one symptom prior to age 10 years, the adolescent-onset

#### Box 1.3 Symptoms of conduct disorder

- Aggression to people and animals
  - Bullies, threatens, or intimidates others
  - Initiates physical fights
  - Uses weapons
  - Is physically cruel to people
  - Is physically cruel to animals
  - Steals while confronting a victim
  - Forces someone into sexual activity
- Destruction of property
  - Sets fires
  - Destroys others' property
- Deceitfulness or theft
  - Breaks into someone else's house, building, or car
  - Lies to obtain goods or favors to avoid obligations
  - Steals without confronting a victim
- Serious violations of rules
  - Stays out at night
  - Runs away from home
  - Truant from school

type with absence of any symptom prior to age 10 years, and the unspecified onset type; in the latter, there is not enough information available to determine whether the onset of the first symptom was before or after age 10 years. The distinction between the childhood-onset and the adolescent-onset type is supported by various studies (Moffitt, 1993; Lahey et al., 1998; Silberg, Moore, & Rutter, 2015; for a review, see Moffitt, 2003; see also Chapter 2). Childhood-onset CD, but not adolescent-onset CD, is significantly associated with ADHD (Silberg et al., 2015). Childhood-onset CD has also been shown to have relatively poorer outcomes when compared with adolescence-onset CD. Because of this outcome, the childhood-onset type has also been called the life-persistent CD subtype (Moffitt, 2003).

Some longitudinal studies suggest that among the children with early-onset CD some lack the continuity of conduct problems from childhood to adulthood; these children therefore have been termed “childhood limited conduct problem group” (Moffitt, 2003). However, to date there is not enough evidence to further divide the childhood-onset type into a life-course-persistent versus a childhood-limited group (Moffitt et al., 2008).

Compared with the DSM-IV, in DSM-5 the specifier “limited prosocial emotions” is added. To qualify for this specifier, the child must display at least two of the four characteristics persistently over at least 12 months and in multiple relationships and settings: lack of remorse or guilt, callous lack of empathy, unconcerned about performance, and shallow or deficient affect. These characteristics have been extensively studied in older children and adolescents as callous–unemotional traits (for a review, see Frick et al., 2014). There is emergent evidence that low concern and callousness are evident at preschool age and have predictive utility for conduct problems (Ezpeleta, de la Osa, Granero, Penelo, & Domenech, 2013) (for a case study, see Box 1.4).

ODD and CD are both related to, and are different from, each other. The association among these disorders needs to be considered from a developmental point of view. Longitudinal studies not only give the opportunity to prospectively follow children (follow-forward studies) but also to examine earlier diagnoses in adolescents who meet criteria of disorders (follow-back studies). With regard to the relation between ODD and CD, in the study by Rowe and colleagues (2010), it was shown that most children with ODD did not develop CD, whereas only a small group of CD children had prior ODD. Regarding the further development of these disorders, elementary school children with ODD are not only at risk for CD in early adulthood but also for anxiety disorders and depression in adolescence and (early) adulthood (Rowe et al., 2010; Stringaris & Goodman, 2009b). Based on the results of studies on the dimensions of



**Box 1.4 A case of conduct disorder**

Jeffrey, a 13-year-old boy, was referred by his family doctor to the community mental health center for concerns regarding his aggressive behavior toward his younger brother and sister. According to his mother and stepfather, Jeffrey has always been a stubborn child who wanted to get his own way, but his behavior problems have escalated over the past 2 years. He began hurting his younger brother intentionally, tyrannizing his younger sister, and hiding her personal belongings. Jeffrey also has been bullying a smaller classmate at school. This child reported to his teacher that Jeffrey threatened to beat him. Over the past year, Jeffrey has had several arguments with teachers. His school performance has declined but this does not seem to touch him. Both his parents and teachers are concerned that Jeffrey seems to enjoy hurting others and does not demonstrate any remorse for his actions. Some weeks ago, Jeffrey was caught stealing money from his mother's wallet. His stepfather also suspects him of lying.

ODD there is evidence that the association between ODD and depression or anxiety may be explained by the shared negative affectivity and the irritability component, whereas the association between ODD and CD may be explained by the shared headstrong and oppositionality component (Burke et al., 2010; Rowe et al., 2010; Stringaris & Goodman, 2009b). In conclusion, ODD and CD seem to represent related though distinct forms of psychopathology. In this context, it is important to mention that DSM-5 allows for concurrent comorbidity among ODD and CD.

The prevalence of CD varies considerably between studies with a median of 2.0; CD is more common in boys than in girls (Lahey et al., 1999).

**Other Relevant Disorders**

Other diagnostic categories are relevant here for two reasons. First, some characteristic behaviors of these disorders are similar to ODD and CD symptoms. For example, "Does not seem to listen when spoken to directly" is a criterion of inattention in ADHD but is related to refusing to comply with adults' requests, which is a symptom of ODD. Also, a depressed mood, characteristic of a dysthymic disorder, in children may manifest as irritability in children. This expression of irritability may be related to the ODD symptom "Is often angry and resentful." Other related disorders are disruptive mood dysregulation disorder and intermittent explosive disorder. Differential diagnosis of these disorders and ODD or CD will be discussed in the chapter on assessment (Chapter 6).

**Box 1.5 A case of oppositional defiant disorder comorbid with ADHD**

Tim, a 6-year-old boy, was referred by his pediatrician to the clinic. His mother and father report that Jim has always been a willful child, but difficulties have worsened over the past year. As a toddler, he was in constant motion. Even up to the age of 5 years, he got into dangerous situations such as suddenly running out of the pavement into the road without looking. Nevertheless, what is currently the most stressful for his parents is Tim's argumentative and defiant behavior. Every request turns into a battle where he can be angry, and sometimes this leads to a tantrum. It is also very tiring that he does not stop talking. At school, Tim often leaves his place in the classroom. If he does not get his way with other children, he gets angry. Tim is also easily annoyed by peers.

Second, some disorders often co-occur with ODD and CD. The most prevalent comorbid disorder of ODD and CD is ADHD (Angold et al., 1999). This comorbidity is highly important both with respect to the etiology of ODD and CD (Chapters 3 and 4), the assessment (Chapter 6), and the treatment of ODD and CD (Chapters 8, 9, 10, and 11) (for a case, see Box 1.5). DSM-5 provides lists for two types of ADHD symptoms: inattention and hyperactivity/impulsivity. Thus, three ADHD subtypes are distinguished: predominantly inattentive presentation (I), predominantly hyperactive/impulsive presentation (HI), and combined presentation (C).

Comorbidity with other disorders is important as well, including mood disorders (Angold et al., 1999) such as dysthymic disorder, anxiety disorders (Angold et al., 1999) such as separation anxiety disorder, specific learning disorder, and academic underachievement (Frick et al., 1991; Hinshaw, Lahey, & Hart, 1993), and communication disorders. We will pay attention to these comorbid disorders when discussing the assessment (Chapter 6) and treatment of ODD and CD (Chapters 8, 9, 10, and 11).

**DSM-5 and ICD-11**

Besides DSM-5, the International Classification of Diseases ICD-10 (1996) of the World Health Organization is used in many countries. It should be noted, however, that little research has been conducted into ICD-10 defined disruptive behavior problems. Over the years, differences between both systems have diminished, but important distinctions still remain. Currently, ICD-11 is being developed. Here, we present some recommendations regarding the disruptive behavior and dissocial disorders by a task group (Lochman et al., 2015). First, while

ODD is not a distinct category in ICD-10, but is instead a subtype of CD, ODD is a distinct category in ICD-11 along with conduct dissocial disorder. Second, disruptive mood dysregulation disorder, with severe irritability as the core feature, is not a diagnostic category because of limited reliability, a lack of psychiatric consensus, and very high rates of overlap with other disorders. Instead, the task group proposed that ICD-11 include a specifier to indicate whether or not the presentation of ODD includes chronic irritability and anger. Third, the qualifier limited prosocial emotions is applied not only to conduct dissocial disorder but to oppositional defiant disorder as well.

Factor analytic studies support the distinction DSM makes between ODD, CD, ADHD, and other disorders. Factor analysis is one statistical technique that can search for patterns in covariation among a group of behaviors. Using exploratory and confirmatory factor analyses with data from various questionnaires in population and clinically referred samples, Hartman et al. (2001) investigated the internal construct validity of a DSM-IV based model of ADHD (inattention, hyperactivity/impulsivity), ODD, CD, generalized anxiety, and depression. The factorial structure of these syndromes was supported by the data. However, the DSM-IV model did not meet the absolute standard of adequate model fit, leaving substantial room for improvement. Findings from another study support the four-factor DSM-IV model (ODD, CD, hyperactivity/impulsivity, inattention) of the DSM-IV-TR "Attention Deficit and Disruptive Behavior Disorders" (Lahey et al., 2008). In addition, this model fitted better with the data than models based on ICD-10 and the Child Behavior Checklist (Achenbach, 1991).

## Socially Appropriate Behaviors

It is also important to pay attention to appropriate behaviors, because children with ODD and CD may not have these behaviors in their repertoire. There are a number of social behavior skills that children use to cope adequately with everyday problem situations. These skills include entering a group, starting a conversation, asking questions, and listening to others. Other socially appropriate behaviors such as showing interest, comforting, sharing, helping, and donating are more clearly prosocial in that they are intended to benefit other persons (Eisenberg & Fabes, 1998). Empathy is related to prosocial behavior (Eisenberg & Miller, 1987). Empathy is defined as the understanding of, and sharing in, another's emotional state (Hoffmann, 2000). Strictly speaking, empathy is not behavior. Instead, it is an emotion. Empathy involves a matching of emotions between the child and the other person, that is, feeling with another person.

## Concluding Summary Points

- Among oppositional behaviors, one may distinguish passive forms of noncompliance (e.g., ignoring parental commands) from mild active forms (e.g., refusing parental directions) and severe active forms or defiant behavior (e.g., angrily reject parental commands).
- Aggressive behavior may manifest in various forms: in physical aggression, in verbal aggression, and in relational aggression, that is, damaging interpersonal relationships or feelings of inclusion.
- When considering the underlying motivation in aggressive behavior, the distinction can be made between reactive, defensive, or “hot-blooded” aggression and proactive, controlled, or “cold-blooded” aggression.
- The affective factor of psychopathy, callous–unemotional traits, consists of a lack of guilt and remorse, a lack of concerns for the feelings of others, shallow or superficial expressions of emotions, and a lack of concern regarding performance in important activities. These characteristics are included in DSM-5 as limited prosocial emotions, a specifier of CD.
- In ODD, symptoms of negative mood and affective dysregulation (angry/irritable mood) can be distinguished from symptoms of head-strong, antagonistic, and oppositional behavior (argumentative/defiant behavior).
- In CD, the distinction is made between the childhood-onset type of CD, with onset of at least one symptom prior to age 10 years, the adolescent-onset type of CD, with absence of any symptom prior to age 10 years, and the unspecified onset type.
- Some symptoms of ADHD are clearly disruptive such as not following through on instructions (inattention), leaving seat in the classroom (hyperactive behavior), and difficulty waiting turn (impulsive behavior).
- The most prevalent comorbid disorder of ODD and CD is ADHD.