Conduct Disorders In Children And Adolescents

Conduct disorder is the most prevalent psychopathologic condition of childhood. It is characterized by a persistent and repetitive pattern of aggressive, noncompliant, intrusive, and poorly self-controlled behaviors that violate either the rights of others or age-appropriate societal norms. [1]
These behaviors have a significant impact on the daily functioning of the child or adolescent and on the ability of parents and other adults to manage them.

The specific behavioral criteria for the diagnosis of conduct disorder can be conceptualized as either aggressive or nonaggressive in type (Table 1).
Examples of aggressive behaviors are physical fighting and bullying, assault, vandalism, purse snatching, physical cruelty to persons or animals, breaking and entering, and arson. More serious aggressive behaviors are armed robbery, rape, and extortion.

TABLE 1. DSM III-R Diagnostic Criteria for Conduct Disorder

A disturbance of conduct lasting at least six months, during which the individual has done at least three of the following:

1. Stolen without confrontation of a victim on more than one occasion (including forgery)
2. Run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning)
3. Often lied (other than to avoid sexual abuse)
4. Deliberately engaged in fire-setting
5. Often been truant from school (for older person, absent from work)
6. Broken into someone else's house, building, or car
7. Deliberately destroyed others' property (other than by fire-setting)
8. Been physically cruel to animals
9. Forced someone into sexual activity with him or her
10. Used a weapon in more than one fight
11. Often initiated physical fights
12. Stolen with confrontation of a victim (eg, mugging, purse-snatching,

extortion, armed robbery)
13. Been physically cruel to people

Nonaggressive behaviors of conduct disorder include substance abuse, persistent truancy, running away from home overnight, frequent lying in a variety of social settings, theft not involving a confrontation with a victim, and chronic violation of rules or the basic rights of others.

Three subtypes of conduct disorder are identified in the Diagnostic and Statistical Manual of Mental Disorders, revised 3rd edition. [1] These are descriptions of the functional contexts in which the particular behavior problems occur. The group type involves problematic behaviors that occur as part of an activity with peers. Although individuals with this type of conduct disorder may have poor relationships with non-group members, they do profess a loyalty to members of their own group. Aggression is not necessarily a feature of their behavior, although it may be present.

The solitary aggressive type is characterized by aggressive physical behavior initiated by a child or adolescent. The behavior may be directed toward peers or adults. Children and adolescents with this type of conduct disorder tend to be isolated socially and lacking in guilt or remorse for their actions. They may expend little effort in concealing their inappropriate activities.

The undifferentiated type is a residual group used to classify children and adolescents who have clinical features that do not fit the previously mentioned categories clearly. As such, it may be the most common form of conduct disorder.

Conduct disorders may be characterized further as mild, moderate, or severe in degree.

INCIDENCE

In the Isle of Wight survey of 10- and 11-year-old children, conduct disorders were diagnosed in 6% of the boys and 1.6% of the girls. [2] This sex ratio, with conduct disorders being reported three to four times more

frequently in boys than in girls, has been observed in numerous studies. Surveys of children referred for behavioral evaluation find that conduct disorders represent the single largest diagnostic category in this population. [3]

DIFFERENTIAL DIAGNOSIS

Conduct disorders must be distinguished from ordinary mischievousness and sporadic antisocial acts that may occur as part of normal development. For instance, young children may exhibit behaviors such as disobedience and destructiveness. In the normal child, these behaviors are isolated, short-lived, and mild, and they tend to decrease in frequency with age. In contrast, the behavior problems associated with conduct disorders are notable for their severity, frequency, pervasiveness over a variety of settings, and their persistence through time. The terms conduct disorder and antisocial behavior commonly are used synonymously.

Oppositional defiant disorder can be differentiated from conduct disorder in that, although both disorders share the elements of negativism and hostility, oppositional defiant disorder does not involve the violation of societal norms. Juvenile delinquency is a specific legal term used to refer to children and adolescents found guilty of a punishable offense in a court of law. Some, but not all, of them have conduct disorders.

ASSOCIATED CLINICAL FEATURES

Children and adolescents with conduct disorders have a higher rate of affective, learning, and attentional problems than do children without conduct disorders. The existence of these additional difficulties should be acknowledged and reflected in the treatment plan.

Learning Problems

Children with conduct disorders frequently have problems in school. Specific learning disabilities have been identified in this population, particularly

dyslexia. Deficits in language development and problem-solving skills have also been noted. Truancy, poor motivation for test-taking, teacher bias, and lack of parental support for school work have been cited as possible contributing factors. Poor school peormance, in turn, can lead to low self-esteem and further truancy. The lack of academic achievement by students with conduct disorders, however, cannot be explained on the basis of intelligence quotient scores.

Attention Deficit-Hyperactivity Disorder

Some children with conduct disorders manifest the impulsivity, inattention, and increased activity levels symptomatic of the attention deficit-hyperactivity disorder. Motoric overactivity is reported in up to 75% of children with conduct disorders. [4] Children with both conduct disorder and attention deficit-hyperactivity disorder tend to be identified at an early age. They are more aggressive and show a greater variety and severity of antisocial behavior than do children with conduct disorder alone. They are more likely to manifest linguistic and academic difficulties. Children with both disorders are at high risk for persistence of antisocial behavior into adulthood. [5] The overlap between these two conditions has led to aconsideration of possible shared etiologic factors. Children in this group may benefit from stimulant medication.

Depression

A group of prepubertal children has been identified in whom the diagnosis

of conduct disorder was made following a major depression. [6] The conduct disorders in these children abated following successful treatment with tricyclic antidepressants. The conduct disorders did not recur, even after the discontinuation of psychopharmacologic therapy, unless the depressive symptomatology reemerged. This finding emphasizes the importance of identifying and treating a preceding depression.

PREDISPOSING FACTORS

Biologic

Adoption and twin studies provide the strongest evidence for a genetic influence in the development of conduct disorders. There have been reports of a higher-than-expected incidence of antisocial behavior in the children of male and female criminals who were raised in adoptive homes. [7] Investigations of the biologic relatives of antisocial adoptees reported a higher incidence of antisocial behavior in this group as well [7]; other studies, however, have failed to confirm this finding. [8] Twin studies consistently report a concordance for criminality in both monozygotic and dizygotic twins. [7] This does not rule out, however, a major role for environmental influences in the expression of these tendencies.

Children with brain damage are known to be at increased risk for psychiatric disorders. The specific role of brain damage or dysfunction in the etiology of conduct disorders has not yet been elucidated satisfactorily.

Environmental

There are several familial factors that are thought to have an impact on the development of conduct disorders. It is hypothesized that the failure to form attachments to significant adults in the first year of life leads to an undersocialized individual incapable of normal interpersonal relationships. The antisocial behavior is then interpreted as an attempt to elicit a response from the environment.

A family life characterized by marital discord, parental separation, or divorce is known to be associated with antisocial behavior in children. The mechanisms thought to be responsible for this relationship include a lack of supervision and consistent discipline for the child, as well as parental models displaying fighting and other violent behavior. Disciplinary measures, when used, are often harsh ones. Parental alcoholism, criminality, and psychiatric impairment are found more frequently in the families of antisocial children. Large family size also is associated with antisocial and delinquent behavior. This may be as a result of inadequate parental supervision or the

influence of an antisocial family member on the other siblings.

Peer groups have a profound influence on the development of young children. Association with a group involved in antisocial behavior may increase the child's chances of also becoming involved in such activities.

Rutter has explored the relationship between conduct disorder and socioeconomic status. [9] He reports that conduct disorder is not more prevalent in all disadvantaged areas, but only in those where the familial risk factors are present.

ASSESSMENT

The goal of the evaluation phase is to gain a comprehensive perspective of the overall functioning of the child or adolescent. This is a role for which the pediatrician is well suited, given his or her likely rapport with the family, school, and community. This rapport will facilitate data collection and, thus, it is appropriate for the pediatrician to undertake this aspect of the assessment, even if he or she intends eventually to refer the family to a mental health professional for treatment.

Data will need to be collected from the child or adolescent, as well as from sources within the family, school, and community. Care should be taken to focus on the individual's strengths, talents, interests, and skills, in addition to the obvious problem areas. Any identified competencies represent important potential sources of self-esteem that can play a crucial role in the treatment plan.

Information can be obtained through interviews, observation, and the use of questionnaires. Family members should be interviewed as a group and individually. The advantage of the family interview is that it can be used to address both a wide range of issues and particular problem areas. This meeting provides an opportunity for members to express their views and hear the perspectives of others, permitting intervention to begin during the assessment phase. It also gives the clinician insight into how the family functions as a unit.

Relevant historical information that should be obtained includes the frequency, duration, and severity of the antisocial behaviors. The time when these behaviors began also has prognostic significance. Early onset of antisocial behavior is an important risk factor for problems during adulthood. It should also be determined whether the antisocial behavior occurs in a variety of settings (including school, the homes of peers or family members, and public places) or primarily in the home with the parents. Antisocial behavior that occurs in a number of different settings is associated with a poorer prognosis.

The interview with the parents should address any possible etiologic factors, such as the suspicion of brain damage or the early failure of attachment. The parents should be questioned about the existence of any psychiatric, attention deficit, or school problems affecting their children (Table 2).

TABLE 2. Child History Factors Associated with Conduct Disorder

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Abuse
Attentional problems
Brain damage
Failure of attachment
Psychiatric problems

Any history of marital problems, child abuse, alcoholism, and criminality should be elucidated (Table 3).

TABLE 3. Family History Factors Associated With Conduct Disorders

Alcoholism
Criminality
Marital problems
Parental separation or divorce
Poor supervision of children
Punitive disciplinary practices
Spouse abuse

The history of limit setting and punishment within the family should be reviewed. Interview data can be supplemented with questionnaires such as the Behavior Problem Checklist, [10] Conners Parent Rating Scale, [11] or the Child Behavioral Checklist [12] (Table 4).

TABLE 6. Adult Problems of Antisocial Youth

Alcoholism and drug abuse
Criminality
Increased rate of divorce, remarriage, separation
Increased school drop-out rate
Increased unemployment
Psychiatric problems

The child or adolescent should be interviewed alone to understand his or her perceptions of the situation. These perceptions can be expected to be quite divergent from the views of other sources. Children and adolescents with conduct disorder tend to underestimate the presence and severity of behavioral difficulties. The evaluation is often predicated not on the patient's acknowledged need for help but on the insistence of a family member or professional. The interview also gives the physician an opportunity to observe the child or adolescent's behavior. An obvious limitation of direct observation is that the high-intensity, low-frequency behaviors of concern

(such as fire-setting) are unlikely to be expressed in the clinical setting.

The breadth and frequency of antisocial acts can be documented using self report measures (Table 5). The Youth Self Report component of the Child Behavioral Checklist [12] and the Adolescent Antisocial Self Report Behavior Checklist [13] are particularly geared to teenagers. Care must be taken that the adolescent has sufficient reading skills to be able to complete the forms. These questionnaires can be read to an informant with poor reading ability. A semistructured interview format, such as the Interview for Antisocial Behavior, [14] may be more useful in eliciting this kind of information from the younger child.

The school is another important source of information. The teacher can provide information about the individual's academic peormance and behavior in the classroom. Observational data can be supplemented with a standardized questionnaire such as the Behavior Problem Checklist, [10] Conners Teacher Rating Scale, [15] or Child Behavioral Checklist Teacher Rating Form. [16] Formal psychoeducational testing can demonstrate a pattern of specific strengths and weaknesses in learning capacities that will prove invaluable in developing a plan for remediation.

Once the assessment process is complete, the pediatrician should confer with the family regarding the diagnosis. The physician should communicate the seriousness of a diagnosis of conduct disorder and the necessity for prompt treatment.

TREATMENT

The pediatrician who has training in behavioral management and counseling may elect to initiate treatment with certain families capable of implementing behavioral advice, but referral to a mental health professional may be necessary in many cases. Referral is indicated if the behavior is extreme, unremitting, or violent, if other psychopathology is present, or if the child's or adolescent's daily functioning is impaired significantly. Referral is also necessary in situations in which the family cannot manage the child's behavior or is unable to participate in therapy.

The focus of treatment is a practical one of improving the child's or

adolescent's overall functioning. The specific goals include promoting compliance with age-appropriate rules and decreasing the frequency of aggressive behavior. An effort should be made to identify areas of competence that can be promoted as sources of gratification and self-esteem. An emphasis on the inappropriate behaviors, which results in labeling and stigmatization, has been found to be counterproductive.

One of the most effective and best studied approaches to the treatment of the child with conduct disorder is parent management training. The theoretical underpinning for this approach is the idea that the conduct disorder is, at least in part, the product of maladaptive parent-child interactions. The goal of therapy is to teach the parents a new set of skills to use with their children. Parents learn how to establish rules and how to negotiate compromises when conflicts arise. They are taught ways of rewarding prosocial behaviors, such as compliance and cooperation, in an effort to reinforce them and, thus, to increase their frequency. They also learn techniques such as "time-out" and privilege withdrawal to combat noncompliant and aggressive behavior. These new skills are practiced during the therapy sessions and then at home. An advantage of this approach is that the benefits of altered parental behavior may extend to other family members as well as the individual with conduct disorder. A willing and committed family is necessary for this type of treatment to be successful. It may be most efficacious in situations in which the maladaptive behaviors have been of short duration.

An alternative treatment modality is cognitive therapy. Cognitive therapy involves direct work with the child or adolescent. The individual is taught new problem-solving skills, appropriate to his developmental level, to be utilized in instances that previously would have elicited aggressive behaviors. These new skills are introduced through modeling and role-playing with a therapist.

Family therapy also has been used in the treatment of conduct disorders. The rationale is that conduct disorders may represent a maladaptive means to the securing of an appropriate end. The therapist's role is to guide family members toward more adaptive ways of achieving the desired outcome. The advantage of family therapy is that the conduct disorder could be treated simultaneously with the family problems that frequently accompany it. There

is a tendency, however, for affected families to be resistant to treatment.

Specific treatment also is indicated for any accompanying conditions.

Stimulant medication may be effective in controlling some hyperactive behaviors. The role of stimulant medication in conduct disorder without hyperactivity has not yet been fully defined. Depression may merit a psychopharmacologic approach. Educational remediation should be implemented for children and adolescents with school difficulties, language problems, or learning disabilities. Other challenges for school personnel include vocational planning and encouraging compliance with classroom routines.

There are some situations in which behavioral therapy cannot be implemented in the home setting. In these cases, temporary placement out of the home should be considered.

PROGNOSIS AND NATURAL HISTORY

The prognosis for individuals with conduct disorder is not encouraging. Long-term follow-up studies indicate that 40% to 50% of antisocial children have significant psychosocial problems as adults. [17] These include psychiatric disorders, social adjustment problems, antisocial personality, alcoholism, and criminality (Table 6).

TABLE 7. Early Warning Signs of Conduct Disorder

Aggressive behavior
Child reported to be "difficult to control"
Hyperactivity
Oppositional behavior after toddlerhood
Poor sibling relationsnps (violent
or coercive behavior toward sibling,
physical aggression, hostility, yelling,
teasing)

The presence of a conduct disorder in childhood is a particularly ominous sign. Seventy-five percent of children with conduct disorders continue to demonstrate

deviant behavior in adolescence. Other factors predictive of problems in adulthood include serious and frequent antisocial behavior, transgressions in the community as well as in the home and the school, and any inteace with the legal system.

EARLY INTERVENTION

The overwhelming evidence that adult antisocial behavior has its foundation in childhood psychopathology should exhort pediatricians to identify and treat these problems promptly. A condition diagnosed early in its course may be more amenable to treatment. Early signs associated with the development of conduct disorders include oppositional behaviors that suace or persist past the age of 4 years, aggressive behavior, overactivity, poor peer and sibling relationships, and reports of the child being "difficult to control" (Table 7). The more severe the behavioral disturbance is at 3 years of age, the more likely it is to persist to 8 years of age. [18]

Primary prevention of conduct disorder is an even more desirable goal than early identification. One strategy would be to provide intervention programs for high-risk preschool children and their families. The focus for the children would be the development of social abilities, self-control, cognitive skills, and self-esteem. The agenda for other family members would be the improvement of parenting skills and the reduction of marital discord.