# CONDUCT DISORDER: RECENT RESEARCH AND IMPLICATIONS FOR SERVING CHILDREN AND ADOLESCENTS IN THE JUVENILE JUSTICE SYSTEM

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Abstract

The diagnosis of Conduct Disorder (CD) is one of the most common mental health diagnoses given to youths in the Juvenile Justice System (JJS). Yet there are a number of common misconceptions about the diagnosis that can have a significantly negative impact on the treatment of youths with this disorder in the JJS. I address misconceptions by summarizing recent research on the diagnosis of CD, exhibiting that persons with this disorder can vary greatly in the severity and chronicity of their behavior problems. Research also suggests a number of different causal processes can lead to CD. As a result, to adequately treat a child or adolescent with CD, an assessment of the myriad of risk factors is needed. Furthermore, treatment must be comprehensive and tailored to the unique profile of risk and needs displayed by the child with CD. If such a treatment is implemented, evidence indicates that intervention can lead to a successful reduction in the behavioral problems of children and adolescents with CD.

Conduct Disorder: Recent Research and Implications for Serving Youths in the Juvenile Justice System

Conduct Disorder (CD) is a mental health diagnosis defined by behaviors that violate the rights of others, or that violate major society norms (American Psychiatric Association, 2013). It is an important mental health diagnosis for a number of reasons. Specifically, CD is caused by problems in a person's ability to adequately regulate his or her emotions and behaviors, and can result in considerable impairment to the person across their lifespan. For example, in a birth cohort followed into adulthood, males who had CD in childhood were 3.2 times more likely to have an anxiety disorder, 2.9 times more likely to have major depression, 7.8 times more likely to be homeless, 3.6 times more likely to be dependent on alcohol, 2.7 times more likely to be convicted of a criminal offenses, and 25 times more likely to have attempted suicide by age 32 compared to males without CD (Odgers et al., 2007). In the same birth cohort, 49% of the girls with chronic childhood-onset CD had an anxiety disorder, 37% had a major depressive disorder, 15% were dependent on alcohol, and 45% were in an abusive relationship with a partner in adulthood (Odgers et al., 2008). Children and adolescents with CD respond positively to certain mental health interventions, and are most effective the earlier in development they are implemented (Frick, 2012). Identifying children with CD and implementing effective mental health treatments early in development has great potential for reducing their risk for later impairments that operate at considerable cost to the person and to society.

Unfortunately, CD has not always proven as useful in the JJS as it has in mental health settings. This is somewhat surprising given that behaviors that define CD are often the same behaviors that bring a child or adolescent into contact with the JJS. As a result, CD is one of the most common mental health diagnoses received by justice-involved youths (Drerup, Croysdale, & Hoffmann, 2008; Harzke et al., 2012). One reason for the limited utility of CD in the JJS is directly related to its nearly ubiquitous nature in justice-involved youth. In one study of 519 boys in the juvenile justice system, the vast majority (80%) met criteria for CD (Drerup et al., 2008). As an analogy, describing a bird as having feathers is fairly limited for differentiating one bird from another, whereas it is quite useful from differentiating birds from other animals. Similarly, stating that a youth shows serious and impairing antisocial behavior that requires mental health treatment is less helpful in settings in which most youth show serious and impairing antisocial behavior that require mental health treatment, whereas it can be very helpful in settings where this is not the norm (e.g., schools, mental health clinics, psychiatric hospitals). Even more concerning than its limited usefulness, the diagnosis of CD is often used inappropriately in the JJS and inferences are made about youths with the disorder that can have serious consequences that are unsupported by available research. It is the goal of this paper to highlight several of these misconceptions about CD and discuss recent findings from research that have important implications for appropriately using this diagnosis in the JJS.

Implication 1. A Diagnosis of CD is Limited in Implications about Youths

A common misconception in the JJS about the diagnosis of CD is the assumption that the diagnosis of CD tells you something about the etiology of the disorder (e.g., that it is caused by biological factors). The actual diagnostic criteria for CD focus solely on the person's behavior, and a person needs to show 3 or more behaviors (i.e., symptoms) from a list of 15 behaviors that fall into 4 clusters or types: (1) aggression to people and animals, (2) destruction of property, (3) deceitfulness and theft, and (4) serious violation of rules

(American Psychiatric Association, 2013). Further, the symptoms need to have been displayed within the past 12 months, with at least one displayed in the past 6 months, and the symptoms need to have caused the person "clinically significant impairment in social, academic, or occupational functioning" (p. 470, American Psychiatric Association, 2013). If a youth is diagnosed with CD, and no other information is given, this simply means that the youth shows a chronic and impairing pattern of antisocial behavior, but it does not indicate causality.

This limitation is not specific to CD but actually extends to most, if not all, mental health diagnosis. For example, a diagnosis of Major Depression simply indicates that the person has gone through a period of at least 2 weeks in which he or she was sad or lost interest in all or most activities, and she or he exhibited at least five other signs of depression (e.g., loss of appetite, insomnia, thoughts of death) (American Psychiatric Association, 2013). This diagnosis does not indicate what might have led to this period of depression and the causes can be quite varied, such as experiencing a parental divorce, experiencing the death of friend, having a neurochemical abnormality, or perceiving a lack of control over life events.

Implication 2: Youth with CD can vary Greatly in the Severity, Dangerousness, and Stability of their Behavior Problems

Another common misconception about children and adolescents with a diagnosis of CD is that it only designates the most severe, chronic, and dangerous youth with behavior problems. In fact, research has clearly indicated that there is quite a range of severity and great diversity in the outcomes across children and adolescents with CD (Odgers et al., 2008). This range in severity is reflected in the criteria used to diagnosis CD, in which the symptoms range from lying and staying out at night without a parent's permission, to armed robbery and rape (American Psychiatric Association, 2013). Further, the diagnostic criteria for CD require a specification of whether the disorder is:

- Mild – Few behavior problems required to make the diagnosis are present and the behavioral problems cause relatively minor harm to others;
- Severe – Many behavior problems in excess of those required to make the diagnosis are present and the behavioral problems cause considerable harm to others; or
- Moderate – The number of conduct problems and the effect on others are intermediate between those specified as "mild" and "severe."

Another distinction of people with CD related to severity of the disorder focuses on the emergence of behavioral problems associated with the disorder (Frick & Viding, 2009; Moffitt, 2006). Research has uncovered several distinct patterns of CD onset. In one pattern, the child begins to have behavioral problems early in childhood, often as early as preschool, and the behaviors worsen across childhood and adolescence. Another common pattern is characterized by the onset of conduct problems coinciding with the onset puberty. Research has suggested that samples of adolescents in the JJS typically are about half childhood-onset CD and half adolescent onset CD (Silverthorn, Frick, & Reynolds, 2001), but those with a childhood-onset to their CD are more likely to be aggressive and violent (Moffitt, 2006). Although there are significant proportions of both CD groups whose antisocial behavior decreases over development, the childhood-onset group is more likely to continue to show their behavior problems into adulthood when compared to the adolescent-onset group (Odgers et al., 2007; 2008).

A final distinction relating to variations of severity and outcome in children and adolescents with CD is between those who do and do not show significant levels of CU traits. These traits include a lack of remorse or guilt, a callous lack

of empathy, a lack of concern about performance in important activities, and a shallow or deficient affect (e.g., only expresses emotions in ways that seem shallow, insincere, or superficial) (Frick & Nigg, 2012). In official diagnostic terms, persons with CD who show significant levels of CU traits are diagnosed with CD and the specifier "With Limited Prosocial Emotions" (American Psychiatric Association, 2013). Although it is often assumed that most children and adolescents show significant levels of these CU traits, research indicates that this is only true of a minority (i.e., 20%-30%) of youths with CD (Kahn, Frick, Youngstrom, Findling, & Youngstrom, 2012). However, this subgroup of youths with CD shows a more severe, stable, and aggressive form of CD (Frick, Ray, Thornton, & Kahn, 2014). Besides increased aggression, children and adolescents with CD and CU traits display more instrumental (i.e., for personal gain or dominance) and premeditated aggression compared to youths with severe conduct problems in JJS (Kruh, Frick, & Clements, 2005; Lawing, Frick, & Cruise, 2010). Further, the subgroup of children with CD and elevated CU traits are more likely to show problems that continue through adolescence and into adulthood (Burke, Loeber, & Lahey, 2007; McMahon et al., 2010), although it is not uncommon for children and adolescents to decrease in their level of CU traits over time (Frick, Ray, Thornton, & Kahn, 2014).

Implication 3: There are Many Different Causes of CD

Another common misconception about CD is that there is a single and universal cause for CD in all children and adolescents. Neither part of this assumption is supported by research. Instead, research has documented a number of different potential causal factors that can place a child at risk for developing the severe and impairing conduct problems associated with CD, and these include factors within the child (e.g., low verbal intelligence, impulsivity, thrill seeking, punishment insensitivity) and factors within the child's environment (e.g., association with a deviant peer group, poor parental discipline and supervision, exposure to violence) (Dodge & Petit, 2003; Frick & Viding, 2009). The importance of these factors seems to differ across subgroups of children and adolescents with CD.

Persons in whom the onset of CD symptoms coincides with the onset of adolescence (i.e., adolescent-onset) are less likely to show neuropsychological deficits (e.g., deficits in planning and forethought), cognitive deficits (e.g., low intelligence), and temperamental/personality risk factors (e.g., impulsivity; problems controlling anger, lower levels of CU traits), compared to those with childhood-onset CD (Frick & Viding, 2009). Those with an adolescent onset are also less likely to come from homes with family instability, family conflict, and parents who use ineffective parenting strategies (Frick & Viding, 2009). When compared to other persons with CD, however the adolescent-onset group tends to show higher levels of rebelliousness, and is more rejecting of conventional values and status hierarchies (Dandreaux & Frick, 2009; Moffitt, Caspi, Dickson, Silva, & Stanton, 1996). The behavioral problems in the adolescent-onset pathway are more likely to be limited to adolescence and show fewer dispositional risk factors, thus the cause of CD in this pathway has been proposed as an exaggeration of the normative process of adolescent rebellion (Moffitt, 2006). That is, as part of the normal development of identity, some level of rebellious behavior is normative in adolescence. Those with adolescent-onset CD are likely to experience factors that lead to a more severe and impairing pattern of rebellion than is typical for adolescents. Such factors could include association with a deviant peer group, poor supervision by parents, a lack of bond to prosocial institutions, or personality traits characterized by a rejection of traditional status hierarchies (Frick & Viding, 2009; Moffitt, 2006).

Within those who show a childhood-onset to CD, persons with and without elevated levels of CU trait appear to have different causal processes leading to their behavioral problems. We recently completed a comprehensive review of the available research of over 260 studies investigating the different characteristics of children and adolescents with serious conduct problems with and without elevated levels of CU traits (Frick et al., 2014). To summarize the main findings, the most consistent evidence suggests that using behavioral measures, as well as using biological indices (e.g., functional brain imaging, measures of autonomic nervous system functioning), youth with CD and elevated CU traits show deficits in their response to punishment and in their emotional responding to signs of fear and distress in others. Children and adolescents with elevated levels of CU traits also tend to exhibit lower levels of anxiety and more fearless and thrill-seeking personality traits compared to other antisocial youth. Finally, the conduct problems of youths with elevated CU traits tend to be more strongly associated with genetic influences and are less strongly related to hostile and coercive parenting practices, compared to youth with severe conduct problems but without elevated CU traits. Based on these differences, youth with CD and elevated CU traits appear to have a temperament (i.e., fearless, insensitive to punishment, low responsiveness to cues of distress in others) that can interfere with the normal development of conscience (i.e., empathetic concern for others, remorse over misdeeds), and place the child or adolescent at risk for a particularly severe and aggressive pattern of antisocial behavior (Frick et al., 2014).

In contrast, children with CD but normative levels of CU traits do not show problems in empathy and guilt. In fact, they often show high rates of anxiety and they appear to be highly distressed by the effects of their behavior on others (Frick et al., 2014). The antisocial behavior in this group with normative levels of CU traits cannot be adequately explained by deficits in conscience development. Further, the conduct problems in this group show weaker genetic influences and are more highly related to harsh (e.g., high levels of anger and hostility; frequent use of corporal punishment) and inconsistent parenting practices. They are also more likely to show deficits in verbal intelligence and a hostile attribution bias, in which the child show a tendency to attribute hostile motives to other actions, which in turn makes the child more likely to retaliate aggressively (Frick et al., 2014). These findings seem to suggest that CD in those with normative levels of CU traits is related to the cognitive or emotional regulation of behavior (Frick & Viding, 2009). Specifically, the deficits in verbal abilities or other cognitive biases, combined with inadequate socializing experiences, could result in problems anticipating the negative consequence to behavior or in an inability to delay gratification. The cognitive and emotional (e.g., strong reactivity to negative stimuli and provocation) deficits, again combined with inadequate socializing experiences, could result in the child committing impulsive and unplanned aggressive and antisocial acts. These are often in the context of high emotional arousal (e.g., in a fight or when otherwise provoked) for which he or she may be remorseful afterwards, but may still have difficulty controlling in the future.

Implication 4. Successful Treatments for Conduct Disorder are Comprehensive and Individualized

Based on this research, there are numerous causal processes that can lead to CD and these causes may differ across different subgroups of persons with the disorder. As a result, it is not surprising that the most effective treatments for CD are comprehensive (i.e., they target a number of different factors that lead to or maintain a child's problem behavior) and are individualized (i.e., the focus of the intervention varies depending on the needs of the individual child; Frick, 2012).

This approach to treatment contradicts two common misconceptions that are often held about youth with CD. That is, there is an assumption made by many in the JJS that CD is untreatable and the best option from the consequences of the child's behavior is societal protection. The earlier the intervention is provided, the more effective it tends to be (Eyberg, Nelson, & Boggs, 2008), however a number of interventions have proven to be effective even in older adolescents with severe forms for CD (Frick, 2012).

Another misconception relates to the view that CD is a "unitary" disorder and this leads to attempts to a) find the single best treatment (e.g., anger control training, parenting education) and b) make this treatment available to all persons with CD. Instead, effective treatments all have multiple components and children with CD should get a unique combination of these components (Frick, 2012). For example, interventions that focus on enhancing identity development in adolescents and increasing contact with pro-social peers, such as mentoring programs (Grossman & Tierney, 1998) and programs that provide structured after-school activities (Mahoney & Stattin, 2000), may be particularly effective for youth within the adolescent-onset pathway. In contrast, interventions that focus on anger control (Larson & Lochman, 2003) and that focus on reducing harsh and ineffective parenting (Forgatch & Patterson, 2010) may be more effective for children within the childhood-onset pathway, specifically those who do not exhibit CU traits but often show problems with emotional regulation and come from families that use harsh and coercive parenting practices. Finally, children and adolescents with CD who show significant levels of CU traits seem to be best treated by teaching the youth emotional recognition skills and other skills related to empathetic concern, or finding ways to motivate the child or adolescent with CU traits (e.g., capitalizing on their self-interest) to change his or her behavior (Caldwell, Skeem, Salekin, & Van Rybroek, 2006; Dadds, Cauchi, Wimalaweera, Hawes, & Brennan, 2012; White, Frick, Lawing, & Bauer, 2013). There is even evidence that treatment can reduce the child's level of CU traits. Although the effects of treatment appear better in very young children (Somech & Elizur, 2012), adolescents (ages 13-17) treated with a comprehensive and intensive mental health intervention exhibited reductions in their CU traits over the course of treatment (Butler, Baruch, Hickey, & Fonagy, 2011).

## Summary and Recommendations

CD is one of the most common mental health diagnoses given to justice-involved youths and, unfortunately, it is also one of the most misunderstood mental disorders in the JJS. One of the most important considerations in using the diagnosis is realizing that it provides very limited information about the severity and cause of the child or adolescent's behavioral problems. Additional information is needed on the severity of the disorder, such as information on the amount of harm that the youth with the disorder has caused to others, the length of behaviors associated with the diagnosis, and information on whether or not the child or adolescent with CD also shows significant levels of CU traits. Further, an assessment of the myriad of risk factors that can lead to CD needs to be conducted and treatment must tailored to the unique profile of risk and needs displayed by the child with CD. If this is done, there is ample evidence that mental health treatment can lead to a successful reduction in the behavioral problems of children and adolescents, and this success is enhanced if such treatments are provided early in development.

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