SECTION 2

Children and Adolescents with Conduct Disorder:

Findings

from the Literature and Clinical Consultation in Ontario
Children and Adolescents with Conduct Disorder: Findings from the Literature and Clinical Consultation in Ontario

TABLE OF CONTENTS

1. INTRODUCTION 1
2. METHODOLOGY 1
3. EPIDEMIOLOGY 2
4. ASSESSMENT 4
   4.1 Parent Interview 4
   4.2 Child Interview 5
   4.3 School Information 6
   4.4 Probation Information 6
   4.5 Risk Factors and Protective Factors 6
   4.6 Making a Diagnosis of Conduct Disorder 7
   4.7 DSM-IV Criteria 7
   4.8 Childhood-Onset Conduct Disorder 9
   4.9 Adolescent-Onset Conduct Disorder 10
5. DIFFERENTIAL DIAGNOSIS 10
6. TREATMENT 11
   6.1 Pharmacotherapy 12
   6.2 Treatment for the Child or Adolescent 12
   6.3 Family Intervention 13
   6.4 School Intervention 15
   6.5 Peer Intervention 16
   6.6 Community Intervention 17
7. TREATMENT SETTINGS 17
8. REFERENCES 19
Children and Adolescents with Conduct Disorder: Findings from the Literature and Clinical Consultation in Ontario

1. INTRODUCTION

Conduct disorder (CD) is characterized by a pattern of behaviour that violates the basic rights of others or age-appropriate norms and rules of society. Conduct disorder can be extremely challenging for parents, teachers, and mental health professionals. CD also exacts a high cost in terms of personal loss for children, families, and society (Gureje and others, 1994). For example, although children with early-onset CD compose only 3% to 5% of all youth with conduct disorder, they appear to be responsible for at least half of the illegal offenses committed by juveniles. Since other disorders often occur at the same time with CD (that is, comorbid disorders such as attention-deficit disorder, substance abuse, depression), CD is difficult to treat and contributes to a high rate of treatment failures. Clinical experience in children's mental health centres in Ontario indicates that children with early-onset CD consume the most resources and they are the most expensive clients to serve.

Since their problem behaviours often first bring them into contact with the juvenile justice and education systems, children with CD often do not receive the mental health services they need in a timely manner. Furthermore, conduct disorder is one of the most difficult disorders to treat because it is complex and requires carefully designed and coordinated treatment interventions aimed at multiple areas of functioning. Considerable resources are required to properly assess and implement an effective treatment plan for children with CD, especially in Young Offender settings. Only in recent years have reliable data become available about the extent of the disorder, factors that contribute to risk and resilience, and effective treatment strategies.

2. METHODOLOGY

This paper aims to draw together current research for the treatment of conduct disorder in children and adolescents based on both empirical evidence and systematic clinical experience. This information is directed towards child and adolescent mental health professionals in Ontario and is not intended to be prescriptive, but rather to present clinicians with a broad template to guide their practice.

The overall Project was guided by a Steering Committee of highly-experienced
Executive Directors and clinicians from Children's Mental Health Ontario's member centres. The research process began with a series of computer-assisted and hand searches of databases, journals, and published and unpublished reports from Ontario and other jurisdictions to identify information about conduct disorder based on both empirical research and systematic clinical evidence. This strategy was adopted to address the known disparity between clinical practice and efficacy studies (Seligman, 1995).

Then the Draft Findings were presented for validation and feedback to a Panel of Experts in conduct disorder. Individual interviews also were conducted with experts in the field. Next the Draft Findings were shared with children's mental health professionals in a series of Regional Focus Groups. Participants in the Regional Focus Groups validated the data, identified gaps requiring additional research, made recommendations for changes, and identified children's mental health centres in Ontario that were implementing the specific types of evidence-based programs reported in the Draft Findings. Then the Draft Findings were revised and presented to the Steering Committee for approval. To facilitate the transfer of knowledge, the information in the Findings guided the development of a number of tools that could be used by children's mental health professionals in the assessment and treatment of conduct disorder.

3. Epidemiology

The prevalence of conduct disorder is estimated at between 1.5% and 3.4% of the general child and adolescent population (Bartol & Bartol, 1989; Feehan and others, 1993). The onset of conduct disorder tends to peak in late childhood and early adolescence (Loeber and others, 1993b). About 40% of children and adolescents with CD eventually develop antisocial personality disorder.

Overall, conduct disorder appears more often in boys than girls, with a rate of 6% to 10% for males and 2% to 9% for females (APA, 1994). These rates vary by age range and type of conduct disorder. Epidemiological studies estimate the male-female ratio between about 3:1 and 5:1 (Boyle and others, 1992). Although more boys are affected at all ages, the gap between boys and girls closes at adolescence and, by mid-adolescence, girls surpass boys in the onset of conduct disorders (Offord, 1987). There has been much less research regarding CD in girls (Loeber & Keenan, 1994) although some studies are now appearing. Gender differences in the expression of CD become more obvious at adolescence, with boys more likely to exhibit aggressive behaviour and girls to commit covert offenses and prostitution. However, these gender differences in type of behaviour tend to disappear in the youth who are the most severely disturbed. In recent years, there has been an increase in the number of very aggressive girls...
admitted to Young Offender facilities in Ontario. Many of these girls have serious abuse and neglect issues that create a very complex clinical picture and risks to society for future parenting in the next generation.

Between 50% and 75% of children who have conduct disorder have comorbid attention-deficit disorder/hyperactivity disorder (ADHD). About half of the children with CD also have an internalizing disorder such as depression or anxiety disorder. Children with CD and comorbid depression are at higher risk of suicide than children with depression alone; and they are more likely to harm themselves without intending suicide. As many as 90% of drug abusing young offenders have CD. Children with CD often show a significant history of the following (Bock & Goode, 1996; Carey & DiLalla; Plomin, 1994):

- Specific developmental disorders
- Lower scores on intelligence tests
- Head and facial injuries
- Soft neurological signs
- Psychomotor seizures
- Febrile seizures
- Nonspecific EEG abnormalities
- Vague psychotic symptoms (paranoia, thought disorder, grandiose thoughts)

The families of children and adolescents with conduct disorder also have important differences when they are compared with other families (Frick and others, 1992, 1993; Plomin, 1994). Children with conduct disorder tend to come from large, low-income, urban families led by single mothers. Fathers of conduct disordered children have a greater incidence of antisocial personality disorder and substance abuse, and they are often absent from the home. The mothers of CD children have high rates of depression, antisocial personality disorder, substance abuse and somatization disorders. Parents of children with conduct disorder tend to use corporal punishment coupled with a high rate of neglect and physical abuse (Luntz & Widom, 1994; Patterson and others, 1989, 1992). The parents of children with conduct disorder and comorbid ADHD have a greater history of violence, trouble with the law, arrests and imprisonment, when compared with the parents of children who have conduct disorder alone.

Adoption and twin studies suggest a family and/or genetic link to conduct disorder (Carey & DiLalla, 1994), although research by Offord (1990) and others has called this conclusion into question. Given the strong association of environmental and family factors, some children and youth may adopt CD traits as a protective strategy -- it is important that clinicians consider the socio-economic context when assessing the presence of CD.
4. ASSESSMENT

Since CD is a complex mental health problem affecting multiple domains of functioning and showing a high rate of comorbidity with other disorders, suspicion of CD requires a comprehensive assessment that encompasses the child, family, school, peers, and community (Waddell and others, 1999). It is especially important that clinicians distinguish between early onset and adolescent onset CD. Although a thorough assessment may place a strain on limited children’s mental health resources, it is a good investment in time, money, and clinical resources in the long run. Without a comprehensive assessment of CD it is extremely difficult to offer effective treatment.

The child and parent(s) should be interviewed separately and together. Family members, school, social welfare, probation and other relevant persons should also be interviewed. The purpose of the assessment (e.g., forensic, clinical management, or treatment) should be made clear to all concerned (Benton-Hardy & Steiner, 1997).

4.1 Parent Interview

From the parent(s) obtain the following information:

- Specific conduct problems observed by the parent(s)
- Whether parents have observed sibling violence, abuse of family pets, and cruelty to animals outside of family (these factors are associated with more serious CD and chronic CD)
- Age of onset of conduct problems
- History of symptoms, starting with the mother's pregnancy
- Problems during pregnancy, especially alcohol/drug use, infections, and complications
- Difficulties during infancy, including temperament
- Behaviour during the preschool years, especially oppositional and/or aggressive behaviour, attention and impulse control (ADHD symptoms), attachment problems involving parent or caregiver (to detect possible comorbid separation anxiety disorder, parental depression and substance abuse)
- Context in which the child exhibits the problem behaviour (alone or in a group)
- Specific events associated with the onset of the behaviour problems, including injury or illness
- Corporal punishment of the child (history of severe corporal punishment appears in backgrounds of children with CD and amplifies severity)
- Medical history with special attention to central nervous system problems
• Physical and sexual abuse history (as victim and/or perpetrator)
• School history, especially behaviour problems at school, specific learning problems, relationship with peers, special education services received, and how the school has responded to any behaviour problems (e.g., suspended or expelled child)
• Legal history, especially involvement with legal system, charges pending, convictions, disposition (especially removal from home or community), probation status
• Family history, including detailed history of parents' psychiatric problems and history of substance abuse, antisocial behaviour problems (violence, physical or sexual abuse, imprisonment), ADHD or major psychiatric illness in parents and sibs
• Treatment history of child, including specific types of medication, types of treatment that have and have not been helpful, and history of hospitalizations, adoptions and placements in foster care and out-of-family care
• Parents' perception of the child's strengths and weaknesses
• Family coping style, resources (financial, social), parenting skills, problem solving skills, interaction between parent(s) and child, and conflict resolution skills

4.2 Child Interview

If the child is an adolescent, the interview may precede the parent interview. Obtain the following information from the child or adolescent alone:

• Conduct or review the findings of the physical examination, looking especially for soft neurological signs, suggesting nonspecific CNS dysfunction, signs of organic impairment such as fetal alcohol syndrome, signs of abuse or self-injury
• During the examination, assess the child's ability to hear and understand language, restlessness and distractibility, oppositional behaviour, recognize negative emotions and anger
• Cognitive functioning
• Child's assessment of his or her strengths and weaknesses
• Presence of psychiatric symptoms
• Specific questions about changes in mood, with special attention for signs of depression or anxiety disorder and level of self-esteem
• Specific questions about peer relationships
• Evidence of self-injury, suicidal and homicidal thoughts and behaviour
• Specific questions about sexual or physical abuse, sexual behaviour and promiscuity
• Specific questions about actions that would get the child in trouble with his or her parents or with the police
• Specific questions about substance abuse

Usually additional lab tests are not needed for a child with disruptive behaviour (e.g., EEG, chromosomal). For the moderately to severely disturbed child, additional tests may be helpful to confirm the presence or absence of a major mental illness, hearing/auditory processing problem, ADHD, or learning disability. Additional tests may help assess the child's strengths and weaknesses.

4.3 School Information

From teachers, obtain the following information:

• Academic performance
• Behaviour problems at school
• School response to behaviour problems at school
• Developmental delays, speech and language problems
• Specific learning problems (high concurrence with CD)
• Relationship with peers
• Teacher's perception of the child's strengths and weaknesses

To obtain more objective information from teachers, it is often useful to have the teacher complete a simple behaviour questionnaire, such as Child Behavior Checklist (Teacher Form) or the Conners Teacher Rating Scale, before the interview.

4.4 Probation Information

If the juvenile justice system is involved, obtain the following information from the probation officer:

• Confirmation of the child's legal history, especially involvement with legal system, charges pending, probation status
• Specific information about child and family from probation officer's perspective
• Probation officer's perception of the child's strengths and weaknesses

4.5 Risk Factors and Protective Factors

Research suggests that there is a gradual accumulation of risks and interaction among risk factors that lead to conduct disorder, balanced by a parallel accumulation of protective factors (Loeber and others, 1993a). Epidemiological
research has been supported by prospective studies (Raine and others, 1994) that show CD is produced by a combination of factors. Overall, the greater the number of risk factors and earlier they appear, the higher the risk for serious conduct disorder (McCord & Tremblay, 1992).

Risk factors for CD include early age of onset (pre-school and early school years), conduct problems that occur in multiple settings (home, school), frequency and intensity of conduct problems, diversity of conduct problems and covert problems (lying, firesetting, stealing) at younger ages, and family and parent characteristics. Details of risk factors associated with age of onset may be found in Sections 4.8 and 4.9.

Protective factors appear to interact with risk factors to lower the cumulative impact of conduct disorders. Research by Naomi Rae-Grant and others (1989) have identified factors that offer protection against conduct-disordered behaviours in the face of risk. These protective factors include higher levels of intelligence, good social skills, relaxed temperament, positive work habits in school, areas of competence outside school, and a positive relationship with an adult.

4.6 Making a Diagnosis of Conduct Disorder

The assessments obtained from the above sources will help the clinician determine whether the child has conduct disorder, the type of conduct disorder (childhood- or adolescent-onset), whether a psychiatric or medical problem is causing the disorder, and whether there is an additional comorbid disorder.

A diagnosis of conduct disorder is made when DSM-IV-TR (APA, 2000) target symptoms are present or reported in the history, and other disorders have been eliminated. It is important to know that DSM-IV-TR does not consider one specific criterion alone necessary for diagnosis and that any combination of three or more criteria are sufficient (that is, CD is a polythetic diagnostic category).

Since research shows that there are different profiles for conduct disorder based on age of onset and severity (Lahey and others, 1994), DSM-IV-TR criteria allow for distinguishing between childhood-onset and adolescent-onset conduct disorder and for conduct problems that are mild, moderate, and severe.

4.7 DSM-IV Criteria

The DSM-IV-TR identifies conduct disorder when three (or more) of the following criteria are manifest in the past 12 months, with at least one criterion present in the past 6 months:
1) Aggression to people and animals
   Often bullies, threatens, or intimidates others; initiates physical fights; has
   used a weapon that can cause serious physical harm to others; has been
   physically cruel to people or animals; has stolen while confronting a victim;
   has forced someone into sexual activity

2) Destruction of property
   Deliberately set a fire with the intention of causing serious damage or
   deliberately destroyed others property by other means

3) Deceitfulness or theft
   Broke into someone else's home, building or car; often lies to obtain goods or
   favours or to avoid obligations; stole items of considerable value without
   confronting a victim

4) Serious violations of rules
   Stays out at night despite parental objections, beginning before age 13; ran
   away from home overnight at least twice (or once without returning for a
   lengthy period of time); often truant from school, beginning before age 13

The disturbance in behaviour must cause clinically significant impairment in
social, academic, or occupational functioning and, if the youth is 18 years of age
or older, the criteria for Antisocial Personality Disorder are not met.

Children-onset type of CD is identified by the onset of at least one criterion prior
to 10 years of age and adolescent-onset type by the absence of any criteria for
conduct disorder prior to 10 years of age.

Conduct disorder is classified as "mild" if there are few conduct problems beyond
those required to make the diagnosis and if the problems cause only minor harm
to others. It is classified as "severe" if there are many conduct problems beyond
those required to make the diagnosis or if the conduct problems cause
considerable harm to others. Conduct disorder is considered "moderate" if the
number of conduct problems and effect on others is intermediate between "mild"
and "severe".

The major difference in DSM-IV-TR criteria for childhood-onset and adolescent
onset conduct disorder is that at least one criterion must be present before age
10 for a diagnosis of childhood-onset type and all criteria must be absent for
adolescent-onset type. In terms of developmental paths and treatment
implications, however, there are striking differences between the two types of
conduct disorder.
4.8 Childhood-Onset Conduct Disorder

Children with childhood-onset conduct disorder tend to be mostly male and incidence is not strongly related to socioeconomic class or ethnic group. They tend to be more aggressive than the adolescent-onset youth. By age 18, the majority of youth with childhood-onset conduct disorder meet the criteria for antisocial personality disorders and often they are imprisoned. As noted in the introduction, although the childhood-onset CD group comprise only 3% to 5% of youth with conduct disorder, they are believed to account for at least half of the offenses committed by young offenders.

In childhood-onset conduct disorder, a combination of biological and psychosocial factors appear to interact to cause the disorder. Disruptive behaviours emerge early in childhood, usually as negative, hostile, and defiant behaviour characteristic of oppositional defiant disorder. As the child grows, there usually is an escalation to behaviours more characteristic of conduct disorder, especially lying, fighting, and stealing. These children are more likely to have ADHD, learning disabilities, and poor academic achievement. A consistent finding in the research is that children with ADHD are likely to have persistent conduct problems that extend into adulthood (Mannuzza and others, 1990). In terms of developmental progression, ADHD tends to be followed by oppositional defiant disorder (ODD) and then by conduct disorder. The association between ADHD and CD is especially strong for boys, although girls show a higher risk than boys to develop CD if they have ADHD (Loeber & Keenan, 1994). The addition of substance abuse to ADHD and CD is predictive of violent behaviour for boys. Consequently, early treatment for ADHD, ODD and substance abuse is key element in the treatment of CD.

Children with conduct disorder also may show other forms of neuropsychiatric and neurobiological differences, such as low CSF serotonin levels and abnormal dopamine 3-hydroxylase (DBH), lending support to the idea that childhood-onset CD is more constitutional and neurobiologic in origin than adolescent-onset conduct disorder. As these children grow older, their offenses tend to become increasingly severe (e.g., break-and-enter, stealing valuable goods, forced sex). They have a high incidence of substance abuse, erratic employment and marriage histories, and physical abuse of their spouses or partners and children.

In general, children with childhood-onset conduct disorder may be distinguished from adolescent-onset by their long history of aggression and antisocial acts such as fighting at school, truancy, stealing, early substance abuse, being taken into care, and placement breakdowns.
4.9 Adolescent-Onset Conduct Disorder

Youth with adolescent-onset conduct disorder present a different clinical profile. In adolescent-onset conduct disorder, it appears that sociocultural factors such as the influence of poverty and peer groups are largely responsible for the resulting behaviours. Youth with adolescent-onset conduct disorder usually do not have serious problems before adolescence. During the preschool and school-age years, they tend not to show oppositional behaviour or social, academic, or community problems. This finding is so persistent that the DSM-IV-TR criteria for adolescent-onset CD demands the absence of any criteria characteristic of CD before age 10. Oppositional and illegal behaviour begins during adolescence and tend to take place in a group environment. Whereas childhood-onset CD involves mostly boys, girls are involved in the adolescent-onset group. Adolescent-onset CD is likely to involve urban, poor, and minority youth. They do not have the severe learning problems, developmental disabilities, neuropsychiatric problems, or family history of antisocial behaviour demonstrated by youth with childhood-onset CD. The problem behaviours demonstrate less aggression, especially aggression aimed at others, and they tend to stop as the youth mature into adulthood. Anxiety disorder can be comorbid with conduct disorder, especially in adolescent girls. Overall, the prognosis is good for youth with adolescent-onset CD, but poor for those with childhood-onset type of conduct disorder.

5. DIFFERENTIAL DIAGNOSIS

Several types of disorders have manifestations that are similar conduct disorder. A child or adolescent who is manic may engage in dangerous and disruptive behaviour. There will be other behaviours not typical of conduct disorder, however, such as pressured speech, flight of ideas, and a decreased need for sleep that serves to distinguish CD from manic behaviour. For differential diagnosis, therefore, it is always desirable to include a psychiatric assessment when CD is suspected, although psychiatric and/or psychological resources may be difficult to obtain in some systems, such as the Young Offenders system.

Conduct disorder may appear in child, but most often in an adolescent, who is depressed. The youth may feel irritable, inadequate, isolated, and alone. He or she may begin identifying with nonconforming teens. A depressed adolescent may be defiant to parents and other persons in authority, and behaviour may include truancy and failure, use of alcohol or illegal drugs, sexual activity, and the appearance of delinquent behaviours. Unlike the conduct disordered youth, however, the depressed youth usually shows a change in mood that comes before the disruptive behaviour. As the youth’s mood improves, the deviant behaviour diminishes. Youth with conduct order often are depressed too, but the problem behaviour precedes the change in mood and the youth’s actions do not
change greatly with the treatment of the mood disorder. Boys are more affected by comorbidity of depression with conduct disorder before puberty and girls afterwards. With comorbid depression the conduct disorder usually precedes the depression. The presence of depression comorbid with conduct disorder raises the risk of suicidal behaviour.

A child may exhibit conduct-disordered behaviour in response to a stressful event such as starting school, conflict between parents, and physical or sexual abuse. Usually the onset of the behaviour is associated with the stressful event and diminishes as the situation improves. Adolescents may show CD behaviour in response to a recent stressful event or from a recent association with a peer group of troubled youth. If the problem behaviour is isolated and if the youth's level of functioning was good before the behaviour occurred, then conduct symptoms are most likely secondary to another disorder such as adjustment disorder, post-traumatic stress disorder or depression.

Disruptive behaviour can be associated with an anxiety disorder but it should dissipate with treatment of the anxiety disorder. Problem behaviour also may be a symptom of a serious psychiatric disorder, such as psychosis. The child's assessment should identify a history of hallucinations, delusions, or a thought disorder. Disruptive behaviour may result from an organic personality disorder in children with a congenital or acquired injury to the central nervous system, such as fetal alcohol syndrome, head injury, or encephalopathy. Aggressive outbursts also may indicate psychomotor seizures. In such cases, the aggression is generalized and not aimed at a specific person. There also may be other symptoms of a seizure disorder, such as aura, confusion, and EEG changes.

Children with CD often have below-average intelligence, as measured by verbal IQ. They often achieve poorly in school, especially in reading and other verbal skills. Assessment may indicate that CD is comorbid with learning or communication disorders in some children.

In short, although a number of disorders show symptoms similar to conduct disorder and they can be comorbid with CD, usually the persistent pattern of violating societal norms, antisocial behaviour and a history of problems with the law help to distinguish conduct disorder.

6. TREATMENT

Research and practice consensus indicates that successful treatment must address multiple domains in a coordinated manner over a period of time. Outpatient treatment of CD usually involves the child/youth, family, school and peer group. Some milder forms of CD, however, require minor intervention,
usually training for the child (social skills, problem solving) and training for the parents (behaviour management, parenting skills) and consultation to schools.

Moderate and severe CD often involves comorbid disorders that require treatment (e.g., ADHD, developmental disabilities, substance abuse disorder, anxiety disorder, mood disorders). Chronic CD, which is usually childhood-onset type, requires early intervention, extensive treatment in multiple domains and long-term follow-up (Offord & Bennett, 1994).

Since conduct disorder involves mostly externalizing symptoms, there is a preference for social learning interventions that provide structure in the life of a child, rather than psychopharmacological or intrapsychic approaches alone. Research indicates that therapy for CD should involve a multimodal continuum of interventions that is delivered with enough frequency and long enough to produce the desired treatment outcomes. There is little research support for single-session or brief interventions or for "shock" approaches such as boot camps, psychiatric hospitalization, medication trials, or a brief course of cognitive-behavioral therapy (Cowles and others, 1995; Kazdin, 1989; Mendel, 1995; Short, 1993; Webster-Stratton, 1993).

### 6.1 Pharmacotherapy

Pharmacotherapy alone is not sufficient to treat conduct disorder. Although some psychiatric medications are used to treat CD youth who have a comorbid disorder (e.g., antidepressants for mood and anxiety disorders, stimulants for ADHD), this treatment is recommended only on the basis of clinical experience, since there is an absence of adequate efficacy studies to support their use (Lavin & Rifkin, 1993; Ritchers and others, 1995). The strongest evidence is in support for the use of stimulants to treat comorbid ADHD symptoms (American Academy of Child & Adolescent Psychiatry, 1997). Although neuroleptics have been shown to reduce aggression in CD children, side-effects may outweigh their benefits, especially for longer-term use.

### 6.2 Treatment for the Child or Adolescent

Choice of treatment for the child or adolescent depends on age, type and severity of conduct disorder, strengths, interaction and processing style, and ability to engage in treatment. The main evidence-based individual therapy with conduct disordered youth is cognitive behavioural therapy (CBT), especially Problem-Solving Skills Training (PSST) developed by Spivak and Shure (1974, 1976,1978). This form of therapy targets both antisocial behaviours and prosocial functioning. It helps suppress undesirable behaviours and create structure in a child’s life that provides the security to build positive relationships as therapy.
progresses. PSST helps the child manage the cognitive deficiencies are believed to contribute to antisocial behaviour by improving communication skills, problem-solving skills, impulse control, and anger management (Kazdin, 1995; Tremblay and others, 1991). Assessment is important, since CBT may not work with a child who has neurological or processing problems. Although cognitive behavioural interventions and skills training appear helpful in the short-term, especially for older children, their long-term efficacy has not been established.

Although the literature generally does not support the effectiveness of individual psychodynamic therapy with CD children, several studies indicate that an explorative approach (Fonagy & Target, 1994) or an attachment-based approach (Moretti and others, 1994) may be useful for some CD children. If for no other reason, explorative approaches are employed to establish a therapeutic relationship that will effectively engage the child or adolescent in therapy. Likewise, psychosocial interventions alone have shown only modest effects for children with CD (Lipsey, 1992).

Recommended treatment for the child or adolescent includes:

- Cognitive-behavioural therapy
- Problem-Solving Skill Training

### 6.3 Family Intervention

Family intervention is an essential component for treating conduct disorder. For younger children, the family often is the primary target for intervention. Before family intervention can begin, however, the following conditions that affect the basic safety of the child should be met:

- Appropriate housing for the family
- Adequate resources to meet basic needs
- Parent with a psychiatric or substance abuse disorder is receiving treatment for the problem
- Home is safe -- potential problems of domestic and child abuse have been identified and addressed
- Adequate supervision for all children in the home

To meet these conditions, children's mental health professionals may first need to work in collaboration with other systems, such as child welfare, social assistance, and addiction and adult mental health services.

The overall approach for working with families is to identify and build upon the
parent(s) strengths. There are two primary strategies for family intervention: 1) parent education about the cycle of events that leads to problem conduct behaviours, and 2) parent management training (PMT) to improve parenting skills and to manage child behaviour effectively without the use of physical punishment. Numerous studies support the effectiveness of parenting skills training and training for the child to improve child behaviour, positive peer relationships, academic achievement, and reduce aversive interactions with authority figures (McCord and others, 1994; Mendel, 1995; Patterson and others, 1989; Wells, 1995).

Evidence-based parent training programs for children with CD or at risk for CD include:

- COPE (Cunningham and others, 1995)
- Incredible Years (Webster-Stratton, 1989; Webster-Stratton and others, 1994)
- Parenting Wisely (Kacir & Gordon, 1999)
- Defiant Children (Barkley, 1997)
- SNAP Parent Training (Day & Hrynkiw-Augimeri, 1996)

A recent review of the outcomes studies of PMT shows that these gains have been maintained for 1 to 3 years after treatment (Kazdin, 1997). Since parenting skills training depends heavily on parent participation, it is not useful for multiproblem families in which parents cannot participate consistently.

Recent well-designed experimental studies support the efficacy of prenatal and early childhood interventions (such as home visits) to reduce behavioural problems and antisocial behaviour and criminal activity in children born to poor families (Olds and others, 1998).

Recommended family intervention includes:

- Parent counselling that enhances parental strengths
- Parent training to establish consistent behaviour management
- Family therapy
- Treatment of substance abuse and other problems of parents/family members

There is evidence that multi-systemic therapy (MST) is an effective intervention for CD youth that may be delivered in family and community settings (Henggeler and others, 1998, 1990).
6.4 School Intervention

Children and adolescents with conduct disorder often see school as a place of frustration and failure. They usually show poor academic achievement and may be disliked by their teachers and classmates. Faced with frustration and exclusion, the child or youth may resort to bullying and antisocial behaviour and may group with others students who are in a similar situation. Lack of suitable classes, limited resources in the school system, and the need for teachers to have basic child management and parenting skills makes it very difficult to work effectively with CD children in school. Children with CD may be treated effectively in day treatment programs, but good follow-up and transition planning is necessary if treatment gains are to be maintained in regular classrooms.

Two common school-based treatment approaches for CD children that have research support are contingency management (Abramovitz, 1994) and the use of token economies (Kazdin, 1977) to reinforce positive behaviour and reduce negative behaviours. During the last 10 years, a number of school-based programs have been developed to address conduct problems, including anger management, conflict resolution, social problem solving, and social skill training. Most of these programs have little empirical support for their ability to change problem behaviours or to maintain changes after the program ends (Dodge, 1993; Tolan & Guerra, 1994).

Some of the more promising strategies for the prevention of conduct disorders involve preschool children (National Crime Prevention Council, 1996; Zigler and others, 1992) and school-aged children (National Crime Prevention Council, 1997) in multifaceted programs that involve the school (or day care centre), family and community such as the Metropolitan Area Child Study (MACS) program (Grant and others, 1998).

Recommended interventions in the school includes:

- Assess for developmental disorders, especially auditory processing problems
- Placement in a suitable class (e.g., day treatment, special education, behaviour class)
- Referral to appropriate academic resources (e.g., literacy training, life skills, vocational school)
- Educate teachers about effective behaviour management for CD students
- Build a strong alliance between parents and school
- Promote prosocial interactions with peers at school
6.5 Peer Intervention

Since adolescents rely more on peers than parents or teachers for values and direction, intervention with adolescents should include a focus on peers as well as family (Feldman & Weinberger, 1994). Adolescent-onset CD is often associated with membership in a group of antisocial youth. To avoid conduct-disordered behavior, intervention may be necessary to remove the youth from an antisocial group and help them to develop a new peer group. Since CD youth often lack appropriate social skills, they may need specific coaching on making and keeping friends, learning new ways of using free time, and joining positive activities and organizations in the community.

There has been research support for multi-systemic therapy (MST) that treats conduct-disordered adolescents (including serious and violent offenders) in their social settings while combining family and community interventions (Borduin and others, 1995; Henggeler and others, 1998, 1990,1987a, 1987b), but concerns have been raised that MST may miss psychiatric problems and comorbid disorders (Fouras, 1999).

The Earlscourt Under 12 Outreach Project (ORP) is an example of multifaceted intervention for boys between 6 and 12 years of age who commit mild to serious offenses. Several evaluative research studies indicate that the ORP is effective in reducing CD behaviours and police contact among a group that is at risk of repeat offending (Day & Hrynkiw-Augimeri, 1996; Hrynkiw-Augimeri and others, 1993).

The ORP consists of eight components, including an after-school structured group to teach self-control and problem-solving techniques, a 12-week parent training group to teach effective parenting skills, family counselling, in-home academic tutoring, school advocacy and teacher consultation, victim restitution, individual befriending to link the boys with structured community-based activities, and continuing groups. Earlscourt has recently developed a multifaceted program for aggressive, antisocial girls based on similar principles.

Other evidence-based peer group intervention programs include Skillstreaming (Goldstein, Gershaw & Sprafkin, 1995) and Aggression Replacement Training (Goldstein & Glick, 1994).

Recommended intervention with peers includes:

- Peer intervention to replace deviant peer group with socially appropriate group
- Promote prosocial interactions with peers at school
6.6 Community Intervention

Many youth with CD are involved with the juvenile justice and/or welfare systems. These systems may be used constructively to support parental authority, obtain needed resources to address behaviour problems, and coordinate services. There is evidence that multi-systemic therapy (MST) is an effective intervention for CD youth that may be delivered in community settings (Henggeler and others, 1998, 1990).

Recommended intervention with other systems and agencies includes:

- Work with juvenile justice and child welfare systems to introduce or support court supervision and limit-setting
- Work with social welfare agencies to help family gain access to case managers, benefits, services, and community supports
- Work with other agencies (e.g., Big Brothers and Big Sisters) to obtain mentors and access to programs

7. TREATMENT SETTINGS

Treatment of CD usually takes place in outpatient and community settings, although residential treatment may be indicated by severe family dysfunction, marked noncompliance, or persistent involvement with a deviant peer group. Many children with severe CD have been rejected by their families and have experienced a high level of placement breakdowns. These children are very difficult to manage outside of a residential treatment program.

Although the effectiveness of different types of residential treatment have not been thoroughly tested, treatment foster care appears to be the preferred residential treatment option for children under 12 who commit moderate to severe offenses and require out-of-home placements (Goldberg, 1999). CD youth who are sexual perpetrators may need placement in a specialized sex offenders program.

Residential treatment programs should include a therapeutic milieu with community processes and structure, such as a level system. The family or caregiver, if they are connected with the child, should be involved in treatment, including social learning (parent training) and family therapy. The child should be involved in an appropriate school program. Individualized treatment plans should address specific treatment for comorbid disorders and include programs to improve social functioning (e.g., assertiveness, anger management), if relevant. There should be ongoing treatment coordination with school and other systems.
There appears to be research support for multisystemic therapy as a home-based or community-based treatment alternative for youth with conduct disorder. Multisystemic therapy involves changing the multiple systems that affect the child's behaviour, including the child, family, school, peers and community (Henggeler and others, 1998, 1990, 1987a, 1987b). Recent research supports the use of home-based MST as an alternative to emergency psychiatric hospitalization in reducing the symptoms of youth with CD problems (Henggeler and others, 1999). This form of therapy also appears to be effective for CD youth who have substance abuse problems.

Criteria for CD usually do not justify hospitalization unless there are symptoms of substance abuse, self-destructive or suicidal behaviour, or homicidal or aggressive behaviour that warrant the concurrent diagnosis of ADHD, intermittent explosive disorder, mood disorder, bipolar disorder, or substance abuse disorder.

An evaluation of a short-term residential hospital-based behavioral program in Nova Scotia showed some benefits for CD female adolescents, but not for males (Ansari and others, 1996). Pharmacotherapy (medication) should not be initiated immediately. Hospitalization should include a therapeutic milieu, involvement of the child's family (including parent training and family therapy), individual and group therapy, specific therapy for comorbid disorders, social skills training, academic programming (including special education or vocational training), and involvement of relevant systems (juvenile justice, social welfare, education) to ensure discharge and follow-up planning to return the child to the community as soon as possible.
8. REFERENCES


Goldberg, K (1999). Helping children under 12 who commit offences: An alternative to criminalization. Canada's Children, Fall, 6-10


Lavin M & Rifkin A (1993). Diagnosis and pharmacotherapy of conduct disorder. Prog Neuropsychopharmacol Biol Psychiatry 17:875-885


Fifty-four boys and 10 girls with clinically significant behavioural problems / police contact participated in the Under 12 Outreach Project (ORP), including Transformer Club, Parent Group and Individual Befriending. “There were significant improvements in parents’ ratings of total, externalizing and internalizing behaviour problems...” (pp. 9-10) “There were significant improvements from admission to 6 month follow-up on parent ratings of total, externalizing and internalizing behaviour problems, and social competence...” (p.10)

Additional References:


APPENDIX 1

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