



# CHILD delinquency

## Bulletin Series

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### A Message From OJJDP

Youth who start offending early in childhood—age 12 or younger—are far more likely to become serious, violent, and chronic offenders later in life than are teenagers who begin to offend during adolescence. We have an opportunity to direct these young offenders to a better path because research indicates that they are at an age when interventions are most likely to succeed in diverting them from chronic delinquency.

Part of OJJDP's Child Delinquency Series, this Bulletin draws on findings from OJJDP's Study Group on Very Young Offenders to assess treatment, services, and intervention programs designed for juvenile offenders under the age of 13. The Bulletin reviews treatment and services available to such child delinquents and their families and examines their efficacy. At a time of limited budgets, it is imperative that we consider the cost effectiveness of specific programs because children who are not diverted from criminal careers will require significant resources in the future.

The timely provision of the kinds of treatment, services, and intervention programs described in this Bulletin while child delinquents are still young and impressionable may prevent their progression to chronic criminality, saving the expense of later interventions.

## Treatment, Services, and Intervention Programs for Child Delinquents

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*Sparked by high-profile cases involving children who commit violent crimes, public concerns regarding child delinquents have escalated. Compared with juveniles whose delinquent behavior begins later in adolescence, child delinquents (offenders younger than age 13) face a greater risk of becoming serious, violent, and chronic juvenile offenders. OJJDP formed the Study Group on Very Young Offenders to examine the prevalence and frequency of offending by children younger than 13. This Study Group identified particular risk and protective factors that are crucial to developing effective early intervention and protection programs for very young offenders.*

*This Bulletin is part of OJJDP's Child Delinquency Series, which presents the findings of the Study Group on Very Young Offenders. This series offers the latest information about child delinquency, including analyses of child delinquency statistics, insights into the origins of very young offending, and descriptions of early intervention programs and approaches that work to prevent the development of delinquent behavior by focusing on risk and protective factors.*

Compared with juveniles who start offending in adolescence, child delinquents (age 12 and younger) are two to three times more likely to become tomorrow's serious and violent offenders. This propensity, however, can be minimized. These children are potentially identifiable either before they begin committing crimes or at the very early stages of criminality—times when interventions are most likely to succeed. Therefore, treatment, services, and intervention programs that target these very young offenders offer an exceptional opportunity to reduce the overall level of crime in a community.

Although much can be done to prevent child delinquency from escalating into chronic criminality, the most successful interventions to date have been isolated and unintegrated with other ongoing interventions. In fact, only a few well-organized, integrated programs designed to reduce child delinquency exist in North America today.

The Study Group on Very Young Offenders (the Study Group), a group of 39 experts on child delinquency and child

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psychopathology convened by the Office of Juvenile Justice and Delinquency Prevention (OJJDP), has concluded that juveniles who commit serious and violent offenses most often have shown persistent disruptive behavior in early childhood and committed minor delinquent acts when quite young. Therefore, comprehensive intervention programs should encompass children who persistently behave in disruptive ways and child delinquents, in addition to young juvenile offenders who have committed serious and violent crimes. Focusing on children who persistently behave disruptively and child delinquents has the following advantages:

- If early interventions are successful, both groups are less likely to become chronically delinquent if they are exposed to additional risk factors that typically emerge during adolescence.
- If early interventions are successful, both groups are less likely to suffer from the many negative social and personal consequences of persistent misbehavior.
- Both persistent disruptive behavior and delinquency can be reduced at an early age through effective interventions.

Child delinquents who become serious and violent offenders consume significant funds and resources from the juvenile justice system, schools, mental health agencies, and other child welfare and child protection agencies. Nevertheless, many children, especially those who behave disruptively, are not receiving the services they need to avoid lives marked by serious delinquency and criminal offending. More intervention programs fostering cooperation among families, schools, and communities need to be devised, implemented, and evaluated.

This Bulletin explores the services available to children and their families and the efficacy and cost effectiveness of

particular interventions. (The Study Group's findings concerning risk factors for child delinquency will be discussed more fully in another Bulletin.) The Study Group reviewed how the mental health, education, child welfare, and juvenile justice sectors meet the service needs of children with conduct disorder or who exhibit conduct disorder symptoms.<sup>1</sup> Although not all children with conduct disorder are technically child delinquents, the behavior and problems of acting out associated with the disorder are often delinquent in nature.

<sup>1</sup> According to the *Diagnostic and Statistical Manual of Mental Disorders-IV (DSM-IV)* (American Psychiatric Association, 1994), conduct disorder symptoms include aggression toward people and animals, destruction of property, deceitfulness or theft, and serious violations of rules. Juveniles who exhibit conduct disorder symptoms are also prone to certain other conditions, such as attention deficit/hyperactivity disorder (ADHD), internalizing disorders (anxiety and depression), and substance abuse (Angold, Costello, and Erkanli, 1999).

Focusing on children with conduct disorder or who exhibit conduct disorder symptoms helps researchers target both children who commit delinquent acts but have not been detected and children at risk of committing such acts.

This Bulletin also discusses juvenile justice system programs and strategies for very young offenders. Four promising programs—the Michigan Early Offender Program, the Minnesota Delinquents Under 10 Program, the Sacramento County Community Intervention Program, and the Toronto Under 12 Outreach Project—that organize interventions for child delinquents are reviewed. In addition, the Bulletin outlines a model for comprehensive interventions and examines the Canadian approach to child delinquency, which may serve as a guide for prevention efforts in the United States and Europe.

### Child Delinquency Research: An Overview

Historically, delinquency studies have focused on later adolescence, the time when delinquency usually peaks. This was particularly true in the 1990s, when most researchers studied chronic juvenile offenders because they committed a disproportionately large amount of crime. Research conducted during this period by OJJDP's Study Group on Serious and Violent Juvenile Offenders concluded that youth referred to juvenile court for their first delinquent offense before age 13 are far more likely to become chronic offenders than youth first referred to court at a later age. To better understand the implications of this finding, OJJDP convened the Study Group on Very Young Offenders in 1998. Its charge was to analyze existing data and to address key issues that had not previously been studied in the literature. Consisting of 16 primary study group members and 23 coauthors who are experts on child delinquency and psychopathology, the Study Group found evidence that some young children engage in very serious antisocial behavior and that, in some cases, this behavior foreshadows early delinquency. The Study Group also identified several important risk factors that, when combined, may be related to the onset of early offending. The Study Group report concluded with a review of preventive and remedial interventions relevant to child delinquency.

The Child Delinquency Bulletin Series is drawn from the Study Group's final report, which was completed in 2001 under grant number 95-JD-FX-0018 and subsequently published by Sage Publications as *Child Delinquents: Development, Intervention, and Service Needs* (edited by Rolf Loeber and David P. Farrington). OJJDP encourages parents, educators, and the juvenile justice community to use this information to address the needs of young offenders by planning and implementing more effective interventions.

## Treatment Approaches

A growing body of research has focused on the treatment of juvenile offenders and juveniles with conduct disorder. An examination of 200 studies published between 1950 and 1995 found that the most effective interventions for serious and violent juvenile offenders were interpersonal skills training, individual counseling, and behavioral programs (Lipsey and Wilson, 1998). Another review of 82 studies of interventions for children and adolescents with conduct problems found strong evidence for several effective treatments, including delinquency prevention and parent-child treatment programs for preschool-age children and problem-solving skills training and anger-coping therapy for school-age children (see, e.g., Brestan and Eyberg, 1998).

Examples of effective interventions include the parent training programs based on Patterson and Gullion's *Living With Children* (1968), which are designed to teach adults how to monitor child problem and prosocial behaviors, reward behavior incompatible with problem behavior, and ignore or apply negative consequences to problem behavior. Another example of effective interventions is the parent-training program developed by Webster-Stratton and Hammond (1997), which involves groups of parents in therapist-led discussions of videotaped lessons.

Far less evidence of efficacy is available for psychopharmacology than psychosocial treatments; the results of studies are often conflicting. For example, one study found that lithium effectively reduced aggressiveness in juveniles (Campbell and Cueva, 1995), whereas two other studies did not produce this result (Klein, 1991; Rifkin et al., 1997) and one found only limited benefits from lithium treatment (Burns, Hoagwood, and Mrazek, 1999). Other medications for children with conduct disorder are also being studied, including methylphenidate, dextroamphetamine, carbamazepine, and clonidine.

Controlled research on institutional care (e.g., psychiatric hospitalization, residential treatment centers, and group homes) for children with conduct disorder is limited, and the findings are less than encouraging. To some extent, this result may be linked to the finding that interactions among delinquent juveniles are prone to promote friendships and alliances among them and intensify delinquent behavior rather than reduce it (Dishion, McCord, and Poulin, 1999). Several older clinical trials demonstrated that community care was at least as effective as inpatient treatment. A recent study that compared inpatient treatment with multisystemic therapy (MST) found that this community-based alternative treatment was more effective at the 4-month followup (Schoenwald et al., 2000). A series of controlled studies (Burns et al., 2000) with older delinquents involved in MST found multiple positive outcomes (e.g., fewer arrests, less time in incarceration).

## Service Sectors

In its effort to document information about services for child delinquents age 12 and younger, the Study Group was concerned with two primary issues: access to services and patterns of

service use among juveniles who seek help. As opposed to focusing only on juveniles who have committed offenses, the Study Group focused on juveniles with conduct disorder or who exhibited conduct disorder symptoms. This approach stemmed partly from the fact that mental health services and treatment programs typically describe juveniles by diagnosis and do not identify delinquent status. Symptoms or a diagnosis of conduct disorder functions as a proxy for early-onset offending.

Although conduct problems usually are apparent and children (in most circumstances) are identified for some type of service, it is not known exactly which service sectors are most used and, perhaps more important, whether effective treatment is provided. Although much research has focused on the onset, prognosis, course, and outcome of conduct disorder in children, seldom has research explored the link between conduct disorder and offending and the services and interventions used to address them. It is apparent, however, that the most effective interventions for younger children focus on parents and are home- or school-based. This section offers a brief overview of the four service sectors most commonly used to



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help juveniles with conduct disorder symptoms or a conduct disorder diagnosis: mental health, education, child welfare, and juvenile justice.

## Mental Health

Early-onset offenders have frequently developed multiple mental health problems early in life. These juveniles, however, often are not identified until they have had some contact with the police or the court. In general, a large proportion of juveniles with any type of psychiatric disorder do not receive specialized mental health services. It is unclear whether the same is true specifically for juveniles with conduct problems. Considerable evidence suggests, however, that conduct disorder is highly prevalent among juveniles referred to mental health services (Kazdin, 1985; Lock and Strauss, 1994). Conduct disorder accounts for 30 to 50 percent of psychiatric referrals among juveniles, making it the most frequent reason for referral in this age group. Although the juvenile justice system can serve as a gateway into professional mental health services, this is not always the case. For example, one study found that juveniles with a court contact and those with delinquent behavior but no court contact were about equally likely to have sought help for their behavioral problems and to have received professional mental health treatment (Stouthamer-Loeber, Loeber, and Thomas, 1992).

In some juveniles, the early onset of delinquency is associated with attention deficit/hyperactivity disorder (ADHD). The Multimodal Treatment Study of Children With Attention Deficit/Hyperactivity Disorder (MTA Cooperative Group, 1999a) compared combinations of medication and behavioral treatments (including parent management training, use of a behavioral aide in the classroom, and child behavioral treatment in a summer program) with a standard community treatment (e.g., a pediatrician prescribing stimulant medication for children with ADHD).

For ADHD, medication worked better than the combined behavioral treatments. Children receiving both behavioral treatment and medication responded better than those receiving behavioral treatments alone, whereas behavioral treatments combined with medication worked no better than medication alone. Families whose children received behavioral treatment, with or without medication, were more satisfied with their children's treatment than families whose children received only medical treatment; behavioral treatment improved juveniles' acceptance of and compliance with medical treatment; and combined treatment was associated with a lower dose of medication (MTA Cooperative Group, 1999b). In other words, one type of treatment (e.g., behavioral) appears to enhance family compliance with other treatment components (e.g., medication). Although the evidence base for pharmacological interventions with children and adolescents is less developed for juveniles with conduct disorder than for those with ADHD, the results highlight the importance of combining multiple components into clinically successful treatment programs that involve both children and their families.

## Education

The Study Group found that school systems can play an important role in identifying a child's need for mental health services and providing such services. For example, juveniles and parents most often contact teachers about emotional and behavioral problems. In a North Carolina study, 71.5 percent of juveniles with serious emotional disturbances received services from schools, compared with much smaller proportions of help from other service sectors (Burns et al., 1995). However, the adequacy of school-based mental health services has been questioned, largely because school personnel, such as guidance counselors, have limited mental health training. A discussion of school interventions that seek to change the

social context of schools and improve academic and social skills of students is provided on page 6 of this Bulletin.

## Child Welfare

Child welfare services, especially the foster care segment, may also serve as a major gateway into the mental health-care system. The child welfare system provides children and adolescents with financial coverage for mental health care through Medicaid. In addition, children and adolescents enter the child welfare system primarily because of maltreatment such as child abuse and neglect, conditions associated with a higher risk of psychiatric problems and delinquency. For example, recent reviews of child welfare studies suggest that between one-half and two-thirds of children entering foster care have behavior problems warranting mental health services (Landsverk and Garland, 1999). Two studies of computerized Medicaid program claims found substantially greater use of mental health services by children in foster care than by children in the overall Medicaid population (Takayama, Bergman, and Connell, 1994). Nevertheless, little is known about how the child welfare system identifies child delinquents and potential child delinquents and refers them to mental health services. These children are a critical population for early intervention because of their exposure to trauma and other risk factors and their consequent externalizing (or acting out) behavior. By using the results of additional research, the child welfare system could serve as an early warning system for identifying children who demonstrate conduct problems and are at an increased risk of entering the juvenile justice system during their adolescence.

## Juvenile Justice

Conduct disorder is characterized by externalizing behaviors as opposed to internalizing behaviors. It is not surprising, then, that this disorder is found

## Cost Effectiveness of Intervention

Researchers have estimated that a typical criminal career spanning the juvenile and adult years costs society between \$1.3 million and \$1.5 million (Cohen, 1998). Several cost-benefit analyses have shown that early prevention programs designed to halt the development of criminal potential in individuals show promise as being both effective and economical in reducing delinquency (e.g., Aos et al., 2001; Wasserman and Miller, 1998; Welsh and Farrington, 2000). For example, in the Yale Child Welfare Research Program, a cost-benefits analysis found that in the course of 1 year, the control group of 15 families who received no special services consumed \$40,000 more in public resources than the treatment group of families who participated in programs to help disadvantaged young parents support their children's development and improve the quality of family life (Seitz, Rosenbaum, and Apfel, 1985). Aos and colleagues (2001) showed that, based on ability to reduce felonies and total costs to taxpayers and crime victims, multisystemic therapy, a community-based model of service delivery, is currently the most cost-effective treatment program for reducing delinquency and incarceration, saving an estimated \$31,661 to \$131,918 per participant in costs to taxpayers and victims. Other cost-effective programs include treatment foster care (which has reduced felonies by 37 percent among participants and saved taxpayers and crime victims \$21,836 to \$87,622 per participant) (Aos et al., 2001) and functional family therapy (which has reduced felonies by 27 percent among participants and saved taxpayers and crime victims \$14,149 to \$59,067 per participant) (Sexton and Alexander, 2000).<sup>1</sup>

Nevertheless, more research focusing on cost-benefit analysis is needed because benefits tend to be estimated

<sup>1</sup> The cost to taxpayers is defined by criminal justice system costs, and the cost to crime victims is equal to the costs of personal and property losses. These figures represent net benefits per participant after subtracting the program costs per participant. The lower figures include taxpayer benefits only; the higher figures include both taxpayer and crime victim benefits.

### Summary of Early Prevention Program Benefits

Outcome Variable	Benefits
<b>Delinquency/crime</b>	<ul style="list-style-type: none"> <li>● Offers savings to the criminal justice system (e.g., police, courts, probation, corrections).</li> <li>● Avoids tangible and intangible costs incurred by crime victims (e.g., medical care, damaged and lost property, lost wages, lost quality of life, pain and suffering).</li> <li>● Avoids tangible and intangible costs incurred by family members of crime victims (e.g., funeral expenses, lost wages, lost quality of life).</li> </ul>
<b>Substance abuse</b>	<ul style="list-style-type: none"> <li>● Offers savings to the criminal justice system.</li> <li>● Improves health.</li> </ul>
<b>Education</b>	<ul style="list-style-type: none"> <li>● Improves educational output (e.g., high school completion, enrollment in higher education).</li> <li>● Reduces schooling costs (e.g., remedial classes, support services).</li> </ul>
<b>Employment</b>	<ul style="list-style-type: none"> <li>● Increases wages (tax revenue for government).</li> <li>● Decreases use of welfare services.</li> </ul>
<b>Health</b>	<ul style="list-style-type: none"> <li>● Decreases use of public health care (e.g., fewer visits to hospitals and clinics).</li> <li>● Improves mental health.</li> </ul>
<b>Family factors</b>	<ul style="list-style-type: none"> <li>● Reduces childbirths by women of low socioeconomic status.</li> <li>● Offers parents more time to spend with their children.</li> <li>● Reduces divorces and separations.</li> </ul>

Source: Welsh, B.C. 1998. Economic costs and benefits of early developmental prevention. In *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions*, edited by R. Loeber and D.P. Farrington. Thousand Oaks, CA: Sage Publications, Inc., pp. 339–355.

conservatively, whereas costs are often taken into full account. More research will also help to determine specific monetary benefits of prevention programs (see Welsh, Farrington, and Sherman, 2001).

As shown in the table above, cost-benefit analyses of early prevention reveal many important economic benefits of prevention programs. For example, in addition to preventing delinquency, many programs affect other life factors,

such as educational achievement, health, and parent-child relationships, all of which have economic benefits. An analysis of one program, conducted 13 years after the intervention, found that the greatest share of total benefits (57 percent) resulted from reduced welfare costs, whereas increased revenues from employment-related taxes accounted for 23 percent of total benefits, and savings to the criminal justice system accounted for 20 percent (Karoly et al., 1998).

more often among juveniles referred to the juvenile justice system than in the general population (Otto et al., 1992). In one review of nine studies, the prevalence rates of conduct disorder for juveniles in the juvenile justice system ranged from 10 to 90 percent, and rates were higher for incarcerated juveniles than for those residing in the community (Cocozza, 1992). Mental health and substance use disorders are pervasive among incarcerated juveniles. For example, among 697 juveniles in detention in Cook County, IL, 80 percent had at least one mental health or substance use disorder; 20 percent had an affective disorder, 24 percent an anxiety disorder, 44 percent a substance use disorder, and 44 percent a disruptive behavior disorder (Teplin, Northwestern University Medical School, personal communication, 1997). The limited attention given to providing mental health services to incarcerated juveniles raises questions about whether the lack of studies in this area is also associated with a failure to provide needed services.

## Service Use Patterns

Despite the need for more research, the outlook for the treatment of juvenile offenders in general is more encouraging now than it was 10 years ago. Several strategies for a comprehensive approach involving community actions have shown promise for juveniles who exhibit conduct disorder symptoms. In addition, three recent studies have shed light on patterns of service use and may have implications for future intervention programs. The Great Smoky Mountains Study (GSMS), conducted in 11 counties of western North Carolina, examined access to services. The Patterns of Care (POC) Study in San Diego County, CA, provided information on service use patterns for juveniles and families seeking treatment. (The POC study consists of an annual count of youth involved in service delivery systems and a longitudinal survey of youth who received services.) The Cost of Services in Medicaid Study in southwestern Pennsylvania examined service

use and costs for juveniles with conduct disorder and juveniles with oppositional defiant disorder.

As expected, the studies found that education was the service sector most likely to intervene and that the mental health sector provided services to a significant proportion of juveniles who exhibited conduct disorder symptoms. Institutional placement (in a psychiatric hospital or detention center) remained a significant form of treatment for children who exhibited conduct disorder symptoms. Unexpectedly, the juvenile justice system had limited contact with juveniles who exhibited severe antisocial behavior, and when there was contact, the rate of mental health services intervention was extremely low. In the GSMS, the major finding was that youth with a significant history of serious antisocial behavior were not identified by the justice system, suggesting an important potential role of police in detection and referral.

If appropriate services are not available through the police or courts, a well-defined mechanism for obtaining timely help is needed. The first step toward obtaining effective treatment is gaining access to services. However, although the early detection of emotional and behavioral problems has long been a public health goal, the common delay between symptom onset and help-seeking is apparent. For example, in the child welfare sector, it appears that a child's first access to mental health services is often triggered by foster care placement. A further issue is how widely available effective interventions are to such youth once they gain access to treatment in typical mental health settings.

## School Interventions

Research shows that school interventions that change the social context of schools and the school experiences of children can reduce and prevent the delinquent behavior of children younger than 13. Several approaches to school

## Juvenile Justice Facilities and Programming

The ability of the juvenile corrections system to provide appropriate facilities and programming for child delinquents is a major concern. Because the juvenile justice system is not geared to handle child delinquents, they are sometimes housed with older offenders in detention centers and juvenile correctional facilities. Little is known about the detrimental effects of secure confinement on these children's emotional and cognitive development, and much less is known about the impact confinement has on children. One study found that excessive detention (more than a 30-day period) negated the positive effects that community treatment had on recidivism rates among juveniles (Wooldredge, 1988). For young children who have committed violent offenses, short-term facilities and comprehensive community-based programs may offer a good alternative to the many disadvantages of long-term confinement.

interventions have yielded positive results. These approaches include classroom- and schoolwide behavior management programs; social competence promotion curriculums; conflict resolution and violence prevention curriculums; bullying prevention efforts; and multicomponent classroom-based programs that help teachers and parents manage, socialize, and educate students and improve their cognitive, social, and emotional competencies. Research also shows that community-based activities such as afterschool recreation and mentoring programs can reduce child delinquency (Jones and Offord, 1989).

Several classroom and school behavior management programs have positively influenced children's behavior. For example, evaluations of the Good Behavior Game showed that proactive behavior



management in the classroom can reduce aggressive behavior and promote positive long-term effects on the most aggressive elementary school children (Kellam and Rebok, 1992; Kellam et al., 1994). Murphy and colleagues (1983) found that programs that effectively manage behavior on the playground can reduce aggressive behavior. By providing structured activities and timeout procedures for elementary school children, teacher's aides were able to reduce disruptive and aggressive behavior during recreational periods. Mayer and Butterworth (1979) have shown that schoolwide behavior management and consultation programs in urban elementary schools can increase the safety of students and enhance learning and healthy social interactions.

Curriculums that seek to promote social competence teach prosocial norms and enhance children's problem-solving and social interaction skills. Several of these curriculums have been successfully used to reduce aggressive behavior and, in some cases, child delinquency. Examples include PATHS (Greenberg and Kusche, 1993), the Social Relations Intervention (Lochman et al., 1993), the Metropolitan Area Child Study (Eron et al., forthcoming), the Social Competence

Promotion Program for Young Adolescents (Weissberg, Barton, and Shriver, 1997), and the Montreal Longitudinal Experiment Study (Tremblay et al., 1990). Although variations exist regarding the specific content, number of sessions, and ages targeted by these programs, social competence promotion programs with sufficient intensity and duration consistently have been found to reduce aggressive and other antisocial behaviors of children younger than 13.

Conflict resolution, violence prevention curriculums, and antibullying programs also focus on problem-solving and social interaction skills. In addition, they seek to educate children about the causes and destructive consequences of violence and bullying (Olweus, 1991). The Second Step curriculum for elementary school students and the Responding in Peaceful and Positive Ways curriculum for middle school students have successfully reduced aggressive behavior in children (Grossman et al., 1997). Social competence and violence prevention curriculums can be combined with other intervention components into multicomponent approaches, as illustrated by Fast Track (Conduct Problems Prevention Research Group,

1999a, 1999b), the Child Development Project, and the Seattle Social Development Project (SSDP).

Multicomponent classroom-based programs seek to reduce misbehaving (both inside and outside the classroom) and strengthen academic achievement. Fast Track, the Child Development Program, and SSDP have shown positive effects in reducing early behavior problems (Battistich et al., 1997; Conduct Problems Prevention Research Group, 1999a, 1999b; Hawkins et al., 1999). Each of these programs included classroom- and family-focused components. Positive effects of the Fast Track intervention on the disruptive-oppositional behavior of first-graders were evident immediately after the program concluded. Today, those children are being tracked to determine whether the ongoing intervention will continue to influence their behavior. The Child Development Program used proactive behavior management and cooperative learning strategies with elementary school students. The program successfully reduced antisocial behavior (including interpersonal aggression and weapon carrying) among children in a high-implementation subgroup. In the classroom, SSDP combined proactive behavior management strategies with interactive instructional methods, cooperative learning, and cognitive and social skills instruction for students. Effects of the program on children's antisocial behavior were shown during the intervention, immediately after its completion (at the end of elementary school), and when the students turned 18 (6 years after the intervention ended) (Hawkins et al., 1999).

These results clearly document the important role that schools can play in the prevention of child delinquency. This role is particularly important in light of research findings that indicate that children whose academic performance is poor face a greater risk of becoming involved in child delinquency than other children (Herrenkohl et al.,

2001). Through the school and classroom management policies and practices that they adopt, and through the instructional methods and curriculums that teachers choose to use in the classroom, schools can promote or inhibit offending behavior among students. Good schools are a fundamental component in preventing delinquency.

From the perspective of preventing child delinquency, good schools are schools with explicit, consistent, and contingent (and fairly applied) expectations for behavior. Good schools use interactive and cooperative methods of instruction that actively involve students in their own learning. Good schools empower parents to support the learning process and to practice more effective child management skills. Good schools offer elementary and middle school children curriculums that promote the development of social and emotional competencies and the development of norms against violence, aggression, and offending.

Schools that do these things promote academic attainment and reduce the risk for antisocial behavior among their students. Federal, State, and local efforts should focus on encouraging schools to assess their current practices in these areas and to adopt practices, programs, and approaches shown to reduce offending behavior. Currently, 94 percent of the resources intended to combat violent offending are used after violent offenses have occurred. To adequately prevent youthful offending, more resources should be made available to ensure that schools use methods and programs that will help them effectively educate and socialize children.

## Juvenile Justice Programs

Most children with a conduct disorder diagnosis or who exhibit conduct disorder symptoms do not enter the juvenile justice system before age 12. Nevertheless, the likelihood that many of these

juveniles will eventually come in contact with the system during their adolescence is a clear incentive for earlier justice system involvement. This section summarizes the status of the juvenile justice system's involvement with child delinquency and describes several promising programs.

The juvenile court system typically gives child delinquents more opportunities to reform than it gives to older offenders, which explains why juvenile courts do not normally adjudicate very young, first-time offenders. When confronted with child delinquents (even if they are repeat or serious offenders), juvenile courts must deal with legal issues surrounding the handling of these children in a system that does not really anticipate their presence. Traditionally, the courts have been expected to intervene only when families, service agencies, and schools fail to give children the help they need. Children exhibiting problem behaviors often have not been served adequately by child welfare, social services, child protective services, mental health agencies, and public schools (Office of Juvenile Justice and Delinquency Prevention, 1995). Because their needs have not been met elsewhere, the juvenile court has long been a “dumping ground” for children with a wide variety of problem behaviors (Kupperstein, 1971).<sup>2</sup>

The juvenile court's intervention in child delinquency has been affected by policy changes during the 1970s and 1980s—e.g., the Federal Juvenile Justice and Delinquency Prevention (JJDP) Act of 1974—which have increased the diversion of status offenders, non-offenders, and child delinquents from juvenile court processing. In the view of many judges, this diversion has meant a lost opportunity to help

<sup>2</sup> Most practitioners surveyed by the Study Group on Very Young Offenders thought that effective methods were available for reducing child delinquents' risk of future offending. However, only 3 to 6 percent of practitioners thought that current juvenile court procedures were effective in achieving this goal (Loeber and Farrington, 2001).

children (Holden and Kapler, 1995). Despite policy changes, however, the juvenile courts continue to handle many status offenders, nonoffenders, and child delinquents. Yet the policies of the past 25 years have restricted the development of programs for these children. A fairly strong principle seems to be commonly held—that very young children should not be subject to dispositions normally reserved for older or more serious offenders. However, dispositions specifically tailored to address the unique circumstances of child delinquents are scant. The juvenile justice system has no special facilities for these young offenders, and few programs are designed specifically for them. Nevertheless, among these few programs, the Study Group has identified some promising interventions for child delinquents.

## Michigan Early Offender Program

Established in 1985 by a Michigan probate court, the Early Offender Program (EOP) provides specialized, intensive, in-home interventions for children age 13 or younger at the time of their first adjudication and who have had two or more prior police contacts. Interventions include individualized treatment plans, therapy groups, school preparation assistance, and short-term detention of up to 10 days. Comparisons with a control group showed that EOP participants had lower recidivism rates, fewer new adjudications per recidivist, and fewer and briefer out-of-home placements. In general, both parents and children reported positive changes in family situations, peer relations, and school performance and conduct after participating in EOP (e.g., Howitt and Moore, 1991).

## Minnesota Delinquents Under 10 Program

The Delinquents Under 10 Program in Hennepin County, MN, involves several county departments (Children and Family Services, Economic Assistance,

Community Health, and County Attorney's Office). A screening team reviews police reports and then determines appropriate dispositions for children. Interventions include an admonishment letter to parents from the county attorney, referrals to child protective services and other agencies, diversion programs, and targeted early interventions for children deemed to be at the highest risk for future delinquency (Hennepin County Attorney's Office, 1995). For each targeted child, a specific wraparound network is created. Networks include the following elements:

- A community-based organization to conduct indepth assessments, improve behavior and school attendance, and provide extracurricular activities.
- An integrated service delivery team made up of county staff who coordinate service delivery and help children and family members access services.
- A critical support person or mentor.
- A corporate sponsor that funds extracurricular activities.

## Sacramento County Community Intervention Program

Sacramento County, CA, welfare authorities found that families of most young (ages 9 to 12) children arrested in the county had been investigated for both neglect and physical abuse. In addition, children who were reported as abused or neglected were six to seven times more likely than other children to be arrested for delinquent behavior (Brooks and Petit, 1997; Child Welfare League of America, 1997). Based on this data, the Community Intervention Program (CIP) for child delinquents was developed (Brooks and Petit, 1997). The intervention begins when law enforcement officers notify the probation department that a child between ages 9 and 12 has been arrested. The court intake screener then refers the children who have instances of family abuse or neglect to

## Policy Issues

A critical question for policymakers is how to transfer effective treatments, such as in-home treatment, parent training, and other approaches, to the appropriate service sectors, especially schools, where children and parents are most likely to use and benefit from such services. How to best combine interventions is another important question. For many children and families, a single intervention may be sufficient, but for others, a package of interventions and support may be critical.

As a result of its research review, the Study Group recommends that new research focus on issues such as the applicability and effectiveness of interventions for child delinquents.

The Study Group's recommendations for policy development include the following:

- Take steps within the juvenile justice system to assist parents of child delinquents in seeking help.
- Enhance police training in the screening and detection of juveniles who are not necessarily child delinquents but who have encountered the police because of predelinquent behavior and who could benefit from a referral for mental health services.
- Increase support for the training of mental health workers in evidence-based prevention and treatment for offending juveniles.
- Develop policies that promote multiagency collaborative efforts.
- Ensure that policies and procedures monitor the provision of interventions.

CIP. Next, a community intervention specialist conducts a crisis assessment and provides initial crisis intervention services to the child and family. The intervention specialist then conducts an indepth assessment, which includes physical and mental health, substance abuse, school functioning, economic strengths/needs, vocational strengths/needs, family functioning, and social functioning. The intervention specialist coordinates all services, which are community based and family focused and may vary in intensity over time to match the needs of the child and family. Intervention services include individual and family counseling and abuse and neglect risk monitoring.

## Toronto Under 12 Outreach Project

The Under 12 Outreach Project in Toronto, Canada, is a fully developed intervention program that combines social learning and behavioral system

approaches. The multisystemic approach uses interventions that target children, parents, schools, and communities, as required. Interventions include skills training, cognitive problem solving, self-control strategies, cognitive self-instruction, family management skills training, and parent training. These interventions are organized in eight major program components, such as a 12-week afterschool structured group session, a 12-week parent training group, in-home academic tutoring, school advocacy, teacher consultations, and individual befriending, which connects juveniles with volunteers who help them join recreational facilities in their community.

## A Comprehensive Model

Based on the initial experiences of these community-based efforts and a recognition of the multiple causes of child delinquency, the need for a comprehensive model emerges to guide

new efforts. Historically, interagency coordination and collaboration in service delivery to children have been less than impressive (Knitzer, 1982; Nelson, Rutherford, and Wolford, 1996). Undoubtedly, children with serious behavioral disturbances need to receive several different services simultaneously in a continuum of care that involves multiple human services agencies. A comprehensive wraparound model is needed to integrate interventions for children who have committed delinquent acts or are at risk of delinquency. The model should integrate prevention, early intervention, graduated sanctions, and aftercare in a comprehensive approach that enables communities to address child delinquency more effectively (Wilson and Howell, 1993).

## Mechanisms for a Comprehensive Approach

The Study Group has identified three crucial mechanisms for coordinating and fully integrating a continuum of care and sanctions for child delinquents:

**Governing body.** The Study Group recommends that communities and governments create a governing body, or interagency council, that includes (at a minimum) representatives from all human services organizations and agencies related to juvenile justice that provide services to child delinquents and their families. These agencies include child welfare, education, health and human services, housing and human development, juvenile justice, and mental health. The council must have the authority to convene the agencies and to direct their work toward developing a comprehensive strategy for dealing with child delinquency.

**Comprehensive assessment and case management.** The Study Group believes that an effort must be made for comprehensive assessments of referred child delinquents at the front end of the juvenile justice system. One option is to use a single mechanism, such as a community assessment center, to perform

risk and needs assessments for a wide range of agencies, thus providing a single point of entry and immediate and comprehensive assessments. These “one-stop shops” could help integrate multidisciplinary perspectives, enhance coordination of efforts, and reduce service duplication. However, to ensure that child delinquents have access to available services and that the services are effectively delivered, it is also critical to implement integrated case management, tracking of children through the system, periodic reassessment, and monitoring of service provisions (Oldenettel and Wordes, 1999).

**Interagency coordination and collaboration.** Although juvenile justice, mental health, child welfare, and education services may have the same clients, these agencies often work at cross-purposes or duplicate services. The Study Group recommends developing wraparound services to target children and families in a flexible and individualized manner tailored to their strengths and needs (Burns and Goldman, 1999; Goldman, 1999). Although promising and effective wraparound models have been developed for children with emotional disturbances and their families, the best method of addressing child delinquency within the juvenile justice system has not been determined. One program, the 8% Early Intervention Program in Orange County, CA, ensures coordinated service delivery by operating under the authority of the probation department and using contractual arrangements for services (Schumacher and Kurz, 1999).

## Prevention

Any program that targets children and child delinquents should include a strong prevention component with a focus on discouraging gang involvement. Often, the most dysfunctional adolescents in urban areas are recruited into gangs (Lancot and Le Blanc, 1996). Prior delinquency and antisocial behavior also predict gang membership (e.g., Hill et al., 1999). A successful program

in Montreal, Canada, combined parent training with individual social skills training for aggressive-hyperactive boys ages 7 to 9 and found that, when compared with a control group, significantly fewer boys in the treatment group joined a gang (Tremblay et al., 1996).

Early intervention is paramount in preventing delinquency and gang involvement, especially for disruptive children. One approach programs can take is improving parenting skills to better manage impulsive, oppositional, and defiant children. Another approach targets parents at high risk for abusing and neglecting their children. An example of this approach is the Children’s Research Center’s innovative method for identifying the relative degree of risk for continued abuse or neglect among families that have a substantiated abuse or neglect referral (Children’s Research Center, 1993). With this method, children are classified according to risk levels, which are then used to determine services. Community policing should also be part of early intervention. For example, a program in New Haven, CT, brings police officers and mental health professionals together to provide each with training, consultation, and support and to offer interdisciplinary interventions to child victims, witnesses, and perpetrators of violent crime (Marans and Berkman, 1997).

## Graduated Sanctions

Child delinquency intervention efforts need to be linked to a system of graduated sanctions—a continuum of treatment alternatives that includes immediate intervention, intermediate sanctions, community-based correctional sanctions, and secure corrections (Howell, 1995). One such program, the 8% Early Intervention Program, focuses on juveniles younger than 15 who, although they represent only 8 percent of the total probation caseload, are of greatest concern to the community because they account for more than half of all repeat offenders among juvenile probationers and because they are at

risk of becoming chronic, serious, and violent juvenile offenders (Schumacher and Kurz, 1999). The following problems serve as criteria for inclusion in the 8% Program:

- Significant family problems (e.g., abuse/neglect).
- Significant school problems (e.g., truancy, suspension).
- A pattern of individual problems (drug and/or alcohol use).
- Predelinquent behavior patterns (e.g., running away or gang associations).

The 8% Program targets these juveniles upon court referral. Cases are identified during screening at probation intake and verified through a comprehensive risks and needs assessment process. A youth and family resource center provides well-coordinated, intensive, and multisystemic intervention services that focus on strengthening the family unit, improving school attendance and academic performance, teaching and modeling prosocial behavior and values, and ensuring easy access to intervention resources.

## A Lesson Learned From Innovations in Canada

Legislation and policy developments that focus on child delinquency do not always work as expected. Programs and policies sometimes lack coordination, proper data collection, adequate monitoring and feedback, and ongoing analysis. Nonetheless, a review of such practices can prompt policymakers to develop new and improved approaches. Canada's near two-decade-old approach to child delinquency is a case in point.

The Canadian Young Offenders Act of 1984 effectively decriminalized children younger than 12 by making them exempt from the juvenile justice system. The rationale was that these children would be better served through provincial and territorial child welfare and mental

health services. However, several surveys<sup>3</sup> of Canada's 10 provinces and 3 territories revealed that the legislation did not lead to a systemic development of multifaceted interventions tailored to children's unique needs.

Nevertheless, the surveys influenced the Earls court Child and Family Centre (see footnote 3) to make several recommendations, which the Study Group believes may offer guidance to jurisdictions in the United States and Europe. Canada has already taken the first step toward improving services by developing early assessment and centralized services protocols in Toronto.<sup>4</sup> The following recommendations made to the Canadian government emphasize early identification and intervention.

**Community Teams for Children Under 12 Committing Offenses.** In this initiative, community teams of representatives from police departments, child welfare programs, schools, mental health agencies, and other organizations would be mandated to provide services for children who commit offenses and their families and for teachers, children's peers, and communities in general. The teams would conduct needs and risk assessments and would assign interventions according to offense severity. Within this framework, multifaceted interventions would be tailored to individual children and their families. Temporary placement options would range from secure mental health facilities to treatment foster homes.

<sup>3</sup> Earls court Child and Family Centre (an accredited children's mental health center specializing in programs for children with disruptive behavior problems) developed and conducted the surveys, which were administered to a variety of service providers, including law enforcement, child welfare, and mental health agencies and school boards.

<sup>4</sup> The Toronto Centralized Services Protocol for Children Under 12 in Conflict With the Law was implemented in Toronto in 1999. Since the implementation of the Protocol in Toronto, many other communities across Ontario and across Canada have indicated an interest in implementing a similar protocol in their own jurisdictions.

**Children Committing Offenses Act (CCOA).** To ensure accountability and meet community standards of public safety, the Canadian CCOA would mandate that services to child delinquents be based on an assessment of their risk for further offending. The Act would provide clear direction to police regarding their responsibilities in tracking children and would ensure services according to established protocols. The Act would also provide for the placement of specially designated police liaison officers who are trained to intervene with delinquent children, coordinate with community agencies, and participate in community teams (Augimeri, Goldberg, and Koegl, 1999). This Act may inspire similar legislation in other countries.

**National Information Center on Very Young Offenders.** This proposed center would encourage, monitor, and evaluate interventions for children younger than 12. It would track the incidence of offending and act as a clearinghouse for interventions. To meet prevention goals, the center would facilitate a nationally sustained parent education program to promote parenting skills and would offer technical assistance to communities. It would also focus on antibullying and antistealing campaigns targeting both the entire school population and children most at risk of offending.

## Summary and Conclusion

Because persistent disruptive behavior and child delinquency are predictors of later serious and violent offending, the Study Group suggests that efforts to reduce serious delinquency should focus on children who exhibit persistent disruptive behavior in addition to child delinquents and serious juvenile offenders. Little evidence supports the idea that harsher sanctions in the juvenile justice system reduce child delinquency. Instead, effective interventions to reduce both persistent disruptive behavior and child delinquency have been developed.

The Study Group found that the best intervention and service programs provide a treatment-oriented, nonpunitive framework that emphasizes early identification and intervention.

When considering intervention program development, it is important to recognize the fact that no single system—juvenile justice, education, mental health, or child welfare—can reduce child delinquency on its own. The Study Group’s survey of juvenile justice practitioners found that they were unanimous about the need for integration among agencies (Loeber and Farrington, 2001). However, providing multiple services for troubled children in a comprehensive, integrated manner has proven difficult. Several pioneering programs described in this Bulletin provide models of consistent coordination among agencies concerned with children. Such integrated efforts will give communities the opportunity to identify children who either have committed delinquent acts or are at risk of delinquency and then help communities target individualized interventions for these children and their families. Should this effort occur on a large scale, the potential for significantly reducing the overall level of crime in a community will increase. As a result, the future expenditure of associated tax dollars will likely decrease.

## References

- American Psychiatric Association. 1994. *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. Washington, DC: American Psychiatric Association.
- Angold, A., Costello, E.J., and Erkanli, A. 1999. Comorbidity. *Journal of Child Psychology and Psychiatry* 40(1):57–87.
- Aos, S., Phipps, P., Barnoski, R., and Lieb, R. 2001. *The Comparative Costs and Benefits of Programs To Reduce Crime*. Olympia, WA: Washington State Institute for Public Policy.
- Augimeri, L.K., Goldberg, K., and Koegl, C. 1999. *Canadian Children Under 12 Committing Offenses: Police Protocols*. Toronto, ON: Earls court Child and Family Centre.
- Battistich, V., Solomon, D., Watson, M., and Schaps, E. 1997. Caring school communities. *Educational Psychologist* 32:137–151.
- Brestan, E.V., and Eyberg, S.M. 1998. Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5,272 kids. *Journal of Clinical Child Psychology* 27(2):180–189.
- Brooks, T.R., and Petit, M. 1997. *Early Intervention: Crafting a Community Response to Child Abuse and Violence*. Washington, DC: Child Welfare League of America.
- Burns, B.J., Costello, E.J., Angold, A., Tweed, D., Stangl, D., Farmer, E.M.Z., and Erkanli, A. 1995. Children’s mental health service use across service sectors. *Health Affairs* 14(3):147–159.
- Burns, B.J., and Goldman, S.K., eds. 1999. Promising practices in wraparound for children with serious emotional disturbance and their families. In *Systems of Care: Promising Practices in Children’s Mental Health, 1998 Series, Vol. 4*. Washington, DC: Center for Effective Collaboration and Practice, American Institutes for Research.
- Burns, B.J., Hoagwood, K., and Mrazek, P. 1999. Effective treatment for mental disorders in children and adolescents. *Clinical Child and Family Psychology Review* 2(4):199–254.
- Burns, B.J., Schoenwald, S.K., Burchard, J.D., Faw, L., and Santos, A.B. 2000. Comprehensive community-based interventions for youth with severe emotional disorders: Multisystemic therapy and the wraparound process. *Journal of Child and Youth Studies* 9:283–314.
- Campbell, M., and Cueva, J.E. 1995. Psychopharmacology in child and adolescent psychiatry: A review of the past seven years—Part II. *Journal of the American Academy of Child and Adolescent Psychiatry* 34(10):1262–1272.
- Child Welfare League of America. 1997. *Sacramento County Community Intervention Program*. Washington, DC: Child Welfare League of America.
- Children’s Research Center. 1993. *A New Approach to Child Protection: The CRC Model*. Madison, WI: National Council on Crime and Delinquency.
- Cocozza, J.J. 1992. *Responding to the Mental Health Needs of Youth in the Juvenile Justice System*. Seattle, WA: The National Coalition for the Mentally Ill in the Criminal Justice System.
- Cohen, M.A. 1998. The monetary value of saving a high-risk youth. *Journal of Quantitative Criminology* 14(1):5–33.
- Conduct Problems Prevention Research Group. 1999a. Initial impact of the Fast Track Prevention Trial for Conduct Problems: I. The high-risk sample. *Journal of Consulting and Clinical Psychology* 65:631–647.
- Conduct Problems Prevention Research Group. 1999b. Initial impact of the Fast Track Prevention Trial for Conduct Problems: II. Classroom effects. *Journal of Consulting and Clinical Psychology* 67:648–657.
- Dishion, T.J., McCord, J., and Poulin, F. 1999. When interventions harm: Peer groups and problem behavior. *American Psychologist* 54(9):755–764.
- Eron, L.D., Guerra, N., Henry, D., Huesmann, R., Tolan, P., and Van Acker, R. Forthcoming. *A Cognitive-Ecological Approach to Preventing Aggression in Urban Inner-City Settings: Preliminary Outcomes*. Chicago, IL: Metropolitan Area Child Study Research Group, University of Illinois.
- Goldman, S.K. 1999. The conceptual framework for wraparound: Definition, values, essential elements, and requirements for practice. In *Promising Practices in Wraparound for Children With Serious Emotional Disturbances and Their Families*, edited by B.J. Burns and S.K. Goldman. Washington, DC: Center for Effective Collaboration and Practice, American Institutes for Research.
- Greenberg, M.T., and Kusche, C.A. 1993. *Promoting Social and Emotional Development in Deaf Children: The PATHS Project*. Seattle, WA: University of Washington Press.
- Grossman, D.C., Neckerman, H.J., Koepsell, T., Asher, K., Liu, P.Y., Beland, K., Frey, K., and Rivara, F.P. 1997. Effectiveness of a violence prevention curriculum among children in elementary school. *Journal of the American Medical Association* 277:1605–1611.
- Hawkins, J.D., Catalano, R.F., Kosterman, R., Abbott, R., and Hill, K.G. 1999. Preventing adolescent health-risk behaviors by strengthening protection during childhood. *Archives*

of Pediatrics and Adolescent Medicine 153:226–234.

Hennepin County Attorney's Office. 1995. *Delinquents Under 10 in Hennepin County: A Research Update and Program Progress Report*. Minneapolis, MN: Hennepin County Attorney's Office.

Herrenkohl, T.I., Hawkins, J.D., Chung, I., Hill, K.G., and Battin-Pearson, S. 2001. School and community risk factors and interventions. In *Child Delinquents: Development, Intervention, and Service Needs*, edited by R. Loeber and D.P. Farrington. Thousand Oaks, CA: Sage Publications, Inc., pp. 217–218.

Hill, K.G., Howell, J.C., Hawkins, J.D., and Battin, S.R. 1999. Childhood risk factors for adolescent gang membership: Results from the Seattle Social Development Project. *Journal of Research on Crime and Delinquency* 36(3):300–322.

Holden, G.A., and Kapler, R.A. 1995. De-institutionalizing status offenders: A record of progress. *Juvenile Justice* 2(2):3–10.

Howell, J.C. 1995. *Guide for Implementing the Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Howitt, P.S., and Moore, E.A. 1991. The efficacy of intensive early intervention: An evaluation of the Oakland County Probate Court Early Offender Program. *Juvenile and Family Court Journal* 42(3):25–36.

Jones, M.B., and Offord, D.R. 1989. Reduction of antisocial behavior in poor children by nonschool skill-development. *Journal of Child Psychology and Psychiatry and Allied Disciplines* 30:737–750.

Karoly, L.A., Greenwood, P.W., Everingham, S.S., Houbé, J., Kilburn, M.R., Rydell, C.P., Sanders, M., and Chiesa, J. 1998. *Investing in Our Children: What We Know and Don't Know About the Costs and Benefits of Early Childhood Interventions*. Santa Monica, CA: RAND.

Kazdin, A.E. 1985. *Treatment of Antisocial Behavior in Children and Adolescents*. Homewood, IL: Dorsey Press.

Kellam, S.G., and Rebok, G.W. 1992. Building developmental and etiological theory through epidemiologically based preventive intervention trials. In *Preventing Antisocial*

*Behavior: Interventions From Birth Through Adolescence*, edited by J. McCord and R.E. Tremblay. New York, NY: Guilford Press, pp. 162–195.

Kellam, S.G., Rebok, G.W., Ialongo, N., and Mayer, L.S. 1994. The course and malleability of aggressive behavior from early first grade into middle school: Results of a developmental epidemiologically-based preventive trial. *Journal of Child Psychology and Psychiatry* 35:259–281.

Klein, R. 1991. Preliminary results: Lithium effects in conduct disorders. Paper presented at the 144th annual meeting of the American Psychiatric Association, New Orleans, LA.

Knitzer, J. 1982. *Unclaimed Children: The Failure of Public Responsibility to Children and Adolescents in Need of Mental Health Services*. Washington, DC: The Children's Defense Fund.

Kupperstein, L. 1971. Treatment and rehabilitation of delinquent youth: Some socio-cultural considerations. *Acta Criminologica* 4:11–111.

Lancot, N., and Le Blanc, M. 1996. The participation of boys in a marginal gang: A phenomenon of selection and opportunities. *Canadian Journal of Criminology* 38:375–400.

Landsverk, J., and Garland, A. 1999. Foster care and pathways to mental health services. In *The Foster Care Crisis: Translating Research Into Practice and Policy*, edited by P. Curtis and G. Dale. Lincoln, NE: University of Nebraska Press, pp. 193–210.

Lipsey, M.W., and Wilson, D.B. 1998. Effective intervention for serious juvenile offenders: A synthesis of research. In *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions*, edited by R. Loeber and D.P. Farrington. Thousand Oaks, CA: Sage Publications, Inc., pp. 313–345.

Lochman, J.E., Coie, J.D., Underwood, M.K., and Terry, R. 1993. Effectiveness of a social relations intervention program for aggressive and nonaggressive rejected children. *Journal of Consulting and Clinical Psychology* 61:1053–1058.

Lock, J., and Strauss, G.D. 1994. Psychiatric hospitalization of adolescents for conduct disorder. *Hospital and Community Psychiatry* 45:925–928.

Loeber, R., and Farrington, D.P., eds. 1998. *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions*. Thousand Oaks, CA: Sage Publications, Inc.

Loeber, R., and Farrington, D.P., eds. 2001. *Child Delinquents: Development, Intervention, and Service Needs*. Thousand Oaks, CA: Sage Publications, Inc.

Marans, S., and Berkman, M. 1997. *Child Development-Community Policing: Partnership in a Climate of Violence*. Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Mayer, G.R., and Butterworth, T.W. 1979. A preventive approach to school violence and vandalism: An experimental study. *Personnel and Guidance Journal* 57:436–441.

MTA Cooperative Group. 1999a. A 14-month randomized clinical trial of treatment strategies for attention-deficit/hyperactivity disorder. *Archives of General Psychiatry* 56(12): 1073–1086.

MTA Cooperative Group. 1999b. Moderators and mediators of treatment response for children with attention-deficit/hyperactivity disorder. *Archives of General Psychiatry* 56(12):1088–1096.

Murphy, H.A., Hutchinson, J.M., and Bailey, J.S. 1983. Behavioral school psychology goes outdoors: The effect of organized games on playground aggression. *Journal of Applied Behavioral Analysis* 16:29–35.

Nelson, C.M., Rutherford, R.B., and Wolford, B.I. 1996. *Comprehensive and Collaborative Systems That Work for Troubled Youth: A National Agenda*. Richmond, KY: Eastern Kentucky University.

Office of Juvenile Justice and Delinquency Prevention. 1995. *Delinquency Prevention Works*. Report. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Oldenettel, D., and Wordes, M. 1999. *Community Assessment Centers*. Fact Sheet. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Olweus, D. 1991. Bully/victim problems among schoolchildren: Basic facts and effects of an intervention program. In *The*

*Development and Treatment of Childhood Aggression*, edited by K. Rubin and D. Pepler. Hillsdale, NJ: Erlbaum, pp. 411–448.

Otto, R.K., Greenstein, J.J., Johnson, M.K., and Friedman, R.M. 1992. Prevalence of mental disorders among youth in the juvenile justice system. In *Responding to the Mental Health Needs of Youth in the Juvenile Justice System*, edited by J.J. Cocozza. Seattle, WA: The National Coalition for the Mentally Ill in the Criminal Justice System, pp. 7–28.

Patterson, G.R., and Gullion, M.E. 1968. *Living With Children: New Methods for Parents and Teachers*. Champaign, IL: Research Press.

Rifkin, A., Karajgi, B., Dicker, R., Perl, E., Boppana, V., Hasan, N., and Pollack, S. 1997. Lithium treatment of conduct disorders in adolescents. *American Journal of Psychiatry* 154(4):554–555.

Schoenwald, S., Ward, D., Henggeler, S., Rowland, M., and Brondino, M. 2000. Multi-systemic therapy versus hospitalization for crisis stabilization of youth: Placement outcomes 4 months post-referral. *Mental Health Services Research* 2(1):3–12.

Schumacher, M., and Kurz, G. 1999. *The 8% Solution: Preventing Serious, Repeat Juvenile Crime*. Thousand Oaks, CA: Sage Publications, Inc.

Seitz, V., Rosenbaum, L.K., and Apfel, H. 1985. Effects of family support intervention: A ten-year follow-up. *Child Development* 56:376–391.

Sexton, T.L., and Alexander, J.F. 2000. *Functional Family Therapy*. Bulletin. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Stouthamer-Loeber, M., Loeber, R., and Thomas, C. 1992. Caretakers seeking help for

boys with disruptive and delinquent child behavior. *Comprehensive Mental Health Care* 2:159–178.

Takayama, J., Bergman, A., and Connell, F. 1994. Children in foster care in the state of Washington: Health care utilization and expenditures. *Journal of the American Medical Association* 271:1850–1855.

Tremblay, R.E., Mâsse, L.C., Pagani, L., and Vitaro, F. 1996. From childhood physical aggression to adolescent maladjustment: The Montreal Prevention Experiment. In *Preventing Childhood Disorders, Substance Abuse and Delinquency*, edited by R.D. Peters and R.J. McMahon. Thousand Oaks, CA: Sage Publications, Inc., pp. 268–298.

Tremblay, R.E., McCord, J., Boileau, H., Le Blanc, M., Gagnon, C., Charlebois, P., and Larivée, S. 1990. The Montreal prevention experiment: School adjustment and self-reported delinquency after three years of follow-up. Paper presented at the annual meeting of the American Society of Criminology, Baltimore, MD, November 1990.

Wasserman, G.A., and Miller, L.S. 1998. The prevention of serious and violent juvenile offending. In *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions*, edited by R. Loeber and D.P. Farrington. Thousand Oaks, CA: Sage Publications, Inc., pp. 197–247.

Webster-Stratton, C., and Hammond, M.A. 1997. Treating children with early-onset conduct problems: A comparison of child and parent training interventions. *Journal of Consulting and Clinical Psychology* 65(1):93–109.

Weissberg, R.P., Barton, H.A., and Shriver, T.P. 1997. The Social-Competence Promotion Program for young adolescents. In *Primary*

*Prevention Works. Issues in Children's and Families' Lives*, Vol. 6, edited by G.W. Albee and T.P. Gullotta. Thousand Oaks, CA: Sage Publications, Inc., pp. 268–290.

Welsh, B.C., and Farrington, D.P. 2000. Monetary costs and benefits of crime prevention programs. In *Crime and Justice: A Review of Research*, Vol. 27, edited by M. Tonry. Chicago, IL: University of Chicago Press, pp. 305–361.

Welsh, B.C., Farrington, D.P., and Sherman, L.W., eds. 2001. *Costs and Benefits of Preventing Crime*. Boulder, CO: Westview Press.

Wilson, J.J., and Howell, J.C. 1993. *A Comprehensive Strategy for Serious, Violent, and Chronic Juvenile Offenders*. Report. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.

Wooldredge, J.D. 1988. Differentiating the effects of juvenile court sentences on eliminating recidivism. *Journal of Research in Crime and Delinquency* 25:264–300.

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