Traditionally, the juvenile justice system has emphasized the goals of treatment and rehabilitation of young offenders, while protecting them from punishment, retribution, and stigmatization. Violent juvenile offenders have posed a challenge to this rehabilitative ideal because of mounting public pressure to ensure societal protection. Juveniles who are perceived as dangerous or persistent in their criminal activity are increasingly transferred to the adult criminal justice system, where they may receive much harsher consequences. Whether violent delinquents can be successfully treated is a key point in the debate regarding the wisdom of this trend in juvenile justice. This article considers the available research to address the policy question of how society should reasonably invest in the treatment of violent juvenile offenders.

Historically, the philosophy of the juvenile court has emphasized the goals of treatment and rehabilitation and downplayed the role of punishment and retribution (Reppucci & Crosby, 1993). In recent years, community protection, punishment, and retribution appear to have gained ascendancy and been openly accepted as the legitimate primary objectives for the juvenile court, especially in cases of violent youth (Grisso, 1993). For example, many states (e.g., New York and Virginia) have changed laws, allowing younger juveniles who commit a broader range of offenses to be transferred to adult criminal court, where they usually receive harsher punitive measures (Poulos & Orchowski, 1994). In addition, many juvenile court judges favor tough-minded changes that would make the juvenile court more like the adult system. For example, 40% of the juvenile court judges in one study believe there are circumstances under which juveniles should face the death penalty (Sherman, 1994).

These changes and debates about the future of juvenile justice rest partially on a judgment about whether violent adolescent offenders can be successfully rehabilitated. Lack of successful treatment for this group could be used to support the use of more retributive, proportionality-based approaches to disposition, whereas the existence of effective treatment has potential both to challenge retributive policies and to argue for the wisdom of retaining more individualized judgments. This article briefly reviews the literature about the effectiveness of strategies used in treating violent adolescents as part of the effort to address an important policy question: Should society continue to invest in the treatment of violent juvenile offenders?

Problems in Evaluating Interventions With Violent Youth

A number of problems arise when trying to evaluate our knowledge of the interventions with violent juveniles. First, violence and violent offenders have been defined in multiple ways. Whereas some studies have used the Federal Bureau of Investigation’s (1991) definition of violent offenses to define group membership, others have conceptualized violence more generally. Throughout the research literature, the terms violence and aggression are often used interchangeably, even though aggression is a broader term that includes “the entire spectrum of assertive, intrusive, or attacking behaviors”; violence may be considered a subset of aggression (Leventhal, 1984). Ambiguity about what constitutes violence has led to a diversity of samples being designated as violent juvenile offenders, including incarcerated adolescents from detention centers or residential institutions, children and adolescents who are being treated in mental hospitals, and noninstitutionalized individuals who have been identified as aggressive. In addition, even within specific groups of individuals, a considerable amount of heterogeneity exists with regard to the use and meaning of aggressive behavior (Dodge, 1991). Consideration of these different sampling sources and individual meanings of violence is rarely undertaken; instead, juvenile offenders are described with a range of ill-defined adjectives, including violent, aggressive, chronic, serious, and antisocial. Thus, comparisons between studies are difficult.

A second problem is that few studies evaluating treatment of violent and aggressive adolescents are without methodological flaws (Sechrest & Rosenblatt, 1987). Studies consistently lack adequate no-treatment, com-
Although individual therapeutic approaches—especially those with insight and relationship emphases—have been the most frequently used strategies for treating delinquents in general both within institutions and in the community (Mulvey et al., 1993), they have not been demonstrated to be effective with violent adolescents (Guerra, Tolan, & Hammond, 1994). Likewise, although group therapy is thought to be more cost-effective than individual therapy because of more efficient use of staff time, outcome research also has given little reason for faith in group therapy. Studies of guided-group interaction and similar peer group interventions often used in delinquency treatment programs have not yielded consistent or impressive positive results (Henggeler, 1989). These findings may be attributed in part to poor implementation, in that program administrators often have not given careful attention to leader and participant characteristics or specific elements of the particular treatment modality (Lavin, Trabka, & Kahn, 1984).

Over the past two decades, family therapy has become an increasingly popular option for the treatment of delinquents. Although behavioral parent training has been an extensively studied approach (Gordon & Arbuthnot, 1987; Patterson, DeBaryshe, & Ramsey, 1989) and has produced favorable results with young, aggressive children (Barton, Alexander, Waldron, Turner, & Warburton, 1985; Garrett, 1985), little evidence exists to support its efficacy with violent adolescent offenders (Henggeler, 1989). Moreover, no studies of family therapy per se have demonstrated success with violent delinquents.

**Type of intervention**

**Biological interventions.** Several different biological conditions and neurological processes are hypothesized to be linked to violent behavior, including genetic influences, neurophysiological abnormalities, and functioning of steroid hormones and neurotransmitter systems (Reiss & Roth, 1993). Therefore, it is possible that some violent behavior may be reduced or prevented by altering relevant neurological states or conditions. Research on pharmacological interventions in violent correctional populations is quite rare—most studies examine inpatient psychiatric populations. There is, no doubt, a subsample of adolescents for whom organic and neurological impairments are important contributors to their violent behavior; however, our present level of understanding regarding these problems is very limited. Nevertheless, there is much enthusiasm regarding the future of biological and pharmacological interventions per se and in their ability to improve the effectiveness of psychological approaches to treatment (Eichelman, 1988).

**Cognitive–behavioral approaches.** Cognitive interventions assume that an angry, aggressive state is mediated through a person’s expectations and appraisals and that the likelihood of violence is increased or decreased as a result of this process. Chronically violent individuals have constricted problem-solving skills, in part because of their lowered ability to reason abstractly and their hostile appraisals of neutral situations (Davis & Boster, 1992). Such cognitive deficiencies (insufficient problem-solving skills) and cognitive distortions (dys-

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With these methodological shortcomings in mind, we now review general treatment approaches and specific programs targeted toward youth who demonstrate violent or aggressive behavior, including violent offenses. Even though the definitional problem of “violent offenders” makes it difficult to ascertain that interventions always deal with the same type of adolescent, we review only studies in which a majority of the research participants demonstrated violent behavior, defined as the intentional use of physical force to inflict harm on another person. We excluded studies that demonstrated reduced recidivism with nonviolent offenders and studies of programs for violent offenders that have not been systematically evaluated (e.g., Agee, 1979). A caveat: Although we have used a restrictive definition of violent behavior, no systematic study, as far as we can discern, has ever focused exclusively on juveniles who have committed the sorts of heinous crimes (e.g., serial killings, torture/rape, and drive-by shootings) that have engendered fear and loathing in the public. Although such cases constitute a very small proportion of “violent” youth, the research we present may not be applicable to them. Moreover, although descriptions exist of youth who have killed their parents (e.g., Cornell, 1990), these youth are not generally representative of violent youth. For a complete review of the intervention literature for all juvenile offenders, see Mulvey, Arthur, and Reppucci (1993).

**Targets of Treatment: Individuals, Groups, and Families**

Although individual therapeutic approaches—especially those with insight and relationship emphases—have been
cognitive difficulties among violent adolescents (Dodge, functional thinking processes) have been identified as social-cognitive difficulties. Cognitive-behavioral approaches attempt to address these social-cognitive difficulties.

Social skills training. The most well-studied example of social skills training is Aggression Replacement Training (ART)—a multimodal, psychoeducational intervention designed to alter the behavior of chronically aggressive youth. It incorporates “skillstreaming” (designed to teach a broad range of prosocial behaviors), anger control training (a curriculum for modifying anger responses), and moral reasoning training (Goldstein & Glick, 1994). Violent youths who received ART, compared with those who did not, showed significant increases in constructive, prosocial behaviors, and decreases in rated levels of impulsivity, within the institutional setting. They also advanced significantly in moral reasoning. However, ART youths did not differ from controls in either the number or intensity of acting-out behaviors (Goldstein, Glick, Reiner, Zimmerman, & Coulthry, 1986). In sum, ART shows promise because of its multimodal approach, its ability to be delivered within secure juvenile correctional facilities, and its production of some cognitive-behavioral changes in violent adolescents. However, its effectiveness for reducing violent behavior both before and after release of the youth from a correctional facility has yet to be demonstrated.

Problem-solving skills training. Another cognitive-behavioral technique that has demonstrated some success is problem-solving skills training. Treatment emphasizes the development of cognitive strategies to increase the adolescent’s self-control and social responsibility. The Viewpoints Training Program, which focused on violent youth, was designed to (a) effect changes in beliefs and attitudes about the legitimacy of violence in response to conflict and (b) emphasize specific social problem-solving skills (Guerra & Panizzon, 1986). Guerra and Slaby (1990) conducted a controlled evaluation study with a sample of 120 adolescents incarcerated for violent crimes. Adolescents who attended a 12-session workshop on social problem solving showed increased skills in solving problems and decreased endorsement of beliefs supporting aggression. In addition, they were rated by staff as less aggressive and impulsive than an attention control group and a no-treatment group. There were no group differences, however, in the number of parole violators 24 months after release.

Multisystemic Therapy: A Promising Program

Multisystemic therapy (MST) may be a cost-effective strategy for reducing the number of incarcerated youthful offenders while reducing their antisocial behavior (Henggeler, Melton, & Smith, 1992). To date, it is the only treatment program to demonstrate short- and long-term efficacy with chronic, serious, and violent juvenile offenders (Borduin et al., 1994; Henggeler et al., 1992; Henggeler, Melton, Smith, Schoenwald, & Hanley, 1993). MST interventions are child-focused, family-centered, and directed toward solving multiple problems across the numerous contexts in which youths are embedded: family, peers, school, and neighborhood. Services are provided in home and community settings to enhance cooperation and promote generalization, and interventions are tailored to the specific needs of the adolescent, the family, and surrounding systems.

Henggeler et al. (1992) studied 96 youths at risk for out-of-home placement because of serious criminal activity. Over half of the youths had been convicted for a violent offense, and an additional 37% were “chronic offenders” (three or more nonviolent convictions) who reported having committed violent offenses. Juveniles were randomly assigned to MST or the usual Department of Youth Service programs of institutional treatment and community probation and parole. A battery of measures related to ultimate goals (nonrecidivism) and instrumental goals (improved family relations, peer relations, and social competence) was administered before and after treatment. Approximately 59 weeks after referral, MST youths had half as many arrests as the usual-service clients, and only 20% of MST participants (compared with 68% of the usual-service group) were incarcerated during the period. Family cohesion improved and peer aggression scores decreased significantly for youths who received MST. Further follow-ups at two and four years postreferral showed sustained effects in arrest rate and self-reported offenses (Borduin et al., 1994; Henggeler et al., 1993). At the four-year follow-up, MST youths were less likely to be arrested for violent offenses than youths who received individual therapy, even after accounting for pretreatment violent crime arrest rates (Borduin et al., 1994). It is important to note that the relative efficacy of MST was neither moderated by demographic characteristics (i.e., race, age, social class, gender, and arrest and incarceration history) nor mediated by psychosocial variables (i.e., family relations, peer relations, social competence, behavior problems, and parental symptomatology).

Conclusions and Policy Implications

The empirical literature on interventions with seriously violent adolescents is rather limited. Moreover, it offers little resolution for those looking for a simplistic answer to the question of whether intervention with violent juveniles is justified by scientific evidence. Clearly no single, proven effective approach to working with these adolescents exists. There is, however, initial evidence that certain comprehensive interventions show promise of success.

We know that particular approaches have been developed to an impressive level of sophistication and applied systematically enough by numerous researchers to produce measurable change in violent adolescents. Specifically, interventions that address the documented social-cognitive skill deficits that exist among violent youths have been shown to produce change with these youths.
while incarcerated. We do not, however, have evidence that these changes endure. The fact that treated adolescents committed further offenses once released suggests that intervention should be continued on reentry into the community. Beyond this, we know that comprehensive, individualized, community-based, family-oriented interventions appear to hold promise and have impressive initial findings of success. The work of Henggeler et al. (1992) shows positive changes in the behavior of violent youth.

Taken together, these findings have two clear policy implications. First, social–cognitive interventions should be encouraged as a critical component of institutional and community-based programs. Second, and more fundamentally, service provision should be reconceptualized as an ongoing care model that emphasizes intervention in multiple spheres of an adolescent’s life. The most promising lies in a comprehensive, long-term commitment, not in the development of any singular, more powerful approach.

There is a clear need for methodologically sophisticated studies of treatment effectiveness that are more precise with regard to their definition of violence and that either exclusively target or conduct separate analyses for violent juveniles. However, as the science of program design and evaluation continues to become more refined (e.g., Palmer, 1994), psychologists’ abilities to draw meaningful conclusions about the effectiveness of interventions with violent juveniles will also expand. Psychologists can contribute significantly to the development and refinement of public policies by (a) replicating the findings of promising prevention and intervention programs, (b) specifying the conditions under which and the populations with which these interventions work best, (c) clarifying unique characteristics and different typologies of violent adolescents (e.g., Cornell, Benedek, & Benedek, 1987), (d) exploring specific childhood risk and buffering factors that promote or inhibit future violent behavior, and (e) developing more valid and reliable means of risk assessment.

The public’s reaction to increasing rates of youth violence has resulted in recent policy initiatives that have centered on offense-based punishments. Several states have increased the number of crimes and lowered the age for which transfer from the juvenile to the adult court is possible or automatic. Moreover, the courts have now developed minimum sentencing for specific offenses, some of which are crimes against persons, but others are not. This approach may be necessary for a small subgroup of youths who may be too dangerous or incorrigible to treat in any fashion other than long-term incarceration.

The problem with these approaches comes from the difficulty of determining to whom they should apply. Clearly, a small group of juvenile offenders is responsible for a large proportion of violent offenses (Farrington, 1991; Grisso, 1993), but the methods for identifying these adolescents early in their careers are still being developed (Loeber & LeBlanc, 1990). Offense-based strategies unfortunately assume that adolescents who commit a violent act are a homogeneous group and should be treated ac-cordingly. This does not take into account individual differences, such as adolescents’ maturity, competence, and judgment in decision making (Scott, Reppucci, & Woodward, 1995), or circumstances that may make a youth more or less amenable to treatment (Mulvey, 1984). The result will be an overidentification of potentially repetitively violent adolescents, with a larger number automatically subjected to an adult court system that focuses on punishment rather than rehabilitation.

There are two potential costs to this approach. The first is economic. Surprisingly, treatment programs that work may be much less costly than correctional incarceration. In 1992, it cost an average of $105.27 per day to keep a juvenile in a correctional facility (Camp & Camp, 1993). This figure may be compared with $31.43 per day for MST—approximately $3,300 per client for 15 weeks of treatment (S. W. Henggeler, personal communication, July 25, 1994). In addition to saving on programming costs, successful treatment would reduce costs associated with recidivism, including court costs, additional time in correctional facilities, and costs to victims. The second cost is the ripple effect that retributive strategies could have on the search for preventive interventions. Ideally, it would be better to prevent the development of violent behavior, and comprehensive interventions aimed at interrupting the developmental pathways for violence certainly appear to hold promise (Mulvey, Arthur, & Reppucci, 1993; Yoshikawa, 1994). Understanding which interventions will be most successful in preventing youth violence, however, must come from rigorous, long-term evaluation studies of promising prevention programs (see Guerra et al., 1994). Such efforts could certainly be hindered by a shift of resources and attention to the goals of retribution.

As mentioned in the beginning of this article, the policy debate regarding violent delinquents is usually structured so that empirical support for rehabilitative approaches is taken as a counterweight to the case for punishment or retribution. However, given what we know and are likely to discover about successful interventions for these adolescents, this formulation may be counterproductive. It may be futile to frame the question of what it takes to have an impact with violent juvenile offenders in terms of whether rehabilitation or punishment is the most desirable course. This may not be an “either-or” situation; a combination of the two might be required. The intensive, comprehensive, community-based approaches may be most acceptable only when they have a clear monitoring and sanctioning component or after some period of incarceration. Similarly, the retributive strategies may only be workable when they incorporate treatment for selected subgroups of violent offenders. Effective intervention could likely lie somewhere in the middle, where ideology could give way to reasoned program design.

REFERENCES
