The Fast Track Project: Preventing Severe Conduct Problems in School-Age Youth

Conduct Problems Prevention Research Group

This chapter is adapted and expanded from material in CPPRG (2006) and Slough, McMahon, and CPPRG (2008).

In this chapter, we provide an overview of the Fast Track project as an illustration of one new direction in prevention science. In 1993 Coie et al. described prevention science as a new research discipline being formed at the interface of a number of professional emphases and disciplines, including psychopathology, criminology, psychiatric epidemiology, human development, and education. Prevention science represents an effort to examine risk factors, change processes and intervention effects, using rigorous methodology, thus providing an empirical basis for early prevention...
efforts. Coie et al. suggested five principles integral to prevention science. Preventive interventions should: (1) address fundamental causal processes; (2) address risk factors before they become stabilized; (3) target those children who are at high risk for the negative outcome to be prevented; (4) optimally involve coordinated activities in multiple domains; and (5) incorporate developmental research.

In the arena of adolescent antisocial behavior, early age of onset has been shown to be a valid indicator of a significant developmental pathway leading to adolescent delinquency and conduct problems. “Early starters,” (also described as “life-course persistent”) begin their serious antisocial behavior early in childhood, as early as ages 6–8, and then continue with antisocial behavior into adulthood (Moffitt, 1993; Patterson, Reid, & Dishion, 1992). Early starters have been described as being at risk for antisocial behavior because of a combination of biological and family factors, although in some cases family dysfunction may be sufficient to initiate the sequence of escalating aggressive behaviors. Early starters represent approximately 6% of the youth population with conduct problems (Offord, Boyle, & Racine, 1991). They are likely to engage in a versatile, wide-ranging set of antisocial behaviors, including both overt and covert delinquency (Loeber et al., 1993). These youth have a poor prognosis in that they are at risk for a host of negative outcomes during adolescence and adulthood. Furthermore, they exact an extraordinary cost to society. Cohen (1998) estimated that, in the United States, a single youth who follows the early starter pathway and who persists in a criminal career as an adult will cost society at least $1.3 million. Similarly, in the DSM-IV (American Psychiatric Association, 2000), oppositional defiant disorder evident in early childhood can evolve into “childhood-onset” conduct disorder, and then into antisocial personality disorder in adulthood. Childhood-onset conduct disorder is expected to be preceded by physical aggression and poor peer relationships in the elementary school years. Because of their considerable influence on the rates of serious adolescent antisocial and criminal behavior and the high cost to society, prevention programs are particularly needed to target youth with early starting conduct problems. These preventive interventions need to be initiated early enough to impact the early stages of the developmental trajectory, and should be designed to influence the multiple causes and the chronic nature of this maladaptive process.

As we will illustrate, each of the five prevention science principles (Coie et al., 1993) is evident in the conceptual framework and intervention delivery plan for Fast Track, a prevention program designed to prevent serious adolescent problem behaviors and conduct disorder (Conduct Problems Prevention Research Group [CPPRG], 1992, 2000). We have articulated a developmental model for the prevention of adolescent antisocial behavior, and this model suggests important directions for prevention efforts (Coie, 1996; CPPRG, 1992, 2000; Dodge, Greenberg, Malone, & CPPRG, 2008). First, many children at risk for adolescent antisocial behavior can be identified as early as 6–7 years of age, based upon their display of diverse aggressive, disruptive, and noncompliant behaviors across home and school settings. Second, because high-risk children are likely to progress in a spiral of escalating and
more severe behavior problems over time, early intervention is critical. As a function of these ongoing behavior problems, the child becomes enmeshed in accumulating risk factors, such as peer rejection and academic failure, clearly complicating the ease and effectiveness of intervention. Third, risk cannot be conceived as a static marker; instead, the topography of the risk markers is likely to change with age (e.g., peer group issues become more prominent in adolescence). More importantly, early risk factors influence subsequent processes within the child and the family, which mediate the child’s ultimate antisocial outcomes. It is these mutable processes (e.g., parenting, academic skills, social-emotional development) that can then become the targets for well-conceived prevention programs. Fast Track, in fact, utilized the implications of these developmental patterns to design a prevention program for children. Children with high levels of behavior problems evident at home and at school were identified at school entry; intervention began early (in first grade when most children were about 6 years of age); and the focus of the intervention was adapted progressively from first grade into high school to address developmentally appropriate mediating processes within the child and the child’s family and school contexts.

In the following sections, we first provide an overview of the developmental model that serves as the foundation for Fast Track. Because it is essential that the developmental model of a preventive intervention maps clearly onto the intervention research study’s measurement and intervention models (Coie, 1996), we examine how the Fast Track developmental model was integrated into the corresponding intervention model. Next, the design and procedures for the Fast Track study are outlined, and findings to date of the efficacy of the program are presented. Finally, we then present a sample case illustration.

THE FAST TRACK DYNAMIC CASCADE DEVELOPMENTAL MODEL

Preschool and Elementary School Years

Environmental and contextual factors during the early preschool and grade school years contribute to children’s long-term antisocial development. At the community level, living in poor, crime-ridden neighborhoods, having relatively few support services and community resources for parents, and having parents who are isolated and disconnected from helpful social supports contribute to children’s risk. These community level factors contribute to parents’ experience of high levels of stress. Other sources of parental stress, and risk factors for children’s development, are parents’ marginal employment, psychopathology, criminality, limited educational attainment, marital conflict, and single parenting (Dodge et al., 2008; McMahon, Wells, & Kotler, 2006).

These contextual difficulties in the child’s family and community, often in combination with a child’s unusually high level of impulsivity and irritability (Frick & Sheffield Morris, 2004), set the stage for potentially negative parent-child relations characterized by increasingly coercive
interactions between a parent and child. Parents resort to harsh, but often inconsistent, discipline in response to children’s oppositional behaviors, and this variability in parental response contributes to the parents’ inadvertent reinforcement of their children’s increasing noncompliance (Snyder, Reid, & Patterson, 2003). In this coercive cycle, both the parents and the child may then increase their rates of aversive behaviors towards each other. Coercive parent-child interactions are often accompanied by low rates of positive parental interaction with the child, and inadequate parental stimulation and support of the child’s developing cognitive skills, social skills, and adaptive emotional regulation capabilities (e.g., Greenberg, Kusche, & Speltz, 1991). Thus, in addition to relying on highly aversive behaviors to control others, the high-risk child may also enter school poorly prepared for its cognitive, social, emotional, and academic demands. The deficits that evolve in children’s language abilities because of an impoverished, nonstimulating environment can contribute both to poor reading readiness and to delays in the children’s ability to use their cognitive processes to regulate their emotional and behavioral reactions (Greenberg et al.). The combination of parents’ harsh discipline and low involvement in parent-child interactions, in turn, may impede the development of children’s adaptive social-cognitive skills. Children can become hypervigilant to hostile cues and intentions from others, and can adopt interaction styles that are overly action-oriented and that lack verbally assertive and cooperative strategies (e.g., Dodge, 2003).

During the elementary school years, the negative influence of the contextual risk factors (e.g., poor quality neighborhoods, poor parenting practices, family pathology, and parental isolation) continues to fuel child aggressive and disruptive behaviors (Greenberg, Lengua, Coie, Pinder-hughes, & CPPRG, 1999). In many cases, the school context becomes an exacerbating rather than a corrective influence. Many high-risk children attend schools with a high density of other unprepared children like themselves (Rutter, Maughan, Mortimore, Ouston, & Smith, 1979), making effective teaching and school-based preventive interventions difficult (e.g., Kellam, Ling, Merisca, Brown, & Ialongo, 1998). As a result, teachers, like the parents in earlier years, can inadvertently begin to use inconsistent and punitive discipline. Finally, the parents of high-risk children often have their own history of school problems, and their discomfort in educational settings may lead to a lack of synchrony between home and school. This dysynchrony may be reflected in ineffective and acrimonious communications between parents and teachers, which further undermines the child’s chance for success (Comer, 1980).

Aggressive and disruptive children over time often become rejected and stigmatized by peers (Ladd, Price, & Hart, 1990), who react to them in unusually aggressive ways (e.g., Dodge et al., 2003). The problematic children’s social difficulties are often exacerbated by difficult relationships with their teachers. Teachers may provide less support to these children, in comparison to their classmates, rather than the increased support they need (e.g., Campbell, 1991). By preadolescence, parental rejection of their problematic children can become more pronounced because of increasingly aversive parent-child interactions and unpleasant confrontations with teachers and
other school personnel as a result of the children’s school difficulties (e.g., Patterson, DeBaryshe, & Ramsey, 1989). As a result, high-risk children, who have had histories of poor school performance and poor peer relations in elementary school, approach the transition to middle school feeling alienated from their most important sources of support and social bonding – family and school (Hawkins, Catalano, & Miller, 1992).

**Middle School and High School Years**

Adolescence is marked both by changes in youth characteristics and in the contextual influences affecting adjustment. Contextually, youth move from self-contained, single-teacher elementary classrooms to large, fluid middle or junior high schools (e.g., Eccles & Midgley, 1990), which lead to reductions in parent and teacher support and monitoring. Consequently, youth spend more time with and are more influenced by their peers. Four core domains are critical for their successful adaptation: (1) peer affiliation and peer influence, (2) academic achievement and academic orientation, (3) social cognition and identity development, and (4) parent and family relations.

**Peer affiliation and influence.** Alienation from conventional sources of social support from parents, teachers and nondeviant peers can lead high-risk youth to join with other adolescents like themselves (e.g., Cairns, Cairns, Neckerman, Gest, & Gariepy, 1988). Adolescents who associate with deviant peers have a substantially increased risk for adolescent problem behaviors. Keenan, Loeber, Zhang, Stouthamer-Loeber, and Van Kammen (1995) found that, in comparison to boys who did not have best friends who were truant or disobedient, disruptive boys who did have deviant peer associations had three to four times the odds of participating in covert and overt delinquent acts. Adolescents appear to reinforce each others’ antisocial beliefs within deviant peer groups (e.g., Dishion, Patterson, & Griesler, 1994). Deviant peer influences serve both to escalate the seriousness of offending among those youth with a history of delinquency and to instigate initial delinquency among those with more marginal risk profiles (Thornberry, 1987; Vitaro, Tremblay, Kerr, Pagani-Kurz, & Bukowski, 1997). They also affect school dropout (Cairns, Cairns, & Neckerman, 1989) and early substance use (Chassin, Curran, Hussong, & Colder, 1996).

Whereas girls are at considerably lower risk than boys for overt aggression during elementary school, their risk for becoming involved in early sexual activity, substance use, and covert antisocial activity rises in adolescence, due largely to associations with older antisocial boys (Caspi, Lynam, Moffitt, & Silva, 1993). Girls who enter puberty early and who have learning problems and depressed mood are at elevated risk for associations with deviant boys who, in turn, encourage behaviors such as truancy, substance use, covert delinquency, and sexual activity. For example, girls with this early behavior problem profile are the ones at greatest risk for having babies prior to age 14 (Miller-Johnson et al., 1999).

**Academic achievement and academic orientation.** Children who have low commitment to school and high rates of school failure are at risk for a range of adolescent problem behaviors (Hawkins et al., 1992).
Adolescents who dislike school and spend little time on homework are frequently truant, show poor achievement, and have high rates of drug use (Hawkins et al., 1992; Hundley & Mercer, 1987). Increasing school adaptation by fostering social support in the school setting, promoting positive attitudes toward education, and supporting academic achievement may prevent adolescents’ declines in school attachment and self-esteem (e.g., Hirsch & DuBois, 1991), and reduce negative outcomes such as early initiation of sexual activity (e.g., Ohannesian & Crockett, 1993).

Social cognition and identity development. Adolescents’ rates of problem behaviors are heavily influenced by their deviance-prone attitudes and beliefs, such as their low motivation to attend school and achieve academically, and attraction to deviant behaviors such as stealing and lying (Wills & Filer, 1996). Adolescents who have histories of violence, delinquency, and substance use often lack effective coping skills, demonstrating impulsive behavioral reactivity, poor self-control, ineffective problem-solving skills, hostile attributional biases, and dominance-oriented social goals (Dodge, Lochman, Harnish, Bates, & Pettit, 1997; Wills & Filer, 1996).

As adolescents become increasingly autonomous and as demands for self-discipline increase in schoolwork and other areas, the importance of a positive self-identity increases. Adolescents’ “possible selves,” or their images of who they would strive to be, serve to guide adolescents’ choices and are important motivators of their behavior (e.g., Markus & Nurius, 1986). Among high-risk youth, resilient adolescents are those who develop a positive sense of self, perceive themselves to have internal control over their environment, and have good problem-solving skills and a strong network of relationships with adults (Luthar & Zigler, 1991; Werner, 1986). The availability of a positive adult role model/mentor may serve as a protective factor promoting the development of a positive sense of self and supporting effective coping skills (e.g., Dubois & Karcher, 2006).

Parent and family relations. Poor parenting, involving weak monitoring, ineffective parental control, and low levels of parent support, contributes directly to adolescent deviant behavior (Chassin et al., 1996). Because of the greater mobility of adolescents and their increased needs for personal privacy, parents have less opportunity to monitor their adolescents’ activities and their friendships. Research indicates that poor parental monitoring and discipline play a critical role in adolescents’ involvement in deviant peer groups, and in early- and late-onset delinquency and drug use (e.g., Dishion & McMahon, 1998; Dishion, Nelson, & Bullock, 2004).

Strong bonds of attachment to family serve a protective function in youth otherwise at risk for delinquency and substance abuse (e.g., Johnson & Pandina, 1991). Productive parent-adolescent communication, joint problem solving, and collaborative planning are all indices of supportive family relations in adolescence; interventions focused on promoting communication and conflict resolution skills along with family problem-solving meetings reduce adolescent acting-out behaviors (Henggeler, Schoenwald, & Pickrel, 1995). Effective parental monitoring works both directly in its effects on the adolescents’ behavior, and indirectly through its effects on the adolescents’ involvement in certain peer groups (Fletcher, Darling, &
PREVENTING SEVERE CONDUCT PROBLEMS IN SCHOOL-AGE YOUTH

Steinberg, 1995). Promoting positive parent-child relationships, fostering effective parent-adolescent communications, and enhancing parental monitoring and supervision skills may all contribute to reductions in adolescent risk for deviant behaviors.

Empirical Testing of the Dynamic Cascade Model

We have recently tested a version of this dynamic cascade model of the development of serious violence in adolescence (Dodge et al. 2008). Utilizing data from the high-risk control and normative samples from the Fast Track Project (see below), we found that a variety of domains of risk factors each predicted subsequent adolescent violence. However, each succeeding domain not only mediated the effects of the preceding domain, it also provided a significant increment beyond the previous domain in enhancing the prediction of violent outcomes. To summarize, an early social context of disadvantage (i.e., neighborhood risk, family socioeconomic status, maternal depression) predicted child social and cognitive deficits, which predicted early conduct problem behaviors, which predicted elementary school social and academic failure, which predicted parental withdrawal from supervision and monitoring, which predicted deviant peer associations, which ultimately predicted adolescent violence.

DESIGN OF THE FAST TRACK EXPERIMENT

This developmental model indicates that the dysfunctional development that is associated with the early-starting pattern of conduct problems is multiply determined and is embedded in transactions among family, peer, school, and neighborhood influences and child characteristics. Hence, prevention efforts must target both the promotion of individual competencies and the promotion of protective contextual supports. Preventive interventions must also be attentive to age-related stressors and the successive issues of risk across important developmental periods (Cicchetti, 1984). Early-starting conduct problems turn into serious and chronic problems because they divert the individual child into a sequence of experiences that intensify risk.

Data from the Rochester study (Thornberry, Huizinga, & Loeber, 1995) suggest that protective factors must be continuously present during the transition from early to late adolescence and not simply in place at a single point in childhood or adolescence. Although the negative impact of early risk factors may be buffered by the provision of protective support services during the grade school years, the risk factors themselves may continue to influence developmental trajectories during adolescence. For example, the high rates of inattention, impulsivity, and cognitive deficits that contribute to the school adjustment problems of many early-starting youth (Moffitt, 1990) may be buffered when protective support is offered during elementary school in the form of academic tutoring and effective teacher management. As the demands for focused attention and independent work completion increase with the transition to middle school, these cognitive
risk factors may undermine school adaptation unless continuing support is offered at later grade levels. In addition, developmental research suggests that new risk factors emerge during adolescence and that these risk factors are associated with the escalation of antisocial and related adolescent behavior problems. Elementary-school prevention may improve child “readiness” to tackle the new challenges of adolescence. However, for high-risk children living in unstable and risky contexts, without effective protective supports the challenges of adolescence may also undermine the gains produced by early preventive efforts. Thus, a successful program for preventing serious antisocial problems requires a long-term intervention commitment.

The significance of the Fast Track Project is that it addresses the three organizing principles for the prevention of serious violent delinquency outlined by Thornberry et al. (1995): namely, it starts early, it is comprehensive, and it is carried out over the long-term of development. In Fast Track, high-risk youth were selected at school entry from poor, high-crime neighborhoods. The elementary-school intervention addressed the major risk factors implicated in the initiation of early-starting conduct problems, and used an integrated set of developmentally sensitive intervention components to promote competencies in parents (parent training and home visiting), teachers (prevention curriculum and classroom management consultation), and children (social skills training and academic tutoring), and to strengthen bonds of communication between parents and teachers.

The design of the study was a randomized trial with randomization at the level of the school as children entered first grade. The project contained two levels of preventive intervention (universal, indicated) as well as two types of participants (high risk, all students). Annual assessments using multiple sources of data for measure constructs were collected. The design permitted continuous evaluation of the developmental model, both in tests of mediation of the effects of intervention on the high-risk youth, and longer-term modeling of risk-outcomes relationships within the normative sample (see below) and the control sample of high-risk youth.

In January 1991, crime records, poverty statistics and school dropout rates were used to identify 54 high-risk schools in four geographic sites across the United States (Durham, North Carolina; Nashville, Tennessee; Seattle, Washington; and rural central Pennsylvania). Schools within the four sites were selected as high risk based on crime and poverty statistics of the neighborhoods they served. Within each site, the schools were divided into multiple paired sets matched for demographics (size, percentage free or reduced lunch, ethnic composition), and one of each pair was randomly assigned to intervention and control conditions. Using a multiple-gating screening procedure for each of three annual cohorts, all 9,594 kindergarteners in 55 schools were screened initially for classroom conduct problems by teachers. Children scoring in the top 40% within cohort and site were then solicited for the next stage of screening for home behavior problems by the parents, and 91% agreed (n=3,274) (Lochman & CPPRG, 1995). The teacher and parent screening scores were then standardized and combined into a sum score. Children were selected for inclusion into the study based on this sum score, moving from the highest score downward
until desired sample sizes were reached within sites, cohorts, and conditions. Deviations were made when a child failed to matriculate in the first grade at a core school (n=59) or refused to participate (n=75), or to accommodate a rule that no child would be the only girl in an intervention group (an attempt was made to have boys and girls in each group). Ninety-five percent of the selected sample scored in the top 20% on both the parent and teacher screening measures. The outcome was that 891 children (n’s=445 for intervention and 446 for control) participated. Analyses of the initial comparability of the intervention and control groups indicated that there were no significant preintervention differences between the groups on demographic and behavioral variables. Analyses of indicated intervention effects with the high-risk group of children thus use this sample of 891 children. Across all sites, the sample was 51% African American, 47% European American, and 2% other. Boys comprised 69% of the sample. Analyses of universal intervention effects were conducted with the full populations of the intervention and control schools. The universal intervention continued throughout the elementary school years. The indicated intervention continued through Grade 10. At the time of this writing, the sample has been followed through age 20 years.

To compare improvements made by the intervention group against a normative standard, a representative sample of 387 children was selected from the control schools. Children were stratified to represent the population according to race, sex, and decile of teacher screen scores.

**THE FAST TRACK INTERVENTION MODEL**

The Fast Track intervention was divided into two primary phases: (a) elementary school, and (b) transition to middle and high schools, coinciding with the transition to adolescence.

**Elementary School Phase**¹

Corresponding to the developmental risks associated with the early initiation of conduct problems, prevention activities during elementary school targeted the provision of: (a) positive behavioral support at school and at home; (b) fostering the home-school relationship; and (c) the promotion of parenting skills, child social skills, child social-cognitive skills, child reading skills, and mentoring for children by a same-sex, same-race community volunteer. Intervention components focused both on building the child’s behavioral and cognitive skills and on changing the patterns of interaction with important people in the child’s social environment (family, school, and peer) to promote healthy relationships with peers and adults.

¹See Bierman, Greenberg, and CPPRG (1996) and McMahon, Slough, and CPPRG, (1996) for extensive descriptions of this phase of intervention. Facilitator’s guides for the parent group, Parent-Child Sharing Time, and home visiting components (McMahon et al., 2010) and the Friendship Group (Bierman et al., 2010) will soon be available for the elementary-school phase of the intervention.
The intervention was organized developmentally and included three levels of prevention activities: (a) universal prevention support provided at the school level; (b) standard indicated prevention support services provided to families of children identified as high risk during the initial kindergarten screening; and (c) additional individualized indicated prevention support provided to high-risk children and families on an as-needed basis (according to criterion-referenced assessments). Prevention support was intensive with massed sessions offered at the important transition into elementary school (Grades 1–2). Sustained support was then continued through fifth grade. The content of each of the prevention services was organized developmentally, and integrated across components.

At the universal level of prevention, an adaptation of the PATHS (Promoting Alternative Thinking Strategies) Curriculum (Kusche & Greenberg, 1993) was taught by classroom teachers two to three times per week in Grades 1–5. The PATHS Curriculum model synthesizes the domains of self-control, emotional awareness and understanding, peer-related social skills, and social problem solving to increase social and emotional competence (Kusche & Greenberg, 1993). In addition to a person-oriented model that focused primarily on developmental integration, the intervention model incorporated an eco-behavioral systems orientation (Weissberg, Caplan, & Sivo, 1989), which placed primacy on the manner in which the teacher used the curriculum model. That is, program impact may be the greatest when teachers generalize support for curriculum-based skills during the day and build a healthy classroom atmosphere that supports the child’s skill use and internalization of skills. It was presumed that improvements in social competence can be a function of both changes in the child, changes in the ecology, and their interaction. Fast Track staff also consulted with the school principal to bring the philosophy of PATHS to the entire school, resulting in various efforts (on a school-by-school basis) such as placing PATHS posters in school hallways, implementing new school behavior guidelines, and painting problem-solving “stop lights” on school playgrounds.

Classroom teachers were trained in the administration of this curriculum and provided individualized teacher consultation about behavioral management issues. In the early school years, targeted skills were designed to enhance adaptation to the rules and routines of school and to foster the development of positive peer relations. In later years, more advanced topics included decision-making skills, study skills, goal setting, character development, coping with peer pressure, and problem-solving skills.

At the standard indicated level of prevention, 2-h family group meetings were held regularly at local schools. Sessions were held weekly for 22 sessions in Grade 1, biweekly for 14 sessions in Grade 2, and monthly for 8 sessions each year in Grades 3–5. Each session involved separate 60-min group meetings for parents and social skill training meetings for children. Children then received 30 min of tutoring in reading skills, led by a trained paraprofessional and observed by the parent. The last 30 min of each session included a parent-child sharing session, in which parents and children participated in joint activities. Parent groups promoted the development of positive family-school relationships and taught effective communication.
and discipline skills (including praise and ignoring, clear instructions and rules, and time out) (McMahon, Slough, & Conduct Problems Prevention Research Group, 1996). Child social skill groups focused on friendship and play skills and self-control skills, anger-coping strategies and interpersonal problem-solving skills (Bierman, Greenberg, & Conduct Problems Prevention Research Group, 1996). Parent-child sharing sessions promoted positive relationships and offered parents an opportunity to practice new parenting skills with staff guidance. As with PATHS, the skill topics addressed in the parent and child groups followed a developmental sequence, with an increasing emphasis over time on communication skills, homework study skills, goal-setting, and negotiating parent-child conflicts. Individualized indicated services included academic tutoring, home visiting, and school-based peer pairing to promote friendships. Children and families received a standard level of these services in Grade 1. In subsequent years, criterion-referenced assessments were used to adjust the dosage of these three indicated components to match the level of functioning of each family and child. In Grade 4, a mentoring program was added, reflecting the growing significance of the child's identity development and the importance of same-gender, same-race positive role models in the identity development process.

Adolescent Phase

The adolescent phase of the intervention plan emphasized four domains associated with successful adolescent adjustment: peer affiliation and peer influence, academic orientation and achievement, social cognition and identity development, and parent and family relations. This phase of the intervention covered Grades 5–10 (CPPRG, 2000). It began with intensive prevention efforts around the transition into middle school (Grades 5–7) that were followed by continuing individualized preventive support through Grades 8–10. Due to a growing dispersion of the target sample across schools, it was not possible to serve a substantial segment of the sample with a universal prevention curriculum in adolescence.

Reflecting the developmental characteristics of adolescence, the intervention design differed in some fundamental ways from the design used in the elementary phase. Monthly group sessions involving parents and youth continued during Grades 5 and 6. As in the elementary phase, these sessions were held at the school (or other community location), were 2 h long, and included separate meetings for parents and youth, along with periods for parent-youth discussion. However, reflecting the protective role of adult supervision and monitoring in adolescence, and the corresponding importance of parent-youth communication, group sessions increasingly emphasized joint presentations to parents and youth, along with guided parent-youth discussions. Second, the emerging abstract reasoning capabilities of young adolescents, coupled with their increased independence and mobility, created an opportunity and need to focus on identity development, future goals, and decision-making around both vocational and avocational interests and activities. To meet this need, the adolescent-phase intervention included identity development workshops for youth in Grades 7 and 8, called youth forums. Third, adolescence is marked by
several critical developmental changes, including puberty, the initiation of romantic relationships and sexual activity, increasing peer group affiliation, and identity development. Youth differ markedly in the age at which, and speed with which, pubertal development and these other changes occur, creating heterogeneity that has implications for risk and for preventive intervention. As adolescents become more peer-oriented, deviant peer groups also emerge in early adolescence, and can function to support and facilitate antisocial activity. Group-based interventions for high-risk adolescents can unwittingly strengthen deviant peer affiliations and thus sabotage prevention effectiveness (Dodge, Dishion, & Lansford, 2006). Given the need to respond to increasing heterogeneity within the Fast Track adolescent sample, along with the need to avoid supporting deviant affiliations, individualized criterion-referenced services (rather than group sessions) were emphasized in the later grades (Grades 7–10).

During the adolescent phase, the standard prevention activities included two kinds of curriculum-based parent and youth groups: (1) groups focused on developmental issues of adolescence, held monthly during Grades 5–6 and during the beginning of Grade 7; and (2) an additional set of group meetings that comprised a transition support program, timed around the student’s transition into middle school or junior high school (Grades 5–6 or 6–7, depending upon the local school organization). The key goal of the groups was to introduce skills that could delay the onset and reduce the severity of adolescent problems. Topics for parent groups included parental positive involvement and monitoring, communication and conflict resolution skills, and parental support for student achievement. Youth group topics included coping with peer pressure, resistance and refusal skills, advanced problem solving, and goal-setting and decision-making skills. After receiving information about adolescent risks and protective skills during the family sessions, the intervention staff supported candid parent–youth discussions around issues such as middle school transition adjustment (Grades 5–6); romantic relationships and sex education (Grades 5–6); alcohol, tobacco, and drug use (Grades 6–7); and vocational goal setting (Grade 7).

The middle-school transition program was designed to provide additional support to parents and youth during the spring prior to, and the fall following, the youth’s transition into middle school. This program included visits to the middle school, discussions with the school counselor, coaching in organizational and study skills, and support from middle-school student mentors. The family sessions of the transition program were directed toward helping youth and parents acquire knowledge about middle school, learn skills of adapting to middle-school life, communicate more effectively around middle-school issues, and build a positive relationship with middle-school counselors and teachers.

A new aspect of the standard intervention in adolescence involved youth forums designed as workshops for groups of 4–8 youth. In Grades 7 and 8, eight of these forums, based on Oyserman’s Future Selves Program (Oyserman, Sanchez-Burks, & Harrison, 1996), encouraged youth to think about their short- and long-term life goals, to explore different life opportunities and choices, and to explore vocational opportunities, budgeting and life skills, summer employment opportunities and job interview skills.
In addition to these curriculum-based group programs, individualized prevention supports were offered to some of the high-risk youth on an “as needed” basis, according to criterion-based assessments. Given individual growth trajectories and life situations, considerable heterogeneity existed within the high-risk sample in adolescence. Individualized prevention services were designed to strengthen protective factors in areas of particular need for specific youth. The goal was to work toward equalizing the strength of protective factors across high-risk youth, rather than equalizing the amount of intervention delivered to each high-risk youth. Individualized services included: (a) academic tutoring, (b) mentoring, (c) support for positive peer-group involvement, (d) home visiting and family problem solving, and (e) liaisons with school and community agencies.

**FAST TRACK OUTCOMES**

Analyses of the Fast Track Program indicate that the program had significant impact on proximal outcomes that were assessed in the elementary school phase of the project, such as improvements in behavior, social skills, and parenting strategies, and some more distal outcomes assessed in adolescence, such as disruptive behavior disorder diagnoses and arrests. In this section, we briefly summarize findings to date concerning the impact of the program.

**Elementary School**

*High-risk sample.* We first examined the effects of the Fast Track program on the high-risk children at the end of the first grade (CPPRG, 1999a). In comparison to the high-risk control children, the high-risk intervention children displayed improved emotion recognition, emotion coping, abilities to generate competent solutions to social problems, and word attack skills, and higher language arts grades. In addition, the intervention children displayed improvements in independently observed positive interactions with peers at school, and had improved social preference scores on sociometric ratings.

Fast Track enhanced certain aspects of parenting. Following the first year of intervention, parents reported that they would use lower rates of physical punishment in vignettes of difficult parent-child situations; they were observed to interact in warmer, more involved ways during observed parent-child interactions in the home; they were rated by the observers as using more appropriate and consistent discipline; they were more positively involved with their children’s schools; they placed more value on encouraging children’s learning; and they were very satisfied with the intervention. With regards to children’s actual behavior, high-risk intervention children displayed significantly greater behavioral changes during the year according to the parent and teacher ratings, and teachers rated the intervention children as having significantly lower rates of aggressive, oppositional behaviors in the school setting.

By the end of Grade 3 (CPPRG, 2002a), lower teacher ratings of conduct problems indicated that the intervention children, in comparison to the
control children, were continuing to display reductions in conduct problem behavior. Parent reports of children’s conduct problem behavior also indicated greater positive child behavior change (i.e., less conduct problem behavior) and lower levels of aggressive behavior in comparison to the control group. However, there was no significant main effect of intervention on formal diagnoses of oppositional defiant disorder or conduct disorder as assessed by the DISC structured interview. In contrast to the effects noted at the end of the first grade, intervention effects were no longer evident for measures of social competence or reading achievement. Intervention parents reported less use of physical punishment on vignettes about parenting situations, and rated themselves as having improved their parenting behavior to a greater degree over the previous year than did parents in the control condition.

We also employed a dichotomous measure of serious conduct problems (i.e., clinical “caseness”). Clinical caseness was based on the presence of an elevated score on at least one of the following four measures: (a) a DISC diagnosis of oppositional defiant disorder or conduct disorder, (b) existence of an individualized education plan (IEP), and (c) teacher or (d) parent reports of conduct problems in the top 15% of the distribution. Using this more person-oriented approach to data analysis revealed that 37% of the intervention sample was “case free” at the end of third grade, in contrast to 27% of the control sample. This represented a 1/3 increase in “case-free” status.

Using a similar approach to “caseness” at the end of Grades 4 and 5, we found significant intervention effects for three of four domains: (a) social competence and social cognition problems, (b) involvement with deviant peers, and (c) conduct problems in the home and community (CPPRG, 2004). There were reductions in caseness ranging from 17% to 33%. However, there were no significant intervention effects for a fourth domain that assessed school context academic and behavior problems.

Mediation of Grade 4 outcomes. We conducted an assessment of mediators for several significant outcomes for the Fast Track intervention at Grade 4 (CPPRG, 2002b). Potential mediators consisted of variables that demonstrated significant intervention effects at the end of Grade 3. The effects of these mediational analyses were largely consistent with the early starter model of conduct problems, and were decidedly domain specific. For example, improvements in parenting partially accounted for intervention effects on oppositional/aggressive behavior at home, but not at school. Improvements in children’s prosocial behavior at school partially mediated intervention effects on peer social preference in the classroom. Similarly, improvement in children’s social cognitions concerning their peers partially mediated intervention effects on deviant peer associations. These patterns suggest that a multifaceted intervention may be necessary in order to improve children’s adjustment outcomes in the elementary years.

Universal sample. Because the PATHS program was provided to all children in the intervention schools, not just the high-risk children, and because other program components (e.g., peer pairing) included the lower-risk classmates of our target children, we also examined the universal preventive effects of Fast Track through Grades 1–3 (CPPRG, 1999b, 2010b). Analyses were conducted by removing the high-risk
children from the analyses, thus permitting an examination of the effects on the remaining classmates. At the end of first grade, intervention classrooms were found to have lower peer-rated aggression and lower peer-rated hyperactive-disruptive behaviors than were the control classrooms (CPPRG, 1999b). Ratings by independent observers in the classrooms indicated that the intervention classrooms had better classroom atmosphere (e.g., better rule following, appropriate expression of feelings, greater enthusiasm and interest, and ability to stay focused and on task). In implementation analyses, teachers’ rated skill in teaching the PATHS concepts emerged as a predictor of degree of improvement evident in the observers’ coding of the classroom atmosphere, further indicating the role of the program in producing these positive outcome effects. This universal social and emotional learning program had important preventive effects for all students, and, thus may have increased the likelihood that intervention effects with the high-risk children would be maintained because of the improved classroom context in which the target children were embedded.

More recently, we examined the effects of the PATHS universal intervention on student behavior change (teacher ratings and peer sociometric nominations) for students who received 3 years of the intervention (CPPRG, 2010b). The longitudinal analysis involved 2,937 children who remained in the same intervention or control schools for Grades 1, 2, and 3. Modest positive effects of sustained program exposure included significant reductions in peer- and teacher-rated aggression and peer-rated hyperactive/disruptive behavior, and improvements in teacher-rated academic engagement and social competence. The effects of the teacher-rated variables were moderated by school environment, with effects stronger in less disadvantaged schools; furthermore, reductions in teacher-rated aggression were also larger in children who showed higher baseline levels of teacher-rated aggression. Gender moderated the effects of peer-nominated aggression and hyperactive-disruptive behavior, with the intervention effects noted only for boys.

Middle School

We next examined the effects of the Fast Track preventive intervention on youths’ functioning in middle school in three domains: disruptive behavior problems, involvement with deviant peers, and social skills during the middle school years (CPPRG, in press). In contrast to prior findings of the effectiveness of the intervention during the elementary school years, Fast Track had little overall impact on children’s functioning in these domains during middle school. There were positive intervention effects on only 2 of 17 outcomes examined. Although the intervention had positive impact on parent-rated hyperactive behaviors and youth self-reported delinquent behaviors in seventh grade, there were no intervention effects on other externalizing behavior problems or on social skills. In addition, in contrast to the findings at the end of elementary school, Fast Track children in eighth grade were more likely than control children to be involved with peers who were engaging in deviant behavior; this deviant peer involvement may have mitigated some of the earlier intervention effects.
Moderation of Intervention Effects

We have not found consistent patterns of moderation of the intervention during the elementary and middle school years. This includes demographic variables (e.g., gender, race, site, and cohort), child variables (e.g., IQ), family variables (e.g., marital status, socioeconomic status, parent mental health or substance abuse status), and neighborhood variables (e.g., poverty, instability, quality). The few scattered intervention interactions found across the elementary school analyses did not form any meaningful pattern, and did not extend beyond chance levels. This failure to find systematic evidence of moderation suggests that the modest intervention effects were generalizable during elementary and middle school, with comparable effects, for example, for boys and girls, for African American and European American children, and in urban and rural settings.

However, there is evidence of emerging moderation of intervention effects for youth’s externalizing psychiatric disorders and antisocial behavior on the basis of the severity of the child’s initial risk score at kindergarten (CPPRG, 2007). Significant interaction effects between intervention and initial risk level were found after Grades 3 and 6, but most strongly after Grade 9. Among the highest-risk group (top 3%) in Grade 9, intervention children showed a 75% reduction in diagnosed cases of conduct disorder, 53% reduction in cases of attention deficit hyperactivity disorder, and 43% reduction of any externalizing disorder cases, as compared to the control group. In contrast, the intervention had no impact on children who were initially at only moderate levels of risk. Similar findings were obtained with an antisocial behavior score, based on the youth’s self-reported delinquency (although there was also a main effect of intervention). Youth in the highest-risk portion of the sample who participated in the Fast Track intervention reported significantly lower engagement in this measure of index crimes, interpersonal violence, and general delinquency than youth in the control group at similar levels of risk.

Effects on Youth Arrests and Delinquency

We recently examined the effects of the Fast Track preventive intervention on youth arrests and self-reported delinquent behavior through age 19 (CPPRG, 2010a). Due to the differences in how arrests for juvenile crimes are processed vs. arrests for adult crimes, we examined court records separately for arrests adjudicated as juvenile vs. adult crimes. Findings indicated that intervention influenced overall court-record juvenile arrest activity, as the odds of intervention youth being involved in court-recorded arrests was 29% lower than for control youth, the number of moderate-severity juvenile arrests was reduced by 24%, and the odds for onset of a juvenile arrest was lowered by 23% compared to the control youth. There is also evidence that intervention delayed the odds of onset of severe self-reported delinquent offenses by 18%. Intervention effects on the frequency of high-severity adult arrests (through age 19) were moderated by children’s baseline levels of problem behavior. For children with the highest level of kindergarten aggression (top 13%), arrests for severe
crimes were reduced by 47%. The onset of high-severity adult arrests was moderated by site – intervention effects were found for three sites, and an iatrogenic effect was found for the Nashville site.

**Economic Analyses**

We are conducting an ongoing extensive economic analysis of the costs and benefits of the Fast Track intervention. Analyses to date suggest that the intervention is rather costly ($58,283 per child for all 10 years of intervention; i.e., approximately $6,000/year) (Foster, Jones, & CPPRG, 2006). However, such expenditures must be evaluated relative to the other public and social costs stemming from the behavior of these youth. The costs of a life of crime include criminal justice expenditures (e.g., arrest, adjudication, and incarceration), costs to victims (e.g., medical costs, time missed from work, the value of stolen property as well as loss of life), and costs that accrue to the criminal and his or her family (e.g., lost wages). As noted earlier, Cohen (1998) estimates that the social costs of a single life of crime total at least $1.3 million. Thus, initial findings indicate that there were cost savings associated with Fast Track in areas of reduced utilization of general health and outpatient mental health services through adolescence, as well as lower arrest rates (CPPRG, in press, 2010a, 2010b; Jones et al., 2010). However, there were no cost savings associated with outcomes for special education, high school graduation, or inpatient mental health. Although such costs reductions are unlikely to fully offset the initial costs of the intensive Fast Track prevention program, some evidence for cost-effectiveness has emerged for the subgroup of youth who were at highest risk at the initial kindergarten screening in terms of conduct disorder diagnoses and self-reported index offenses (Foster et al., 2006).

**CASE ILLUSTRATION**

Joseph (a composite of several study participants) was a 5-year-old Caucasian male who lived with his biological mother, stepfather of a few months, and his 2.5-year-old sister. Joseph’s biological father had moved to another town and saw his son infrequently.

**Preintervention Information**

During the summer assessment prior to Joseph and his mother being invited to join Fast Track, Joseph’s mother (referred to here as Ms. L.) described her biggest concerns about her son as not being able to understand what he was told, not listening well, and being always ready for a fight. On the parent screening measure (a 24-item questionnaire concerning child externalizing behavior problems drawn from existing behavior checklists), Ms. L. endorsed the following items as “often true” (the highest rating) of Joseph: easily upset, annoyed or irritated; starts fights with...
other children; stubborn; breaks rules; teases other children; whines and
nags; threatens or bullies other children; sneaky; defiant toward adults;
blames others for misbehavior; and temper tantrums. She also expressed
concern about Joseph setting fires. His most serious incident occurred
at age 4 when he burned up a tool shed; however, there had been other
serious “accidents” since then. Ms. L. also stated that she and Joseph had
a “personality clash,” yelled at each other a lot, that it was difficult to be
patient with him, and that he had “more energy than any child his age.”
Overall, however, Ms. L. felt that it had been “mostly pleasant” to raise him
and described him as a happy child.

A behavior checklist completed by Joseph’s kindergarten teacher indi-
cated that the following behaviors occurred very frequently: stubborn;
breaks rules; harms others; fights; lies; trouble accepting authority; diso-
biedent; yells at others; and disliked by classmates. Thus, both Joseph’s
kindergarten teacher and his mother described him as being aggressive,
oppositional, and having peer relationship difficulties. With respect to the
latter, when interpreting other children’s intentions of offensive actions of
an ambiguous nature (e.g., being bumped or hit with a ball or being denied
a request to join a group of children at play), Joseph ascribed a hostile
intent to seven of eight responses to vignettes in which the child interprets
an offender’s intentions (e.g., “He hates me;” “Cause he is a mean kid.”). J oseph’s description of how he would behave in response to the offense
was also aggressive, in that he responded to five of the eight situations by
“punching” or by “showing who’s tougher.”

In addition to Joseph’s social skills deficits, he struggled with learning
to read and mastering basic math concepts. Ms. L. was frustrated with the
teacher calling her at least once every week to complain about Joseph; and
she was “no good” at helping him at home.

Attempts to recruit Ms. L. into Fast Track were initially met with refusal.
Nonetheless, it was clear that she wanted Joseph to be involved, especially so
that he could receive tutoring. After agreeing to participate in the program,
she stated that staff should not expect her to attend parent groups but that it
“might be okay” for the Family Coordinator (FC) to visit her at home.

Initial Intervention Sessions in First Grade

Home visits. Scheduling biweekly home visits with Ms. L. was gener-
ally uncomplicated as she did not work outside of the home. Once the FC
arrived at her home, however, Ms. L. was habitually upset about a family
(or other) incident and launched into a litany of complaints that precluded
any real discussion. After several home visits, the FC ascertained that Ms.
L.’s characteristic bravado was shielding a fairly anxious woman who was
insecure in social situations. Over time it also became evident that some
of Ms. L.’s impudence during the visits was a “test” of the commitment
that Fast Track and, in particular, the FC, had to her and her family. Ms.
L. held very strong opinions about parenting and did not see the necessity
for discipline strategies other than her own approach of privilege removal,
sending Joseph to his room, and, when necessary, using “a hand or
belt” depending on the misbehavior. Ms. L. described herself as more like
a single parent since she did not allow Joseph’s stepfather to discipline the children. She expressed her feeling that parenting Joseph was difficult and that even after she “put her foot down,” he whined and yelled until he got his way. Problem-solving sessions, centered on resolving some of their parent-child difficulties, typically resulted in Ms. L. generating only one solution, usually one with a negative focus.

*Parent Group.* True to her word, Ms. L. was initially resistant to Fast Track’s encouragement of her attendance at parent groups, although she was pleased that Joseph was attending the first-grade Friendship Group and receiving tutoring. However, once Ms. L. was persuaded (due in part to Joseph’s insistence) to visit a few of the parent groups, she attended consistently and, in time, seemed to enjoy being part of the group. She was an active participant and was particularly vocal if something was said with which she disagreed. As she gained more trust in her relationship with the FC and felt more comfortable with the group process and with other group members, the agitation and nervousness she initially demonstrated diminished.

*Friendship Group.* Joseph had a difficult time in Friendship Group. He played off other children’s misbehavior and often spoke out of turn. He delighted in making crude jokes, throwing food at snack time, and trying to get the other children’s attention with inappropriate behavior that included punching or threatening them. His behavior would improve for short periods when the Educational Coordinator (EC) attended to his appropriate behavior. His behavior also improved when he was given a task with some responsibility (e.g., setting up snacks).

*Parent–Child Sharing Time.* Both Ms. L. and Joseph appeared uncomfortable as they joined together for Parent–Child Sharing Time. They often teased each other maliciously and sat with their arms folded across their chests until they began an activity. Complimenting each other was a chore, especially for Ms. L., and took a good deal of coaching by the FC.

*Academics and behavior at school.* Joseph had a hard time with schoolwork and being attentive in class. Part of his difficulty in school could be attributed to his distractibility, inattentiveness, “constant fidgeting,” and talking out of turn. He also engaged in many of the same acting-out behaviors that he demonstrated in Friendship Group.

Ms. L. had difficulty supporting Joseph in getting his homework finished and turned in on time. Additionally, Ms. L.’s relationship with school personnel was strained, at best. Her rare visits to the school usually resulted in her adamantly blaming the school for whatever incident had brought her there. In fact, Ms. L. twice threatened to quit Fast Track during the first year of the intervention because she was upset about events that occurred with Joseph at school. One such precipitating event was a school referral to Child Protective Services for a cigarette burn on Joseph’s hand, which Ms. L. had employed as a disciplinary strategy to teach him not to play with matches. This incident provided an opportunity for Fast Track staff to work with Child Protective Services, and intensify the support provided to Ms. L. in areas of anger management and appropriate parenting.
Conduct Problems Prevention Research Group

**Intervention Strategies: Grades 1 and 2**

*Home visits.* Home visits with Ms. L. continued on a biweekly basis throughout the first 2 years of the project. Ms. L preferred that the FC visit during school hours, but occasionally Joseph was present. During these occasions, the FC coached Joseph and his mother through problem-solving sessions on the topics of completing his homework or chores.

Recognizing that her impatience with Joseph (and others) was an impediment to their relationship, Ms. L. was eager to set goals focusing on being more patient with her son. Over the first 2 years of the project, the FC and Ms. L. agreed to concentrate on the following goals: (1) practice the methods for calming down taught in parent group and in the PATHS curriculum; (2) try to be more patient with Joseph by recognizing her own feelings and calming down; (3) let Joseph express his feelings and listen to his side of the story before deciding to punish him; (4) move immediately into using the time-out strategies taught in parent group for any physical aggression; (5) monitor Joseph’s homework to be sure it was completed on time; and (6) make a positive comment whenever she “caught Joseph being good.”

While Ms. L. eventually accepted the idea that giving praise and positive attention to Joseph was important, she found it difficult to implement. During home visits, the FC focused on finding opportunities to praise and congratulate Ms. L. on her efforts and accomplishments. This positive attention accomplished three intervention goals: (1) it allowed Ms. L. to experience how she felt when positively recognized; (2) it modeled an important and basic component of the parenting skills curriculum with which Joseph’s mother needed to become comfortable; and (3) it reinforced Ms. L.’s efforts in attaining the goals she was working on with Joseph.

*Friendship Group.* The EC and cofacilitator set up a behavior plan that focused on Joseph reducing his physical aggression, using more positive and less threatening language, and behaving more seriously and in a more mature fashion during group. This included having him use calming down and “active ignoring” strategies to avoid joining in misbehavior with other group members. Joseph was rewarded with verbal praise and positive attention and received more responsibility for setting up, and sometimes leading, group activities.

*Parent-Child Sharing Time.* The estrangement that Joseph and his mother displayed during Parent-Child Sharing Time resulted in the decision to pair them with different partners to practice the skills that Ms. L. was learning in parent group (i.e., Ms. L. practiced with another child and Joseph practiced with another parent). Both Joseph and his mother responded well to this re-matching and the skills practices appeared rewarding for both of them.

*Academics and behavior at school.* Joseph continued to have difficulty behaving appropriately in the classroom. If he earned a discipline slip for his behavior, he would sometimes throw major tantrums that involved screaming, kicking, and crying. He agitated his peers with teasing, name-calling, and sometimes hitting. A similar behavior plan to the one used in Friendship Group was set up with Joseph’s teacher. The plan worked particularly...
well during the PATHS curriculum time when Joseph recognized the same concepts being taught as in Friendship Group. Joseph also responded positively to the one-on-one reading tutoring provided by Fast Track during which he was cooperative and mostly showed good effort. Additionally, he demonstrated mature and cooperative effort during the peer-pairing sessions involving another child from the classroom and conducted by his tutor.

**Progress by Third Grade**

After the conclusion of the first 2 years of the intervention, Joseph’s mother expressed her regret that the parent and child groups would be meeting only once a month. Her demeanor on home visits could still be antagonistic at times, but she was able to calm down and focus on parenting issues shortly after the FC arrived. Ms. L. reported that it was definitely easier to praise Joseph but noted that, “there still aren’t that many opportunities to do so.” Ms. L. had become skilled at the use of the time-out strategies and Joseph’s aggressive behavior during arguments declined sharply. Ms. L. and the FC were able to set up long-term goals for parenting that included sharing some responsibilities with her husband. She and Joseph became much more comfortable (even animated at times) when paired together during parent–child sharing time and could make appropriate comments to each other during the complimenting exercise. Visits to the school by Ms. L., together with the FC, became more productive and much less confrontational.

Joseph continued to experience frustration and difficulty in academics early in his third grade year. His failure in reading and math prompted him to remark that it “didn’t matter” because he was going to “be a bum” when he grew up. A few months into the school year, a new Fast Track tutor began meeting with Joseph four times/week for reading and math. Ms. L. had implemented the homework monitoring and reward plan and Joseph had begun turning in his homework regularly. By the end of February, Joseph was at class level in math and reading, and his attitude toward school had greatly improved. He received very few detention referrals for the remainder of that year.

Joseph made the most growth in his social skills – “a real success,” as his EC remarked. He evidenced strong leadership in Friendship Group when he remembered to ignore the inappropriate behavior of others. He could also identify that he was using his ignoring skills to avoid fights and be successful in group. His ignoring of their misbehavior, in fact, often prompted more appropriate behavior by other children in the group. Importantly, he was able to generalize his Friendship Group skills and use them with his non-Fast Track schoolmates by cooperating and being a “team player.” Additionally, no incidents of fire-setting had been reported since first grade.

**Follow-Up Information**

Joseph continued to improve (with ups and downs) in his academic and social skills throughout elementary school. Both he and his mother reported communicating and getting along better with each other. The school reported that interactions with Ms. L. were going smoothly, and Ms. L. described “trusting (her FC) more than anyone in my life.”
Joseph’s participation in the Fast Track intervention continued during middle school. He attended and actively participated in the youth meetings and, due to his mother’s insistence, reluctantly attended the twice-weekly homework club meetings in seventh grade. The Youth Coordinator (YC) continued her involvement with Ms. L., primarily through phone calls; she also scheduled problem-solving meetings with Joseph and his mother on a monthly basis. On outings with the YC, Joseph talked openly about family, friends, school, and girls. He also developed a good relationship with his mentor who, unfortunately, moved after their first year of involvement together.

During Joseph’s middle school years, his mother’s and stepfather’s relationship was failing and he and his mother argued “like in the old days.” Following eighth grade, Joseph chose to move in with his biological father who had remarried and now had stepchildren, all younger than Joseph. Joseph had a difficult time living in the family and following their rules. Although he and his father argued loudly at times, Joseph managed to control his urges to strike out. He moved again and lived with a friend of the family for about a year. During that year, Joseph reported later, he “hung out with a bunch of losers” who were using drugs and stealing cars. Subsequently, Joseph moved back in with his mother and dropped out of high school. At age 20, Joseph was working on obtaining his GED, living with friends, and holding down a full-time job. He reported that he had given up drugs, was living with people who also did not use drugs, and felt like he was “going somewhere” with his life.

Comments

The variety and complexity of the individual children and families who participated in this intervention preclude depiction of a “typical” Fast Track family. Nonetheless, Joseph is representative of many of the children who participated in Fast Track. Joseph’s behavior was causing problems at both home and school. His loud and immature behavior was disruptive in the classroom, and his negative attributions to his peers’ intentions and reactive aggression caused him to be disliked by his classmates. Also, as predicted in the long-term preventive design of Fast Track, it took time for Joseph’s family to become involved in the intervention process. This family did differ from many of the families participating in Fast Track in that Ms. L. was not a single parent (although her partner was often uninvolved), she did not need to work outside of the home, and she did not receive public assistance to support her family. Although Joseph did not complete high school, his involvement with Fast Track may have facilitated his decision as a young adult to pursue his education and his ability to stop using drugs and to be gainfully employed. Because data analysis is ongoing, we are as yet unable to assess the degree to which Joseph’s outcomes are representative of those achieved by other participants in this comprehensive and long-term intervention. However, based on the findings to date, we are hopeful that we will continue to see intervention-related improvements for the youth at highest initial risk.
PREVENTION SCIENCE IN PRACTICE: FAST TRACK

At the beginning of this chapter, five principles for prevention science were outlined (Coie et al., 1993). Perhaps most importantly, Fast Track is an example of how a carefully articulated developmental model that accounts for the change and accumulation of risk factors and of mediating processes throughout the long developmental period starting with children at school entry and continuing through adolescence in high school can inform a complex, multicomponent intervention model. When this principle is met, as in the Fast Track model, then the remaining principles for prevention science can be readily addressed. The Fast Track intervention addresses fundamental causal processes that mediate the relation between early risk factors and later antisocial outcomes. By intervening early at the entry to school, Fast Track attempts to address risk factors before they become stabilized and relatively intransigent to intervention. Fast Track, as an indicated preventive intervention, does address high-risk children, who are screened with a multiple-gating procedure using teacher and parent ratings, but, in addition, Fast Track includes a universal preventive focus on all children in the intervention schools. Finally, because the developmental model articulates a range of factors within the child and within the child’s context that contribute to children’s entry and retention on the developmental trajectory leading to serious adolescent conduct problems, Fast Track has necessarily included coordinated activities in multiple domains which change over the long course of intervention.

Thus, Fast Track emerges as one exemplar of how prevention science can contribute to children’s welfare and public policy. The Fast Track intervention demonstrated modest intervention effects in multiple domains throughout the 5 years of elementary school. The effects appear to have been strongest following our initial intensive preventive efforts in first grade. Small to moderate effects were maintained with sustained prevention support during this period. In contrast, there were minimal intervention effects in middle school. However, there is evidence of moderation of effects on conduct problem outcomes (especially by the end of Grade 9) based on the child’s severity of initial risk as measured in kindergarten, with strong intervention effects for those youth at the highest level of initial risk. Recent analyses found a modest intervention effect for juvenile arrests. Ongoing economic analyses have indicated that although expensive, Fast Track modestly reduced utilization of general health and outpatient mental health services through adolescence, and for the highest-risk youth, with effects on conduct-problem outcomes. In terms of future directions, we plan to continue to examine the impact of the intervention through age 20, and a follow-up assessment of the sample at age 25 is ongoing.

ACKNOWLEDGMENT

This work was supported by National Institute of Mental Health (NIMH) grants R18 MH48043, R18 MH50951, R18 MH50952, and R18 MH50953. The Center for Substance Abuse Prevention and the National
Institute on Drug Abuse also has provided support for Fast Track through memoranda of agreement with the NIMH. This work was also supported in part by Department of Education grant S184U30002 and NIMH grants K05MH00797 and K05MH01027.

We are grateful for the close collaboration of the Durham Public Schools, the Metropolitan Nashville Public Schools, the Bellefonte Area Schools, the Tyrone Area Schools, the Mifflin County Schools, the Highline Public Schools, and the Seattle Public Schools. We greatly appreciate the hard work and dedication of the many staff members who implemented the project, collected the evaluation data, and assisted with data management and analyses.

REFERENCES


Conduct Problems Prevention Research Group. (in press). The difficulty of maintaining positive intervention effects: A look at disruptive behavior, deviant peer relations, and social skills during the middle school years. *Journal of Early Adolescence*.


PREVENTING SEVERE CONDUCT PROBLEMS IN SCHOOL-AGE YOUTH


