Prevention of Early Adolescent Substance Abuse Among High-Risk Youth: A Multiple Gating Approach to Parent Intervention

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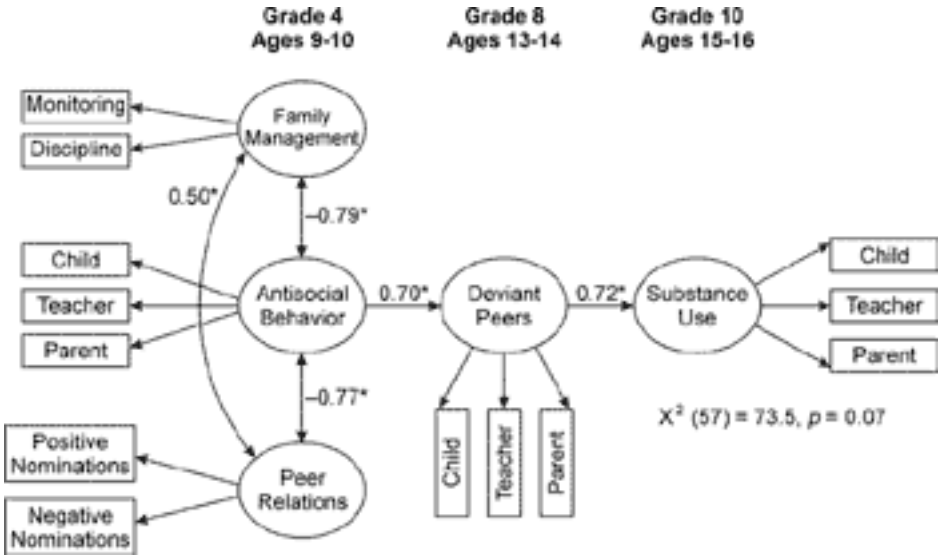
DEVELOPMENT AND ECOLOGY

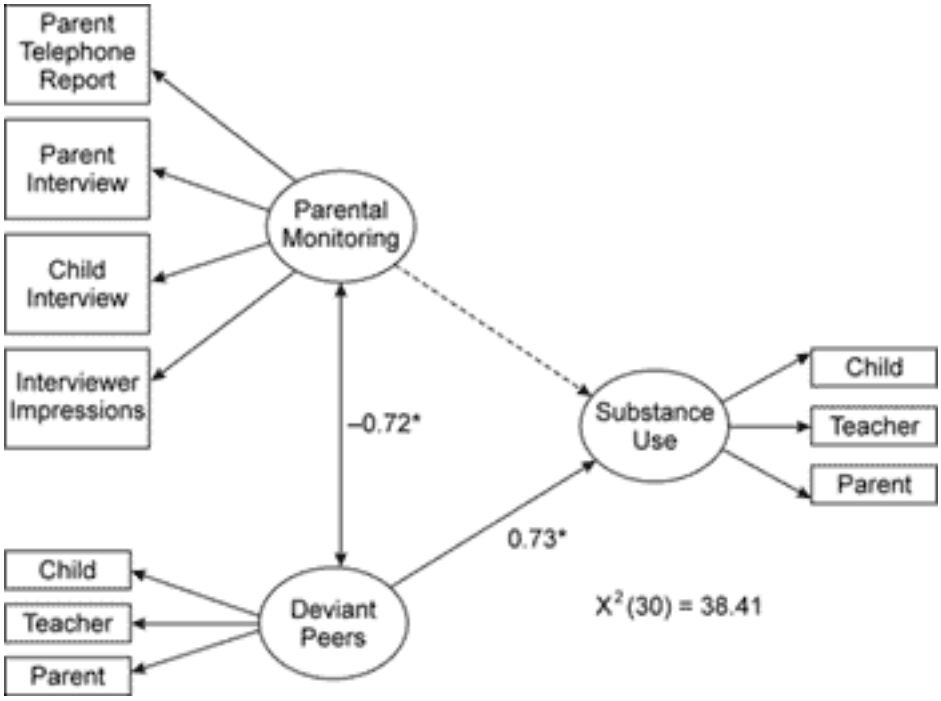
Youths who begin using substances by the age of 15 constitute the group at highest risk for chronic abuse among young adults (Robins and Przybeck 1985). The risk for early onset substance use is entangled in the development of antisocial behavior in childhood and adolescence, a key antecedent (Dishion et al. 1995; Kellam et al. 1983; Smith and Fogg 1979). Knowledge of the risk factors and the developmental processes leading to early onset is crucial for the design of effective prevention programs. Although Hawkins and colleagues (1992) have documented a plethora of risk factors associated with adolescent substance use, there is a growing consensus among developmental and intervention researchers that parenting practices are at the center of the causal process (Baumrind et al. 1985; Block et al. 1988; Bry 1988; Dishion et al. 1988; Szapocznik and Kurtines 1989; Zucker et al. 1995).

The research by Dishion and colleagues (1995) indicated that poor parenting practices exacerbate antisocial behavior in childhood and adolescence. A stage model proposed by Patterson and colleagues explains how the emergence of antisocial behaviors in childhood can progress to more serious forms of problem behavior in adolescence (Patterson 1982; Patterson et al. 1992). Harsh coercive parenting has been associated with antisocial behavior and is correlated with academic problems, peer rejection, and depression. These secondary outcomes, coupled with poor parental monitoring, are related to a multitude of problem behaviors (Dishion et al. 1991; Elliott et al. 1985). Dishion and colleagues (1995) have found that early problems in family management, the antisocial behavior of the child, and peer rejection have effects on early onset substance use that is entirely mediated by association with deviant peers. Figure 1 provides an overview of a longitudinal test of a peer-mediated model on a sample of 206 boys involved in the Oregon Youth Study (OYS).



Parental monitoring practices are highly correlated (–0.72) with young adolescents' involvement in a deviant peer group (see figure 2). Moreover, parental monitoring and the density of drug-using peers, as well as the opportunities to use substances, are impacted by community contexts (Patterson et al. 1992). For this reason, an ecological model may be most appropriate in understanding the risks of problem behavior and in guiding prevention design across development (Dishion et al. 1995; Kellam 1990; Magnusson 1988; Rutter 1989). Bronfenbrenner (1979, 1986, 1989) provides a cogent and organized conceptual framework for considering the network of findings related to the etiology of antisocial behavior. The ecology of child development is a hierarchy of nested systems, beginning with face-to-face interactions, continuing on to behavior settings in which relationships take place, and on to macrocontextual influences such as cultural and community practices.

One implication of an ecological model is that for an intervention program to effectively reduce risk, it may be necessary to attend to the contextual factors that influence underlying causal processes and work within the relevant settings (Biglan 1995). The vast majority of the children in the United States attend school up to the age of 13 to 14 years old. Schools are a primary influence on adolescent problem behavior and serve as training grounds and a convenient meeting place for deviant peer groups (Dishion et al. 1994;



Kellam 1990; Rutter 1985). Prevention intervention programs need to "consider schools as a potential site for service delivery, as well as serve as potential objects of intervention activity" (Trickett and Berman 1989, p. 361). Communication between the school and parents is key to enabling parents' potential for monitoring, limit setting, and supporting academic progress (Gottfredson et al. 1993; Reid 1993).

Studies have shown that simply increasing specific information to parents regarding attendance, homework, and class behavior can improve monitoring and provide support for an at-risk child's academic and social success (Blechman et al. 1981; Heller and Fantuzzo 1993).

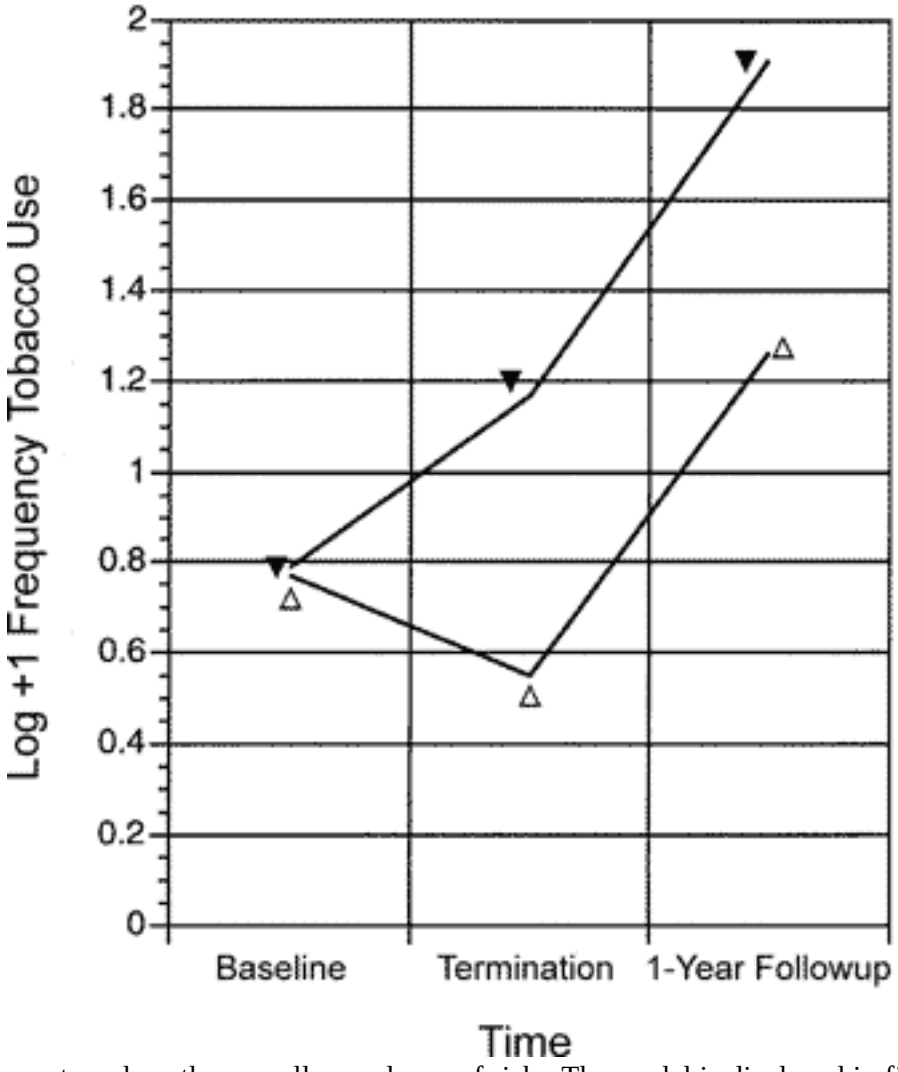
When children are at high risk (i.e., family disruption and a history of antisocial behavior problems), more intensive parenting interventions are quite successful. The most widely replicated intervention with conduct problem children is parent training (Kazdin 1987; Patterson et al. 1993). Family-focused interventions that support active and constructive parenting are also effective in reducing substance use in high-risk youth (Bry 1988; Szapocznik and Kurtines 1989). The authors' research has provided a poignant example of the importance of supporting parenting as well as the harm of aggregating high-risk youths in interventions designed to prevent escalation of problem behavior.

The authors randomly assigned families of high-risk youths (N = 119) participating in the Adolescent Transitions Program (ATP) to four prevention interventions: (1) parent focus, (2) teen focus, (3) parent and teen focus, and (4) materials only. Following cognitive-behavioral principles, the parent focus and teen focus consisted of 12 group sessions. In addition, the authors studied the course of adjustment of 38 high-risk families without intervention who served as quasi-experimental controls. All families were comparable in terms of demographics and levels of risk. Two sets of findings emerged from this analysis. First and most important was an iatrogenic effect indicated by teacher ratings of problem behavior and the youths' self-report of smoking that was associated with aggregation into teen focus intervention groups (Dishion and Andrews 1995). Second, the parent focus was the most effective in reducing problem behavior, coercive parent-child interactions, and substance use (Dishion et al., in press). Figure 3 summarizes the short-term outcomes on tobacco use for the intervention groups.

Interventions directed at parenting practices should be comprehensive and responsive to the developmental history of the child and family. The key issue of an intervention that targets parents' engagement is titrating the level of need (the risk status of the child) to the level of support provided to parents for reducing their youngster's risk. The authors have developed a multiple gating intervention strategy that targets parenting practices and integrates universal-to-indicated interventions within a comprehensive framework. The "gating" metaphor, adopted from early work on multistage screening for high risk, describes the successive screening and resource allocation to families on the continuum of risk (Cronbach and Glesar 1965; Dishion and Patterson 1992; Loeber et al. 1984).

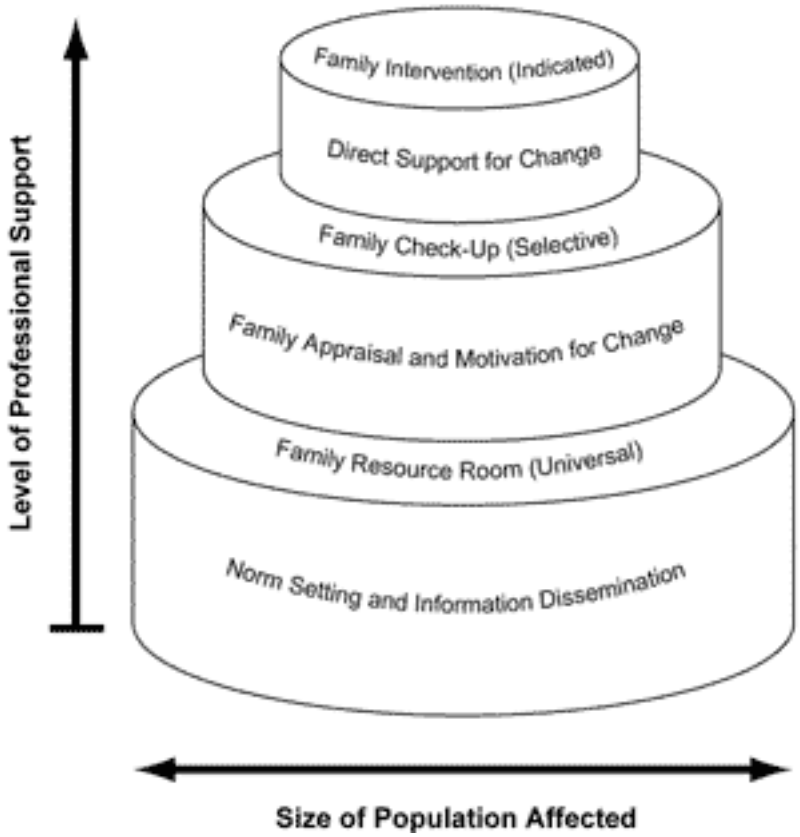
MULTIPLE GATING INTERVENTION STRATEGY

Based on the conventional levels of universal, selective, and indicated interventions, the multiple gating approach can best be described as a tiered strategy, with each level of intervention building on the previous



one to reduce the overall prevalence of risk. The model is displayed in figure 4.

The universal level establishes a Family Resource Center within the school (e.g., middle school). The goal is to collaborate with school staff to engage parents, establish norms for parenting practices, and disseminate information regarding risks for problem behavior and substance use. The selective level of intervention and the Family Check-Up offer family assessment and professional support toward motivation to change. The indicated level provides direct professional support to parents for making the changes identified in the Family Check-Up. These services may include behavioral family therapy, parenting groups, or case management services. Following this tiered



strategy, a family in the indicated family intervention would have participated in a Family Check-Up and received information from the school's Family Resource Room regarding risk factors for early onset substance use.

INTERVENTION LEVELS

Family Resource Center (Universal)

Services in the Family Resource Center are designed to reach all parents by providing an orientation to risk factors in parenting practices and youth behavior. For example, the authors have developed a videotape titled "Parenting in the Teenage Years," a self-assessment process that helps parents identify the observable risk factors in the context of parent-child interaction. The videotape (designed to be viewed by all parents in the first week of school) presents examples of teen risk behavior and focuses on the use of effective and ineffective family management skills (positive

reinforcement, monitoring, limit setting, and relationship skills) to facilitate evaluation of levels and areas of risk.

Following the orientation session, the Family Resource Center staff collaborates with health or homeroom teachers to assign a series of family exercises that support parent involvement, parent-child communication, and family management. For each of the key family skills, two communications are sent to parents. For example, in supporting the parents' reinforcement of their child's homework completion, a newsletter and exercise are sent to parents via a classroom assignment. First, the child and parent are asked to discuss how homework is encouraged at home, and the child then returns the family report to the school for collating by the Family Resource Center staff. A second communication that summarizes successful strategies for encouraging homework completion by use of positive reinforcement is then sent to the parents. This approach is consistent with a basic principle of effective community intervention: Build on the strengths of the targeted community (Kelly 1988).

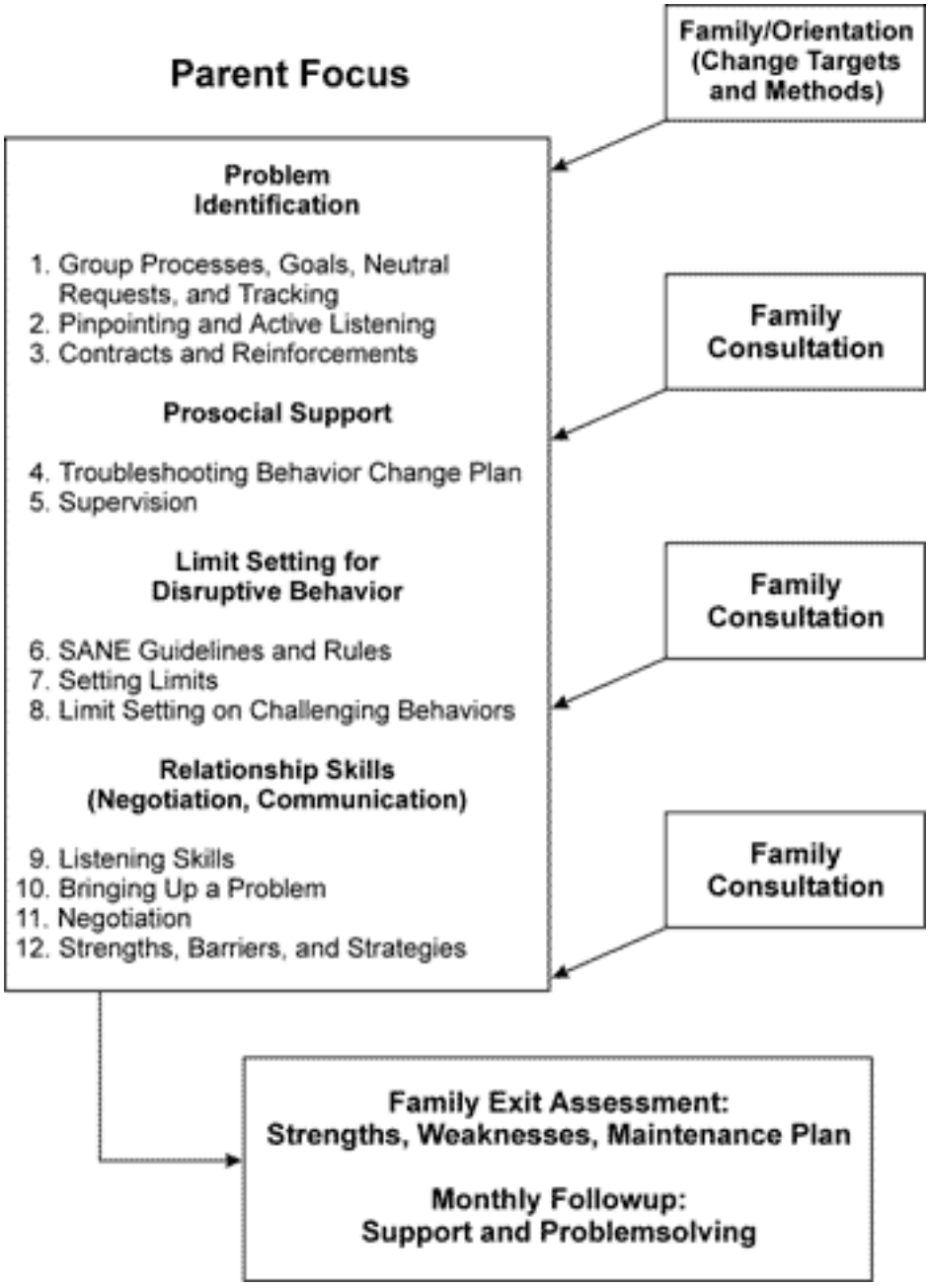
The Family Resource Center can also serve as a nexus of communication by providing parents weekly information regarding homework, problem situations, and resources within the school. For example, a daily message to all parents in selected classes, and for the school in general, can enhance parents' awareness of homework assignments and events relevant to their child. Finally, the Family Resource Center can be a resource to school staff members who have concerns about effective strategies for developing a positive, collaborative relationship with parents. The universal prevention services provided by the Family Resource Center include the following:

- Parent-focused school orientation (self-check, books, and videotapes)
- Media on effective parenting and norms
- Classroom-based parent-child exercises that support family management practices
- Communication of specific information to parents about attendance, behavior, and completion of assignments
- Screening and assessment

Family Check-Up (Selective)

There are two interrelated issues in working with parents to support family management and change of maladaptive practices: therapeutic process and focus. There is extensive literature on key therapist behaviors that are considered to be the basic ingredients of any helping intervention, which began with the seminal work of Rogers (1957). During the 1980s, the authors' colleagues at the Oregon Social Learning Center began to study client "resistance" in behavior family therapy. In a series of studies, Patterson and colleagues (Patterson and Chamberlain 1994; Patterson and Forgatch 1985) found that teaching and confrontation actually elicited parent resistance to change, whereas support, reframing, and questioning were more conducive to change. This literature forms the basis for the motivational interviewing component of the Family Check-Up.

The issue of focusing on the process of family interventions is an emerging research problem. Over the years, innovative family intervention researchers have suggested that providing feedback to parents based on the findings of psychological assessments is conducive to change (Sanders and Lawton 1993). The critical feature of such feedback is that it is presented in a supportive and motivating manner. The ATP Parent Focus program provided feedback to parents prior to the first intervention session. To examine the impact of such feedback, the authors compared the weekly parent reports of child behavior problems for those who "responded" to the parent focus intervention with those who did not. Immediate change suggested that the feedback session and self-monitoring of parenting is an important first step in the change process. As can be seen in figure 5, parents' report of the child's substance use and antisocial behavior changed dramatically by the fourth session for those who responded to the parent focus intervention. Patterson (1979) also found a similar effect on the child's observed aggressive behavior in the home. As a result, the authors incorporated the Family Check-Up as the key component of a selective intervention that targets parenting practices.



The Family Check-Up is an indepth method to assist parents in accurately appraising their child's risk status and to provide parenting resources for reducing risk factors and promoting adjustment. The authors have developed a procedure based on the Drinkers Check-Up (Miller and Rollnick 1991; Miller and Sovereign 1989) that consists of two meetings in the Family Resource Center (approximately 2

hours each), using multiagent, multimethod assessments and a feedback session:

- Assessment of strengths and needs
  - Child behavior: Home and school
  - Parenting practices
  - Observed parent-child communication
  - Emotional well-being of family
  - Family context

- Family feedback session
  - Identify strengths and barriers
  - Build motivation to change (e.g., frames)
  - Develop menu of coherent intervention options

Motivational interviewing is used to enhance risk appraisal and to support parents' commitment to change strategies. The FRAMES model (Miller and Rollnick 1991) guides the family feedback session: F stands for providing feedback to the client on the basis of objective assessments; R, parents are encouraged to accept responsibility for those practices that are within their power to change and control; A stands for advice provided by the consultant on the basis of what are known to be effective interventions for high-risk children; M means that a menu of intervention options is offered to clients, rather than an intervention solution, and the consultant and client together decide what is realistic and in the best interest of each family; E represents accurate empathy, a basic ingredient in all effective therapeutic interactions with clients (Rogers 1957); and S refers to self-efficacy: Through support and realistic advice, the parents leave a Family Check-Up feedback session with information on how to best focus their resources to promote adaptation and reduce risk in their young adolescent.

The first session of the Family Check-Up assesses child, parent, and family variables. Information is gathered on those constructs of most concern: the child's problem behavior, parent-child interactions and communication processes, monitoring, and the child's peer network. A second session presents families with normative comparisons regarding the status of their child and family and offers supportive consultation regarding steps they could take to improve their family life and their child's adjustment. This is a minimal intervention strategy that has the primary objective of enhancing the parents' appraisal of risk factors and supporting their interest in change.

After families are provided with information in the Family Check-Up, decisions are made regarding the next step. Many families in an identified risk group will have strengths that outweigh weaknesses or risk factors. For these families, the Family Check-Up will serve to support their existing efforts and provide them with a realistic estimate of their future risk. Concerns regarding risk will be more salient in other families. In this situation, a family consultant can discuss an intervention menu relevant to each family's needs. The family consultant's role is to support parents in making informed selections and to offer advice when requested.

Consistent with building a strong connection between home and school, parents at this level of the multiple gating strategy can also be supported in their efforts through a school monitoring service of their child. This service provides a weekly telephone summary of attendance, behavior in class, and homework completion. Such telephone contacts can be greatly enhanced by voice-mail technology. To increase parents' use of family management skills and to minimize punitive coercive discipline, the home-school monitoring system is made available to parents contingent upon their attending at least two parent training sessions: one prior to using the system and the second several weeks later to refine and clarify skills. These training sessions focus on teaching parents how to provide incentives for positive school weeks and how to communicate with school staff members about school problems.

Family Intervention (Indicated)

This level of intervention involves approaches described in several protocols by behavioral, structural, and eclectic family therapists working with problematic adolescents (Bry et al. 1991; Dishion and Patterson 1992; Forehand and McMahon 1981; Henggeler et al. 1992; Patterson 1982; Szapocznik and Kurtines 1989).

On the basis of results from an adaptation of the Systematic Screening for Behavior Disorders instrument (SSBD) (Walker and Severson 1991), 10 percent of the families will be identified as in need of intensive intervention and support. The number of sessions and the goals of the family intervention will be directed by the parents. The optimal strategy is to work with the entire family. However, when that is not feasible, such as in the case of a reluctant parent figure, the authors suggest working with whomever is willing and relevant to addressing the best interests of the youth (Szapocznik et al. 1988).

The level of services provided to parents in the family intervention is developed in collaboration with parents. Some parents may require only brief, focused interventions on communication practices, while others may benefit from more intensive behavioral family therapy. A menu of services is shown below:

- Home-school card
- One to two sessions on special topics
- Individualized behavioral family therapy
- Case management-family preservation
- Referral to foster care

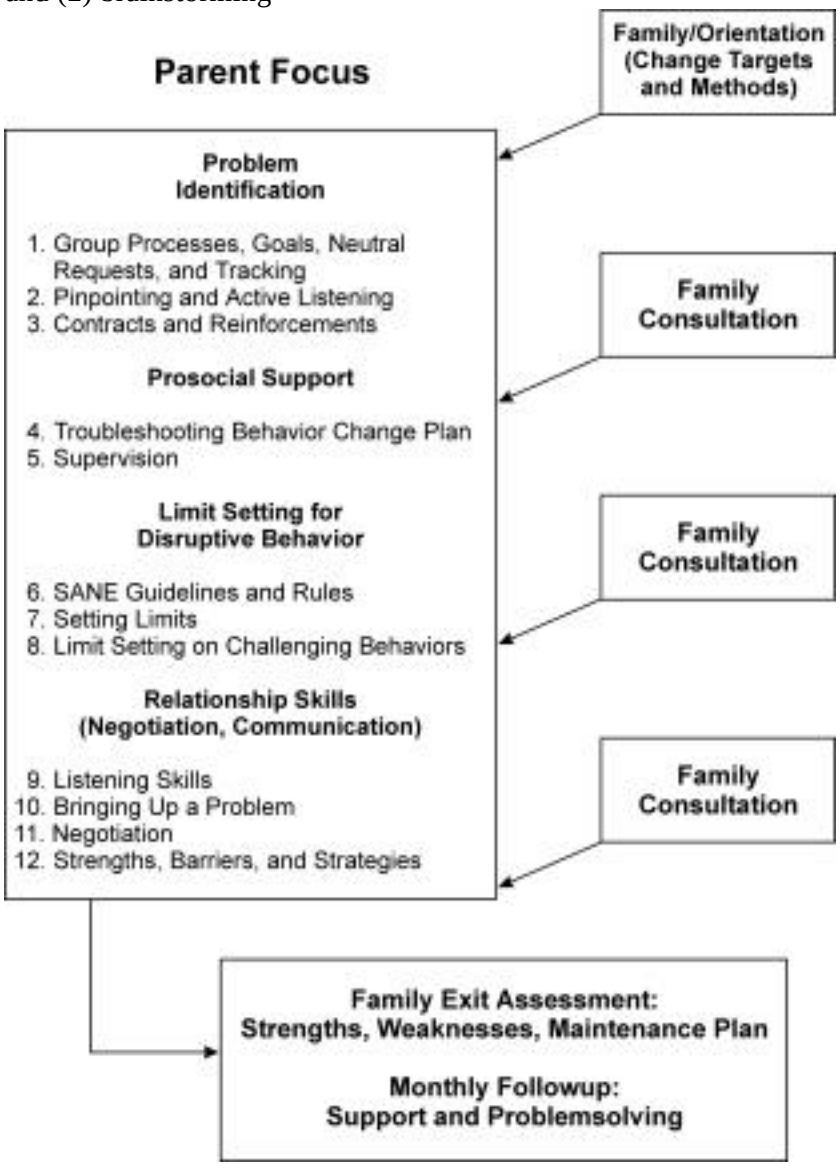
The first step in the parent training model is to have parents clearly and objectively specify their concerns and initially track these targeted behaviors as they occur at home and at school. In consultation with parents, strategies to reinforce the prosocial opposite of the targeted behavior are developed. For example, a "bad attitude" often leads to parents targeting "cooperating with requests to help around the house." Parents also are taught to use the daily information from the school to support their middle school student's success. Parents are encouraged, as a first step, to reinforce positive behavior. The second step for many parents is to reduce the use of irritable, harsh reactions to misbehavior and to be more consistent in setting limits with their adolescent. Third, when parents are more effective in rewarding positive behavior and limit setting, they can also be more effective in monitoring and supervising their youth's whereabouts, especially unsupervised time with deviant peers. Communication skills are the foundation for a positive parent-child relationship and for negotiating solutions to conflict (Forgatch 1989).

Some (particularly single parents) may prefer the support of other parents in the behavior change process and select the parent group sessions. Following the guidelines of a behavioral family therapy model, the authors have developed a curriculum and related materials for these groups (see figure 6).

In addition to teaching parenting skills and providing support for change, supervision and support for the intervention staff is an integral component of the prevention model.

The integrity of the indicated intervention is ensured by close supervision and weekly case review sessions. Family sessions should be either videotaped or audiotaped to continue the analysis of client engagement and the collaborative relationship of parents and consultants in the intervention process. The indepth case review is a problemsolving session. The intervention team serves two functions:

(1) providing support to the staff primarily responsible for the case and (2) brainstorming



intervention strategies that are consistent with the intervention model and effective in dealing with barriers to behavior change. From these reviews, a culture of expertise and support emerges within the clinical group, which is essential for working with high-risk families.

Based on existing data on the etiology and ecology of substance use and related antisocial behavior in early adolescence, a tiered model of family intervention offers promise. However, the effectiveness of these interventions needs to be extensively tested.

PILOT STUDIES

The authors have begun this work in a pilot study of the Family Resource Center and Family Check-Up. A Family Resource Center was developed in two middle schools and one high school.

Utilization of the Family Resource Center

The authors were generally encouraged by the demographic makeup of the sample and by the number of families that used the Family Resource Center—118 families across sites. These families were equivalent for child gender. The ethnic composition of the utilization group was commensurate with the demographics of the school populations. Students were evenly distributed across grades at the middle schools. In the high school, most of the students were in the ninth grade.

For any family, the average number of sessions at the center was two, and eight families came for only one consultation session (as the year progressed, increasing numbers of families checked out videotaped information). Families came to the center for a variety of teen problems. In the middle schools, the largest percentage of concerns centered around homework, school attendance, and behavior problems. Twenty-two percent of the families came to the Family Resource Center for homework skill building and monitoring.

The next most common areas of concern were behavior management and relationship quality at home. Peer conflicts at school and supervision (access to deviant peers) were also common themes. Families appeared to be comfortable bringing a wide range of issues to the center (e.g., grief, stepparenting, and drug and alcohol problems).

The authors were able to offer two, two-session Parent Nights, one on supervision and one on homework skills. The Parent Nights were well

received; they led to good information exchange and the development of a group of parents that planned to meet regularly on supervision and related parenting issues. Following an ecological model in discussions of supervision, the authors developed a list of neighborhood "hot spots." These were areas that parents, police, and school staff members identified as places where troubled kids congregate. The Parent Nights also led to followup appointments for a Family Check-Up.

The Family Check-Up Session

The authors conducted 17 Family Check-Ups following the model outlined earlier. The feedback sessions provided validation for family concerns and additional information that served as a helpful starting point for resolving the child's problems. Depending on the family dynamics and the student's age, separate feedback sessions for parents and teens were a useful strategy for motivating change. Fifty percent of these families followed up on a referral suggestion to use resources outside of the school. Another 25 percent made a followup appointment with the Family Resource Center for family management and relationship skill development.

Consumer Feedback

To assess the impact and benefits of the multiple gating model of services within the school, the authors developed an impact survey for teachers, administrators, and the school staff and a utilization survey for parents. Independent evaluators were used to avoid problems of social desirability and author biases. Data are currently being collected; therefore, results are incomplete but promising.

The staff at each of the three sites indicated that the Family Resource Center was perceived as a benefit to both the school and the families by (1) the ability to consult with the Resource Center staff, (2) the improved accuracy of information between parents and teachers, and (3) the increased parent involvement in students' academic progress. The parents seemed more willing to accept the school's information about their child.

The utilization survey collected information on physical location, assessment procedures, feedback, resources, and staff. To date, only one-fifth of the data has been collected. The available information has been generally very positive, and reports indicate that having family resources in the school was seen as a convenience for bringing up family concerns and improved the ability to work on school-

related issues. Parents who received Family Check-Ups appreciated the method of receiving feedback and reported that it confirmed and added to their information.

Families were also forthcoming in making suggestions about improving the physical space and requesting additional methods of consultation, such as a phone service. Parents said that a phone component would help with scheduling, work, and immediacy of consultation, which are all typical barriers to accessing intervention.

CONCLUSION

Based on developmental studies of adolescent substance use, it is known that early onset is a major risk factor for drug abuse by late adolescence and young adulthood. Youths with a history of antisocial behavior are most at risk for early onset, which is also highly embedded within a drug-using peer group. The bulk of the evidence suggests that an important target for prevention programs that hope to reach the highest risk children is parenting practices. Targeting parenting practices is an underdeveloped strategy for the prevention of adolescent drug use.

One of the difficulties in implementing prevention strategies that target parents is the issue of engagement. For example, Stouthamer-Loeber and colleagues (in press) found that only 40 percent of families with young delinquents received any intervention services targeting parenting practices. The authors suggest that to reach high-risk parents (and maximize effectiveness), such services need to be tightly embedded within the school context.

Family interventions are generally the most effective strategy for changing the behavior of the high-risk young adolescent (Bank et al. 1991; Dishion and Andrews 1995; Henggeler et al. 1992; Szapocznik and Kurtines 1989). Less is known about the efficacy and achievement of intervention goals of the Family Resource Center and Family Check-Up. The dependent variables for each are quite different. Services of the Family Resource Center are expected to educate parents regarding the risk factors, mobilize use of parenting resources, and perhaps increase parents' general monitoring of their child's school progress. The Family Check-Up, however, may have more pervasive effects. That is, increasing motivation to change may set off a behavior change cycle that does not depend on contact with an individual therapist or counselor. Many parents may elect to self-change and may be quite effective in doing so, while others will

request or require more intensive family interventions. The answer to these questions will have dramatic implications for making systemic changes to service delivery in schools and to the potential for adding cost-effective intervention strategies to the burgeoning prevention armamentarium.

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