CHAPTER TWENTY-SEVEN

FROM THEORY TO PRACTICE: INCREASING EFFECTIVE PARENTING THROUGH ROLE-PLAY

The Oregon Model of Parent Management Training (PMTO)

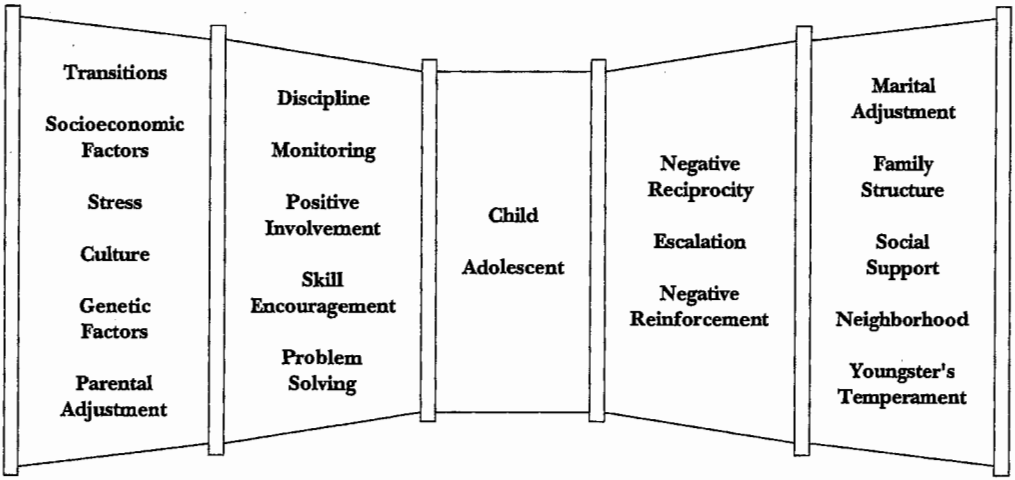
Marion S. Forgatch, Bernadette Marie Bullock, Ph.D., and Gerald R. Patterson, Ph.D.

The Oregon Model of Parent Management Training (PMTO) is an intervention strategy that evolved over three decades of programmatic work integrating theory, research, and practical application. PMTO was developed primarily to benefit families with children and adolescents who exhibit antisocial, aggressive, and other externalizing behavior problems, including delinquency and substance abuse. In this chapter, we briefly describe the theoretical rational for PMTO, the effects of development on mechanisms related to the changing form and function of antisocial behavior, the PMTO intervention approach and related empirical findings, and the function of role-play as a tool to help parents apply the five core child-rearing strategies that serve as the foundation of PMTO.

Theoretical Foundation

The model underlying PMTO interventions is Social Interaction Learning (SIL), which represents the merging of two theoretical streams: social interaction and social learning. Both perspectives emphasize the influence of the social environment on an individual's overall adjustment. The social interactional dimension describes connections among family members at microsocial levels, primarily coercive parenting practices that promote youngsters' deviant behavior

FIGURE 27.1. SOCIAL INTERACTION LEARNING MODEL.



and interfere with their healthy development. The social learning dimension of the model addresses the question of how coercive behavioral patterns become established through reinforcing contingencies. A key assumption is that five core positive parenting practices control the reinforcing contingencies that occur in families. The SIL model incorporates contexts that influence parenting practices and thereby indirectly influence child outcomes. Background contexts are presumed to affect youngsters' adjustment through their impact on parenting practices. This ecological perspective is treated through mediational analyses.

Figure 27.1 illustrates the adjustment of youngsters as enveloped in two layers of context—one provided by parents and one by contextual factors. The inner layer consists of positive and coercive parenting practices, which are presumed to be proximal mechanisms of several domains of youngsters' adjustment. On the left-hand side are positive parenting practices (discipline, monitoring, positive involvement, skill encouragement, and problem solving). Each such parenting practice is presumed to make a unique contribution to adjustment, yet the five skills are presumed to operate in concert with one another. On the right-hand side are coercive parenting practices (negative reciprocity, escalation, and negative reinforcement) that erode healthy adjustment. The layer of parenting practices is surrounded by background contexts that can affect youngsters to the extent that they influence the quality of parenting. These background contexts are more distal to child and adolescent adjustment than are parenting practices.

Parents shape the social environment at home and influence the social settings their children will experience away from home. Parental management of social environments is composed of the set of positive practices that the interventions seek to strengthen. Cross-sectional and longitudinal analyses using multiple-method assessment and path modeling have shown that deficits in these parenting skills predict several adjustment difficulties for children and adolescents. These negative outcomes include antisocial behavior, substance abuse, academic failure, noncompliance, deviant peer association, delinquency, and depressed mood (Capaldi, 1992; Conger, Patterson, & Ge, 1995; DeGarmo, Forgatch, & Martinez, 1999; Dishion & Patterson, 1999; Patterson & Yoerger, 1993).

The positive parenting skills and their applications have been described in detail by various clinicians and researchers (Chamberlain, 1994; Dishion & Patterson, 1996; Forgatch & DeGarmo, 1999, 2002; Forgatch & Patterson, 1989; Patterson & Forgatch, 1987). Briefly, *skill encouragement* promotes prosocial development through teaching techniques (for example, breaking behavior into small steps, prompting appropriate behavior) and contingent positive reinforcement (Forgatch & DeGarmo, 1999). *Effective discipline* decreases deviant behavior through the appropriate and contingent use of mild sanctions (Patterson, 1986). *Monitoring* protects youngsters from involvement in risky and inappropriate activities and association with deviant peers. This skill requires keeping track of youngsters' activities, associates, and whereabouts and arranging for appropriate supervision (Patterson & Forgatch, 1987). *Problem-solving* skills help family members negotiate disagreements, establish rules, and specify consequences for following or violating rules (Forgatch & Patterson, 1989). *Positive involvement* reflects the many ways parents invest time and plan activities with their youngsters (Forgatch & DeGarmo, 1999).

Coercive parenting, shown on the right-hand side of the parenting practices layer in Figure 27.1, has a destructive effect on relationships in general, and child adjustment in particular. For this reason, the interventions attempt to provide alternative behaviors to decrease coercive family dynamics. Coercion is a complex process in which people are inadvertently shaped to become increasingly hostile. In distressed relationships, coercive processes become overlearned, automatic, and generally take place with little or no cognitive awareness (Patterson, 1982). Social interactional patterns are learned and practiced within families (such as between siblings, between parents, or between parent and child) (Bank, Patterson, & Reid, 1996). A balance favoring coercion can entrap family members in interactional styles that disrupt interpersonal relationships outside the family (with teachers, peers, coworkers). When parents tolerate and reinforce certain patterns of social interaction more than others, they provide the training grounds for habitual behavioral patterns. Coercive patterns then generalize from the settings in which they are learned to other social environments (from home to school) (DeBaryshe,

Patterson, & Capaldi, 1993; Patterson, 1982). Coercive parenting practices have been described in detail elsewhere (Forgatch & DeGarmo, 1999; Patterson, 1982; Snyder, Schrepferman, & St. Peter, 1997; Snyder, Edwards, McGraw, Kilgore, & Holton, 1994). More discussion of the development and function of coercive process follows later.

Putative Mechanisms of Efficacy

Theory promotes positive outcomes in interventions by indicating potent mechanisms of relevant outcomes. The SIL model specifies parenting practices as proximal mechanisms of child outcomes; thus SIL-based interventions focus on decreasing coercive parenting and increasing effective parenting practices.

Behavioral Research on the Etiology of Behavior Problems

The positive and coercive parenting practices that are the primary targets of PMTO interventions were identified through extensive research. Related investigations also identified contextual factors that made it difficult for parents to enact effective parenting strategies or change existing coercive patterns. For example, parental adjustment (antisocial behavior, substance abuse, depression) was associated with resistance to parent training procedures (Patterson & Chamberlain, 1988). Other aspects of the family social ecology such as divorce, social status, and neighborhood quality are also important in that they can enhance or detract from parenting quality. For example, if the family lives in a high-crime neighborhood, extraordinary levels of monitoring may be necessary to protect children from harm, deviant peer exposure, and delinquency (Wilson, 1980). Divorce is associated with increases in coercive discipline (Furstenberg & Seltzer, 1986; Hetherington, Cox, & Cox, 1985).

The culture or subculture in which families live can influence people's attitudes, beliefs, and parenting practices. A child's intra-individual qualities (genetic and temperamental) can challenge parenting skills that may have sufficed under ordinary circumstances (Lykken, 1993). Social advantage can benefit parenting quality through increased availability of resources (DeGarmo & Forgatch, 1999). The SIL model specifies that the effect of such contexts on a youngster's adjustment be mediated through parenting. Thus, each context can function as a direct risk to or enhancement for parenting practices and an indirect risk to or enhancement for child and adolescent adjustment.

Parenting strategies and family contexts have long been linked to child adjustment—particularly the prevalence of behavior problems. In turn, high rates of behavioral maladjustment, particularly at an early age, tend to be prognostic

of persistent and chronic antisocial behavior and escalation to more serious problems such as delinquency and substance abuse (Fergusson, Horwood, & Lynskey, 1995; Nagin & Tremblay, 1999; Patterson, Shaw, Snyder, & Yoerger, 2003). Several studies have shown that given preschool identification as antisocial, the odds are about 50–60% of being so classified during adolescence (Kazdin, Mazurick, & Bass, 1993; Tremblay, Boulerice, Pihl, Vitaro, & Zoccolillo, 1996). During late childhood, very small numbers of new cases are added. It seems then that most chronic antisocial individuals begin this trajectory during preschool years (Fergusson et al., 1995; Nagin & Tremblay, 1999; Patterson et al., submitted).

While epidemiologists estimate that about 8% of boys and fewer than 3% of girls fit the definition of early emerging and persisting extreme antisocial behavior (Offord, Boyle, & Racine, 1991), early onset behavior problems often set the stage for a more virulent antisocial repertoire, substance use, academic problems, and difficulty with interpersonal relationships. Indeed, a multiple-method longitudinal study revealed that boys rated as being most disruptive in kindergarten and again seven years later exhibited the highest rates of substance abuse in early adolescence (Dobkin, Tremblay, & Sacchitelle, 1997). These findings and others suggest that antisocial behavior in young children is predictive of later substance problems and should be considered an important risk factor (Biglan, Mrazek, Carnine, & Flay, 2003; Dobkin et al., 1997; Duncan, Duncan, Biglan, & Ary, 1998; Mrazek & Haggerty, 1994; Patterson, 1993).

If left unchecked, the effects of early onset antisocial behavior can be pervasive and insidious. In addition to predicting escalations in behavior problems, childhood conduct problems are related to persistent, longitudinal deficits in academic achievement (Huesmann, Eron, & Yarmel, 1987; Olweus, 1983; Patterson, Reid, & Dishion, 1992). Antisocial behavior is also a major precursor for poor social relationships (Shortt, Capaldi, Dishion, Bank, & Owen, in press), poor health (Patterson & Yoerger, 1995), and an unsuccessful work history (Wiesner, Vondracek, Capaldi, & Porfeli, in press). The ensuing rejection and inability to function effectively in interpersonal and professional domains often results in the individual seeking out others who gravitate toward delinquency and substance abuse. Undeniably, deviant peer association during adolescence is one of the best predictors of escalations in antisocial behavior, including drug use (Dishion, 1990; Patterson, 1995).

Reinforcing Mechanisms for Antisocial Behavior

In the early 1960s, one-half to two-thirds of all referrals for child clinical services consisted of externalizing problems such as antisocial and hyperactive behavior. At that time, there were no interventions shown to be effective using well-designed (randomized trial, objective measures) studies. Consequently, the National Institutes

of Health began funding research destined to fill the gaps through building effective models for both theory and intervention. In our work, we assumed that the extent to which a child employs aggressive responses reflects the extent to which these behaviors are reinforced. In poorly functioning families, the payoffs are higher for coercive than for prosocial responses. For well-functioning families, the payoffs are just the reverse, with prosocial behavior being more highly reinforced.

By the mid-1960s, the reinforcing mechanisms, who provided them, and what determined when or how they were bestowed remained elusive. To unravel this puzzle, observers at the Oregon Social Learning Center were trained to visit "natural" settings such as nursery schools, homes, and classrooms. A simple coding system was utilized that described each aggressive episode directed toward a nursery school child (Patterson, Littman, & Bricker, 1967). The child's reaction to the attack, together with the attacker's subsequent reaction, was also noted. These data revealed that roughly 80% of the 2,583 aggressive events were followed by such outcomes as "victim cries" or "victim gives up toy." From the attacker's view, these would seem to be positive reinforcers. Young children in a nursery school setting could find a rich supply of reinforcers for child aggression; the victim inadvertently supplied them. If victim acquiescence was reinforcing, it would be anticipated that the aggressor would be more likely to continue attacking the same victim or continue the same form of attack. Conversely, given a punishing consequence (victim hits back), the aggressor would be more likely to select a different victim or a different form of attack. Consistent with this prediction, the nine most aggressive boys provided evidence that consequences judged presumably to be positive or negative were reliable predictors of subsequent aggressive behavior.

Historically, developmental theorists assumed that the genesis for children's aggression was to be found in family process (Maccoby & Martin, 1983). A decade's effort to use self-report measures of parenting failed to establish a reliable connection between family interactions and child aversive behaviors (Maccoby & Martin, 1983; Schuck, 1974). We hypothesized that the inability to make this distinction was due, in part, to the lack of predictive validity of self-report measures in this context. Presumably, multi-method and multi-agent measures of parenting—particularly those based on direct observation—would provide more reliable and valid predictors for child outcomes.

It took three years to develop an observational code system that effectively described sequential family interactions among family members (Jones, Reid, & Patterson, 1975; Reid, 1978). Up to ten hours of baseline observations was collected in the homes of both clinical and non-clinical samples. The code was later updated to enable data collection in real time using a small handheld computer (Dishion, Gardner, Patterson, Reid, & Thibodeaux, 1983). The most current family observation system is the Family and Peer Process Code (FPPC) (Stubbs, Crosby, Forgatch, & Capaldi, 1998).

Home observation data provided a catalyst in our conceptualization of children's aggression (Patterson & Cobb, 1971, 1973). Hundreds of hours spent observing in the homes of successful and clinical families revealed that children from families referred for treatment of aggression learned to cope with very high rates of irritable interactions with other family members. Moreover, all family members, including the referred child, learned to employ aversive behaviors to terminate conflict bouts with other family members (Patterson, 1982). The data indicated that in clinically referred families, conflict bouts occurred about once every sixteen minutes, with 10–15% of all interactions tending to be aversive (Patterson et al., 1992). Whereas successful families engaged in conflict bouts at much lower rates, and these episodes were often terminated when the child displayed either prosocial (such as talking, negotiating, using humor) or coercive (such as yelling, arguing, hitting) reactions (Snyder & Patterson, 1995), this process was markedly different in referred families. Specifically, conflict bouts tended to terminate with coercive behaviors.

To further examine the phenomenon of coercive process, Snyder and Patterson (1995) collected observational data to assess the relative rate of negative reinforcement provided during conflict bouts for an at-risk sample of kindergarten boys interacting with their mothers. The relative rate of negative reinforcement for deviant child behavior correlated 0.83 with the coercive child behavior observed in the home a week later. In a different sample, the reinforcement variables were used to predict a composite (police arrest and out-of-home placement) clinical outcome two years later (Snyder et al., 1997). Boys who experienced higher relative rates of reinforcement for coercive behaviors when interacting with family members were at greater risk for police arrest and for out-of-home placement two years later. These findings are particularly compelling given the young age of the target boys.

Further refinement of this theoretical model developed with NIH support to develop effective multi-method, multi-agent measures to assess the five core parenting practices: monitoring, discipline, skill encouragement, problem solving, and positive involvement (Forgatch & DeGarmo, 1999, 2002; Patterson, 1982; Patterson et al., 1992). Using structural equation models from three different samples, Forgatch (1991) provided evidence that latent constructs for parenting practices accounted for 30–52% of the variance in latent constructs measuring child antisocial behavior. These findings suggest that intervention strategies must include provisions for altering parenting practices *as well as* the reinforcing contingencies supplied by family members. Additional models showed the impact on child outcomes of contextual variables such as neighborhood quality, social disadvantage, divorce, and parental depression to be mediated by its impact on parenting practices (Patterson et al., 1992). As such, parent effectiveness is

central to child adjustment and provides the most proximal link to child outcomes.

In sum, coercive family processes in general and reinforcement contingencies in particular, are consistently linked with the etiology of child and adolescent behavior problems. If left unchecked, these insidious mechanisms can pave the way for antisocial behavior from early childhood into adulthood. The reinforcement of negative behaviors is, perhaps, one of the most formidable challenges to prevention and intervention scientists. More recent work suggests that the most effective way to measure family processes and outcomes is through multi-trait, multi-method assessment batteries. These approaches not only provide a greater breadth of information regarding the behavior in question, but also tend to be more sensitive to change (Bank, Dishion, Skinner, & Patterson, 1990).

Developmental Issues

We now turn to a review of the developmental sequelae of antisocial behavior and a discussion of the intra- and extra-familial concomitants of behavior problems. A number of investigations using the SIL theoretical framework indicate that expression of antisocial behavior evolves as a function of development, and that changes in the reinforcing contingencies within youngsters' social environment play a central role in the emergence of behavior problems (Patterson, 1992; Patterson & Yoerger, 1993; Reid, Patterson, & Snyder, 2002). From the ages of approximately eighteen months to preadolescence, reinforcement by family members is associated with overt forms of antisocial behavior. With school entrance, a gradual increase in covert forms often transpires (Patterson et al., submitted).

The mechanism for this growth is known to be positive reinforcement by siblings and deviant peers (Bank et al., 1996; Bullock & Dishion, 2002; Dishion et al., 1995; Patterson, 1984). Contact with deviant peers markedly accelerates this performance of covert forms (substance abuse, health-risking sexual behavior, delinquency) (Elliott, Huizinga, & Ageton, 1985). Observations of adolescent interactions show that those with a history of antisocial behavior exhibit interpersonal dynamics with their siblings and peers that are characterized by rich schedules of positive reinforcement for deviant talk and behavior (Bullock & Dishion, 2002; Dishion, Duncan, Eddy, Fagot, & Fetrow, 1994). Indeed, dynamics that support deviant talk are linked to concurrent antisocial behavior and substance use (Bullock & Dishion, 2002; Dishion et al., 1994) and predictive escalations in substance use and delinquency by middle adolescence, and involvement in serious offenses, high-risk sexual behavior, substance use, and aggression toward a partner during early adulthood (Capaldi, Dishion, Stoolmiller, & Yoerger,

2001; Dishion, Eddy, Haas, Li, & Spracklen, 1997; Snyder, West, Stockemer, Gibbons, & Almquist-Parks, 1996). The topography of antisocial behavior itself may start as noncompliance and temper tantrums in early childhood and transform during adolescence into more serious deviancy, such as delinquency and substance abuse (Patterson, 1982). In early and middle childhood, parents and siblings are the principal reinforcing agents; as youngsters mature, however, peer influences become increasingly salient (Bullock & Dishion, 2002; Dishion & Bullock, 2002; Elliott et al., 1985).

To explicate the role of development on trajectories of antisocial behavior, Patterson (1993) examined the changing form of deviancy over a four-year period (ages ten to fourteen) during the transition into adolescence. Problem behavior was represented by a latent construct composed of four indicators: antisocial behavior, academic failure, substance use, and police arrest. As the boys matured, the factor structure of deviancy shifted from delinquency and academic failure to increasingly serious problems (substance abuse, police arrests). In the next step, change in the predictors of deviancy was also examined. For childhood antisocial behavior and academic failure, disrupted parenting practices (monitoring, discipline) were the significant contributors to deviancy. As new forms of antisocial behavior evolved, however, friendships with deviant peers became the significant predictor.

More recent analyses revealed that antisocial behavioral repertoires tend to grow at the same rate in that the slopes are correlated (Patterson, Dishion, & Yoerger, 2000). For example, growth in deviancy was related to the amount of time spent with deviant peers and the relative amount of reinforcement provided by the peers for deviant behavior. Thus, peers became increasingly influential socializing agents during the transition to adolescence, especially if youngsters were poorly monitored or allowed to wander in the community without adult supervision (Dishion, Nelson, & Bullock, in press; Stoolmiller, 1994). These findings emphasize the importance of interventions that focus in part on parents' controlling access to deviant peer networks and teaching youngsters prosocial behaviors that facilitate entry into prosocial peer groups.

Putative Targets of Treatment

As mentioned previously, maturation from childhood to adolescence and early adulthood is directly related to important changes in forms of antisocial behavior. Recent developments in prevention science have made it possible to identify the causal mechanisms related to growth in problem behavior vis-à-vis experimental tests in which families randomly assigned to receive PMTO are

compared to a no-treatment control group. In a series of such studies, changes in parenting were found to precede changes in child outcomes (Chamberlain & Reid, 1998; Dishion, Patterson, & Kavanagh, 1992; Forgatch & DeGarmo, 1999, 2002; Martinez & Forgatch, 2001). These findings also generalize to deviant peer involvement. In a prevention trial in which recently divorced single mothers were randomly assigned to either a PMTO or no-treatment control group, DeGarmo and Forgatch (2000) found a significant reduction in deviant peer association and delinquent behavior for the PMTO group versus no-treatment controls. Consistent with the SIL model, child delinquent behavior was mediated by improved parenting practices as well as reductions in involvement with deviant peers.

Having reviewed the theoretical foundation for PMTO, developmental considerations related to the constellation of antisocial behaviors, the proximal relationship of parenting effectiveness to child adjustment, and the empirical support for the efficacy of the intervention, we now turn to a more comprehensive discussion of the tenets of PMTO and the function of role-playing in the delivery of this intervention method.

Empirical Support for the Treatment

Oregon Social Learning Center (OSLC) interventions have been tailored for clinical problems related to externalizing behavior such as antisocial behavior, stealing, delinquency, child abuse, and substance abuse. In the last decade, the concepts have been tailored to fit prevention designs. The programs include manuals detailing the procedures: Chamberlain (1994) for treatment foster care; Dishion, Andrews, Kavanagh, and Soberman (1996) for youth at risk for substance abuse; Forgatch (1994) for single mothers and stepfamilies (Forgatch & Rains, 1997), and Reid's study for children at risk for antisocial behavior (Ramsey, Antoine, Kavanagh, & Reid, 1992a, 1992b; Ramsey, Lathrop, Tharp, & Reid, 1992a, 1992b). All the programs emphasize a common set of effective parenting practices (that is, discipline, encouragement, positive involvement, monitoring, and interpersonal problem solving). These parenting practices are the core components of the intervention.

In the 1970s, two small-scale randomized trial studies were successfully carried out and showed that parent training was more effective than a placebo condition (Walter & Gilmore, 1973) and more effective than a wait-list control condition (Wiltz & Patterson, 1974). The findings were replicated in larger-scale randomized trials by Patterson, Chamberlain, and Reid (1982) and by Bank and colleagues (1991). Several randomized PMTO studies provide direct support for the underlying theoretical model of PMTO because they find that the intervention

produces significant benefits to the parenting practices for the experimental group compared to the control, and these changes are, in turn, mediators of change in externalizing and internalizing behavior, delinquency, and substance abuse (DeGarmo & Forgatch, 2000; DeGarmo, Patterson, & Forgatch, in press; Forgatch & DeGarmo, 1999; Knutson, DeGarmo, & Reid, in press; Martinez & Forgatch, 2001). In Montreal, a large-scale study replicated and extended the Oregon parent training model with randomized trials and long-term follow-up. The Montreal study demonstrated the generalizability of parent management training to a French-speaking culture (Tremblay et al., 1991).

What Is PMTO?

Perhaps one of the best ways to introduce PMTO is through the eyes of a parent who has benefited from the experience. We were fortunate to be given the audiotape of a radio interview with such a parent. As part of a nationwide PMTO implementation in Norway, this family received help for their kindergarten-aged child who was referred for externalizing behavior problems. The short interview has been translated. In it, you learn about the many dimensions of the parental experience, including the difficulty of living with an out-of-control child, perception of the treatment approach, and feelings about receiving tools needed to improve child behavior.

I = Interviewer
O = Ole (Father)
M = Marit (Mother)
TC = Their Child

I Parent Management Training came to Norway from the USA. Using role-plays, the parents are able to reach their children and to start communicating with them. Ole, his wife, and their son have become a happy family since they learned this method of communicating.

O It started early, way back when he wanted to hold his own baby bottle. And he also wanted to decide how the world should revolve—all around him! He was a restless child. He was relatively goal oriented. He was very active and had a tremendous imagination for finding things to do.

I How was life for you, the parents?

O Little by little—as TC learned to speak—he would try to push his friends, he would act big—all of this at an extremely high tempo. It was a very exhausting time—with friends and at home with the family.

I Was it possible to say no to this child?

O There was no such a thing as no in his vocabulary. He was a very determined child. With him, everything was dead ahead!

I How would you describe life for you—the parents?

O When our son started kindergarten, life became rather special. Every day when we picked him up, we were met at the door by, "This has been a terrible boy—no, I mean this has been a terrible day. Your boy has destroyed the atmosphere and the play for the other children." This, of course, transferred directly to our home, and it became rather difficult.

I How did this work out for you?

O It was terribly stressful. It wore mom and dad to exhaustion. It also wore out his sister who got her own dose from the circumstances, especially because she did not get her share of attention.

I Did you get any help to tackle this situation?

O Yes, at the kindergarten the PPT [school psychologist services] got involved. They gave very good guidance to the teachers in the kindergarten regarding how to deal with a restless child. They had the doctors test our son. The doctors found nothing physically wrong with him. Up to then, the teachers in the kindergarten suspected that TC was hard of hearing. That turned out not to be the case.

I Do you feel that you were ostracized by the teachers in the kindergarten and by other parents?

O It was taxing. It was especially hard on my wife, who took TC to kindergarten and picked him up every day. It became psychologically rather heavy for her.

I Then came the help in the form of Parent Management Training. Let us get back to what that really is. For now, I am wondering how you found out about this help.

O Again, it was the PPT who alerted us to the possibility for PMT. We got into the queue of getting a diagnosis—looking at ADHD. During that time, we were offered help by way of PMT, and we accepted.

I And now I want you to tell us what Parent Management Training is.

O PMT is a theory that is based on training the parents. It is organized into very specific details as to what we are to do in relation to our son in every situation. This is done by working on role-plays—where only the adults are present.

I What is the technique, and what do you learn?

O As an example, we learn how much praise we need to give him in relation to the corrections that we offer him. It teaches us when to act and react. We give him Time Out when he does not listen to us. Time Out is to give him a place to sit where there are no toys, whatsoever. He stays on a chair from five up to ten minutes. This gives him the chance to think through the situation. This is

a rather effective tool. He gets time to reflect, he calms down, he becomes himself—again. From there we can get back to a dialogue instead of operating with anger and frustration—from his point of view—also from ours. Not like we practiced earlier.

I Since Ole and his wife learned the PMT strategies, the parents have been able to talk to their son in a more objective way. The son gets small rewards when he undresses all by himself and puts his clothes away neatly. When he does this, he gets a special trading card, which he collects and trades in for the real reward at the agreed-upon time. The parents have spent a great deal of time learning these strategies. This is no easy job.

O We go once a week to a one-hour training session. They use the teaspoon method on us. We get small doses each day that we practice there. Then we go home and put this to work during the week. We use a chart in order to track what went well and what did not.

I One typical family situation is a child who does not want to go to bed. Would you explain to me how this method would solve: "I do not want to go to bed."

O Earlier on this was a terrible problem. He did not want to go to bed; he did not want to sleep. He threatened with suicide and other deeds. After we started the reward charts, bedtime was no longer a hassle. He goes to bed all by himself. Even when he does not want to go to bed, we are able to talk about this rationally—the "carrot" is there in front of him and he knows it!

I Would you say that in this case it is you, the parents, that have been treated?

O Yes, directly. We got the treatment or instruction. We—as parents—were taught some very basic parenting skills that we have in us and find difficult to put into practice. We also learned to treat our son "in the same way." My wife and I had, up to then, used very different techniques. We are two separate people who have learned how to agree on cooperating in the raising of our son. In that respect one can say that we did the learning. But our son has also learned that we all get very good results from the consistency of cooperation and working together.

I You mentioned that you, the parents, agree. Is it a prerequisite that both of you are equally kind and equally strict?

O I believe that the cooperation is important during the training period. I think it is important for us that we treat him the same way. My wife and I have had a great deal of problems with that specific point, and we have learned to conquer it.

I As opposed to several other methods of treatments, the parents are viewed as the main resource in the Parent Management Program. Does this seems right, Ole?

O With the guiding that we have been through now, I feel confident that all situations can be straightened out, so I hope that a lot of parents get the chance to take part in this program.

I Are you and your wife your son's counselors now or are you his parents?

O Above all, we are his parents. We now have learned a number of techniques that have made it possible for us to have wonderful communications at home. This stability *(O uses the word ballast)* is a great addition and help to our whole family.

I I am wondering if you look to the future with confidence now—I am specifically thinking of your son entering the teenage years and what goes along with that.

O Yes, we can now reach our son. We can talk together with respect and understanding. In that manner I am easy about our future in that we can do a lot to prepare for his teenage years. He is a very active boy—he is continually planning things. I am convinced that he will have more than his share of challenges as a teenager, and that makes us feel even better about the advantages that we now have had.

Personal Experiences and Cases

In the 1960s and 1970s, we used behavioral language that was rather awkward. We had yet to learn the sophisticated teaching and process skills we needed to help parents change. One concept we have since added to our clinical tool box is to identify each family's storyline and gradually weave the threads of our PMTO story together with theirs, thus creating a new family fabric. This weaving process involves an integration of language, concepts, metaphors, and behavior. For example, notice that Ole talked about confirming and encouraging his child's behavior rather than using the behavioral phrase *contingent positive reinforcement.* It was our Norwegian colleagues who taught us to replace these words with confirmation, and we have since adopted this in our own work. In many ways, the difference in meaning is insignificant, yet perhaps that word *confirmation* contributed to Ole's formulation that PMTO helped him and his wife learn to use the basic parenting skills they already had within them.

In PMTO, we shape skills that empower parents to turn their children away from deviant paths toward more healthy trajectories. In many cases, families referred because of their children's externalizing behaviors have multiple problems; they are struggling with high levels of stress and low levels of resources. Telling parents what child-rearing strategies they *should* use does not effect change. We must help them learn the skills at a level of performance that becomes automatic. Because they had never learned effective parenting skills, or perhaps because they were overwhelmed by harsh environmental circumstances, these parents frequently engaged in dysfunctional behavior patterns. Our job is to facilitate the replacement of ineffective

patterns with well-practiced effective strategies. To accomplish this, we systematically engage the parents in the grueling process of reconstructing the social environment within the family. We are not talking about short-term therapy.

During the 1980s, we carried out studies of therapy process that revealed that therapist teaching, especially in concert with confrontation, increased client resistance tenfold (Patterson & Forgatch, 1985). Since then, we have spent years developing strategies that enable us to provide instruction unobtrusively and without confrontation. Role-play has become one of the most powerful strategies in our clinical toolbox. We use role-play to shape behavior change through behavior rehearsal. If you remember, Ole mentioned using role-play in the therapist's office to practice new techniques and then taking them home to use with their children.

Role-play in the hands of an expert PMTO therapist serves multiple functions. First, it enables family members to see that there *is* a pattern and that all participants in the interaction are contributors. Therapists use "wrong-way right-way" examples to demonstrate differences in sequences of behavior and the different outcomes these sequences produce. In follow-up debriefings, the therapist questions parents, helping them specify behaviors that promote or impede positive outcomes. In this sense, cognition is brought into play. Parents learn to verbalize behaviors and rules and rehearse putting ideas into practice until they know precisely what to do. Role-play can be used as a diagnostic tool to evaluate specific parental strengths and challenges, to determine what the parents have learned, and to identify targets for additional emphasis. A particularly important function of role-play is that it provides an opportunity to rehearse effective sequences with the guidance of a good coach.

Increasing Positives

In the next section, we present a transcript from a therapy session in which role-play was artfully applied by a gifted Norwegian psychologist who uses the PMTO model. During this session, the therapist was working on the topic of praise with special emphasis on helping the mother overcome her overlearned pattern of criticizing her children (a coercive pattern of behavior) with encouragement. The mother had grown up in an extremely abusive home and had experienced little, if any, praise, support, or encouragement as a child. Not only did this limit her ability to praise her own children, but also she had developed a pattern of coercive interactions with her children. Her unrealistic expectations for her children's performance, given their stage of development, further contributed to her problems praising them. Because the father was more comfortable with

encouragement, the therapist used him as a resource. As you will see, however, he too had much to learn in the process. This family already had several PMTO sessions and they were well versed in the use of role-play. We enter the scene about halfway through the session. The mother had just completed a story regarding a recent visit with some friends. She was particularly impressed with the frequent praise her friend directed toward her children for their quiet play. The therapist seized this opportunity to practice praising.

T = Therapist
M = Mother
D = Dad

The children are Carl and Liv.

T And how do your children respond to praise?
M My children like praise, but I have to remind myself to do it. And I'm not always capable of doing that. *(Laughs, nervously)*
T Maybe we should practice this a little bit. *(Hands M some papers)* Okay, you are Carl now and you are drawing. And I am you. Pretend you are drawing a house.

T draws the mother into a role-play directly, without discussion, providing a prop (paper) and telling the mother what to do.

M Mom! See! I drew a house.
T *(Yawns—bored tone of voice)* Mm hmm. *(Looks away)*
M *(Wistfully)* You didn't like it?
T *(Out of role-play)* So that's one way I can respond to you. As Carl, how did that feel?
M Very rejecting. It's like, "Wait a while and maybe I'll look at it later."
T Right. That is a form of rejection. Okay, let's try once more. I will try to be a bit nicer.

T's "wrong way" role-play enabled the mother to experience the rejection from the child's perspective. Notice her punctuation of the mother's word, but also notice that T did not dwell on rejection; she simply agreed and moved on.

M See here, I have drawn something!
T *(Gets up, walks over to M, shows warm interest)* Oh, what have you drawn? A house?
M Mm hmm.
T Whose house is it?

M It is our house.
T I can see that. It looks a lot like our house. How nice! And we have the fireplace going!
M Mm hmm.
T You are really good at perspective in your drawings. *(pointing)* This looks like a real roof!
M It is! It is!
T That's great! Where have you learned that?
M I have learned it myself. From a book!
T That's great! Good job! I am excited to see what else you can draw.

(End of role-play)
T next engaged D by asking him, in his role as observer, to identify specific behaviors that differentiated the two role-plays. We will discuss the debriefing process later.

Next, M asked how to deal with the jealousy that emerges when M praises one child in front of the other.

M But another problem is that if you praise one child, the other one gets jealous.
T Yes.
M They should learn to compliment each other.
T Yes, that is right. They should also compliment each other.

Instead of talking about what to do, T sets up another role-play, in which T plays Mom, Mom plays daughter Liv, and Dad plays son Carl. T instructs the parents to criticize each other's artwork during the role-play and stands next to M.

T *(To M)* That's a nice drawing you created.
M Oh, yes!
D It's not that nice.
M Is too.
D Is not.
T *(Interrupting)* Very nice drawing Liv *(turns directly toward D)* and you Carl, you have also made a really nice drawing . . . *(stepping back to include both in vision)* You are both so talented! Look here at these two beautiful drawings. They are both very different, but they are both so nice!
D Maybe hers is okay.
M And I guess I like his, too.
T You are both so talented. And you did a great job of complimenting each other. It is nice to get complimented on your work, right? I'm proud of you both for playing so nicely together!

(End of role-play)
T demonstrated (1) that you can praise two children at once, (2) how to praise them both, (3) that you can refrain from joining in childish arguments, and (4) how to stay focused on the positive.

Next, T debriefs the role-play to help the parents verbalize the information in this experience. A primary goal is to punctuate specific behaviors that contribute to processes and outcomes of interpersonal exchanges, and thereby add to cognitive understanding. Pay particular attention to the manner in which T asks questions during the debriefing.

T Now think back on it . . . what did I do that made this a nice experience for you as my two lovely children?
M You complimented both of us and we learned to compliment each other.
T Yes.
D We complimented each other!
T Yes, that is right.
D *(D is looking down, thinking, placing his hand on his pretend drawing)* It worked well. It did!
T *(To M)* Yes, instead of scolding them for criticizing each other, you encouraged each of them, prompted them to compliment each other, and then you praised them for it.

Within this debrief, T used an extremely sophisticated empowering technique. She changed her use of pronouns from I to you, thus giving mom credit for the praising in the role play.

Next, notice how the debriefing provides an opportunity for discussion of principles.

M It just isn't natural for me.
T Yes . . . Right.
M But this change isn't natural, to just compliment people.
T Right, so when it isn't natural for you, try to practice so that it becomes more natural. When you learned to ride a bicycle for the first time, it wasn't natural, but you practiced and practiced until you could ride the bicycle and eventually, it felt natural.
M Yes.
T And it is like that with lots of things. It takes practice. And then we become better for the practice, too.

Further discussion could interfere with the level of revelation that has taken place here. By the way, one of the most common complaints from parents is that

Couples commonly fall into the trap of identifying problems rather than specific positive behaviors. It is important not to follow the focus on problems when debriefing role-plays.

During debriefing, T elicits specific behaviors that the parents can use to encourage their children. All three of them, M, D, and T, are identifying behaviors. By writing the ideas on the board, the outcome reflects a group process. The words T writes on the board punctuate the concepts and strengthens them. This is a very empowering process for parents.

T Also M, when doing the role-play, you had a warm voice tone and a relaxed and easy expression on your face.
D You looked at the drawing and pointed out the things you liked.
T And then you made eye contact. When you had eye contact, you smiled. *(Writes warm voice, easy face, eye contact)*
M Yes.
T If you try one more time and build him up even more . . . You might feel embarrassed because this is new to you, but you can even go further with this. *(T walks back to chair)*

Repeated short role-plays are more effective than a marathon that covers all the information. Each role-play provides an opportunity for debriefing. This combines cognitive processing with behavioral rehearsal.

Engaging in a sequence of short role-plays enabled the therapist to prompt, coach, and shape appropriate behavior patterns in the minutia of praise. There was no need for a long and boring lecture. The parents had the opportunity to experience different perspectives, and they especially had a chance to rehearse and rehearse and rehearse uncomfortable new behavior patterns until they became less foreign. T used role-play to provide training while also being responsive to the parents' issues and questions.

Working Through Child Noncompliance

In the next section, role-play is used to teach the use of Time Out for noncompliance. Noncompliance is seen as a cornerstone in a sequence of behaviors that leads to increasingly serious externalizing problems (Patterson, 1982), and therefore we target it early on during PMTO intervention. The first step we take in reducing noncompliance is to teach parents to give their children clear, succinct, polite, specific, start-up directions. We use the neutral word direction rather than command (which is seen as being too authoritarian by many parents) or request (which suggests that the child has the option of refusing).

M To hang up the coat?
T Yes, or go to Time Out.
D Hmmm.

This quick demonstration is so much more concrete than telling the parents about the procedure. Stopping after this brief introduction invites the parents to ask questions.

Next, T adds a new piece of information, to label the behavior that earns Time Out, and then he demonstrates again.

T Actually, it is best to label the behavior that earns the Time Out. You say, "This is not minding. Go to Time Out." Let's do it one more time. *(Gets up and walks over to D, assertive but friendly voice)* D, hang up your swimming trunks now please.
D No.
T I call this not minding.
D I am not going to do it.
T Hang up your swimming trunks or go to Time Out.
D No!
T That's 5 minutes in Time Out.
D NO!
T 6 . . . *(breaks out of role)* What you already know is that when I count like that, I'm adding a minute. So you have the choice . . . Let's continue *(back in role-play)* . . 7. .
D NOOO!
T 8 . . .
D YOU CAN'T MAKE ME!
T 9 . .
D I HATE YOU!
T Go to Time Out now for 10 minutes or you won't be allowed to watch the Cartoon Network between 6 and 7 tonight.
D I don't care.
T Ok, no Cartoon Network between 6 and 7 tonight. *(out of role-play)* So that's how it goes. You, D, refuse to hang up your swim trunks, so I tell you to go to Time Out. You refuse Time Out and I count. And at this point, as the child you can decide what to do. You know what it means when I count. 6 . . . 7 . . . 8 . . . You can still save yourself by going to an 8 minute Time Out. 9 . . . 10. At that point, I tell you to you go to Time Out now for 10 minutes or there won't be any Cartoon Network.
M Explain that to me. He doesn't go to Time Out *and* now he loses Cartoon Network!

T What you are doing as parent is giving him a choice to take a short Time Out or to lose some privilege he takes for granted, like watching TV or riding his bike. Before we begin using Time Out, we will develop a list of privileges you may want to use to back up Time Out. In this example, I gave him the choice of going to Time Out for ten minutes or not watching the Cartoon Network. If he refuses Time Out, he'll lose that privilege.

M But when he refuses to go to Time Out and you remove a privilege such as TV time, is he still supposed to go to Time Out?

T No. You have confiscated the TV program. Privilege loss hurts a bit more than Time Out and it provides you with a back up to Time Out if he refuses to go. You must have control over any privilege you remove or it won't work. If you are not sure you can control the privilege, choose something else.

M & D *(Nodding)* Mm hmm.

The new piece of information here is that privilege removal backs up Time Out refusal. In our approach, we never have the parents make physical contact with the child, as this can lead to escalation that could become abusive. Children quickly learn that it is far easier to go to Time Out for five to ten minutes than it is to lose something they take for granted, such as watching cartoons.

Therapists spend at least a couple of sessions preparing parents to succeed at Time Out before they try out the procedure at home. Before they use Time Out, the parents will have practiced introducing it to their children, they will have lots of experience role-playing, and they will have a list of privileges they can use to back up Time Out refusal.

T Good. We can look closer at privileges to remove later. But when it comes to discipline, the point is to slow down negative behavior, and we use Time Out for that. The problem for us as parents is that we often threaten negative consequences, but we seldom follow through. And in part we don't follow through because we threaten consequences that are unrealistic: "If you don't hang up your coat now, you'll be grounded for four days!!" You might be able to go through with the grounding for a day or two, but you have, in effect, punished yourself with this consequence. And it turns out to be something you are incapable of following through with. We often do negative consequences with our children that are too unsystematic. The point is to be systematic. We let the children know in advance. And when I have introduced a consequence to you, I follow through with it. Why don't you, D, come over here and tell me to do something. I'll refuse. Then you tell me that this is not minding and tell me to go to Time Out.

introduce a new concept. In future sessions, both parents will have the opportunity to practice Time Out, and T will draw them both into the debriefing process, questioning them carefully on specific behaviors they experienced.

D Yes.

T But you just keep on counting, even though I might harass you. You maintain your calm and keep counting. Don't enter any discussion. It is so easy to do that. It is so easy to begin an argument, "Why are you doing this?" "It is too your turn" and so on. All you do is count and count.

M We shouldn't have to have a discussion with them, because they should know that when we give them a direction, they have to cooperate.

T The point is that you have a plan, a guideline to follow. You don't have the option of screaming out some sort of threat where we only follow up partly or not at all. Another thing is that the consequence will come right after the action.

M When I tell him that I am the one who makes the decisions, he jokes and says it is the king and I say no! *[Norway is a kingdom.]* *(Laughter)*

T The reality is that we recognize some of the feelings around this. We are tired and stressed . . . whatever. But with this program, we're consistent. Another thing. When it comes to praise and negative consequences, there should much more praise than consequences . . .

The balance of five positives to one negative is a key principle in the training process. Families with externalizing children commonly provide attention for problem behavior and ignore prosocial behavior. Thus, we begin the therapy asking parents to identify their children's strengths, and ever after we help them notice these strengths and praise them.

Role-play is an integral part of our PMTO intervention because it is an effective tool for shaping family process. With role-play, therapists can help family members develop appropriate patterns of interaction to replace the old, overlearned, coercive patterns of behavior. People develop patterns of behavior that become automatic through repetition and reinforcement. Some situations are so well practiced that the patterns run off our tongues with no thought at all. One example is the common set of phrases we use to greet people: "Hi, how are you?" and "I'm fine, how about you?" In the midst of strong negative emotions, interactions have a tendency to become rigid. For example, when angered, people often use verbal and nonverbal signals that elicit predictable reactions, often with breathtaking speed. Unfortunately, the reactions are most likely to be coercive patterns of behavior, including negative reciprocity, escalation, and negative

reinforcement (Patterson, 1982; Snyder, 2002). It is well known that frequent use of coercion within families leads to child deviancy. The use of role-play helps parents learn to replace coercive patterns with behavior patterns that promote positive outcomes.

Future Directions

The goal of the chapter was to present information regarding the foundation of PMTO, an intervention designed to treat and prevent externalizing behavior and concomitant problems in youngsters. We have discussed the developmental course of antisocial behavior, the theoretical model detailing mechanisms involved in the instantiation of child and adolescent behavior problems, and an intervention strategy designed to curtail coercive family interactions and replace them with effective parenting skills. The Oregon Model of Parent Management Training is an intervention with five core parenting practices specified as mechanisms of child outcomes. These putative mechanisms have been identified and evaluated over decades of theoretical model building and empirical research with passive and experimental longitudinal studies. The Social Interaction Learning model and the intervention programs based on it continue to be refined to accommodate variability in family circumstances and socio-cultural contexts. Competent adherence to PMTO principals has been shown to attenuate the progression of antisocial behavior in children and adolescents, especially when interventions are introduced before conduct problems become deeply entrenched in families. PMTO provides a positive, practical strategy to bolster parenting effectiveness and to stop the progression of coercive family processes and escalation of antisocial behavior in its tracks.

◆ ◆ ◆

In the past five or ten years, the OSLC group has focused increasingly on developing strategies to implement PMTO in community settings. With the move into the rough-and-tumble world of community intervention, we have begun to develop methods to study the relevant processes of training, adaptation, evaluating program fidelity, adoption, and other dimensions related to the dissemination of efficacious programs. When Chamberlain's multidimensional treatment foster care program (Chamberlain, 1994) was identified as a blue print program, she and her group had to develop training strategies for professionals all over the United States. More recently, Norway decided to implement PMTO nationwide, which has required the development of training strategies that could be carried out in another

culture and language and from a distance of more than 6,000 miles. In the past year, NIMH has funded two Latina intervention scientists to implement PMTO with Latino populations. One tenet to which these PMTO extensions hold is the necessity of using direct observation to assess critical processes. We use observation methodology to examine family process through structured parent child interactions and intervention process through videotapes of therapy sessions. Testing the theory, methods, and PMTO intervention throughout the United States and internationally will provide an opportunity to study the extent to which the Social Interaction Learning model generalizes to differing cultures and subcultures.

References

Bank, L., Dishion, T., Skinner, M., & Patterson, G. R. (1990). Method variance in structural equation modeling: Living with "glop." In G. R. Patterson (Ed.), *Depression and aggression in family interaction* (pp. 247–279). Hillsdale, NJ: Erlbaum.

Bank, L., Marlowe, J. H., Reid, J. B., Patterson, G. R., & Weinrott, M. R. (1991). A comparative evaluation of parent-training interventions of families of chronic delinquents. *Journal of Abnormal Child Psychology, 19*(1), 15–33.

Bank, L., Patterson, G. R., & Reid, J. B. (1996). Negative sibling interaction patterns as predictors of later adjustment problems in adolescent and young adult males. In G. H. Brody (Ed.), *Sibling relationships: Their causes and consequences* (pp. 197–229). Norwood, NJ: Albex.

Biglan, A., Mrazek, P. J., Carnine, D., & Flay, B. R. (2003). The integration of research and practice in the prevention of youth problem behaviors. *American Psychologist, 58,* 433–440.

Bullock, B. M., & Dishion, T. D. (2002). Sibling collusion and problem behavior in early adolescence: Toward a process model for family mutuality. *Journal of Abnormal Child Psychology, 30*(2), 143–153.

Capaldi, D. M. (1992). Co-occurrence of conduct problems and depressive symptoms in early adolescent boys: A 2-year follow-up at grade 8. *Development and Psychopathology, 4,* 125–144.

Capaldi, D. M., Dishion, T. J., Stoolmiller, M., & Yoerger, K. (2001). Aggression toward female partners by at-risk young men: The contribution of male adolescent friendships. *Developmental Psychology, 37,* 61–73.

Chamberlain, P. (1994). *Family connections: A treatment foster care model for adolescents with delinquency* (Vol. 5). Eugene, OR: Castalia.

Chamberlain, P., & Reid, J. B. (1998). Comparison of two community alternatives to incarceration for chronic juvenile offenders. *Journal of Consulting and Clinical Psychology, 66*(4), 624–633.

Conger, R. D., Patterson, G. R., & Ge, X. (1995). It takes two to replicate: A mediational model for the impact of parents' stress on adolescent adjustment. *Developmental Psychology, 66,* 80–97.

DeBaryshe, B. D., Patterson, G. R., & Capaldi, D. M. (1993). A performance model for academic achievement in early adolescent boys. *Developmental Psychology, 29,* 795–804.

DeGarmo, D. S., & Forgatch, M. S. (1999). Contexts as predictors of changing parenting practices in diverse family structures: A social interactional perspective to risk and resilience. In E. M. Hetherington (Ed.), *Coping with divorce, single parenting and remarriage: A risk and resiliency perspective* (pp. 227–252). Mahwah, NJ: Erlbaum.

DeGarmo, D. S., & Forgatch, M. S. (2000). *Preventing the "early start" within transitional divorce families: An experimental test of precursors influencing antisocial behavior and delinquency.* Paper presented at the American Society of Criminology Annual Meeting: Crime and Criminology in the Year 2000, San Francisco.

DeGarmo, D. S., Forgatch, M. S., & Martinez, C. R., Jr. (1999). Parenting of divorced mothers as a link between social status and boys' academic outcomes: Unpacking the effects of SES. *Child Development, 70,* 1231–1245.

DeGarmo, D. S., Patterson, G. R., & Forgatch, M. S. (in press). How do outcomes in a specified parent training intervention maintain or wane over time? *Prevention Science.*

Dishion, T. J. (1990). The family ecology of boys' peer relations in middle childhood. *Child Development, 61,* 874–892.

Dishion, T. J., Andrews, D. W., & Crosby, L. (1995). Antisocial boys and their friends in early adolescence: Relationship characteristics, quality, and interactional processes. *Child Development, 66,* 139–151.

Dishion, T. J., Andrews, D. W., Kavanagh, K., & Soberman, L. H. (1996). Preventive interventions for high-risk youth: The Adolescent Transitions Program. In R. D. Peters & R. J. McMahon (Eds.), *Preventing childhood disorders, substance abuse, and delinquency* (pp. 184–214). Thousand Oaks, CA: Sage.

Dishion, T. J., & Bullock, B. M. (2002). Parenting and adolescent problem behavior: An ecological analysis of the nurturance hypothesis. In J. G. Borkowski, S. Ramey, & M. Bristol-Pwer (Eds.), *Parenting and the child's world: Influences on intellectual, academic, and social-emotional development* (pp. 231–249). Mahwah, NJ: Erlbaum.

Dishion, T. J., Duncan, T. E., Eddy, J. M., Fagot, B. I., & Fetrow, R. (1994). The world of parents and peers: Coercive exchanges and children's social adaptation. *Social Development, 3*(3), 255–268.

Dishion, T. J., Eddy, J. M., Haas, E., Li, F., & Spracklen, K. (1997). Friendships and violent behavior during adolescence. *Social Development, 6*(2), 207–223.

Dishion, T. J., Gardner, K., Patterson, G. R., Reid, J. B., & Thibodeaux, S. (1983). *Family process code: A multidimensional system for observing family interaction* (unpublished technical report). Eugene, OR: Oregon Social Learning Center.

Dishion, T. J., Nelson, S., & Bullock, B. M. (in press). Parenting disengagement in adolescence: Facilitating the trajectory to young adult problem behavior. *Journal of Research on Adolescence.*

Dishion, T. J., & Patterson, S. G. (1996). *Preventive parenting with love, encouragement, and limits: The preschool years.* Eugene, OR: Castalia.

Dishion, T. J., & Patterson, G. R. (1999). Model building in developmental psychopathology: A pragmatic approach to understanding and intervention. *Journal of Clinical Child Psychology, 28*(4), 502–512.

Dishion, T. J., Patterson, G. R., & Kavanagh, K. A. (1992). An experimental test of the coercion model: Linking measurement theory, and intervention. In J. McCord & R. Tremblay (Eds.), *The interaction of theory and practice: Experimental studies of intervention* (pp. 253–282). New York: Guildford Press.

Dobkin, P. L., Tremblay, R. E., & Sacchitelle, C. (1997). Predicting boys' early-onset substance abuse from father's alcoholism, son's disruptiveness, and mother's parenting behavior. *Journal of Consulting and Clinical Psychology, 65,* 86–92.

Duncan, S. C., Duncan, T. E., Biglan, A., & Ary, D. (1998). Contributions of the social context to the development of adolescent substance use: A multivariate latent growth modeling approach. *Drug and Alcohol Dependence, 50*(1), 57–71.

Elliott, D. S., Huizinga, D., & Ageton, S. S. (1985). *Explaining delinquency and drug use.* Beverly Hills, CA: Sage.

Fergusson, D., Horwood, L. J., & Lynskey, M. T. (1995). The stability of disruptive childhood behaviors. *Journal of Abnormal Child Psychology, 23*(3).

Forgatch, M. S. (1991). The clinical science vortex: A developing theory of antisocial behavior. In D. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 291–315). Hillsdale, NJ: Erlbaum.

Forgatch, M. S. (1994). *Parenting through change: A programmed intervention curriculum for groups of single mothers.* Eugene, OR: Oregon Social Learning Center.

Forgatch, M. S., & DeGarmo, D. S. (1999). Parenting through change: An effective prevention program for single mothers. *Journal of Consulting and Clinical Psychology, 67,* 711–724.

Forgatch, M. S., & DeGarmo, D. S. (2002). Extending and testing the social interaction learning model with divorce samples. In J. B. Reid, G. R. Patterson, & J. Snyder (Eds.), *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention* (pp. 235–256). Washington DC: American Psychological Association.

Forgatch, M. S., & Patterson, G. R. (1989). *Parents and adolescents living together: Vol. 2. Family problem solving.* Eugene, OR: Castalia.

Forgatch, M. S., & Rains, L. (1997). *MAPS: Marriage and Parenting in Stepfamilies* (parent training manual). Eugene, OR: Oregon Social Learning Center.

Furstenberg, F. F., Jr., & Seltzer, J. A. (1986). Divorce and child development. *Sociological Studies of Child Development, 1,* 137–160.

Hetherington, E. M., Cox, M., & Cox, R. (1985). Long-term effects of divorce and remarriage on the adjustment of children. *Journal of the American Academy of Child Psychiatry, 24*(5), 518–530.

Huesmann, L. R., Eron, L. D., & Yarmel, P. W. (1987). Intellectual functioning and aggression. *Journal of Personality and Social Psychology, 52*(1), 232–240.

Jones, R. R., Reid, J. B., & Patterson, G. R. (1975). Naturalistic observation in clinical assessment. In P. McReynolds (Ed.), *Advances in psychological assessment* (Vol. 3, pp. 42–95). San Francisco: Jossey-Bass.

Kazdin, A. E., Mazurick, J. L., & Bass, D. (1993). Risk for attrition in treatment of antisocial children and families. *Journal of Clinical Child Psychology, 22*(1), 2–16.

Knutson, J. F., DeGarmo, D. S., & Ried, J. B. (in press). Social disadvantage and neglectful parenting as precursors to the development of antisocial and aggressive child behavior: Testing a theoretical model. *Aggressive Behavior.*

Lykken, D. T. (1993). Predicting violence in the violent society. *Applied and Preventive Psychology, 2,* 13–20.

Maccoby, E. E., & Martin, J. A. (1983). *Handbook of child psychology* (Vol. IV). New York: Wiley.

Martinez, C. R., Jr., & Forgatch, M. S. (2001). Preventing problems with boys' noncompliance: Effects of a parent training intervention for divorcing mothers. *Journal of Consulting and Clinical Psychology, 69,* 416–428.

Mrazek, P. J., & Haggerty, R. J. (1994). Illustrative preventive intervention research programs. In P. J. Mrazek & R. J. Haggerty (Eds.), *Reducing risks for mental disorders: Frontiers for preventive intervention research* (pp. 215–313). Washington DC: National Academy Press.

Nagin, D., & Tremblay, R. E. (1999). Trajectories of boys' physical aggression, opposition, and hyperactivity on the path to physically violent and nonviolent juvenile delinquency. *Child Development, 70,* 1181–1196.

Offord, D. R., Boyle, M. C., & Racine, Y. (1991). The epidemiology of antisocial behavior in childhood and adolescence. In D. Pepler & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 31–54). Hillsdale, NJ: Erlbaum.

Olweus, D. (1983). Low school achievement and aggressive behavior in adolescent boys. In D. Magnusson & V. L. Allen (Eds.), *Human development: An interactional perspective* (pp. 353–365). New York: Academic Press.

Patterson, G. R. (1982). *Coercive family process.* Eugene, OR: Castalia.

Patterson, G. R. (1984). Siblings: Fellow travelers in a coercive system. In R. J. Blanchard & D. C. Blanchard (Eds.), *Advances in the study of aggression* (Vol. 1, pp. 173–215). New York: Academic Press.

Patterson, G. R. (1986). Performance models for antisocial boys. *American Psychologist, 41,* 432–444.

Patterson, G. R. (1992). Developmental changes in antisocial behavior. In R. D. Peters, R. J. McMahon, & V. L. Quinsey (Eds.), *Aggression and violence throughout the life span* (pp. 52–82). Newbury Park, CA: Sage.

Patterson, G. R. (1993). Orderly change in a stable world: The antisocial trait as a chimera. *Journal of Consulting and Clinical Psychology, 61*(6), 911–919.

Patterson, G. R. (1995). Orderly change in a stable world: The antisocial trait as a chimera. In J. Gottman & J. Sackett (Eds.), *The analysis of change* (pp. 84–100). Hillsdale, NJ: Erlbaum.

Patterson, G. R., & Chamberlain, P. (1988). Treatment process: A problem at three levels. In L. C. Wynne (Ed.), *The state of the art in family therapy research: Controversies and recommendations* (pp. 189–223). New York: Family Process Press.

Patterson, G. R., Chamberlain, P., & Reid, J. B. (1982). A comparative evaluation of a parent-training program. *Behavior Therapy, 13,* 638–650.

Patterson, G. R., & Cobb, J. A. (1971). A dyadic analysis of "aggressive" behaviors. In J. P. Hill (Ed.), *Minnesota Symposia on Child Psychology* (Vol. 5). Minneapolis, MN: University of Minnesota Press.

Patterson, G. R., & Cobb, J. A. (1973). Stimulus control for classes of noxious behaviors. In J. F. Knutson (Ed.), *The control of aggression: Implications from basic research.* Chicago: Aldine.

Patterson, G. R., Dishion, T. J., & Yoerger, K. (2000). Adolescent growth in new forms of problem behavior: Macro- and micro-peer dynamics. *Prevention Science, 1,* 3–13.

Patterson, G. R., & Forgatch, M. S. (1985). Therapist behavior as a determinant for client noncompliance: A paradox for the behavior modifier. *Journal of Consulting and Clinical Psychology, 53*(6), 846–851.

Patterson, G. R., & Forgatch, M. S. (1987). *Parents and adolescents living together: The basics* (Vol. I). Eugene, OR: Castalia.

Patterson, G. R., Littman, R. A., & Bricker, W. (1967). Assertive behavior in children: A step towards a theory of aggression. *Monographs of the Society of Research in Child Development, 32*(5), 1–43.

Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Antisocial boys* (Vol. 4). Eugene, OR: Castalia.

Patterson, G. R., Shaw, D. S., Snyder, J. J., & Yoerger, K. (2003). Maternal ratings of growth in children's overt and covert antisocial behavior. Manuscript submitted for publication.

Patterson, G. R., & Yoerger, K. (1993). Developmental models for delinquent behavior. In S. Hodgins (Ed.), *Crime and mental disorders* (pp. 140–172). Newbury Park, CA: Sage.

Patterson, G. R., & Yoerger, K. (1995). Two different models for adolescent physical trauma and for early arrest. *Criminal Behavior and Mental Health, 5,* 411–423.

Ramsey, E., Antoine, K., Kavanagh, K., & Reid, J. B. (1992a). LIFT Parent Education Component: Grade 1. OSLC Technical manual. (Available from Oregon Social Learning Center, 160 E. 4th Ave., Eugene, OR 97401).

Ramsey, E., Antoine, K., Kavanagh, K., & Reid, J. B. (1992b). LIFT Parent Education Component: Grade 5. OSLC Technical manual. (Available from Oregon Social Learning Center, 160 E. 4th Ave., Eugene, OR 97401).

Ramsey, E., Lathrop, M., Tharp, L., & Reid, J. B. (1992a). LIFT Classroom Social Skills Component: Grade 1. OSLC Technical manual. (Available from Oregon Social Learning Center, 160 E. 4th Ave., Eugene, OR 97401).

Ramsey, E., Lathrop, M., Tharp, L., & Reid, J. B. (1992b. LIFT Classroom Social Skills Component: Grade 5. OSLC Technical manual. (Available from Oregon Social Learning Center, 160 E. 4th Ave., Eugene, OR 97401).

Reid, J. B. (Ed.). (1978). *A social learning approach to family intervention: Observation in home settings.* Eugene, OR: Castalia.

Reid, J. B., Eddy, J. M., Fetrow, R. A., & Stoolmiller, M. (1999). Description and immediate impacts of a preventive intervention for conduct problems. *American Journal of Community Psychology, 27*(4), 483–517.

Reid, J. B., Patterson, G. R., & Snyder, J. (Eds.). (2002). *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention.* Washington DC: American Psychological Association.

Schuck, J. R. (1974). The use of causal nonexperimental modes in aggression research. In J. DeWit & W. W. Hartup (Eds.), *Determinants and origins of aggressive behavior* (pp. 381–389). The Hague: Mouton.

Shortt, J. W., Capaldi, D. M., Dishion, T. J., Bank, L., & Owen, L. D. (in press). The role of adolescent peers, romantic partners, and siblings in the emergence of the adult antisocial lifestyle. *Journal of Family Psychology.*

Snyder, J. (2002). Reinforcement and coercion mechanisms in the development of antisocial behavior: Peer relationships. In J. B. Reid, J. Snyder, & G. R. Patterson (Eds.), *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention* (pp. 101–122). Washington DC: American Psychological Association.

Snyder, J., Schrepferman, L., & St. Peter, C. (1997). Origins of antisocial behavior: Negative reinforcement and affect dysregulation of behavior as socialization mechanisms in family interaction. *Behavior Modification, 21*(2), 187–215.

Snyder, J., West, L., Stockemer, V., Gibbons, S., & Almquist-Parks, L. (1996). A social learning model of peer choice in the natural environment. *Journal of Applied Developmental Psychology, 17,* 215–237.

Snyder, J. J., Edwards, P., McGraw, K., Kilgore, K., & Holton, A. (1994). Escalation and reinforcement in mother-child conflict: Social processes associated with the development of physical aggression. *Development and Psychopathology, 6,* 305–321.

Snyder, J. J., & Patterson, G. R. (1995). Individual differences in social aggression: A reinforcement model of socialization in the natural environment. *Behavior Therapy, 26,* 371–391.

HANDBOOK OF MENTAL HEALTH INTERVENTIONS IN CHILDREN AND ADOLESCENTS

An Integrated Developmental Approach

Hans Steiner, Editor

JOSSEY-BASS
A Wiley Imprint
www.josseybass.com

(2004)