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Delinquency Prevention Through Training Parents in Family Management

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Nearly two decades of clinical research at the Oregon Social Learning Center (OSLC) have helped to shape a theory of antisocial behavior in boys. Models depicting the theory are presented and discussed. In addition, family management variables such as "discipline," "monitoring," "positive parenting," and "problem solving" are described as used in clinical applications. Total aversive behavior (TAB), based on home observations, and parent daily report (PDR), based on telephone interviews, are examined as outcome indicators for a variety of studies investigating the efficacy of the OSLC social interactional therapy. Several recent reports of treatment for adjudicated adolescents and their families are included; law violations are the dependent measures in those studies. Examples of the interface between clinical work and theory at OSLC are presented. Questions of generalization of the clinical methodology to large urban populations, and access to parents who most need to learn the parenting techniques are noted.
Key words: delinquency, prevention, parent training, family management

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This paper provides an overview of a theoretical framework for understanding the development of antisocial and delinquent behavior in boys. Clinical techniques along with several sets of outcome data will also be discussed. Finally, several examples of the interchange between clinical experience and research findings will be presented to illustrate the *scientist as practitioner* strategy that has been used.

A THEORY OF ANTISOCIAL BEHAVIOR

In developing and testing a theory of antisocial behavior, the use of theoretical models has emerged as a tremendously helpful tool. To build a model, an investigator must be familiar with the constructs in the field and have a clear understanding as to the process through which a particular phenomenon occurs. The model is, therefore, useful as a heuristic device as well as for statistical analysis in structural equation modeling.

The first stage in developing and testing models is based on clinical experience and observed behavior in the homes of the families studied (see Patterson, 1986). Given that information, operational definitions of constructs describing these family interactions are devised with the goal of measuring each construct with multiple methods and multiple agents. For example, a child's antisocial behavior may be defined by four indicators, each of which represents another agent's perspective (see Figure 1). Methods used in forming this network of indicators include questionnaire data, peer nominations, and telephone interviews. A model that proves adequate initially and on replication is then further tested through experimental manipulations and longitudinal data collection. For these *performance* models to be considered as adequate, they must account for a stipulated and considerable percentage of the variance (30–40%) in the criterion construct (Patterson, 1982; Patterson & Bank, 1986). When a model is adequate in other respects, but fails to meet this objective, indicators are redesigned in order to improve their predictive validity. The model is then retested, and the process is continued until the objective is met or the model is discarded.

The family management constructs, which are the core of the model, are embedded in the general model which spans the years of middle childhood through adolescence (see Figure 2). This

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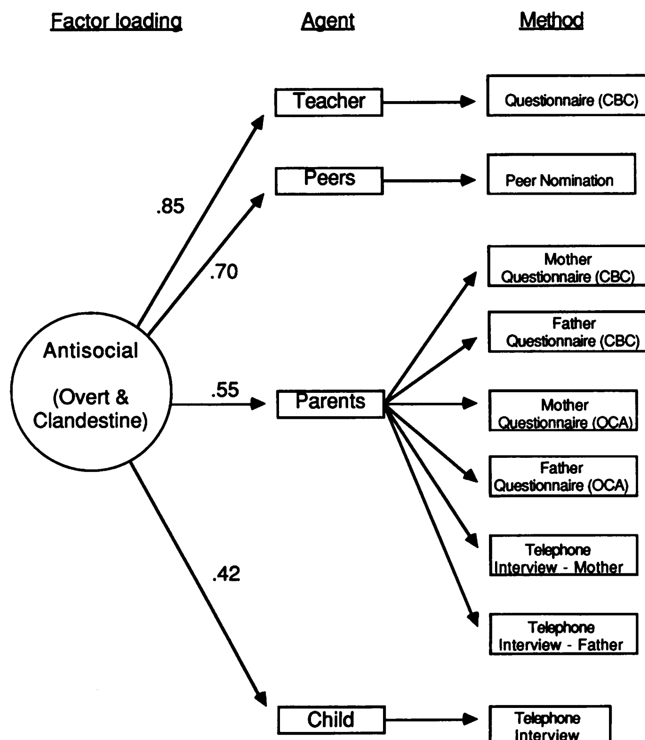

Figure 1. Multimethod, multiagent indicators for the antisocial behavior construct. From *A Social Learning Approach: Vol. 4. A Coercion Model* by G. R. Patterson, J. B. Reid, and J. Dishion, in press, Eugene, OR: Castalia Publishing Co. Copyright by Castalia Publishing Co. Used by permission.

model illustrates a process through which many boys are trained by their families to behave coercively (Patterson, Dishion, & Bank, 1984). As these children develop further, they are likely to exhibit antisocial characteristics both at home and at school. At school, boys are less likely than their normal peers to possess necessary social and academic skills. They may be rejected by their normal peers and come to associate with a deviant peer group. Once becoming a member of a deviant peer group, the likelihood of alcohol and other substance abuse is significantly heightened and law violations may become acceptable or even expected within the group. The general model, though powerful as a heuristic device, is unwieldy and cannot easily be tested. Thus, the general model is divided into a number of submodels which have been carefully studied.

The *basic black* model represents what happens at home (see Patterson & Bank, 1986). Poor discipline practices provide the groundwork for coercive exchanges between parent and child, as well as between siblings. Parents who lack skills for disciplining their children also tend to be less aware of their child's whereabouts, who he is with, when he will be home, and so on. The product of inadequate family management skills in parents is antisocial behavior in their children. Discipline and monitoring form two separate though related family management dimensions (Patterson & Bank, in press). The indicators for discipline—observer impressions, nattering, and explosive discipline—are taken largely from observational data, while the monitoring indicators—parent time with child, interviewer impressions, and parent/child telephone reports—are primarily parent and child interview data. The child's coercive behavior is measured via observational data: *startup,* the probability of a negative child behavior given posi-

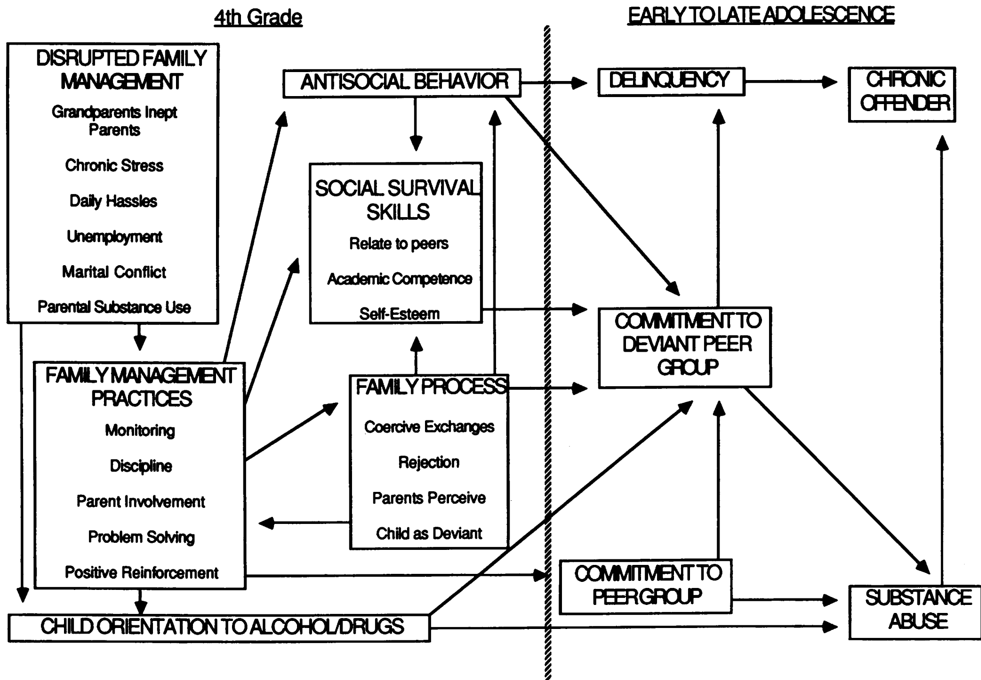

Figure 2. An overview of a developmental model of chronic antisocial behavior.

tive or neutral antecedent behavior by a parent or sibling; *counterattack,* the probability of a negative child behavior given a negative behavior by parent or sibling; and *continuance,* the likelihood of two or more consecutive negative child behaviors regardless of the behavior of others. (See Patterson & Bank, 1986, for detailed descriptions of these indicators.)

In the second stage of this model (see Figure 3), antisocial boys are seen as having poor relations with their normal peers, inadequate academic performance, and low self-esteem (Patterson, 1986). Uninvolved parents contribute to the poor self-concept of their sons. Many delinquent youths are likely to have had life courses parallel or very similar to that depicted in the stage two model. Perhaps as much as 50% of the delinquent population can be described in this way. Indeed, using parent and teacher perceptions of parent monitoring and child antisocial behavior as predictor variables, 60% of the delinquent youths in a sample of adolescents were identified correctly (Loeber, Dishion, & Patterson, 1984).

CLINICAL TECHNIQUES

Parent training was developed at the Oregon Social Learning Center (OSLC) for use with families of preadolescent antisocial boys (Forgatch & Toobert, 1979; Patterson, Reid, Jones, & Conger, 1975). In the therapy process, parent training techniques are taught in a specific order. First, parents learn to pinpoint the child's behavior; it is critical that parents keep track of whether their children are "minding," doing required chores, treating siblings appropriately, doing homework, etc. Almost invariably, parents are asked to track their children's *minding* behavior as an initial exercise. As soon as the parent has acquired some skill in tracking behavior, the parent and therapist jointly devise a point chart and a reinforcement menu. The point chart is the vehicle through which the parent tracks desired behavior on a daily basis. The child may choose from the reinforcement menu at the end of each day provided the criterion number of points has been earned. As a discipline procedure, time-out is taught for children from about

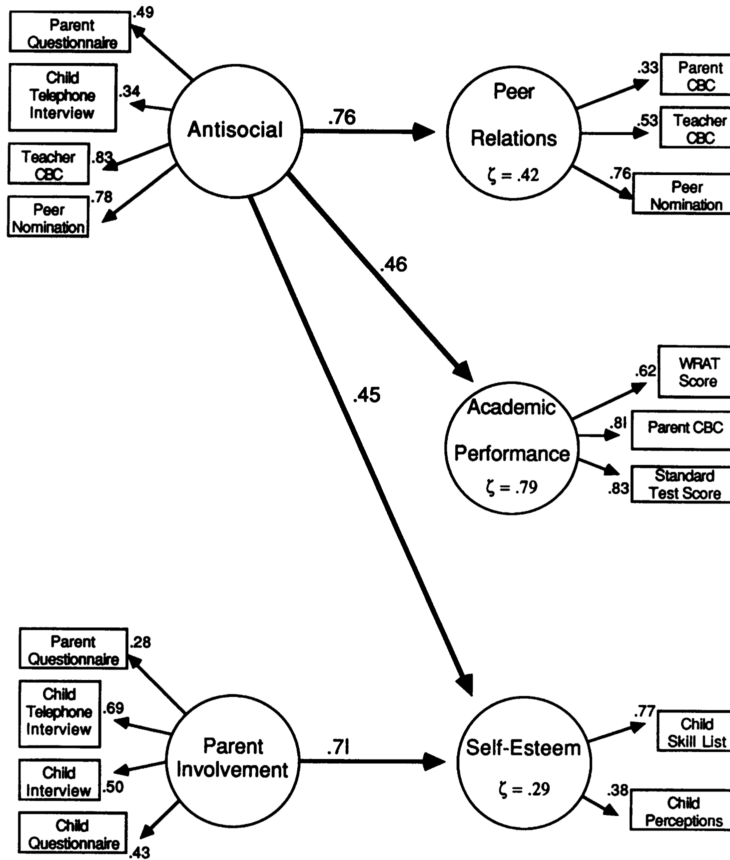

Figure 3. The stage 2 model: consequences of antisocial behavior.

3 to 12 years of age; with older children, alternative consequences such as work details or removal of privileges are used. Parents are assisted in developing menus of important, though unpleasant, household chores (e.g., scrubbing floors, cleaning the oven, pulling weeds). With toddlers, a "take a break" procedure, which is similar to time-out though less difficult for a young child to learn, has been recently developed (Fagot, Hagan, & Kavanagh, 1986).

The success of this treatment program is, as with any therapy process, largely dependent on the therapist's skills in dealing with client resistance (Chamberlain & Baldwin, in press; Chamberlain, Patterson, Reid, Forgatch, & Kavanagh, 1984). Within the parent training framework, for example, a common strategy is to introduce some positive parenting methods when dealing with punishment issues. Parents of antisocial children typically do not have much patience for therapists who want them "to do more things" for or with their problem child. In using the time-out procedure, however, a loss of a special privilege is the consequence for a child who fails to go to or complete a time-out in a satisfactory manner. Thus, therapy may first have to establish and develop methods to maintain special privileges and family events so that there are privileges to remove.

The problem solving/negotiation component to the OSLC parent training program is often most helpful for the parents to work on together with their therapist. The goal is to foster supportive behaviors for one another, as well as to establish a method of dealing with problems in the family. Children can learn to use these methods as early as 6 or 7 years of age.

A variety of outcomes may be expected

upon completion of therapy. These outcomes are described as changes in baserates and conditional probabilities of targeted behaviors: (a) decrease in the probability of coercive behaviors by the target child; (b) increases in the probability of parent monitoring, discipline, and positive reinforcement *given* an antecedent child behavior deserving the particular parental response; (c) generally higher rates of positive and lower rates of negative behavior within families; and (d) increased parent support of one another in the parenting process. In addition, these changes must be maintained over time.

OUTCOME STUDIES

Families of aggressive and antisocial children have been treated at OSLC for some twenty years. Numerous outcome studies have been undertaken there and in other settings that use OSLC parent training methods (see Patterson, 1982, 1985). One important outcome measure has been the total aversive behavior score (TAB). This score is derived from observational data and includes, for the parent, behaviors such as negative commands, disapproval, threatening, humiliating, yelling, hitting, and negativism; for the child, the behaviors include crying, dependency, noncompliance, destructiveness, teasing, whining, and hitting (Reid, 1978). In a series of studies, the OSLC therapy techniques have been demonstrated to be effective in reducing TAB scores in treated families from baseline to therapy termination (Patterson, 1974; Wiltz & Patterson, 1974), to show statistically significant improvement as compared to randomly assigned control families treated by established community therapists (Patterson, Chamberlain, & Reid, 1982; Walter & Gilmore, 1973), and to maintain the gains at treatment termination to at least 12 months follow-up (Patterson & Fleischman, 1979; Weinrott, Bauske, & Patterson, 1979). There have been some difficulties reported in the use of this therapy, however. For, example, the parent training intervention is likely to fail when the therapist uses time-limited treatment (Bernal et al., 1976). At OSLC, families average about 17–19 sessions to termination; thus, it is unlikely that short-term intervention with the OSLC parent training techniques will result in the desired outcome. The intervention also fails if the treatment is narrowly focused only on parent training procedures (Eyberg & Johnson, 1974; Fleischman, 1979). Therapists must be experienced and trained clinicians who can deal with a variety of family problems, such as marital conflict, depression, and alcoholism, which may arise as issues in the course of the parent training.

The parent daily report (PDR) has been used as an outcome measure in some of the studies cited above (Chamberlain & Reid, in press). The PDR is administered via telephone interviews during which the parents are asked whether or not their child has engaged in any of 32 behaviors within the prior 24 hours. The score is the sum of the parents "yes" responses. Results with the PDR have been comparable to those using the TAB score (Patterson, et al., 1982; Walter & Gilmore, 1973). TAB and PDR do intercorrelate significantly, but parent report of perceived improvement, a commonly used measure of therapy success, is unrelated to either TAB or PDR (Patterson, 1982).

Investigators at OSLC have recently looked at outcome in other ways. Two studies have addressed family management issues with populations of adjudicated adolescents and their families, and the reduction of law violations among the targeted adolescents is the outcome measure of interest (Chamberlain, personal communication, 1987). The first of these, the ongoing OSLC "Monitor" program, has recruited and trained foster parents so that adjudicated youths could be placed with them rather than be institutionalized. The juvenile court refers these adolescent boys and girls to the Monitor program, and the youths live with their foster parents for approximately six months. Foster parents participate in weekly supervision and support groups, while each youngster benefits from individual treatment with an OSLC staff therapist. At termination of treatment,

youths may be returned to their parents, other relatives, or a new foster family. Ongoing therapy with the post-termination parents is a requirement while the youngster participates in the Monitor program. As the youths move through the treatment process, they have day visits and eventually overnight (and longer) visits with their post-termination parents, so that the actual return home, albeit an important milestone for each of these adolescents, does not contribute previously unencountered variables. Therapy is available for the family for 6–12 months following completion of the program. Thus far, 31 youngsters have been admitted to the program; 17 have completed, four are in process, and ten have been revoked. Of the revoked youths, all but two were reinstitutionalized early on in the program. Youths who complete the program are highly likely to succeed by the standards of the State of Oregon (6-month post-treatment success), and most have continued well beyond that criterion without significant law violations. Seven of the 31 participants thus far have been girls, and all of them have completed the program with only one revocation in the followup period.

In the second study using adolescent law violations as the dependent measure, adjudicated youngsters (mean age = 14), who had at least three recorded law violations, were randomly assigned to OSLC (N = 28) versus community (N = 27) treatment (Marlowe, Reid, Patterson, & Weinrott, unpublished manuscript); in both cases, the treatment was intensive for these youths and their families. The OSLC treated adolescents had improved significantly on nonstatus and total offenses by termination of therapy, and these changes were significantly greater than any corresponding changes in the community control group. In addition, during the treatment year and the two follow-up years, the OSLC treated boys spent 2,247 *fewer* days than the control boys in institutional confinement. At approximately $60/day in Oregon, that amounts to savings of about $135,000. By one year treatment followup, however, the control group showed significant improvement, and the OSLC-control group differences were no longer statistically significant.

Another way to look at successful outcome is with a criterion of *clinically* significant, in addition to *statistically* significant, change. Clinically significant change has been defined as improvement beyond the intersection of the clinical and normal sample distributions (Jacobson et al., 1984). Reanalysis of TAB and PDR data from 180 families treated at OSLC over a 15-year period revealed that 55% of the families were classified as successfully treated using both change criteria (Dishion, 1984); this figure compares favorably to the 18% to 30% observed in reviewing general clinical outcome studies (Jacobson et al., 1984). In addition, in sampled target children younger and older than 12, the younger group families had a 70%, while the older group had only a 30% success rate (Dishion, 1984). As one might expect, earlier, as opposed to later, intervention is far more likely to yield success.

The discussion of outcomes has focused on TAB and PDR scores and, for older youths, law violations. Of critical theoretical importance is still another outcome. Significant change in the targeted family management skills must be observed if support for the model is to be inferred from successful outcome studies. Much of this work is yet to be completed, but the results of one clinical intervention study, and a longitudinal study of two cohorts of at-risk youngsters, are promising so far. In the intervention study, those families who are improving on TAB and PDR are also showing parent gains on discipline and monitoring skills, while non-improvers show no such gains; the longitudinal study has been used in developing and replicating the theoretical models discussed earlier.

INTERFACING CLINICAL WORK AND THEORY

The social interactional model is continually influenced by the outcomes of clinical trials as well as by the continued clinical experience of the OSLC staff. Al-

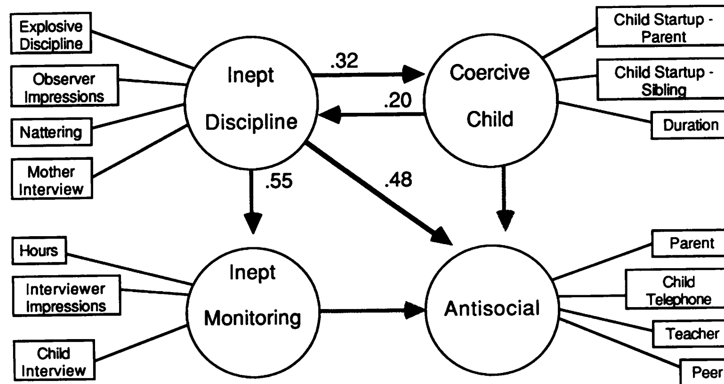

Figure 4. "Basic training" in the home leads to antisocial behavior at home and at school.

most every investigator on the OSLC staff also works as a clinician, hence the search for pivotal constructs is ongoing. On the one hand, the search is generated by clinical necessity and outcome; on the other hand, theoretical findings suggest new clinical approaches. Several examples of the clinical practice/theoretical findings interface may be useful.

In earlier work at OSLC, the importance of discipline was not so clearly understood. Following Skinner's (1953) recommendation that positive reinforcement, rather than punishment, be used as the primary modifier of human behavior, the emphasis at OSLC was placed on positive parenting. This approach was helpful in increasing prosocial behaviors in the family, but did not reduce the frequency or amplitude of antisocial acts; thus, discipline was born out of clinical need. The discipline methods taught during treatment work well, as has been demonstrated in the outcome studies discussed. Specifically measuring parental discipline has, however, been a more difficult task. The current indicators used to define discipline work well in our theoretical models; nonetheless, there is a continuing effort to improve the measurement of this construct. Other aspects of good parenting are measured by constructs such as monitoring, problem solving, and positive reinforcement. In our longitudinal sample, which is *not* a clinical sample, we see that much of the parenting role is a prosocial process. Thus, it appears likely that, in healthy families, positive reinforcement functions as the major tool for shaping child behavior.

Monitoring also provides an interesting example of the clinical-theoretical interface. Monitoring means different things at different ages. A parent must feed, diaper, and play with infants; watch that toddlers do not hurt themselves; and look to the social and moral well being of their children as they begin to have playmates and attend school. Obviously, parental concerns change tremendously as children reach preadolescence and adolescence. Some parents are better at monitoring young children's needs and behaviors, while others do better with adolescents. Clinically, a parent must be able to track a child's behavior in order to use the OSLC parenting techniques; empirically, monitoring becomes increasingly important in predicting antisocial behavior as the child reaches adolescence. Thus, in building the OSLC models, a direct path exists from parent discipline to child antisocial behavior with 9-10 year old children (see Figure 4), but the path from monitoring to antisocial behavior is expected to become statistically significant by the time boys reach 12–13; further, it is predicted that the path from discipline to antisocial behavior will weaken and become less important, especially as the adolescent's commitment to his peer group grows.

SUMMARY

In summary, the OSLC clinical intervention program for helping parents deal

with their antisocial children appears to be successful, and the process through which a great deal of delinquent behavior develops is increasingly understood. Much work, however, remains to be done. For instance, will it work in large urban areas such as Chicago, New York City, or Washington, DC? In addition, if the intervention does work for a large number of antisocial children and their families across settings, ethnic background, socioeconomic status, and so on, *how is this training best routed to the parents who need it*? These are the issues of current and future interest.

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