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# 14

# TREATMENT PROCESS: A Problem at Three Levels*

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THE DEVELOPMENT of more powerful theories of treatment must await the development of more adequate models for empirically investigating treatment process variables. Empirical studies of treatment process require a satisfactory answer to a sequence of questions at three levels: Does behavior change? Why does the behavior change? Why is it that not everyone changes to the same degree? Stated in a more technical form, these questions are: 1) Do random-assignment comparison designs demonstrate that the intervention is effective when measures of change are used that are not reactive to the measurement process? 2) Does the treatment model specify the variables that produce the changes in the problem behavior, and do these variables account for the majority of the variance available in the criterion measures of the problem behavior? 3) What are the variables in the dyad or system that regulate how much these determining variables will be changed? The

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*Editor's Note:* The present volume was intended to be an assemblage of viewpoints and recommendations about the state of the art in family therapy research, not a literature review or a series of research reports. At the NIMH/*Family Process* conference, Patterson described examples of his research that illuminated principles and issues of concern to all the participants. As editor of this volume, I believe that some of its recommendations will become more vivid with this inclusion of a detailed example of Patterson's research, which is carried out at the cutting edge of theory and methodology. Readers should not be intimidated by the sophistication and complexity of this research; they should not believe that anything less is not worth doing or that research differing in style, conceptualization, or method cannot be another aspect of the "state of the art." The volume as a whole reveals a great many controversial and unclarified issues in family therapy research waiting to be studied.

present report addresses these three issues in the context of parent-training therapy for families of antisocial children.

## Level 1: Does Behavior Change?

The first requirement for finding out empirically what does and does not work is the use of nonreactive criterion measures of outcome.[1] For example, when studying outcome in the treatment of antisocial children, observation data may be used to study what is occurring in the home. The relative nonreactivity of this measure compared to parent global reports will be explored in a later section. In studying generalization to other settings, it should be possible to use community records about, for example, court offenses or discipline contacts at school. It may also be that defining the criterion by multiple methods and agents could provide a sensitive and relatively nonreactive score. That possibility is explored in the current report. For each criterion, normative data should be obtained; this, in turn, would make it possible to specify the number of clinical cases functioning within the normal range at treatment termination and at follow-up.[2]

We believe that using the reactive measures ordinarily employed in outcome studies for antisocial children constitutes a reinforcement trap. This means that individual therapists, and treatment theories as well, remain frozen in place; everything, and nothing, works. For example, the most widely applied measures for treatment outcome for antisocial children rely on parent self-report data. Such criterion measures are highly reactive. The studies to be reviewed in a later section suggest that no matter what kind of treatment is employed for antisocial children, a significant number of parents will report that the problem child has shown "some" improvement. Such ratings are found in placebo and failed-intervention procedures even when the home observation data show no change in or a worsening of problem behaviors (5, 16, 41). Such a reactive criterion measure creates a reinforcement trap for therapists. No

1. *Editor's Note:* Family systems theorists are greatly concerned about "circular" effects in which those who observe family processes are expected to be "reactively" influenced by the observation process and by those who are observed. Indeed, in systems theory, reactivity is anticipated as a norm. However, this abstract assumption neglects a fact that is important for research—that there are *degrees* of reactivity. Patterson and Chamberlain are keenly aware of this issue and, as they describe later in their chapter, have extensively studied the effects on home observers of child behavior when potentially biasing factors were deliberately introduced. Apparently, certain kinds of observational methods are so minimally reactive, in relation to observed behavior, that they can be regarded, pragmatically, as "nonreactive."

2. *Editor's Note:* This criterion of change is similar to that recommended by Jacobson (Chapter 11) for ascertaining whether change is clinically significant.



matter what their treatment approach is, they will "know" they have positive outcomes. Parent gratitude and a munificent salary also insure little change in therapist behavior, hence the term *reinforcement trap.*

The second requirement for measuring change includes replicated, random-assignment comparison designs. It is necessary to do this in order to demonstrate that the outcome is specific to the treatment process and not brought about by placebo effects that may arise from merely interacting with a professional or coming to a clinic.[3] Treatments that do not survive this first level of analyses would not be candidates for the more complex studies required at Levels 2 and 3.

## Level 2: What Determines the Change?

A demonstration that the treatment is effective in changing behavior sets the stage for the next question: What are the specific components in the treatment that produce the changes? Many of the major theories of treatment have failed to specify clearly the necessary and sufficient components in treatment that produce change. Those that have made some effort to delineate such components as warmth, shifts in family structure, or reframing, have not been successful in specifying the means by which these components are to be measured. These omissions plus the employment of inadequate criteria for evaluating outcome have created something of a stalemate in treatment research.

One reason for such a stalemate lies in the inability to specify whether the treatment components were actually introduced. Pre- and posttreatment comparison of the scores for the critical components would provide some estimate of how well the treatment was carried out. Having such measures may also enable theorists to rid themselves of a good deal of excess baggage in their notions about what causes families to change. For example, if many families show significant changes in problem behaviors but no shift in the pre- to posttreatment comparisons for the component scores, then obviously that component is not a necessary condition. If, on the other hand, there are a significant number of families that show pre- to posttreatment shifts in the component scores, but no shift in the problem behavior, then that component is not a sufficient condition for change.

The present report introduces the concepts of family-management

3. *Editor's Note:* Interacting with a professional or coming to a clinic will have unspecified effects. Nonspecific effects may be substantially different (better or worse!) than the effects of a placebo, that is, a nontreatment such as an inert drug that the recipient thinks is a treatment. A waiting-list control assignment is not a placebo because the clients do not believe that they are being treated. True placebos are not possible in psychotherapy research. The comparison in this report, of a specific treatment with nonspecific professional interaction, is more clinically relevant than a hypothetical placebo would be anyway.

skills as the components in family treatment that are necessary and sufficient conditions for producing changes in antisocial child behavior. As shown in Figure 1, the impact of the interpersonal exchanges between therapist and parents on child problem behaviors is thought to be mediated by the impact of those exchanges on parenting skills. Families that demonstrate significant improvements in monitoring and discipline skills will produce significant decreases in criterion measures of antisocial behavior. Those that do not demonstrate improvements in parent skills will not show improvements in child problem behaviors.[4]

Reviews of the literature repeatedly demonstrate that antisocial children are also lacking in the social skills related to work and to peers (22). Expectably, the majority of the chronically antisocial children tend to be rejected by peers and also fail in school (40). It is hypothesized that improvement in parent reinforcement and problem-solving skills will produce increases in children's academic skills and in the social skills needed for coping with their peer group. If these parental patterns do not change, then there will be no changes in anti- or prosocial behaviors of the target child.

One of the key concepts in the current study is that treatment may be used as an experimental manipulation. Pre- and posttreatment measures for all the indicators defining the constructs in the parenting models are the first prerequisites. The second requirement is that one has an intervention that will produce significant changes in a major portion of treated cases. In the present study, treated cases are classified as successes or failures based on a comparison of baseline, termination, and follow-up scores for TAB (observed child total aversive behavior). The initial step in the conversion of significant path coefficients or bivariate correlations into statistically causal status requires that the scores for a family-management variable, such as monitoring, show significant improvements for successful cases and no change, or worsening status, for failure cases.

### Level 3: Why Do Some Change More Than Others?

Given that the findings show treatment changes in the child's antisocial behavior and that the termination measures of family-management practices account for substantial variance in the termination criterion scores, then one is in a position to raise the even more interesting third question: What determines the individual differences among families in their responsiveness to treatment, and why do some families change a great deal and others only slightly, or even get worse?

4. *Editor's Note:* The study of variables mediating behavioral change makes this an investigation of process/outcome in the sense recommended by Pinsof (Chapter 12) and others in this volume.



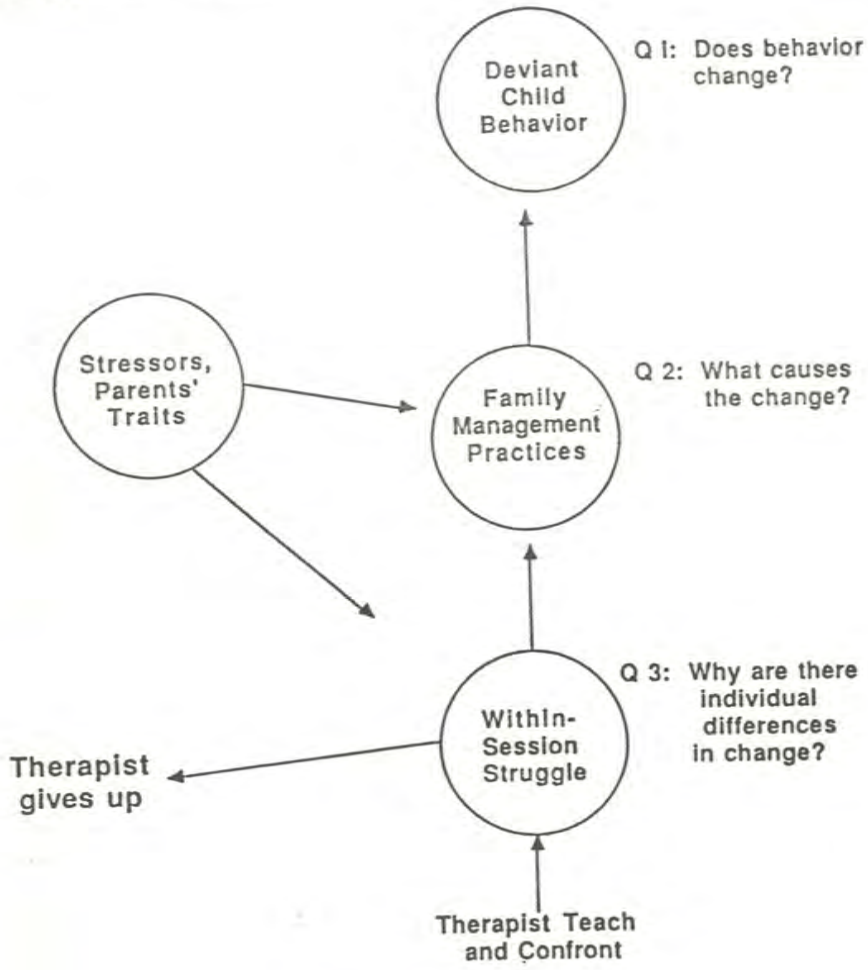



FIG. 1. Struggle and change.

The pivotal concept here is thought to be *within-session struggle.* Our prior studies showed that therapist efforts to teach parents (social learning procedures) were likely to elicit immediate increases in parent noncooperation (31). As used here, the notion of noncooperation is synonymous with the idea of struggle ("I can't do what the therapist asks") and conflict among family members as well as noncompliance ("I won't do what the therapist asks").

The paradox is that if the therapist does not try to teach, there will presumably be no change in family-management practices and no improvement in antisocial problems. However, the teaching and confronting (for failure to carry out homework assignments) increase the

intensity of the struggle within the sessions. As shown in the study by Chamberlain, Patterson, Reid, et al. (8), novice therapists encountered higher levels of within-session struggle than did experienced staff therapists.[5] For experienced and inexperienced therapists alike, one of the effects of this struggle is to decrease therapist liking for the clients. This is also related to increasing risk for a change in therapist behavior, resulting in two possible outcomes: letting the case fail, or letting the case drop out of treatment. The assumption in this parent-training approach is that all families can change, but the rate of change for some may be exceedingly slow (several weeks for some and several years for others). One problem in therapy with antisocial families is to keep the therapist involved.

It is assumed, then, that high rates of therapist efforts to teach and to confront will correlate with greater changes in parenting skills. It is also expected that measures of within-session struggle will covary significantly with such changes, as will measures of how cooperative the parents are in carrying out their homework assignments. These assumptions are summarized in Figure 1, where the measures of family-management practices function as mediators between within-session struggles and changes in the problem child.

There is a set of confounding variables built into this model, and these variables serve as family disrupters. Outside stressors such as unemployment, prolonged illness, the daily round of hassles, marital conflict, and psychiatric illness all serve to disrupt family-management procedures, as shown in the empirical studies by Patterson, Reid, and Dishion (32). These same variables play a dual role in disrupting the therapy process. They not only disrupt the family-management procedures themselves, but also amplify the intensity of the struggle during therapy.

For example, Chamberlain et al. (8) found that agency referrals had higher within-session struggle scores than did self-referrals. In addition, cases that dropped out of treatment were characterized by higher initial struggle scores. It is hypothesized that measures of outside stressors and parental depression will covary significantly with both measures of struggle and measures of family-management skills.

It is also assumed that these forces are partially mitigated by the therapist's ability to be supportive, to relate to the client, and to reframe

5. *Editor's Note:* In Chapter 11, Jacobson discusses the unresolved question of the optimal level of experience of therapists. When a behavioral approach requiring specific technical skills is used, the therapist's experience with the treatment method may be more important than with models in which flexible use of the therapist's personality is emphasized. "Life experience," rather than experience using the treatment model, may be more relevant in ecosystemic and experiential approaches.



the problem, all of which reduce parental noncooperation. Reframing the child's behavior from a different perspective or reframing what seems to have been a parental failure in the past makes it possible for parents to become involved in the supervised training of parenting skills. It is hypothesized that high rates of therapist support and reframing will be associated with concurrently lower rates of parental struggle. Furthermore, high rates of therapist support and reframing at the midpoint of treatment are associated with greater increases in parental cooperation at termination.

## DOES THE PROBLEM BEHAVIOR CHANGE?

Precision in estimating outcome relies entirely on the quality of the assessment procedures employed in measuring the problem behavior. We assume that one of the prime factors for slow progress in treatment research lies in the distortions introduced by the measures of outcome. For this reason, much of this section will be focused on a review of the literature pertaining to the reactivity of parent report (the most frequently used criterion) and observation measures. Three alternative criterion measures for assessing antisocial behavior are presented. The last section briefly reviews the outcome studies that have employed random assignment designs and nonreactive measures.

### Parent Report as a Reactive Measure

According to the social interactional model, in distressed couples and distressed families, each member becomes caught in negative exchanges with others. For example, the average correlation between the level of observed coercive behaviors displayed by mothers and by other family members was .40 (22). Given that level of similarity in interaction, one would hardly expect unbiased reports by one member about another.

In addition to parents being enmeshed in the deviant child behavior they purport to describe, their questionnaire and interview data are biased by depressed mood swings of the mother. The studies by Griest, Wells, and Forehand (15) and Patterson and Capaldi (26) showed that measures of maternal depression accounted for at least 15% of the variance in mothers' ratings of deviant child behavior. However, maternal depression does not covary with either observer or teacher descriptions of deviant child behavior (21, 26). It is assumed that both depressed mothers and mothers of problem children tend to be overly inclusive in their schemata for classifying deviant child behavior. In keeping with this, six laboratory studies reviewed in Reid, Baldwin, Patterson, et al. (36) showed that when viewing videotapes of children interacting, mothers of problem children were significantly more overinclusive. Compared to mothers of normal children, they classified more neutral child behaviors as deviant.

Finally, it is also assumed that parent ratings of treatment outcome are highly biased in that they tend to report improvement when in fact no actual changes in child behavior occurred. It is assumed that almost any kind of intervention (or placebo contact) would make the mother feel better, and that the improvement in her mood would be accompanied by ratings of improvements in child behavior as well. One study showed that the majority of the parents in a placebo group rated their children as improved even though the observation data showed no changes (41). A similar effect has been noted by other investigators (3, 5, 16, 34).

It seems reasonable to conclude that although parent reports of treatment outcome should be examined, they cannot serve as the main criterion for evaluating outcome. For reasons already noted, reliance on this as the sole criterion will keep the practitioner permanently locked into ineffective modes of treatment for these children.

## An Alternative Criterion

These considerations led us to develop an observation coding system that could be used to collect molecular data describing family interaction. A series of studies showed that it was possible to train (in roughly 40 hours, then retrain every 2 weeks) observers to be highly reliable (35). Three experimental studies were then carried out to determine if it were possible to bias the observation data. In the first study, a group of observers were kept informed about the treatment status of the families observed; the other group was uninformed. Both groups observed the same families. Knowledge of family status (clinical or normal, treated or nontreated) had no effect on the molecular data collected (37). In the second study, one group of observers was told to expect a 30% increase in deviant behavior over the next 12 sessions. A second group was told to expect a commensurate decrease, and a third group was given no biasing instructions. Again, there was no significant effect of the biasing instruction on the molecular data (38). This study of *molecular* ratings was replicated in another laboratory by Kent, O'Leary, Diament, et al. (18). However, when the observers were asked to make *global* judgments about these variables, their ratings perfectly reflected the bias introduced by the experimenter.

The second problem to consider was the reactive effect brought about by the presence of the observer in the home or the classrooms. These studies are reviewed in detail in Patterson (22) and more recently updated in the report by Reid et al. (36). A series of studies carried out in a number of classrooms and in homes showed no support for a habituation hypothesis. There were no significant changes in level of prosocial or deviant behaviors over time. Another series of studies showed no difference in rates of prosocial or deviant behaviors when the presence of observers in the room was compared to the presence of tape recorders



that turned on randomly during the day. Perhaps the most interesting of the reactivity studies was carried out by Johnson and Lobitz (17) when parents of problem and nonproblem children were instructed to make their children look good or look bad during observation sessions. These parents were not able to make their children look good, despite being asked to do so.

We conclude that observation in the home is a relatively reliable, unbiased, and nonreactive measure, and consider it as a prime candidate for use in evaluating treatment outcome.

## Is Parent Training Effective?

The NIMH-sponsored programmatic studies spanning two decades of outcome studies at the Oregon Social Learning Center (OSLC) have been summarized by Patterson (21, 24). A series of single-case studies in the mid-1960s led to a sequence of group designs in which consecutive cases were treated by the OSLC staff. These early studies, summarized by Patterson (21), showed significant reductions in observed rates of deviant behavior for target children and siblings. Six- and 12-month follow-up studies showed that the effects persisted for the early (21) and for the later (29) studies.

Ensuing studies focused on the question of teachability. Could treatment techniques (unspecified then) be taught to a new group of therapists? Two different studies showed that the techniques could be taught to new therapists, most of whom already had considerable clinical experience (13, 14).

## Random Assignment Comparison Studies

The final and most important question concerns the inferences one draws from these studies. Are these promising effects due to some specific treatment factors or could one attribute them to placebo effects? For example, even with no treatment, children might outgrow behavioral problems. It may be that talking to any professional—minister, case worker, therapist, or dentist—would have the same result. Perhaps helping the parent make up an acceptable and coherent story about the problem is all that is necessary.

The first pilot study by Wiltz and Patterson (44) used a waiting-list control design. The second by Walter and Gilmore (41) used a placebo/treatment comparison design. Both studies used pre- and posttreatment observation data and random assignment; in both, the parent-training group improved and the comparison group showed no change. However, there were numerous methodological problems in both studies (small sample size, not a close baseline matching, a time interval of only 4 or 5 weeks), all of thich were corrected in the next study in the series. Patterson, Chamberlain, and Reid (27) randomly assigned 18 families

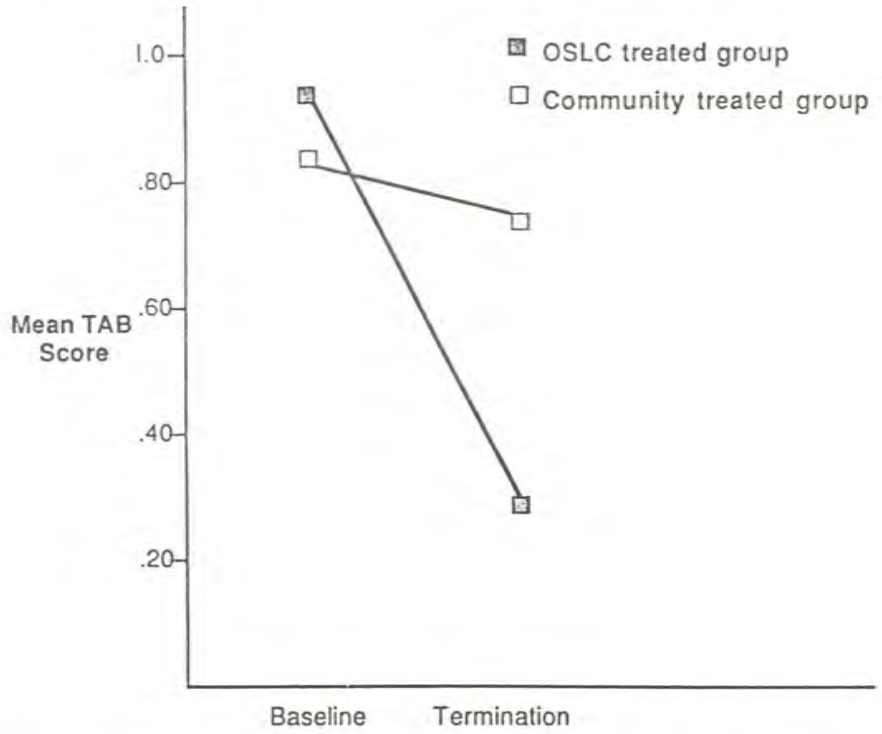



FIG. 2. Total Aversive Behavior (TAB) score comparison between Oregon Social Learning Center (OSLC) and community-treated group.

referred for treatment to OSLC or to community private practitioners. As shown in Figure 2, the pre- and postobservation data showed a significant reduction in observed, deviant-child behavior for the parent-training group and a nonsignificant change for the comparison group. The interaction term, group by phase, was significant; at termination, 75% of the children treated at OSLC were observed to function in the normal range (at baseline, 100% were in the deviant range).

When asked to give a global rating of improvement, 90% of the parents in the OSLC sample rated the outcome as very effective; 20% of the parents in the comparison group rated the outcome as very effective.

A more recent study used a random assignment design for 66 families of chronic offending adolescent delinquents (19). Half the families were treated at OSLC and the other received a variety of treatments provided by the community and the juvenile court for chronic delinquents and their families. The follow-up data showed significant reductions in police offense rates for the OSLC group and no change for the comparison group during the first year of involvement in the program. Even though the effects persisted for the ensuing 2 years, the differences were no



longer significant; but there was a significant reduction in the risk of institutionalization for the experimental group that persisted throughout the entire follow-up phase.

These studies lead to the conclusion that parent-training therapy is an effective means for training parents to change their antisocial children. The effects persist, they are replicable, and they cannot be attributable to the usual placebo effects. This therapy approach is a good candidate for the next set of questions concerning the determinants for change.

## WHAT DO PARENTS DO THAT PRODUCES THE CHANGE?

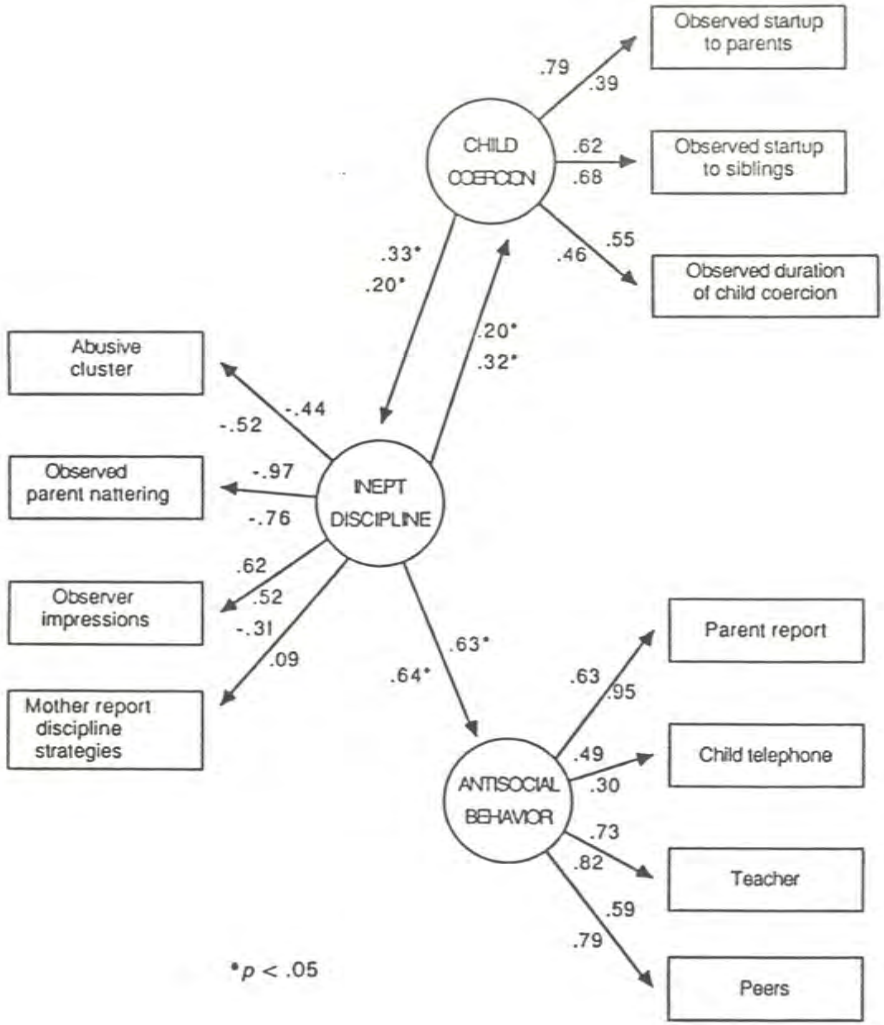
One might approach this question at several different levels. Our own social-interactional approach requires a focus at two different levels. On the one hand, there is the question of what parents do that changes antisocial child behavior. That is the level to be considered in this section. On the other hand, there is the question of what therapists do to change the behavior of the parent (and conversely, how do parents change therapists). That will be considered in the next section.

The general formulation to be presented here is taken from the coercion model described by Patterson (22, 25) and by Patterson et al. (32). The general assumption is that disruptions in parenting skills are major determinants for both deviant child behavior and skill deficits such as poor peer relations and academic failure. The disruptions can come about as a function of the parents having ineffective role models or through life stressors such as unemployment, marital conflict, or prolonged illness.

The model specifies that for younger children (ages 3 through 11), disruptions in parental discipline practices will be associated with increases in antisocial behavior occurring both within the home and at school. These disruptions permit coercive interactions between the target child and other family members to increase. The observation studies reviewed by Patterson (22) showed that in unsupervised exchanges, naturally occurring escape conditioning and negative reinforcing arrangements occur. These arrangements can produce rapid increases in observed rates of coercive exchanges. These exchanges provide, in turn, the basic training for antisocial child behavior. Furthermore, it seems that as the child is trained to become more coercive in interpersonal interactions, he or she becomes even more difficult to discipline. For this reason, it is assumed that there is a bidirectional relation between ineffective parent discipline and coercive child behavior.

The last 5 years of the NIMH support has made it possible to translate these clinical formulations into appropriate measurement models. The general approach requires that each concept be defined by more than one reliable indicator. The reason for this is that every measure in social

science is assumed to be a biased or distorted definition of whatever variable is being measured. This assumption is in keeping with both traditional measurement theory in psychology (6) and current contributions from structural equation modeling (4). In keeping with this assumption, each of the main concepts, or *constructs*, in the basic




NOTE. Upper number refers to Cohort I and lower to Cohort II.

FIG. 3. Basic training for antisocial behavior: three latent constructs and their multiple indicators.



training model *are defined by multiple indicators* that draw from two or more agents and two or more methods of assessment. Using multiple indicators also makes it possible to specify the relation among the constructs and to address the key question: Do the data fit the clinical model?

Each of the constructs—Antisocial Behavior, Inept Discipline, and Child Coercion—is defined by its own set of indicators. The relation between the indicators and the latent construct are defined by factor loadings. It can be seen in Figure 3 that there is a surprising degree of stability in these definitions between one cohort (upper numbers) and a second (lower numbers) in our longitudinal study of the origins of delinquent behavior (23). Furthermore, the path coefficients also support the theory-driven speculations about both the bidirectional relation between discipline and coercive child and the direct contribution of ineffective discipline to antisocial behavior.[6]

The chi-square analyses (25) showed that for both samples there was a close fit between the measurement model and the clinical model. Furthermore, in each instance the model accounted for about 40% of the variance in the measure of antisocial behavior. Notice that the multiple indicators for this criterion measure drew from both home and school (that is, it was designed to be highly generalizable). At this point, we do not know whether this measure of antisocial behavior is a sensitive measure of treatment outcome. That possibility is currently being examined.

It is also assumed that for older children (ages 11 through 18) the basic training model will be slightly different. As shown in Figure 4, it will be expanded to include the contribution of inept parental monitoring to antisocial behavior. In keeping with the idea of developmental changes, it is also expected that the definition of antisocial behavior will be expanded to include measures of self-reported and police contact data for delinquency. A pilot study by Patterson and Dishion (28) provided a structural equation model that supported both of these assumptions.

The pivotal idea is that pre- and posttreatment measures for discipline and monitoring should demonstrate significant improvements after parent-training therapy. These scores will presumably show no shift for families participating in the comparison groups. It is also assumed that the basic training model will generalize to a clinical sample (the findings presented in Figure 3 were from an at-risk sample). Both of these assumptions will be examined in a later section of the present report.

6. *Editor's Note:* The bidirectionality of effects in this example of multivariate data analysis illustrates how hypotheses consistent with family systems theories can be tested empirically.

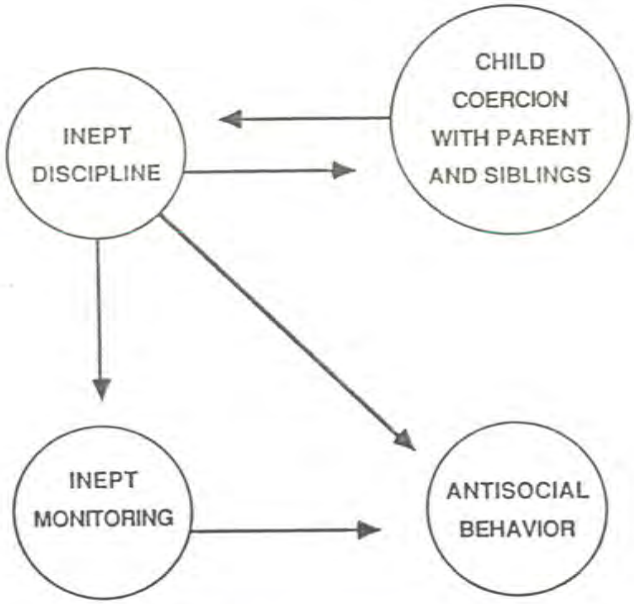



FIG. 4. A developmental model for basic training.

## WHAT DO THERAPISTS DO THAT CHANGES PARENTING SKILLS?

It is assumed that the therapy process produces changes in family-management practices. However, the parents' reactions during these exchanges are multiply determined. Parents react cooperatively or noncooperatively to the efforts of the therapist to change them, but their reactions are also partially determined by forces outside the therapy room (for example, stressors, depression, and marital conflict).[7] In a sense, much of what goes on in the therapy session has little to do with the therapist helping the parents to use better family-management procedures. In the early stages of treatment, the more chaotic the family and the more antisocial the child, the greater the frequency of parent noncooperation (within-session struggle). The therapist's ability to survive and manage these distractions has a great deal to do with therapy outcome.

The concept of noncooperation was introduced into our research after a prolonged immersion in videotaped sessions with families that failed to respond to treatment. Our repeated exposure to these tapes gradually produced the impression, even in the opening sessions, that many of

7. *Editor's Note:* This example illustrates how macrosystemic factors can be incorporated into well-designed family therapy research.



these parents were voicing variations on a theme of "I can't" (it's hopeless) or "I won't" (I've already tried it; it's against my religion; and so on). We began counting the variations on these statements, and over a period of months developed a microsocial coding system (see section on Methods) to measure the within-session manifestations of this phenomenon. Each client and therapist verbalization is coded as it occurs into a hand-held computer, and the data are later transferred to the mainframe computer. In addition, the affective valence of each verbalization is rated. Data collected in this sequential format allow for the study of interactional sequences of behavior.

In his review on psychotherapy research, Fiske (12) summarized the problem nicely:

> It is the effects of the therapist's actions, each at its moment in time, which have any possibility of contributing to the patient's immediate benefit. When we look for relationships between two general variables, we are ignoring the fundamental question of how one characteristic of the therapist's act may contribute to one step toward patient improvement. [p. 25; original emphasis omitted]

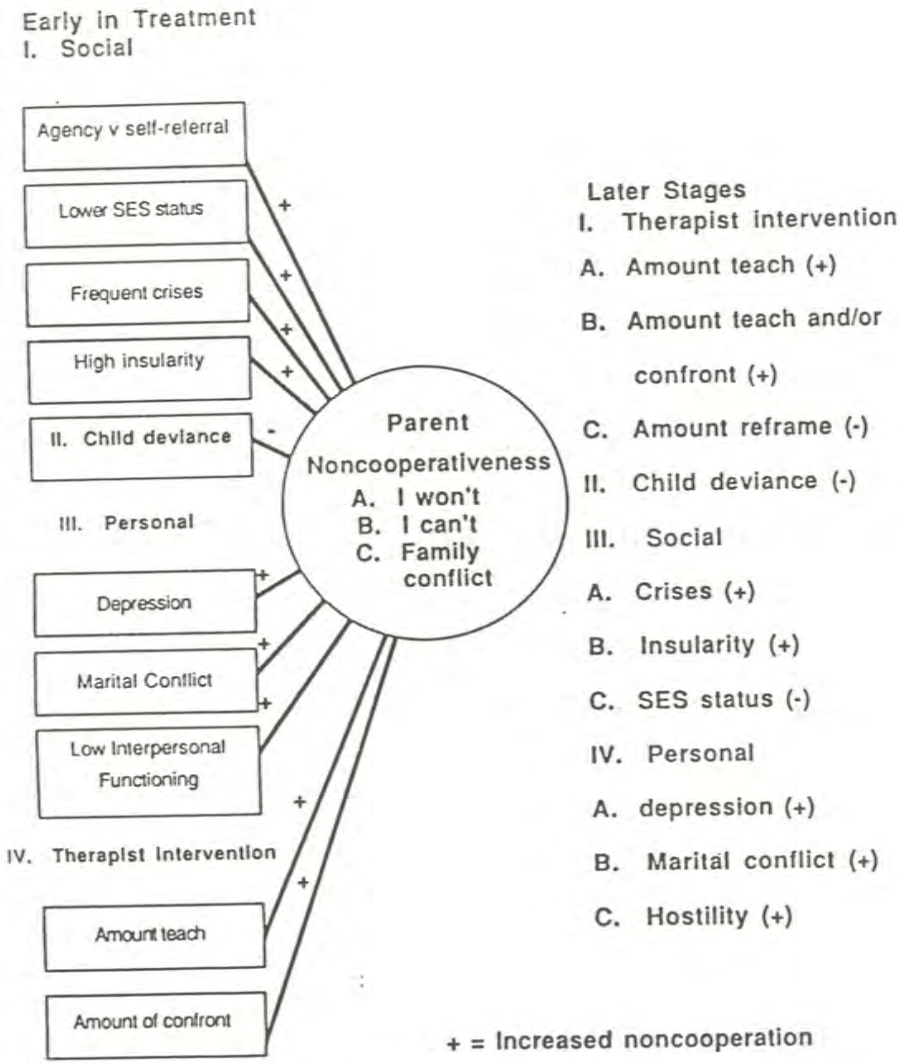
Empirical studies of client behavior have typically relied on global ratings as a measure for both process and outcome. As noted by Fiske, not only do global ratings tend to be less reliable, they also make it impossible to study client noncooperation as a process of sequential exchanges between client and therapist. Data collected on microsocial interactions such as this allow for the comparison of the base rate of client noncooperation to the conditional likelihood of noncooperation given a specific therapist behavior.

We could also see from the videotapes that some parents would sit and passively listen, then go home and "forget" to carry out the assignment. For this reason, we developed macrosocial measures of noncooperation based on observers' and therapists' global ratings following each taped session. These global ratings reflected reported success in carrying out the preceding week's homework assignments, but also reflected some carryover from the exchange within the session itself. We attempted to untangle the possible "confound" by including a client between-session checklist filled out by the therapist at the end of each session. It included a listing of assignments for the coming week, a listing of assignments from the past week, and a rating of how well those assignments were carried out.

The assumption is that, for the OSLC samples of working-class, chaotic families of antisocial children, the assessment of these micro- and macrosocial variables indicate the same underlying, single-dimension construct. At baseline, the intercorrelations for microsocial measures of "I won't" and "I can't" covaried significantly not only with each other

but also with the observers' and therapists' global ratings of between-session noncooperation. It must be said that findings from the pilot studies reviewed earlier are based on very small samples; in fact, we see them as little more than guidelines for analyses we carried out.

The hypothesis that measures of noncooperation would covary was studied by examining the micro- and macrosocial measures for each session in treatment separately for each mother-therapist dyad. On




for parent noncooperation by stages.



weeks when the mother was noncooperative in the session, was she also noncooperative between sessions? The across-session data were available for only a small number of mother-therapist dyads. The median covariations between micro- and macrosocial measures of mother noncooperation were in the .4 to .5 range (that is, on days that the parent spent considerable time saying "I won't," "I can't," or both, the therapists' and observers' ratings suggested that the parents also had not been keeping up their homework assignment). Our hypothesis would be that a confirmatory factor analysis of the across-subject micro- and macrosocial measures will identify a single dimension.

The second aspect of parental noncooperation became apparent in our supervision meetings when we staffed difficult cases. The study by Chamberlain et al. (8) showed that roughly three-fourths of all cases were noncooperative at some point in treatment. Given that our sample consisted of working-class families with at least one-third of them being father-absent homes, it is not surprising to find that many of them were multiple-problem families. Many were also relatively isolated from the community; they fit the definition of the insular family described by Wahler and his colleagues (39). A large proportion of the cases were confronted daily with ill health, poor housing, and subsistence-level incomes.

People are probably generally noncooperative in the face of efforts to change their behavior, at least in our culture. For example, investigators in behavioral medicine found that, on the average, 44% of medical patients do not fully comply with medical regimens prescribed by their physicians (43). As shown in some of these studies, the noncooperation extends even to those cases in which the prescriptions were designed to treat life-threatening medical problems. Working-class parents' noncooperation during parent training is likely the outcome of this cultural factor, plus the entire array of factors outlined in Figure 5.

For our sample, we perceive the early level of parent noncooperation in treatment to be determined by four clusters of variables, each of which is listed in Figure 5: (a) social variables, (b), child deviance, (c) personal variables, and (d) therapist intervention. It is our suspicion that, given a sample of less-disturbed oppositional children from middle-class families, the network of variables may look somewhat different. We believe that measures of noncooperation must be tailored for different kinds of sample characteristics such as referral problems, levels of socioeconomic status, crises, and insularity.

It is assumed that the determinants for noncooperation vary somewhat as a function of phase of treatment.[8] In the early stages, the social, child,

8. *Editor's Note:* This work partially exemplifies the orientation presented in Chapter 13 by Alexander, who demarcates the phases of intervention in greater detail.

and personal variables are thought to play primary roles, whereas the therapist variable plays a secondary one. In later stages, the structure shifts so that the therapist and child-deviance variables are primary, with social and personal variables having a secondary influence. As shown in Figure 5, agency-referral versus self-referral, lower socioeconomic status, high levels of crises, and high insularity all contribute to higher levels of initial noncooperation. The study by Chamberlain et al. (8) provides support for the role played by agency referral. The studies by Wahler et al. (39) provide support for the value of daily reports of contacts with family, friends, and agency staff, as well as for the quality of the communication. These studies showed that highly insular families made fewer gains in parent training and were most likely to return to deviant status at follow-up. In keeping with these findings, we assume that the Wahler insularity variables would account for significant variance in the criteria during early and late stages of treatment.

## METHODS

### Subjects

At the time of this writing, the 3-year study has been operating for 2 years. Seventy-three percent of the sample has thus far been obtained. The subjects for the study were obtained by screening and recruiting a sample of 70 families of extremely antisocial, preadolescent children referred for treatment. Twenty of these families were assigned to an eclectic family-therapy-oriented community service agency, and the remaining 50 to OSLC.

### Subjects and Screening

The sample thus far studied consists of families with at least one child (37 boys and 14 girls) aged 6 to 13 years (mean = 9.5 years) who is judged to be socially aggressive and/or conduct-disordered. The average family income is between $10,000 and $14,000 (ranging from less than $4,999 to $30,000). Mothers and fathers were given the Schedule for Affective Disorders interview (Lifetime version) to determine if they qualified for a current or past psychiatric diagnosis. Of the 49 mothers interviewed, 35 (71%) had a current diagnosis, 44 (89%) had a past diagnosis, and 34 (69%) met the criteria for both past and current diagnoses. Of 25 fathers interviewed, 11 (44%) had a current diagnosis, 19 (76%) met criteria for having a past diagnosis, and 10 (40%) met criteria for both past and current diagnoses. Some form of depression (major, minor, intermittent, or agitated) was the diagnosis for 50% of the cases who qualified for a diagnosis.

Referrals came from pediatricians, school personnel, and parents



themselves. Because we anticipated a 26% dropout rate prior to treatment termination, based on our past work and that of other investigators, we initially planned to recruit a sample of 95 families; but, at this point, the actual dropout rate has been much smaller (7%) than expected.

During the parents' initial telephone contact with the clinic, the standard procedure is to collect basic referral and demographic information. Families not appropriate for treatment at OSLC are referred elsewhere. Parents who have youngsters in the stipulated age range, who have a telephone, and who are requesting help because of child antisocial behavior, are given a brief verbal description of the proposed study.

Following that, if they are interested in participation, an appointment is set up for them to come in for a more detailed explanation of study procedures and data collection, as well as completion of consent forms and the first phase of the screening process to determine eligibility, the Child Behavior Checklist (1, 2). All children rated with a $t$-score of 70 or above on the aggression, hyperactivity, immaturity, and delinquency scales are eligible for Phase 2 of the screening. Phase 2 involves three in-home observations. Using the Family Process Code (10), experienced coders record interactions between a focal subject and all other family members. This coding system is based on earlier work at OSLC with the Family Interaction Coding System (35), which has been used to study clinical outcome (see 20, 42) and to develop theoretical models of social aggression (see 22).

Child scores for the 16 aversive behavior categories on the Family Process Code (FPC) are combined to form a composite labeled *Total Aversive Behavior* (TAB) for which there exist age-equivalent norms. Although it may have been desirable to set a higher cutting score to insure a higher-risk sample, the criterion of only .5 SD above the general population mean was selected to broaden the range of problems studied and to minimize confounding regression effects in the treatment analyses.

Ineligible families are so informed and given an opportunity for OSLC nonstudy treatment if still desired, or for referral elsewhere. Eligible families who remain interested in participation are scheduled for the intake interviews. Prior to the intake, interview families are assigned either to treatment at OSLC or at Looking Glass (a community agency described later in this section). In order to distribute the cases assigned to the two groups evenly, the first 8 cases were alternately assigned to OSLC and to Looking Glass. Next, every fourth case meeting the screening criteria was assigned to Looking Glass for treatment. Given the uneven distribution of cases planned in the final sample (OSLC 50, Looking Glass 20), this system allowed for regulation of the flow of cases and minimized the possibility of historical variables and shifts in community referral patterns differentially affecting the samples.

*Intake Interview*

The final sample of eligible subjects participate in a 3-hour parent intake interview session and a 2-hour child intake interview. These are scheduled on the same day. Parents are given several questionnaires to fill out in the laboratory on their child's behavior, their sources and level of stress, family activities, insularity, parenting beliefs, and family history. The MMPI is to be filled out at home and returned at the time of the first treatment session. The parents and children are asked in detail about the problems that brought them to treatment. Next, the parents are interviewed using a structured interview assessing their current family-management practices. Their past and current psychological functioning is evlauated using the Schedule for Affective Disorders and Schizophrenia (SADS-L). Children are interviewed using a structured interview that assesses their relationships with their parents, peers, teachers, and significant others. Children who are able to read are given questionnaires to complete; nonreaders have questionnaires read to them.

During the next week, baseline telephone interviews are conducted with 5 children and 5 parents. The child call lasts approximately 8 minutes and obtains information regarding family organization, parental monitoring, and delinquent, aggressive, and prosocial behavior of the target child. The time span for reporting is the prior 24 hours. The child reports on his or her own behavior as well as that of friends and siblings.

The parent call lasts approximately 10 minutes once each week, during which all subscales are obtained, and 5 minutes on each of the subsequent calls. During the 10-minute call, the parent is asked if any one of a list of deviant child behaviors occurred. Next, given the occurrence of any of the problem behaviors, the parent is asked what she or he did about the behavior and what the outcome was. The parent is also asked to describe a discipline event from the preceding 24 hours and to rate the intensity of his or her anger response and perception of the severity of the punishment.

## Treatment

The first treatment session is scheduled during the following week. Families are not charged for treatment. Their participation in the screening process, the intake interviews, and the baseline telephone calls are "exchanged" for free treatment. Families are paid for subsequent assessment probes at treatment termination and at 6-month follow-up.

*OSLC Treatment (n = 50)*

Therapists conducting this treatment have all been thoroughly trained in the approach and have practiced it for at least one year (range = 1 to 10 years). Although the OSLC therapists are trained in social-learning treatment, which emphasizes the role of family-management variables, they have not been aware of how specific hypotheses concerning client or therapist in-session behaviors are being used in the study.



Case assignments are made nonsystematically, based on current therapist caseloads. The treatment approach is derived from a social-learning perspective of families (30, 33). This perspective indicates that behavior patterns develop from learning experiences within the family system. Problem behaviors are the result of previous and ongoing social/environmental contingencies that constantly shape specific reactions. Treatment is focused on training the parents and other family members to alter their nonfunctional styles of interaction. Family-management skills are gradually taught to parents. The execution of this treatment program is complex and requires a careful blend of appropriate behavior-change strategies and therapeutic skills.

The treatment program with families of antisocial children can be outlined as follows. During the initial interview, the clinician asks the family to describe the referral problems and provides clients with information about the social-learning approach. Clients are then helped to pinpoint two problem behaviors and their prosocial opposites. Parents are assigned the task of keeping track of these behaviors at home during the coming week.

The therapist helps parents to learn how to teach their children prosocial skills, beginning with prizes or privileges, later replacing these with social reinforcements for desirable behaviors. Next, parents learn how to use effective discipline techniques for problem-child behaviors. They are taught to apply procedures consistently, such as using time out and withdrawal of privileges, to set house rules and provide appropriate contingencies when these rules are broken, and to monitor the behavior and whereabouts of their youngsters.

As treatment progresses, parents learn to elaborate the incentive and discipline techniques until all the referral problems are included. Problem-solving strategies are practiced in the session each week, with parents taking increasingly active roles in the process. At treatment termination, the families are designing and negotiating their own program with no help from the therapist.

In the past work with families of antisocial youngsters between the ages of 3 and 12 years, the average amount of therapist time required was 17 hours, with a range of 4 to 48 weeks (27). Older children require slightly more time. Because the group to be treated at OSLC are somewhat older, we project that treatment will require between 12 and 20 weeks. Approximately 30% of session time is devoted to treatment of ancillary family problems that influence parent-child relationships, although they may not be directly related to the referral problems.

Treatment termination occurs when the subject family and therapist agree that referral problems have been ameliorated or if the family indicates a desire to stop. Families who complete less than six sessions are considered treatment dropouts, and their data are analyzed separately from completers (those with six or more treatment sessions). Therapists participate in ongoing case supervision for one hour per week.

*Comparison Treatment (n = 20)*

The Looking Glass counseling program agreed to provide family therapy services for 20 families for 2½ years. This agency has been in operation in Eugene, Oregon, for the past 10 years. Its orientation is an eclectic combination of structural family therapy and Adlerian treatment. Looking Glass regularly offers treatment to families with antisocial children. They are respected in the community and have a well-qualified staff. Therapists are masters-level practitioners with an average of 5 years paid experience. Therapists receive ongoing case supervision one hour a week.

## Measures

*Therapy Process Coding System*

For cases in both groups, the videotapes of sessions 1 and 2, the chronological middle-two sessions, and the last 25% of the sessions are coded using the Therapy Process Coding System (7). The present system is a revision and combination of two codes (the Client Noncooperation Code and the Therapist Behavior Code) that were used in previous studies (8, 31). Nine categories describe the clients' verbalizations: 1) Confront/Challenge, 2) Hopeless/Blame, 3) Defend self/other, 4) Own agenda, 5) Answer for, 6) Not answering, 7) Disqualify previous statement, 8) Interfamily conflict, and 9) Nonresistant. Another eight describe the therapists' verbalizations: 1) Support, 2) Teach, 3) Question, 4) Structure, 5) Disagree, 6) Interpret/Reframe, 7) Talk, and 8) Facilitate. Client and therapist affect and interactional styles are also rated for each response. At the end of each session, coders rate various aspects of the therapy on an impressions form. Coders require an average of 30 hours for training along with biweekly retraining meetings to reach and maintain a minimum of 75% agreement. Of 285 sessions coded to date, 70 have been coded by a second observer to assess interobserver reliability. The average entry-by-entry agreement is 78.5% (range = 75% to 96%), and the average kappa is 72.3% (range = 67% to 88%). A review of the psychometric properties of this coding system and a discussion of its application are presented in Chamberlain and Ray (9).

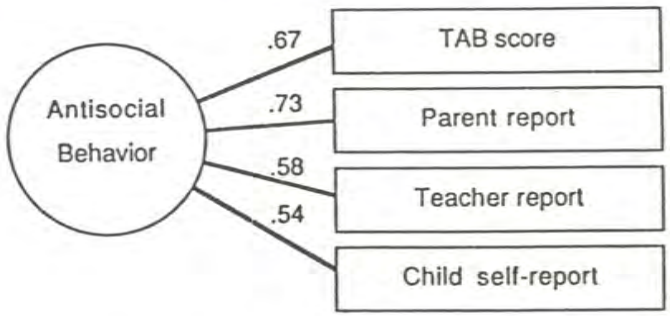



FIG. 6. The Antisocial Behavior construct.



## Construct Development

Constructs used in this study are replications of those built for longitudinal study of antisocial behavior in boys (32). There are four steps in building constructs for the general model. First, it is necessary to list each of the measures thought to define the construct. Second, using data from the sample, each group of items, or scale, is analyzed to determine whether it is internally consistent. In this stage, items that correlate less than .20 with the corrected total score are dropped from the scale. Scales with an alpha value above .60 are retained for the next stage. The third step involves a principal components factor analysis to determine whether the scale loads significantly on the factor. Those scales with factor loadings less than .30 are dropped. Finally, each scale that survives the rigors of a confirmatory factor analysis becomes an indicator for that construct. Indicators for these constructs were analyzed with data from only 35 to 40 cases. Some items eliminated in these early analyses may or may not be included when the total sample data are available. Brief descriptions of the Antisocial Behavior, Inept Discipline, Problem Solving, and Inept Monitoring constructs follow.

*Antisocial Behavior*

This construct in the longitudinal study is defined by four indicators that reflect the reports of four agents: parents, teachers, peers, and the child. Peer report data were not available for the clinical sample. The Total Aversive Behavior (TAB) score was added as an indicator for this construct. The parent indicator was made up of items from the Parent version of the Child Behavior checklist (2), the Parent Overt-Covert Antisocial questionnaire, and the Parent Daily Report (PDR) that was collected from daily telephone interviews. Items from these measures were selected to form a composite score indicating child overt and covert antisocial behaviors. The teacher indicator was made up of 16 items from the Teacher version of the Child Behavior checklist (11), which measures both covert and overt antisocial behavior. Child self-report is a composite score of 18 items from the Child Interview. The TAB score is described

below. Factor loadings from a confirmatory factor analysis are indicated in Figure 6.

*Inept Discipline*

The home observations form a database for deriving three of the indicators defining this construct: parental nattering, parental explosive punishment, and observers' global impressions concerning the consistency of parental discipline. Items from the Parent Interview formed a fourth indicator. Nattering and explosive discipline are probability scores calculated directly from observation data. Nattering is the probability that the parent will direct low-intensity, negative verbal or nonverbal behaviors toward the target child (scowling, scolding, disapproval). Explosive discipline is the probability that the parent will use more intense, abusive behaviors in dealing with the target child (hitting, humiliating remarks, threats, or yelling). Each of these scores was calculated separately for mothers and fathers; then the mean of the two parents was used for the indicator. The observers' subjective impressions indicator is a composite of 13 items about parental consistency and moderation in discipline. The parent self-report indicator is a composite of 6 items concerning parental discipline practices (for example, following through with punishment, getting angry when punishing the child). Factor loadings from a confirmatory factor analysis are indicated in Figure 7.

*Problem Solving*

Indicators for the Problem Solving construct reflect the judgment of four agents—parents, child, coders, and observers—across two situations: a laboratory problem-solving task and the home setting. The observer indicator is a composite score of four items of home observers' subjective rating of problem-solving skills in the family. The coder indicator is a composite score of 18 items measuring the coders' subjective judgments of the children's and parents' problem-solving skills from videotaped problem-solving exercises. The family indicator is a composite score of 3 items from the Parent and Child Problem Solving questionnaire, reflecting how each agent thought a particular problem was solved. Factor loadings from a confirmatory factor analysis appear in Figure 8.

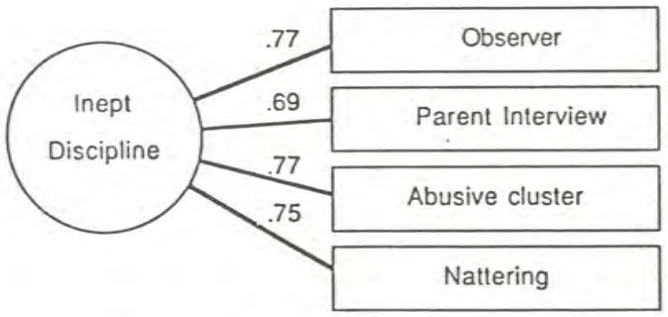



FIG. 7. The Inept Discipline construct.



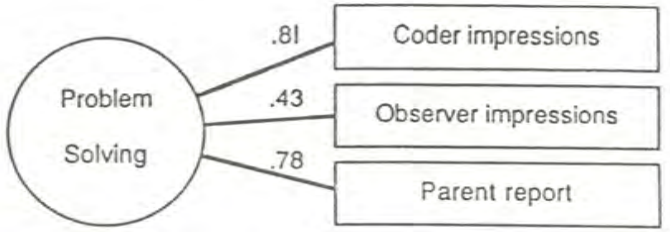



FIG. 8. The Problem Solving construct.

*Inept Monitoring*

The Inept Monitoring construct from the longitudinal study is made up of three indicators: the child's expectation of monitoring rules, parent report of number of hours spent with the child, and interviewers' impressions of how well the child was monitored. One of these indicators, parent report of number of hours spent with the child, did not converge with the other indicators for the clinical sample. We computed two new indicators for this construct: parent report of monitoring from the Parent Structured Interview and child report of parent monitoring practices from the Child Telephone Interview. Factor loadings from a confirmatory factor analysis are shown below in Figure 9.

*TAB Score*

The Total Aversive Behavior (TAB) score is computed from the home observation data. From the code categories in the Family Process Code

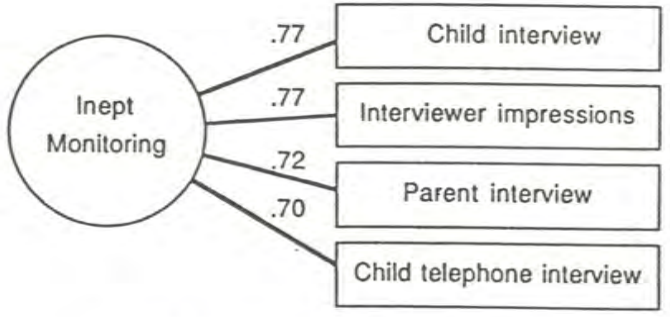



FIG. 9. The Inept Monitoring construct.

(10), 16 behaviors were selected to measure negative microsocial interactions. Generally, these are behaviors with either a negative content or a neutral content with a negative affect.

There are three steps for computing the TAB score. First, a proportion is computed for each of the 16 behaviors to reflect the percentage of time the target child engaged in that behavior relative to the duration of all target-child behaviors. Second, each of these 16 proportions is given a standardized score based on the mean and standard deviation of the corresponding proportion in a sample of 100 fourth-grade boys recruited for a longitudinal study (32). Third, these standard scores are summed and averaged to arrive at the final score.

Because the TAB score is used as a screening and outcome measurement, the same procedures are used to arrive at a TAB score for the longitudinal sample. A cutting score is computed that is .5 SD above the mean of that sample.

## RESULTS

### Did Behavior Change?

The reported TAB scores can be thought of as reflecting how deviant a child is on these 16 behaviors compared to a normal distribution of children. However, this score is not strictly a $z$-score with a mean of 0 and a standard deviation of 1. Indeed, the cutting score for boys 10 and over is .217; the standard deviation of this score is not 1, but .434. Although the mean of this distribution is 0, the variance is reduced.

A preliminary set of analyses was conducted on the first portion of the sample to complete treatment in the current study. A series of $t$-tests showed that cases in the OSLC sample (n = 16) showed significant reductions in the child TAB score from baseline to termination ($p = .03$), whereas comparison group cases (n = 9) showed no change ($p = .69$). The analysis of variance for the 9 OSLC and 4 comparison group cases that have completed 6-month follow-up revealed a near significant interaction term for groups by phases ($F = 3.27$ [2, 10], $p = .08$). This is encouraging considering the small sample size analyzed. Given that the results for the entire sample continue to support the notion that parent-training treatment changes the problem behavior of antisocial children, the next set of questions relates to what specific variables account for that change.

### Is the Parent Skill Model Appropriate?

The assumption was that the basic training model, tested against various at-risk samples of boys, would be generalizable enough to apply to a clinical sample of boys and girls. The baseline data from the first 40 families entering treatment were used to examine this issue. The correlational data are summarized in Figure 10. On the left side of the Figure, the factor loadings define the loading of each indicator on the latent constructs. Because of the small sample size at this stage of the study, no effort was made to carry out a structural equation analysis. It can be seen that for this older sample, both Inept Discipline and Inept Monitoring correlate significantly with Antisocial Behavior. Regressing Antisocial Behavior against the three family-management variables provided a value of .581 ($p = .03$). The Monitoring construct made the largest (and only significant) contribution; Problem Solving variables contributed very little.



The next question concerned the fit of the family-management skills to the TAB score used to evaluate treatment outcome. As shown in Figure

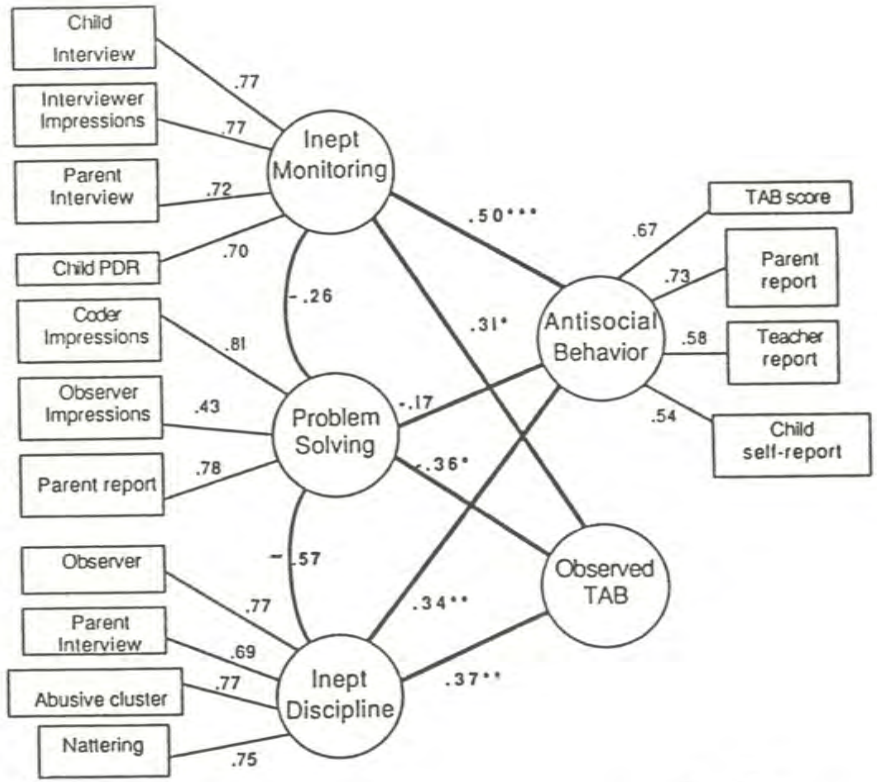



FIG. 10. Process during baseline.

10, all three family-management scores covaried significantly with the termination TAB score. Regressing the three parent-skill scores against the TAB score provided a multiple correlation of .572 ($p$ = .04). Inept Monitoring made the only significant contribution.

The family-management model provides an appropriate fit to both criterion variables. The amount of variance accounted for was roughly equivalent to what had previously been obtained for at-risk samples. These preliminary findings suggest that it would be appropriate to employ the model as a definition for Level 2.

### How Does Parent Struggle Relate to Parent and Child Change?

As discussed earlier, the coding system used to describe client within-session struggle specifies three clusters of client behaviors ("I can't," I won't," and family conflict). One category (Challenge/Confront) defines "I won't." Four categories define "I can't" (Hopeless/Blame, Defend self/other, Own agenda, and Disqualify), and two categories define family conflict (Interfamily Conflict and Answer for). In order to examine whether factors such as daily stress, marital discord, and parental depression relate to the parents' within-session struggle, these factors will be correlated in future analyses.

### Covariation among Levels

There are two paths that relate to changes in the rates of observed child behavior. As shown in Figure 11, one path works against the other. It is the task of the therapist to keep both of these in balance. On the one hand, forces outside the therapy session such as parental stressors, marital conflict, and depression appear to increase the within-session conflict among family members. High rates of such conflict are significantly correlated with high antisocial construct scores during both the early and late periods in therapy. For instance, during the last quarter, the correlation between within-session conflict (among family members) and the Antisocial Behavior construct was .37 (n.s.) for fathers and .46 ($p$ = .01) for mothers. Evidently, therapy is best served if part of the focus is on reducing the stressors and the accompanying depression. The therapist may also have to design interventions effective in reducing the marital disagreement that may lie behind the observed high rates of conflict during the session.

As noted earlier, the extent to which the therapist actively teaches family-management practices corresponds to an increasing risk of observed rates of parent struggle—"I won't," "I can't," family conflict (31). Similarly, efforts to confront parents for failures to carry out homework assignments produced a similar increase. In the current study, it has been possible to refine the analyses and determine that of these



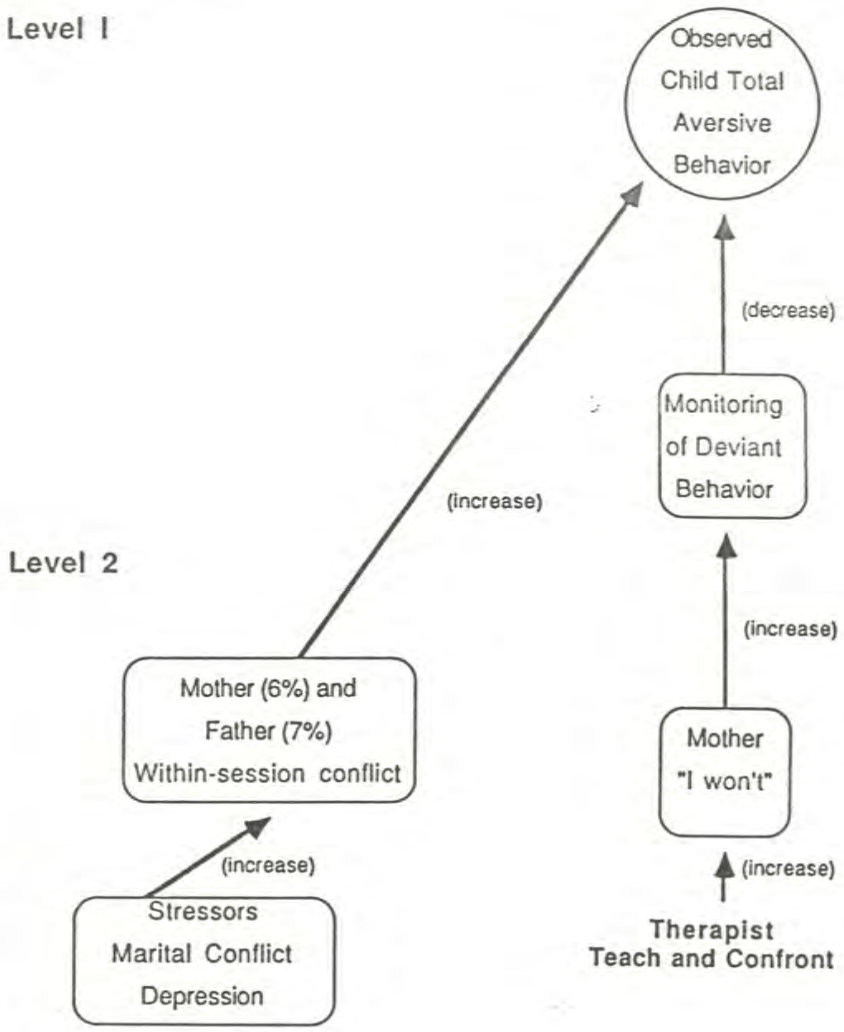



FIG. 11. Covariation among levels.

struggle reactions, it is the parents' "I won't" reaction that seems to play a key role. To the extent that they disagree, challenge, and confront the therapist, they are engaged in the work of parent-training therapy and are actively involved in the change process. The "I won't" reaction is thought to accompany changes in monitoring practices. During the

closing quarter of treatment, the score for mother's "I won't" correlates .42 ($p$ = .05) with the Monitoring score. The comparable correlation for fathers was .55 (n.s.). The comparable correlations for both parents during the baseline quarter were nonsignificant.

The sample size for fathers is small, but it is our growing suspicion that it is the mother's struggle that produces the change in Inept Monitoring scores. This is of particular interest because her score seems to reflect only what is going on within the session, while the father's score is heavily correlated with the set of disrupter variables.

As noted in the earlier section, it was the Inept Monitoring score that made the most significant contribution to the score measuring child problem behavior at termination of treatment. Significant covariation does not, of course, prove the case that changes in one produce changes in the other. Improvements in monitoring from pre- to posttreatment testing should be accompanied by improvements in TAB scores. It is also necessary to demonstrate that failure cases were characterized by either static or worsening monitoring scores.

One of the key features in the design for the current study is the possibility of using treatment as an experimental manipulation. If successful, the clinical experiment would demonstrate the causal effectiveness of the Inept Monitoring construct (Inept Discipline and Problem Solving will also be analyzed).

The findings from seven of the nine cases treated thus far at OSLC (with complete Monitoring data) are summarized in Figure 12. All seven of these cases showed a drop in observed rates of problem-child behavior. It can be seen that these cases were characterized at baseline by ineffective Monitoring scores. The score used in all of the analyses in the report is the mean of the standardized scores for each of the four indicators. The distributions are normed on the sample of at-risk families of fourth-grade boys. It can be seen that the Monitoring scores at treatment termination are close to the average for families in the nonclinical sample. It should be noted, however, that two of the successful cases actually showed worse Monitoring scores. There are obviously some family-management skills other than just change in monitoring that are related to successful outcome. For example, changes in discipline or problem solving may be more important for some families than changes in monitoring. These possibilities will be examined in the coming year.

The crucial test from the experimental manipulation lies in the demonstration that the Monitoring scores did not change for the failure cases. The data showed that in both instances there were only slight shifts in Monitoring scores from baseline for OSLC; one was slightly better and one slightly worse. The two failure cases from the comparison group both showed moderate worsening in Monitoring scores. The pre-



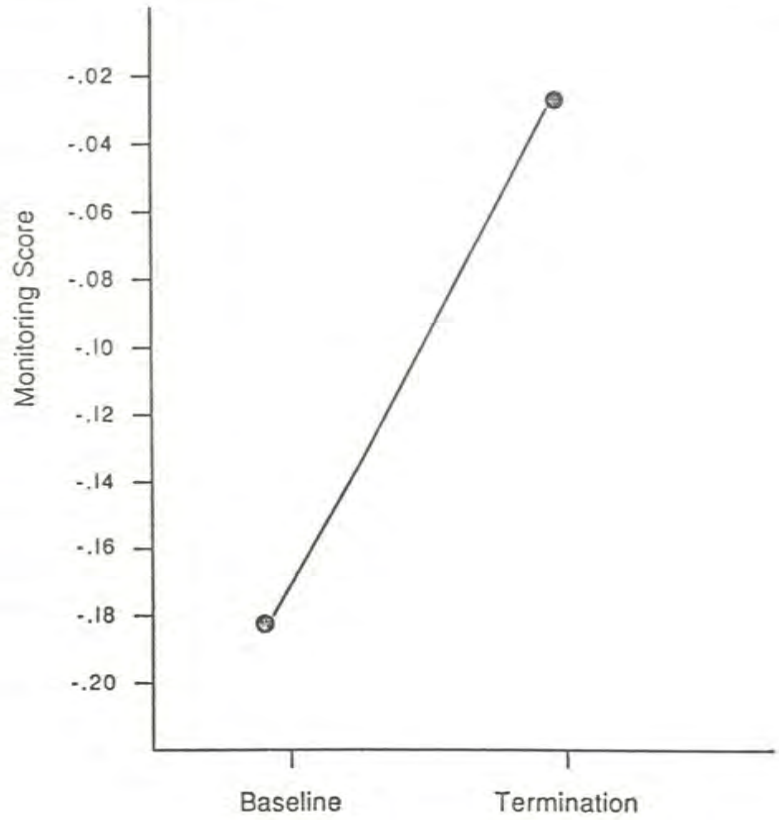



FIG. 12. Covariation of changes in monitoring scores to changes in TAB.

and posttreatment means for monitoring for the four failure cases were .123 and .108 respectively. The trend is for no change or slightly worse.

The preliminary findings are introduced for illustrative purposes. Available findings are supportive of the hypothesized covariation among the three levels. At the close of the study, these complex relationships will be reexamined using structural equation modeling as an analytic format. It is predicted that the path from treatment to family-management variables measured at $t_2$ and $t_3$ will be significant; this implies that involvement or noninvolvement in parent-training treatment makes a significant contribution to understanding changes in family-management and problem-child behaviors. The analysis of variance design will also be used to demonstrate that changes in mean level for family-management variables were associated with changes in mean level for child behaviors.

## IMPLICATIONS

This report reviews a sequence of questions that must be addressed in order to study therapy process in the treatment of antisocial children and their families. We think that work with each homogeneous group of client problems will train the therapists in slightly different ways. The components necessary to change families of anorectics must be different from the components involved in treating families of hyperactive or antisocial children. It would be expected, then, that one day the landscape of therapy theories will be characterized by quite different performance (multivariate) models.

It is probably also obvious that each narrow-focus treatment will have to solve its own criterion problems. For example, the criterion problem for evaluating outcome for anorectics seems straightforward, at least to those of us who know nothing about the problem, whereas the problem of measuring outcome in the treatment of antisocial behavior seems relatively straightforward to those of us who have studied it for more than a decade. But how does one get around the problem of employing self-report and the therapist's ratings if the treatment focus is depression?

The most difficult level to explore is therapist-client interactions. Here again, it would seem unlikely that the two coding systems designed for chaotic families of antisocial children would be of much use when applied to therapy process with a focus on schizophrenic adolescents. Even though all of the problems are complex and difficult, we do not believe they are insurmountable. Nor do we believe, even within our narrow focus, that we have solved all those problems that relate to treatment of antisocial children. Like any other problems in the social sciences, their eventual solution requires a marriage of clinical experience to measurement theory and application. The present report describes such a marriage, "shaky" but "enduring."

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