ABSTRACT

During the past 12 years the Oregon Social Learning Center has been studying the application of social learning theory to aggressive children. One result has been the development of a treatment program in which parents are trained to alter their child's behavior. That program has been evaluated on three separate samples of aggressive children. Those tests, however, were conducted with treatment performed by the research staff. The paper reports on the current work in implementing that program in three real-world mental health agencies and evaluating its effectiveness with agency families. The current evaluation includes the following: (a) an analysis of the competence of the social learning-trained therapists in conducting the program; (b) random assignment of client families to either a social learning-trained therapist or a member of the staff not trained; (c) multiple measures of client outcome including in-home observations of the child and his family using an observation system of demonstrated reliability; (d) other measures include parental symptom reports, and questionnaires from therapists, parents, teachers, referral agents, and physicians; and (e) one year posttreatment follow-up. The article gives further description of the treatment program and the evaluation strategy. (Author)
Evaluating a Social Learning Program in On-Line Mental Health Agencies

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This paper was presented at the annual meeting of the Association for the Advancement of Behavioral Therapy in Atlanta, Georgia, December, 1977. Support for this work is provided by the Center for Studies of Crime and Delinquency, Grant #MH 29786-01.
The T.E.A.CH. project (Training and Evaluation for Aggressive Children) is a dissemination and evaluation study conducted by the Oregon Social Learning Center. Continuing the work of Gerald Patterson and John Reid with aggressive children and their families, the project's efforts are one step in a programmatic sequence to develop a demonstrably effective treatment derived from social learning theory. A previous presentation (Note 1) reviewed some of the accomplishments of the Oregon Social Learning Center validating within a laboratory setting a basic treatment and assessment methodology. This report updates that presentation with emphasis on the current T.E.A.CH. project activities in implementing and validating that treatment in several real-world mental health facilities.

For those unfamiliar with how social learning theory has been applied to treating aggressive or out-of-control children, the program principally involves training the child's parents in specific parenting skills which, if used appropriately, will alter their child's behavior. The program for training the parents has evolved into a format of weekly instructional sessions and between-session telephone monitoring during the course of which parents learn to pinpoint and observe problem and prosocial behavior, use social, activity, and tangible reinforcers to strengthen appropriate behavior, apply mild punishment in a non-abusive and truly corrective manner, modify or extend the basic treatment strategies to other children or new problems, evaluate their effectiveness using data they collect, and fade the formal treatment structure and still maintain the improvements attained. Shaping, using attending and ignoring to change behavior, treating serious but typically low-rate behaviors such as stealing or fire-setting, negotiating, contracting, and managing school behavior are also taught if the child's behavior so warrants. A series of video tapes, audio cassettes, and two books by Patterson, Families (1975) and Living with Children (1976) are available to supplement the therapist's instruction.

Given the problems many of these families bring to treatment and their non-traditional response to therapy, to successfully get them to learn new child raising and personal interaction skills and incorporate these into their lives requires both therapist skill and a program adapted to this population. We believe that our current program, including the therapist training, parent management, and parent training aspects all serve to make it far more than a simple course in parenting or child management. Despite the sophistication of the treatment itself, it appears to be relatively economic (approximately 12 to 20 hours of therapist time), efficient (three to six months depending on parent skills) and adaptable to settings where the therapists have not had prior experience in social learning therapy and may themselves hold paraprofessional roles.

As previously reported (Note 1), the treatment itself has already been evaluated several times in a research setting and found effective. The first
study was with a sample of 27 socially aggressive children ages 5 to 12 (Patterson, 1974). The second was with a sample composed exclusively of children who stole (Note 2, 1977). The latter was necessary as the first study suggested the need for modifying treatment for this subpopulation. Those studies were followed by an in-house replication with a new group of therapists working with a similar population. While still in its final stages, preliminary returns were sufficiently promising to justify limited dissemination and field evaluation.

A tentative step in this direction was the creation of the Family Teaching Center in Helena, Montana. The opportunity to establish a site in Helena also served as an impetus to finish reorganizing and standardizing treatment. This reorganization and accompanying careful delineation was felt necessary if people were to be trained who had not had prior background with social learning-based treatments. While still incomplete, the first data returns from Helena show significant improvements in the treated subjects similar to those previously achieved in the less standardized program.

After Helena, the next dissemination attempt was restricted to Oregon, but this time with more field sites and incorporating a much more extensive evaluation. Dubbed the "T.E.A.CH." project, the study is probably one of the largest clinical studies in terms of the number of subjects and complexity of measures to date. Nearly 300 families with out-of-control children who seek help at one of three mental health agencies will be studied and all treatment will be provided by agency line-level personnel. Families will be randomly assigned to treatments with those receiving the social learning approach being seen by workers trained and supervised by the Oregon Social Learning Center staff. In-home observations conducted by trained and reliable observers, semi-weekly phone calls to parents and several questionnaires will be used to measure outcome.

The first of the three test sites is a nonprofit, youth and family services agency in Portland, Oregon. The other two sites are branches of the state's protective services agency, one serving a suburban/rural area adjacent to Portland, the other located in a small city in a more rural area of the state. Low-income and working class families predominate the service rolls of all three agencies.

The sites were obtained after meetings between project staff and agency people to inform them of the opportunity provided by the study. Specifically, each was promised a round of training and on-going supervision, all treatment materials, and a second round of training for staff not trained the first time. In exchange the sites had to agree to provide the treatment staff, make necessary workload adjustments and permit random assignment of families during the year and a half of active involvement. Discussion and eventual agreement to participate were obtained from all levels within each agency: directors, supervisory and line staff. In the case of the state agencies, approval was also obtained from the state headquarters.
As noted, all workers who volunteered to receive the social learning training were line-level personnel with direct responsibility for clients. All of the social learning trainees stated that they had heard of behavior modification if not social learning-based approaches, but only a few had ever used it. While all trainees considered counseling part of their responsibilities, for the caseworkers from the protective service agencies, monitoring families, managing crises, and obtaining concrete services for clients were their primary duties. Recently, however, the state's protective service agency has been considering going beyond crises intervention and client management if suitable alternative strategies exist. Participation in the study was one means for testing the feasibility of such an approach.

One month prior to the formal training the workers were provided reading materials to familiarize themselves with the basic outlines of the program, its rationale and some theory. In addition, each was provided a highly detailed procedural manual (Note 3). An 8-day intensive workshop was then conducted for each site. During training, trainees were shown the various treatment components and parent monitoring procedures. They would then role-play those activities with the trainers and other trainees playing the part of clients. As they became comfortable with the treatment format, typical clinical problems were introduced into the role-playing.

After the workshop the trainees returned to their agencies to begin implementing the program on either new clients or clients who were already in their caseloads. The latter, however, were not counted in the evaluation study. During this posttraining phase, supervision is being provided by Oregon Social Learning Center staff. To enable the Oregon Social Learning Center staff to conduct off-site supervision, audio cassette tapes of therapy sessions and therapist-client phone contacts are mailed out for review and attendance at clinical case staffings is limited to every other session. A specific case presentation model is part of the program and during those bi-weekly agency visits the trainees present data and discuss their clients' progress. Clinical problems are addressed to the group and, hopefully, the groups will eventually develop enough expertise in social learning therapy that outside supervision can be eliminated.

Besides the therapists or caseworkers (typically four) who comprise each social learning team, each trainee group includes a school specialist and a technical assistant. The school specialist is responsible for consulting and interviewing cases requiring intensive school assistance. While the therapist could handle this function, having one person do this task for all cases appears preferable. While prior training in school intervention is helpful, it was felt that with training most therapists or caseworkers can be taught to do this work. Again, like the therapist's functions in treatment, the school program in the manual is clearly laid out on a step-by-step basis. The technical assistant is supposed to provide support in the areas of handling data and assisting in the parent training. To date, however, most technical assistants have worked in the area of identifying appropriate families from among the agencies' total client populations.
Because we are testing the program with people previously unskilled in social learning treatment, attesting to the quality of this implementation is important for two reasons. First, we want to be certain that the program, at a minimum, is being implemented in a clinically adequate and therapeutically sound manner. Consequently, we need to determine that the trainees become competent with the program and, equally important, remain so as supervision lessens. Second, from a research perspective, it is important to be able to certify that the social learning treatment was adequately replicated within each site. Otherwise any differences or absence of differences at termination between the social learning and contrast treated families cannot be directly attributed to a social learning approach per se. To do this several criterion referenced tests for measuring the quality of implementation have been developed.

The first such instrument is a 20-item brief essay test covering both social learning theory and program specifics. The test was administered prior to training and again three months later. Posttesting was delayed to minimize short-term recall effects. This data is currently being analyzed.

To assess performance, actual samples of therapist-client interaction are being evaluated via two different measures. The first of these is the Therapist Telephone Assessment and Feedback (TTAF). TTAF is an 86-item, criterion-referenced checklist to evaluate therapist-client telephone contacts, a key feature of the treatment. During these contacts the therapist inquires about progress, collects data, provides corrections, and supports the parents as they attempt to use the procedures. On the TTAF form, each of those tasks are divided into several subunits. The rater then marks which of those subtasks should have been covered given the context of that phone call and whether or not it was. Sample items include asking parents for a specific instance of when the parent socially reinforces his or her child, inquiring about reading assignments, and reinforcing parents for collecting an hour's observation data.

The second procedure, Therapist Performance Observation System (TPOS), evaluates therapists during the less structured sessions that occur later in the program. Cassette tapes of sessions are scored in two ways. First, the tapes are scored on a six-second interval basis for the proportion of times they conform to a social learning mode. In considering what this conformance entailed, it was decided that a social learning therapist should keep the session focused primarily on specific child behaviors and the parental responses to them. Within that framework the therapist is expected to move in a direction from: (a) pinpointing problem in terms of its behavioral specifics to (b) providing or eliciting from the client that the appropriate response or procedure should be for best managing that behavior, to (c) rehearsing that behavior with the client either via role-playing or careful elaboration, and finally (d) giving a clear assignment as to when and how the client will begin using the new procedures and how he or she will report back to the therapist.

In addition to scoring for adherence to this framework, each 30-minute segment is rated on six dimensions (pacing, linearity, communication style, pattern, quality, and movement). A recent study by Alexander and colleagues (Note 4) indicated the importance of such clinical "soft" skills in behaviorally based treatment.
Therapy tapes from Oregon Social Learning Center therapists will serve as criteria. Therapy tapes collected prior to training are also being compared to posttraining tapes to evaluate training. Both of these quality-control measures were developed specifically for this project and are currently undergoing methodological investigation.

A further check on implementation is the Therapist Termination Report each therapist or caseworker completes upon terminating a family. Included are questions about which aspects of the program were used as well as other therapies or services provided clients. Also part of this form and serving as an indirect measure of adherence to the treatment model is whether the social learning trainees can report weekly parental cooperation ratings. A central therapist function is to assign parents a series of discrete tasks and then assess parental performance on those tasks. Presumably, a therapist could not rate parental performance (and either those ratings on the Termination Report) if the required assignments were not given and monitored.

As previously noted, a key feature of the evaluation design is random assignment of families to either the social learning or contrast treatments. The contrast groups within each agency are also composed of line-level workers who volunteered to cooperate with the study. Comparisons show that within agencies the two groups are equivalent in training, years' experience, and education. At one site supervisor ratings for the previous year showed the groups to be the same. Furthermore, informal checks have supported our impression that within sites, the groups are also comparable on the more subjective qualities of skills, dedication, and peer regard.

Assignment to the social learning or contrast group is done by the agency intake workers before baseline is begun. Assignment is done using a list with all the therapists' names listed in a random order. Surprisingly, securing permission to use random assignment was not a major problem.

In a departure from other treatment comparison studies, this project does not involve comparing social learning with another "brand name" treatment. Rather, contrast workers are almost entirely eclectic in their theoretical orientation, though this eclecticism differs between agencies and, to some degree, among workers. The people at the Portland youth and families services agency lean towards a combination of direct counseling with individual family members and some type of family therapy. The protective service workers use more casework-oriented methods. In addition to the previously cited Therapist Termination Report which asks the worker to identify components used with that particular client, posttreatment interviews will be held. While the study may be criticized for not comparing social learning to a single, well-defined alternative, the framework of the study dictated making a comparison with currently existing alternatives. For the sites chosen, eclecticism was that alternative.
While a large concern of the study is therapist behavior, the major focus is change in the targeted youngster, his or her siblings, and the parents. To measure this change, two assessment devices, previously developed by Oregon Social Learning Center are being used: the Behavioral Coding System (BCS) and the Parents Daily Reports (PDR).

The BCS is a naturalistic home observation system developed in 1967 and used in all subsequent studies. It contains 29 categories, 14 of which describe negative or deviant behaviors (e.g., tease, yell, noncomply, humiliate), 7 are positive (e.g., laugh, comply), and the balance are neutral (e.g., normative, attend). Observations are conducted in the family's home with all members present. During an observation each family member is "targeted" for ten minutes. When a subject is targeted that person's behavior and the response of other family members to that behavior are noted on a continuous, six-second interval basis.

This observation data can be analyzed on a series of dimensions. One key dimension is "Total Deviant Behavior," the summed rates of the 14 deviant codes. Total Deviant Behavior rates can be used to compare the behavior of aggressive children prior to and after treatment. Previous studies have also found it sensitive to differences between children referred for treatment and children recruited for study who have not had a history of deviant behavior (Patterson, 1976). More recently, the interactive units of the subject and the family have been analyzed in a series of family process studies (Patterson, 1976; Patterson and Moore, 1978) (Note 5). A series of methodological studies summarized by Reid (1977) indicate that the psychometric properties of BCS are sound.

The use of the BCS in a field setting is a major undertaking; during the course of the study over 2,000 separate observations will be conducted. Sets of three observations are conducted at the following times: prior to treatment, after six weeks of therapy, at termination; and at four, eight, and twelve months after termination. To perform all these observations involves training nearly two dozen observers in the code and then monitoring reliability via bi-weekly retraining sessions.

In addition to the Total Deviant Rate, observation data will be analyzed for changes in both the rate of independent play and work of the target child and that child's response to parental discipline. The former is an attempt to replicate findings by Wahler and Moore (Note 6) that a child's ability to play alone is a strong predictor of maintenance. The latter analysis is to test one of the family interaction variables identified by Patterson (1976) as indicative of the parent's ability to maintain improvements in a child's behavior.

The second major instrument for assessing aggressive behavior in real world settings is PDR. PDR was developed by the Center in 1970 and used with minor revisions in each of the subsequent studies. In its current version, it is administered as follows: during intake parents identify from a 19-item menu of deviant behavior, those of serious concern. A similar selection is made for prosocial behavior. Then in the course of semi-weekly phone calls,
the parents, usually the mother, report which of the targeted items occurred the previous day. In addition, the parent is asked whether any of a series of 11 serious misbehaviors (e.g., stealing, firesetting, running away, assault) occurred since the last phone contact. If one has occurred, the value of the theft or damage, its location, the extent of repercussion are logged. The purpose here is to enable us to analyze changes in both frequency and severity of such behaviors. Advantages of PDR are its facial validity, low cost of administration, and clinical reliability. Furthermore, studies (see Note 1) have shown a significant correlation between PDR reports and observed deviant behavior during baseline.

While emphasizing instruments with demonstrated reliability and validity, it is also important to assess treatment from the perspective of the parents, teachers, child's physician, referring agent, and therapist. Except for referral agents, each is asked to evaluate improvement in the targeted child at termination and at one year's follow-up. The physician also receives a questionnaire during baseline regarding significant medical conditions and current medication. It is important to track the use of such medication as previous studies by the social learning project showed up to 20% of the children treated were on medication at the time of intake. None were on it at termination. Whether those proportions and that effect can be replicated is a question under study.

The questionnaire for parents asks about changes in the child's behavior, the parents' feelings about the child, and the quality of services provided. All questions are on a 5-point scale with space for comments.

The teacher questionnaire asks about changes in the child's behavior and academic performance and an estimate of the child's standing in comparison to his or her peers. The child's grades and behavioral incidents for the years prior to intervention through one year after will also be obtained.

Referral agents are asked about contacts since referral and changes noted. Both teachers and referral agent's questionnaires also ask the rater to indicate to what they would ascribe the change: the intervention, their efforts, or some other factors.

The comparative effectiveness of a new treatment is only one factor related to permanent acceptance of that program by an agency. Compatibility with agency needs and procedures is probably even more important. To assess, that compatibility a questionnaire is being developed to sample opinion within each site on the following issues: the program's utility; its compatibility with agency structure, resources, and existing demand; the adequacy of training and supervision; the program's perceived effectiveness in comparison with other approaches; the effect on morale; responses from outsiders; recommendation for continued use; the likelihood of survival once the study ends; and their opinions of the evaluation itself.
Earlier in this paper it was suggested that the project was involved in a programmatic sequence to create an effective program for aggressive youngsters. Assuming that the current evaluation supports the model, what is next?

One area for further investigation would be questions related to dissemination. Is the program suitable for all populations (i.e., non-English speaking, inner-city)? Which client families are most likely to benefit? Besides aggressive children, are there other types of family or child behavior problems for which the program is effective? Could past participants in the program be trained to use it with other parents? How can the program be updated and improved and those improvements disseminated once it is out of the laboratory? To answer these questions it would appear useful to maintain a research and evaluation group even after the program has achieved widespread acceptance.

Other questions exist as to the mechanics of dissemination. Who will the trainers be? From where will they operate? Which service delivery systems should be the dissemination targets? Should the training group be independent of the research unit? Finally, once the program has been widely disseminated, a large-scale, independent evaluation such as is now being conducted on the Teaching Family Model (Note 7) would appear in order.

In concluding, it must seem that this entire process seems extremely long and drawn out. To some, no doubt, it would seem reasonable to move directly to dissemination and not move so cautiously. In reply, we can only point to the many highly trumpeted innovations that quickly faded. Rather, it is our hope that in the long-run, this slower, empirically based process of careful research may be more successful in reaching our objective: creating a truly effective program for families with aggressive children.
Other projects of the Oregon Social Learning Center include the treatment of adolescents with multiple arrest records and laboratory investigations into the controlling stimuli of aggressive behaviors within family settings. The Center was formerly part of Oregon Research Institute. Having left ORI, it is now affiliated with the Wright Institute, Berkeley, California. Its facilities, however, remain in Eugene, Oregon.

Examination of previous samples of families recruited because their children were aggressive uncovered a high proportion of cases where the child was medicated for hyperactivity or the parents were identified as child abusers (Reid & Taplin, 1978). A treatment aimed at aggressive youngsters also appears relevant to some members of these populations.
Reference Notes


References


Patterson, G. R., & Moore, D. R. Interactive patterns as units. In S. Suomi, F. Lamb, & G. Stephenson (Eds.), Interactional psychology, 1978, in press.


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