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SERIOUS DELINQUENT BEHAVIOR AS PART OF A SIGNIFICANTLY HANDICAPPING CONDITION: CURES AND SUPPORTIVE ENVIRONMENTS

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The past 20 years have been productive ones for the field of applied behavior analysis. A brief review of our own efforts during this period reveals that we have accomplished several but not all of our goals for the Teaching-Family approach. In this context, we note that the setting of realistic and appropriate goals is important for the field and for society. Moreover, we suggest that the realistic goal for some persons with serious delinquent behavior may be extended supportive and socializing treatment rather than permanent cure from conventional short-term treatment programs. We base this suggestion on the accumulating evidence that serious delinquent behavior may often be part of a significantly disabling and durable condition that consists of multiple antisocial and dysfunctional behaviors, often runs in families, and robustly eludes effective short-term treatment. Like other significant disabilities such as retardation, autism, and blindness, the effects of this condition may be a function of an interaction of environmental and constitutional variables.

We argue that our field has the wherewithal to construct effective and humane long-term supportive environments for seriously delinquent youths. In this regard, we explore the dimensions, rationales, logistics, and beginnings of a new treatment direction that involves long-term supportive family treatment. We contend that such supportive families may be able to provide long, perhaps even lifetime, socializing influences through models, values, and contingencies that seem essential for developing and maintaining prosocial behavior in these high-risk youths.

DESCRIPTORS: delinquent behavior, long-term supportive family treatment, Teaching-Family model, social disability, supportive environments

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This year we celebrate 20 years of the *Journal of Applied Behavior Analysis*. These have been decades of growth in knowledge and expertise for the field and for each of us as applied researchers. A perusal of *JABA* reveals advances in developing and researching discrete interventions—and sometimes in packaging, replicating, disseminating, and evaluating complex intervention systems. As a field, our interventions have helped persons with a variety of difficulties, including psychological disorders, developmental disabilities, academic incapacities, addictive behaviors, interpersonal conflicts, speech dysfluencies, unemployment, and physical dysfunctions and handicaps.

Much of our own work during these years mirrors the field's evolution, as we have attempted to develop and study an effective and widely adoptable treatment program for adolescent offenders. We and our Teaching-Family colleagues have focused on the group home as a treatment setting, because it represents a more natural and family-like context than traditional institutions. We have applied the dimensions of applied behavior analysis (Baer, Wolf, & Risley, 1968) to the construction of a group living environment designed to provide the socializing influences of models, values, and contingencies that facilitate individualized redirection for youths whose behavior had caused them serious trouble.

The intervention techniques that we have explored include skill teaching (Minkin et al., 1976;

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Werner et al., 1975), development of reinforcing relationships (Willner et al., 1977), motivation systems (Phillips, 1968; Phillips, Phillips, Fixsen, & Wolf, 1971), self-government procedures (Fixsen, Phillips, & Wolf, 1973), and the school note procedure for monitoring and providing consequences for school behavior (Bailey, Wolf, & Phillips, 1970). We have also attempted to package the program for training group-home teaching-parents to implement the treatment procedures (Braukmann & Blase, 1979; Phillips, Phillips, Fixsen, & Wolf, 1974); and we have directed research toward evaluating and validating that training program (Kirigin et al., 1975; Willner et al., 1977). Furthermore, we have endeavored to control the quality of the dissemination of the treatment and staff-training systems (Braukmann et al., 1975; Wolf, Braukmann, & Kirigin Ramp, 1982), and to evaluate that dissemination (Braukmann et al., 1985; Kirigin, Braukmann, Atwater, & Wolf, 1982).

In the process, we have learned a great deal about our intervention strategy, including the fact that it has fulfilled some of our original goals. For example, consistent with our objectives and with the results of formative behavior analytic research, large-scale outcome evaluations of model replications in Kansas have shown positive during-treatment effects on youths' behavior (Braukmann et al., 1985; Kirigin et al., 1982). Moreover, our fundamental emphasis on developing youth-preferred procedures (Phillips, Phillips, Wolf, & Fixsen, 1973; Willner et al., 1977) appears to have been successful: Outcome research has repeatedly shown that Teaching-Family replications are more preferred by youths and other consumers than are other group-home programs. Finally, the Model has proven capable of widespread adoption: There are currently 12 regional training sites serving over 215 group homes associated with the National Teaching-Family Association.

We have also learned, however, that we have not met other important goals. Two decades ago, when we began this research, we hoped to develop a short-term treatment program that would be a permanent "cure" for all our youths. We clearly have not accomplished this. Although the Model appears differentially effective during treatment in affecting delinquent behavior and social skills, the posttreatment behaviors of Teaching-Family youths approximate those of non-Teaching-Family group-home youths (Kirigin et al., 1982; replicated by Braukmann, Kirigin Ramp, & Wolf, 1985). Both Teaching-Family and comparison youths exhibit less delinquent behavior after treatment than before, but both groups still remain well above national norms, on average, in their level of offending.

No doubt this last outcome partly reflects the limits of both the present technology of the field and our own skills in applying that technology. But, looking back, we can also see that we failed to appreciate some important dimensions of the problems of many of our youths. As we will discuss at some length, the diversity, seriousness, and durability of the problems of some adolescent offenders as well as the deficiencies in their natural family, school, peer group, and vocational environments suggest that for these youths there might be another more realistic intervention goal than the hope of a "permanent cure" resulting from the conventional short-term treatment programs currently available to these youths. A more realistic treatment approach might involve "extended supportive environments": The relatively permanent arrangement of socioenvironmental conditions to provide ongoing support for behavior (cf. Lindsley, 1966).

To develop this point further, the disorders of many delinquent youths appear less like the modest and circumscribed problems of childhood, such as isolate play behavior in preschool children (Allen, Hart, Buell, Harris, & Wolf, 1964), and more like complex developmental disabilities, such as retardation, autism, and cerebral palsy. Our interventions as a field have been appropriately short-term and "curative" in addressing mildly dysfunctional behavior or facilitating normal developmental tasks in young children (cf. Azrin & Foxx, 1974), whereas we have understood that supportive arrangements are often a relatively permanent necessity for persons with developmental disabilities—though one works to reduce the degree of support necessary. With just this latter aim, by the way, some of our

colleagues have successfully applied the Teaching-Family approach to the long-term, sometimes lifetime, treatment of the developmentally disabled (MacDuff, McGee, Krantz, & McClannahan, 1981; McClannahan, Krantz, McGee, & MacDuff, 1984; McGee, Krantz, & McClannahan, 1982; Pulliam, Sheldon, Sherman, Griggs, & Anthony, 1983; Sherman, Sheldon, Morris, Strouse, & Reese, 1984).

Distinguishing whether the appropriate goal with a given set of problems, a given level of technology, and a given set of social conditions is permanent cure or long-term support for behavior is of no small import to the field. Applied behavior analysts want to cast the problems they address in their proper contexts, and accordingly set realistic goals and adopt feasible solutions (cf. Turkat & Forehand, 1980). If our goals, whether in delinquency treatment or otherwise, are mistaken or unworkable, we may not only produce nonsolutions, we may create disillusionment among persons needing help and among their advocates, the general public, policy makers, and those who would fund and conduct pertinent fundamental and applied research and development. Baumeister (1969) illustrates this point sharply in suggesting that Seguin's mid-19th-century claim—to the effect that curing all persons with retardation was an appropriate and obtainable goal with their level of technology—resulted in subsequent pessimism and left warehousing as the predominant mechanism for dealing with persons with retardation. Such pessimism is rampant today in the field of juvenile and adult corrections (West, 1985), and is, in our view, just as wrong-minded.

In the present paper, we present growing evidence that conventional short-term treatment environments do not permanently offset the performance and environmental deficits of some seriously delinquent youths, and explore the implication that longer term supportive and socializing environments may be a more appropriate intervention goal in many cases. Moreover, we discuss empirical and developmental efforts by behavioral researchers that hint at the feasibility of constructing longer term supportive environments. Indeed, we describe a promising intervention model, long-term supportive family treatment, that might provide the vehicle for extended, effective, humane, and naturalistic intervention for persons with significant disabilities when the natural environments of those persons lack the necessary human resources out of which to fashion needed supportive and socializing conditions.

Some qualifications are in order, however, and we want to introduce them at the outset. First, in suggesting that long-term supportive arrangements may sometimes be valuable, we are not saying that the field should discontinue its search for profound permanent changes in the absence of extended environmental modifications. Nor are we saying that shorter term interventions, with adequate attention to generalization (Stokes & Baer, 1977), will not often have satisfactory longer term effects with persons with significant disabilities.

Moreover, we are keenly aware that interventions should occur judiciously, and should be as nonextensive and unintrusive as possible in the individual case. In this regard, each juvenile offender and his or her situation will need to be considered carefully: Wide variation exists in the extent and nature of problems among persons with delinquent behavior, and accordingly, a range of interventions, in many forms at many levels, will be necessary. In addition, because no strong empirical data exist to support the contention that the supportive family treatment strategy we discuss will indeed provide solutions with adequate cost–benefit ratios, we stop short of advocating wide application. Nevertheless, we suggest that the strategy may be well worth the investment of considerable time and energy on the part of those who would advance our understanding and practice with regard to a pressing social problem.

THE PROPOSITION THAT SERIOUS DELINQUENT BEHAVIOR MAY OFTEN BE PART OF A HANDICAPPING CONDITION

Obviously, not all delinquency constitutes part of a general disorder. Indeed, most young people have committed minor delinquent acts at some

time. Nevertheless, evidence suggests that delinquency is often associated with other troublesome behavior and with personal and social difficulties, and that the extent of this association, and the degree and variety of disturbance, increases with the severity and frequency of delinquent behavior (Rutter & Giller, 1984). In fact, evidence and consensus are growing that delinquent behavior, especially when persistent and serious, may often be part of a durable, significantly handicapping condition that is composed of multiple antisocial and dysfunctional behaviors, and that sometimes appears to be familially transmitted.

This condition, not unlike retardation, autism, and schizophrenia, can be profoundly limiting, is probably a function of an interaction of environmental and constitutional factors, and is without reliably and generally effective treatment. Children with this condition, which might be referred to as a social disability, may be from an early age predisposed to engage their environments in antisocial and dysfunctional ways, and may be at risk of parental abuse and neglect. ("Social disability" seems a useful term because it is descriptive of the disorder, removes the blame from the children, highlights the handicapping nature of the disorder, and carries a less negative label than "delinquent" or "juvenile offender." Those in the field of mental retardation have been very careful to change the names used to describe the seriously mentally handicapped from "idiot," "imbecile," and "moron" to nonblaming labels such as "developmentally disabled." This change in labels has been accompanied by much more humane and responsible treatment.) The risk of abuse and neglect may be greatest when the children's parents also can be said to have the social disability. Later in life, children with the condition may be at risk of having serious problems in their schools, peer groups, communities, jobs, and intimate relationships. Finally, they may pass on diverse and multiple problems to their offspring. This overall proposition is consistent with the conclusions reached by persons familiar with the three bodies of pertinent information to which we now turn our attention.

Evidence for a Durable Pattern of Multiple Antisocial and Dysfunctional Behaviors

Recent research reviews have concluded that repeated criminal acts appear to be associated with other problems, and that antisocial behavior appears relatively durable. Some preliminary inferences in this direction were provided by Elliott, Huizinga, and Ageton (1985), who, after reviewing large-scale correlational studies of adolescents conducted by themselves and by a number of other well-established researchers (e.g., Bachman, O'-Malley, & Johnston, 1978; Hindelang & Weis, 1972; Jessor, Graves, Hanson, & Jessor, 1968; Kandel, Kessler, & Margulies, 1978), concluded that there appears to be a "general deviance syndrome."

Gottfredson and Hirschi (1986) extended this point in reviewing the characteristics of persistent juvenile delinquents and adult criminals. They observed that such persons have an array of problems, are often "socially disabled," and experience "difficulty in managing the ordinary tasks of life" (p. 231). Loeber (1982), in his review of the endurance of antisocial and delinquent behavior, noted "a growing consensus in the research literature concerning the stability of antisocial behavior in children during adolescence and adulthood" (p. 1431). Among the studies cited by Loeber and by Gottfredson and Hirschi are those of Patterson (1982), Robins (1966), West and Farrington (1973, 1977), and Short and Strodtbeck (1965). Let us turn our attention directly to the conclusions of some of these individual studies.

Robins (1966) in her classic study, *Deviant Children Grown Up,* concluded that the antisocial and dysfunctional behaviors of the delinquent youths she followed were both multiple and durable:

> Those [children] reported for antisocial behavior not only had the highest rate of antisocial behavior as adults, but also of impoverishment, social alienation, hospitalization, and subjective feelings of poor health. . . . For antisocial boys the risk of future arrests was 71%, with almost half having frequent arrests

> and almost half having been incarcerated. . . . Half the men and a third of the women were heavy drinkers. . . . It would follow from these findings that the children currently being referred to clinics for antisocial behavior are the group for whom successful intervention is the more urgently needed, to prevent personal misery for them as adults, for their spouses and children, and the persons whom they will rob or swindle. (p. 73)

Similarly, West and Farrington (1977) found, in their longitudinal study, that those children who acquired official delinquency records during their adolescence showed a constellation of antisocial and dysfunctional behaviors upon reaching young adulthood. As young adults, these persons tended to be overly aggressive, to have irregular work habits, to lack conventional social restraints, and to drink immoderately.

The delinquent gang members studied by Short and Strodtbeck (1965) also had a wide array of antisocial and dysfunctional behaviors. They described their delinquent gang members as having a durable "social disability" and speculated about its causes:

> The failure of individuals to make satisfactory adjustments in any institutional sphere inevitably handicaps their ability to achieve future goals. Our gang boys fail often in school, on the job, in conventional youth-serving agencies, and in the eyes of law enforcement officials (and therefore in the public eye). They fail more often in each of these respects than do the non-gang boys we have studied, both middle and lower class. These failures, combined with limited social and technical skills and blocked legitimate opportunities, constitute an overwhelming handicap for the achievement of the goals they endorse. (p. 230)

Farrington, Ohlin, and Wilson (1986) have attempted to integrate, summarize, and derive policy implications from the large body of research pertaining to recidivist offenders. Their summary reflects the current consensus about the multiple and durable antisocial and dysfunctional behaviors of some offenders:

> We know a great deal about who commits crimes. We know that the typical high-rate offender is a young male who began his aggressive or larcenous activities at an early age, well before the typical boy gets into serious trouble. We know that he comes from a troubled, discordant, low-income family in which one or both parents are likely to have criminal records themselves. We know that the boy has trouble in school—he created problems for his teachers and does not do well in his studies. On leaving school, often by dropping out, he works at regular jobs only intermittently. Most employers regard him as a poor risk. He experiments with a variety of drugs—alcohol, marijuana, speed, heroin—and becomes a frequent user of whatever drug is most readily available, often switching back and forth among different ones. By the time he is in his late teens, he has had many contacts with the police, but these contacts usually follow no distinctive pattern because the boy has not specialized in any particular kind of crime. He steals cars and purses, burgles homes and robs stores, fights easily when provoked, and may attack viciously even when not provoked. While young, he commits many of his crimes in the company of other young men, though whether this is because they have influenced him to do so or he has simply sought out the company of like-minded friends is not clear. After several arrests, the young man, now in the early twenties, will probably spend a substantial amount of time in jail or prison. The chances are good that not long after he is released from an institution, he will commit more crimes. He runs a high risk of having his life cut short by violent means—the victim of a murder or a fatal car accident. (pp. 2–3)

Evidence for the Condition Running in Families

Robins (1966) found evidence that a multifaceted and enduring pattern of behavior ("sociopathy") ran in the families of her study sample. For example, she reported that the antisocial and dysfunctional behavior of the children she studied was predicted by such behavior in their fathers: "The kinds of behavior in the father which predict behavior problems in the child are desertion, excessive drinking, chronic unemployment, failure to support the family and arrests" (p. 178). In addition, Robins found that when she followed up the deviant children as adults, they reported more antisocial behavior in their children than did the comparison group (p. 52).

Exactly how the family passes on this pattern of behavior is unclear. Many researchers have studied family environmental variables that seem to be related to delinquent behavior. For example, Loeber and Dishion (1983), in their comprehensive review of the research on the predictors of delinquent behavior, concluded that parents' family management and child-rearing techniques (supervision and discipline) were highly related to delinquency. After reviewing that literature Ullmann and Krasner (1969) concluded that:

> The primary source of learning of delinquent behavior seems to be the home. The figures in the home represent the source of reinforcement for delinquent behaviors and the source of failure to develop socially desirable behavior. (p. 460)

Other authors have presented a case for genetic contributions in the subgroup of more serious, widespread, and persistent antisocial disorders. For example, Rutter and Giller (1984) concluded,

> . . . it may be supposed that the hereditary influence probably involves some aspect of personality functioning which predisposes to criminality (although just what that might be remains a matter of conjecture). . . . Probably the best leads apply to cognitive and educational retardation, hyperactivity and attentional deficits, autonomic reactivity, stimulus seeking and passive avoidance learning. However, temperamental variables also warrant study. (p. 179)

The possibility that familial transmission may involve an interaction between environmental and genetic variables is supported by Mednick, Gabrielli, and Hutchings' (1984) study comparing the court convictions of 14,427 adoptees with the court convictions of their biological and adoptive parents. Such research has led noted behaviorists Daniel O'Leary and Terence Wilson (1987) to state, "The present authors do not view the problem as an either/or issue. Delinquent behavior appears to be influenced by both environmental and genetic factors" (p. 137). Some useful ways of conceptualizing the importance and complexities of interactions involving inherited vulnerabilities and environmental influences have been described by Horowitz (1987).

Evidence Regarding the Effectiveness of Intervention Programs

The consensus seems to be that, to date, there have not been any clear and convincing demonstrations of effective strategies for curing or preventing the problems of serious antisocial children or adults. Almost every review of delinquency treatment and prevention research has been largely pessimistic. The pioneering review by Lipton, Martinson, and Wilks (1975) stated that "While some treatment programs have had modest successes, it still must be concluded that the field of corrections has not yet found satisfactory ways to reduce recidivism by significant amounts" (p. 627). Later reviews by Romig (1978) and Elliott (1980) also concluded that intervention programs for delinquents had not been demonstrated to be effective. Recently, Wilson and Herrnstein (1985) reviewed the intervention research literature and came to the same grim conclusion. Finally, the many behavioral efforts to remediate criminal and delinquent behavior, though meritorious in many respects, have not, as a rule, demonstrated long-term differential effects (see Morris & Braukmann, in press).

IMPLICATIONS FOR POLICY AND RESEARCH

The foregoing review supports the proposition that delinquent behavior may often be part of a condition that is many-featured, long-lived, sometimes familially conveyed, and resistant to short-term treatment. This conception has implications for how we might most profitably approach the prevention and amelioration of the problems of children and adolescents with significant antisocial and dysfunctional behavior. We may need to rethink our treatment goals and research priorities. As a step in this direction, we next consider some preliminary policy and research implications. We begin with general thoughts on early intervention and supportive interventions, and then discuss the possible role of supportive family treatment at some length.

Early Intervention: Practical Impediments

The seriousness of frequent offending and the difficulty in treating it suggest early intervention efforts: If one could intervene early enough with the families of these handicapped children, would it not be possible to develop an effective prevention program? The hope would be to help the child and family before the problem became irreversible. As appealing as this approach is, the obstacles seem large in many cases.

For example, if the parents also have serious social disabilities, their problems are likely going to be serious throughout their lives and the lives of their children. There are formidable challenges in attracting, motivating, maintaining, and profoundly changing the most at-risk parents, who often have the fewest resources to invest in their children, whether those children are still young or are adolescents.

Several research groups have early identification and intervention studies underway (see Burchard & Burchard, in press). Until early identification becomes quite accurate, however, legally mandated intervention should not be used with young children, as it would no doubt often lead to inappropriate intrusion. Indeed, juvenile courts, appropriately, will by and large not compel major intervention without fairly clear evidence of a pattern of significant antisocial behavior. By intervening only with children who have already displayed serious antisocial behavior, false positive identification is largely avoided—an important ethical consideration when highly intrusive intervention is involved—but the opportunity for earlier less intrusive intervention is lost. Obviously, many thorny issues remain with regard to early intervention. Future work will no doubt shed more light on these important issues.

Intervention with Antisocial Youths: Thoughts on Supportive Treatment

We have suggested a parallel between the social disabilities of some persons with significant patterns of offending and the developmental disabilities of persons with retardation; there may be treatment parallels as well. Currently, no one is trying through short-term treatment to "cure" the severely and profoundly retarded, at least as the term "cure" is usually used, meaning that no further significant treatment is necessary. There is extensive treatment going on for this population, of course, but much of it is long-term and supportive. Over an extended period, these supportive environments can be profoundly educational, helping participants to function better in the community, often to be employed, and to sustain intimate social relationships, for example. In lieu of traditional institutionalization for people who have serious developmental disabilities, they are now increasingly provided long-term special education programs, vocational workshops, foster care, group homes, and supervised semi-independent living arrangements. Moreover, their parents are often provided with parent-training programs (McClannahan, Krantz, & McGee, 1982). The parents of retarded and autistic people usually do not experience the deficits themselves, however, and thus they are not usually disabled in the way the parents of some seriously antisocial children often seem to be. All of these efforts are aimed at helping people with serious developmental disabilities to reach their maximum potential for free-

dom, dignity, and other reinforcers in our society. Why not provide similar long-term supportive services for children with social disabilities?

Some support for the proposition that specially arranged longer term supportive environments could succeed with youths with social disabilities is provided by the experience of the Teaching-Family group-home research project. As noted earlier, that project has developed a well-specified treatment model for group care, which has proven to be effective during treatment as well as consumer-preferred and capable of widespread adoption (Wolf et al., 1976).

Results of that project also suggest, however, that differential intervention effects are no longer apparent for many youths upon their return to their natural environments. The project has attempted to produce more permanent environmental changes by trying to help the natural families acquire more effective and positive parenting practices. But unfortunately, many of the youths have had either no parents or parents who meet Robins' (1966) definition of sociopathy, with problems as serious as the youths, and who were resistant to changes in their handicapping parenting practices.

One mechanism for providing longer term support might be long-term group-home care for those youths whose behavioral and familial deficiencies suggest high risk for extensive and durable personal and social problems. This can sometimes be done, but more ideal than group homes for long-term supportive environments for the most at-risk youths would be arrangements that (a) have better long-term prospects for continued functioning as a stable family unit—group-home teaching-parents have average tenures of 2 years, and the group-home family's composition changes with admissions and departures; thus group-home families are ever-changing and time-limited—and (b) provide the opportunity to develop maximally extensive family-like relationships—group homes average about six troublesome youths at a time and this necessarily limits somewhat the chances for the most complete one-to-one relationships possible with the most at-risk youths.

Supportive Family Treatment: Dimensions, Rationales, and Beginnings

One example of a possible long-term supportive treatment arrangement that might avoid some of these problems and provide relatively long, perhaps even lifetime, socializing influences (models, values, and contingencies) for socially handicapped children is a long-term supportive family treatment program. In such a program, carefully selected and caring supportive parents provided with training, consultation, financial support, and monitoring similar to that provided to teaching-parents in group homes, could provide treatment in their own homes for one youth carefully matched with the family's strengths and characteristics. If the arrangement were long-term, beginning in early to middle adolescence, the youth accordingly could have the benefit of an adequate family throughout the high-risk years of adolescence and young adulthood, and perhaps throughout life, if the youth remained part of the extended supportive family into adulthood.

Our observations of a large number of teaching-parents and their youths lead us to believe that long-term, even lifetime, relationships might develop between supportive parents and their youths. We have seen many teaching-parents develop such long-term relationships with their youths. Some have adopted. Others have maintained close contact, made loans, and routinely celebrated special events like the births of children. Many teaching-parents have described their heartfelt desire to continue being responsible for their youths after the youths leave the group home. But, this has usually not been feasible because of state government policies.

An adequate family is of considerable consequence in adolescence and young adulthood. This is a time for important developmental transitions into independent living, long-term intimate relationships, vocational education, and employment. It is also a period filled with many possibilities for mistakes, unrecognized options, and potentially tragic decisions. This is especially true for socially disabled youths who, because of their handicaps,

their histories of inadequate families, abuse and neglect, failure in school, and previous close association with deviant peer groups, are considerably more vulnerable than normal youths to lack of guidance and support. No one would recommend turning even nonhandicapped youths out "into the street" at 15 or 16 years of age without adequate support, supervision, and guidance. Yet, in the absence of adequate "natural" family supports, many children with social disabilities are indeed turned out into the street every day.

Many of these youths need adequate families to serve as models for appropriate family behavior, to provide shelter and financial support between jobs and marriages, and to provide "conventional" parental adult models and values. If a surrogate family can develop a relationship characterized by significant reinforcement value (cf. "bonding" and "attachment"), it perhaps can effectively (a) reward the youth's appropriate behavior and achievements in education, family life, and employment both during adolescence and, ideally, as occurs in most adequate families, throughout the youth's life, and (b) create that deterrence to deviance that rests on a youth's not wanting to risk the regard and affection of valued others by engaging in behavior disapproved of by them (see Conger, 1976; Hirschi, 1969).

In long-term supportive family treatment, it should not be necessary to sever relationships between youths and their natural parents. In fact, one of the goals should be to help youths learn how to cope with and enjoy the benefits of a relationship with their natural parents. At the same time, the youth could learn how to survive and understand the natural family's possible emotional problems, alcoholism, physical and psychological abuse. Thus, rather than losing the benefits of their natural families, youths would learn how and under what conditions it was best to relate to their natural parents.

Fortunately, such long-term supportive family treatment programs are technically and practically feasible due to recent pioneering work in the foster family treatment field. Foster family treatment has been different from regular foster family care in that it has been more treatment oriented and the special foster parents have been more carefully selected, trained, and monitored as well as better paid (Hawkins & Luster, 1982). During the last few years three notable teams have been developing short-term foster family treatment programs for children and adolescents with a variety of serious presenting problems (Hawkins, Meadowcraft, Trout, & Luster, 1985; Jones & Timbers, 1983; Snodgrass & Bryant, 1984). These researchers have used many of the same behavioral principles, treatment procedures, and training systems that have been used in the Teaching-Family model. Thus, although systematic evaluation research has not yet been conducted, the developing foster family treatment technology is theoretically and technically supported by the outcome research data from the Teaching-Family model of group-home treatment. Clearly, a great need exists for sensitive process and outcome evaluation research in this area.

There are some additional data to support optimism for the special long-term supportive family treatment model. When Bank, Patterson, and Reid (1987) applied their behavioral parent-training program to the families of serious delinquents they found a during-treatment effect and a lack of a sustained differential posttreatment effect, just like we found for the Teaching-Family group homes. In this regard, Bank et al. (1987) provide additional evidence that there are specially arranged environments where children with serious social disabilities can do better, at least while the behavioral treatment program is in effect. (Even though there was a clear during-treatment effect, Reid, 1986, recommended against other professionals attempting to apply the parenting program to the families of serious delinquents because of the clinical staff burnout that occurred from working with these extremely difficult families.) Interestingly, Bank et al. (1987) note that, partly as a result of the lack of a posttreatment effect, a program is now underway in Oregon that places serious adolescent delinquents with trained foster parents for about 6 months. Although the foster family treatment apparently is not intended to be long-term, results of

this and other short-term family fostering for delinquent adolescents will be important (Hazel, 1978).

Although we argue that long-term supportive family treatment may be the appropriate intervention for many socially handicapped youths, we realize that this approach will have its problems and limitations. Undoubtedly, it will not work for everyone. For those youths, other alternatives will need to be developed. Long-term supportive family treatment will obviously not be appropriate as the first stage of treatment for youths who are at that time considered by social agencies too dangerous to themselves or others. But, once such extreme youths have been treated in a group home or institutional setting, long-term supportive family treatment might be judged more appropriate.

Funding and Logistical Considerations

Money to finance new programs will of course be a problem. Children with social disabilities do not, as a rule, have parents who are articulate and concerned about their welfare like, for example, the retarded do. President John F. Kennedy and the Kennedy family and a great many other families of children with developmental disabilities have been a powerful constituent lobbying group. They have had a tremendous influence on federal and state legislatures that have then established and supported services. Socially disabled children will probably never have a similarly powerful, natural advocate group, but there is reason for optimism.

As a group, youths with social disabilities cause the consumption of a great many public resources throughout their lives for treatment, welfare assistance, institutionalization, incarceration, and mental and physical health care. Other costs are the result of desertion of their families or illegal activity. Thus, it may be that long-term supportive family treatment, although expensive, is cost-effective because it may reduce the total public cost that would occur throughout a youth's lifetime. For example, society might be able to purchase 5 years of supportive family treatment for the same price as the cost of a couple of years total imprisonment (which might occur during a youth's adult career) as well as the associated judicial costs, police costs, and human costs. These will be important data to collect in future research.

Also, it should be remembered that even lifetime supportive family treatment may not require lifetime funding. Exactly how long funding would be needed is a research question. But our guess is that funding could probably be greatly reduced if not eliminated in the youth's early 20s, once the youth has made solid transition into independent living and employment. We assume that functional contact would often endure because of the mutual reinforcing value that will have formed. This should allow the support, modeling, value transmission, social reinforcement contingencies, and advocacy to continue naturally as a member of the extended supportive family.

Another reason that some taxpayers may be willing to financially support a long-term supportive family treatment program is that it may directly affect the quality of their lives. Taxpayers who have had a seriously antisocial youth break into their homes, steal their TV sets, assault them or their children, or repeatedly shoplift or break into their stores, for example, may be willing to pay for treatment if research finds that long-term supportive family treatment is effective. These taxpayers might prefer that a seriously antisocial youth from their neighborhood live with a responsible, well-trained, and supervised supportive family. Moreover, having the youth placed in an institution only provides temporary relief because the youth, in most cases, will be back in the neighborhood within a few months. In contrast, the supportive family would be there every day to guide, supervise, and discipline the youth when he breaks society's rules. Thus, if long-term supportive family treatment is found to reduce short-term and long-term rates of antisocial behavior, this may directly affect the quality of life of taxpayers and lead to their financial support.

One more important strategy for obtaining financial support is being explored in the state of North Carolina (Behar, 1984). A federal district court lawsuit (Willie M. et al. vs. James Hunt Jr., 1979) about right to treatment, right to education, and right to least restrictive placement was brought against the State. Through this leverage, advocates

were able to convince state legislators and agencies to invest a large amount of money in long-term comprehensive community-based treatment programs for "seriously emotionally, mentally, and neurologically handicapped children and adolescents who are also violent and assaultive" (p. 14). Other states may become more willing to support appropriate services to high-risk children if similar legal leverage is applied by a state advocate group.

There will also be logistical problems. Recruiting good supportive families willing to make a long-term commitment will take some effort. But the professional foster family treatment programs that we described have shown that it is possible to recruit many excellent foster families for the short-term placement of children with serious behavior problems. Perhaps this will also be the case for longer term care.

Another logistical problem might be the failure of some agencies to provide the careful selection, practical training, and continuous support, consultation, and evaluation required to maintain a high-quality program and to avoid the abuses that have often occurred in foster care. The Teaching-Family programs, however, have shown that it is possible to establish, certify, and monitor a large number of agencies around the country through a national association.

No doubt there will be other logistical problems to be solved. For that reason, and others, small-scale program development and research need to be completed before large-scale advocacy and adoption of long-term supportive family treatment would be appropriate. Of course, even if evaluation research determines that long-term supportive family treatment is relatively effective, out-of-home placement should remain the last resort and should never occur until all less intrusive interventions have been exhausted.

CONCLUSIONS

We reviewed the past 20 years of research in the Teaching-Family model and concluded that it may be important for us and sometimes for other applied behavior analysts to distinguish whether the appropriate treatment goal with a given set of problems is short-term treatment and permanent cure or longer term extended supportive treatment. We examined the growing consensus that serious delinquent behavior often is part of a disabling and durable condition that has been resistant to prevention or treatment by traditional methods that are based on the expectation of short-term cure. Creative new directions and more comprehensive and longer term treatment research seem greatly needed. We suggested one possible focus for treatment research: long-term supportive family treatment.

Providing socially disabled youths with the long-term supportive and socializing treatment conditions that may be necessary to counter this condition and to interrupt the generational cycle of serious problems will clearly pose a challenge. Nevertheless, as we have described in this paper, behavior analytic research holds promise for helping children with serious social disability, just as it has made significant contributions to the understanding and treatment of other serious developmental disabilities such as retardation and autism.

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