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ABSTRACT

The booklet examines findings from the Vermont Child Development Project (VCPD) concerning the identification of and intervention with preschool children at risk for behavior disorders. It is explained that the VCPD includes epidemiological surveys, high risk family studies, intervention studies, and a follow-along survey. Provided is an example of a comparative developmental risk profile. Justification for early intervention with high risk children is given, and the six modes of intervention used at VCPD are described. Among potential problems cited in working with at risk children are lack of parent cooperation, worker resistance to research methods, and the multiplicity of some children's problems. (CL)

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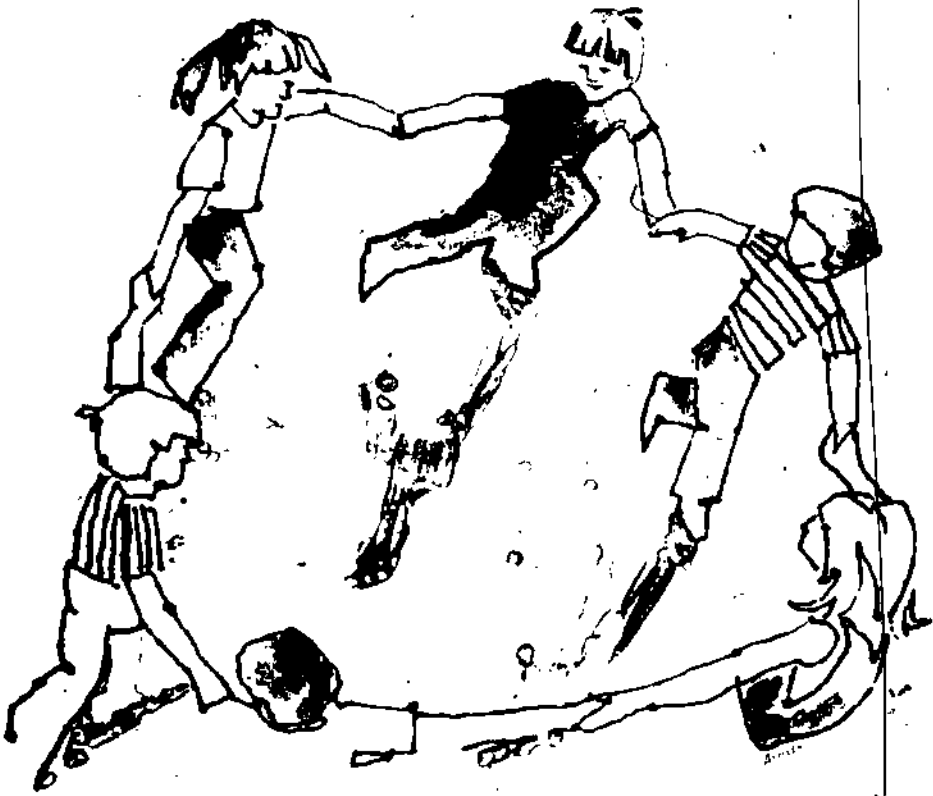
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# Children at RISK



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## FOREWORD

Behavioral research scientists long have been suggesting that certain children run a greater risk of developing mental problems in adulthood, because of either environmental stresses or genetic predisposition. This concept of vulnerability, considered in light of more recent research data, has intrigued Dr. Jon E. Rolf of the University of Vermont. He theorized that very young children do show early symptoms of behavior disorder which, if recognized, could be amenable to early intervention and thus prevented from developing into adult psychopathology. However, little working data existed concerning the origins of behavioral disorders among the very young.

Consequently, Dr. Rolf, with support from the National Institute of Mental Health, initiated the Vermont Child Development Project, hoping to identify specific deviant behaviors in pre-school children, as well as factors within family backgrounds, that contribute to children's maladjustment. With information acquired from this facet of his research, Dr. Rolf is developing a "high risk profile" that will be useful as a guide in the selection of children for individualized treatment. Concurrently, using a novel mixture of research strategies, project staff is working in a therapeutic day-care setting, with children who are at known or inferred risk for behavioral problems, to develop age-appropriate coping skills and social interactions. The researchers are also observing some of these children as they enter public school, to determine the long-term effects of the intervention process.

Dr. Rolf's program illustrates the value of a research project—gathering valuable data for future strategies—that is also a service project dealing with the pressing needs of today's children at risk.

Among the significant data evolving from this research are detailed lists of age-appropriate competence skills in social, intellectual, and academic areas, for both normal and vulnerable children. At the same time, the success and failure of various types of intensive intervention with vulnerable children are being documented.

Perhaps most importantly, this research moves us closer toward our goal of preventing debilitating disorders among vulnerable children.

Francis N. Waldrop, M.D.  
Acting Director  
National Institute of Mental Health

## Children at Risk

"We professionals," said Dr. Jon E. Rolf, "must face the fact that we really know very little about pre-school children, what is helpful and what is harmful to them. We know very little about the causes of behavior problems in very young children. We should admit it and then launch on a mutual voyage of discovery with parents, with other workers, and with the children themselves."

Dr. Rolf, Associate Professor of Psychology at the University of Vermont, is Director of the Vermont Child Development Project (VCDP). Together with Dr. Joseph E. Hasazi, his co-investigator, and the rest of his staff, his "voyage of discovery" started in 1973. They have been gathering and organizing millions of pieces of information about the etiology of behavior disorders in early childhood in order to understand the multiple and interrelated causes of these disorders. They have also been designing and testing early therapeutic intervention strategies and procedures that might someday prove useful for primary prevention.

### The Concept of Vulnerability to Mental Disorder

Dr. Rolf noted that school teachers and counselors rarely identify disturbed children early in their school careers unless they are very withdrawn, overly aggressive, or overtly antisocial. Many other children with psychological problems remain undetected. They move along in school or perhaps begin staying behind for reasons that have little to do with intelligence. However, with academic failure, more children with psychological problems will be noticed by their teachers, but typically they will still be children with overt, easily recognized behavior problems. Some will be called hyperactive, but most will be judged as disturbing to the class. They become discipline problems. They are sent to the principal's office; their parents are called in; some are punished; some are referred to counselors or psychologists.

At this point, 20/20 hindsight comes into play. Investigating social workers and examining psychotherapists find patterns that seem to go back to early childhood. These children had shown signs, in early school and even before, of being at risk, but the symptoms had gone unnoticed by parents who may have had their own problems or did not want the bother or the stigma of having a "disturbed" child. Unfortunately for these children at risk, there are few other adults around to notice these early signs or to know how to help these children prior to their becoming "problem children" in the elementary schools.

It would be easy to blame ignorant or careless parents for not noticing early deviations, but the truth is that, even from the scientific viewpoint, too much about the origins of behavior disorders is unknown and unexplored. Hindsight analysis is not the same as the ability to predict which children will develop problems. In the past, theories that hoped to identify and to explain the etiology of behavior disorders in children usually focused either on how crucially important early experiences and environmental stresses were (e.g., broken home, poor family, violent neighborhood) or on the child's constitutional vulnerability (that is, inheriting genes for schizophrenia from an already schizophrenic parent). The theoretical position used to focus etiological research on the discovery of incontrovertible proof as to which—environment or genes—was the causative factor of deviant behavior. Fortunately, within the last decade, a notable shift has occurred in the attitudes and dogma of developmental psychopathologists. Most now acknowledge the legitimacy of the interaction of a multitude of environmental and constitutional causes. This is particularly true for researchers studying new methods for the early identification of and intervention for vulnerable young children.

Would it be possible, in any case, to predict which children will have behavior disorders? Dr. Rolf and his colleagues think so. Healthy competition among researchers has improved the quality of potentially useful predictors based on data coming from life-history research and from samples of high-risk children studied prospectively. Furthermore, there appears to be a growing consensus that the most vulnerable children have been identified as being:

- Those with deviant parents, especially those parents with psychotic and criminal histories
- Those with chronic aggressive behavior disorders
- Those who have suffered very severe social, cultural, economic, and nutritional deprivations

- Those who have physical, temperamental, or intellectual handicaps

## The Concept of Prevention

Having identified these risks—these warning signals in other words—the next question is: How do we use this information? The Vermont Child Development Project is an example of applied research at its best. The answer is to try to prevent pathologic behavior from developing in children at risk by “innoculating” them with competence-promoting early experiences much like the concept of giving the vaccine to infants to prevent smallpox. However, one must remember that smallpox has a single cause, and still it took much research before the cause was discovered and much testing before the effectiveness of the preventative vaccine was proven.

Could the multiple causes of psychopathology in young children be proven and prevented? Could early symptoms in disturbed children be reduced, duration shortened? Could pre-school child-care facilities be used as treatment centers? Dr. Rolf and his cohorts are attempting to answer these questions. Keeping in mind that there is no one specific target behavior, no one universally proven treatment strategy, no one target treatment time, and constantly changing environmental variables, Dr. Rolf decided to test the efficacy of a therapeutic day-care intervention program at the same time he was gathering baseline data on children with already detected behavior disorders and on children at varying degrees of risk in the population at large. Specifically, he was interested in studying the development of competent behavior in both vulnerable and nonvulnerable children, the symptoms and duration of pathology in pre-school children, the relationship of pre-school measures of competence to school measures of social adjustment and academic prowess, and the relationship of the observed patterns of incompetence in pre-school and early-school children to recognized signs of incipient adult psychopathology.

## Scope of the Project

The Vermont Child Development Project was designed with four major components—epidemiological surveys, high-risk family studies, intervention studies, and a follow-along survey—running simultaneously.

The *epidemiological survey* has already sampled a broad cross section of over 1,000 pre-school-age children in day-care centers and at home in an effort to obtain basic data on the developmental patterns of skills and behavior dis-

orders in large nonclinic populations of pre schoolers. The Vermont Behavior Checklist, developed specifically for this project to determine developmental differences in children, and the Family Background Information Form have been used by child caretakers at 30 day care centers, at approximately 6-month intervals, on 650 of the children. In addition, 400 families whose children are in home care were also administered the instruments. Of the 650 children, 210 were rated at the same time by their parents. An additional 1,100 first-grade children (half the first graders in the county) have also been screened annually through teacher ratings using the Lambert Pupil Behavior Rating Form and peer ratings by their classmates. At the same time, additional ratings have been made by VCDP behavioral observers, and ratings assigned to cumulative school records on each participant.

The *high-risk family studies* look at the social, intellectual, and physical competencies of several groups of vulnerable pre-schoolers—those having parents who have received treatment for psychotic, neurotic, character, or marital problems. Two major psychiatric treatment institutions have cooperated with the VCDP to identify 450 high-risk families who met the criteria. A subsample of 50 of these target families and an equal number of control families have been contacted for intensive evaluation of the family members and their pre school children's development.

The *intervention studies* are being conducted at the Ethan Allen Child Care Center, formerly the University of Vermont's Home Care Enrichment Center, to determine how effective typical and/or specially designed day-care experiences are for helping already disturbed or vulnerable children. For each intervention child there are four control children, two of whom are randomly selected from other day-care facilities and from home-care environments and two who are matched on behavior and family background variables. The vulnerable children experience the usual day-care program and, at the same time, individualized therapeutic procedures to promote greater competencies (social, intellectual, and physical) and to diminish maladaptive behaviors. Daily treatments and assessments are made on both the children under treatment and their matched controls. The intervention studies also include voluntary counseling programs that have been designed for the parents of the vulnerable children in the program.

At the beginning of the study, each of the vulnerable children received a thorough medical examination. Also a special balanced diet program was designed and initiated by a University of Vermont nutritionist for all children at



the day-care center; and, when necessary, some parents were given nutritional information to improve home meals.

A *follow-along survey* is studying the developing competencies of pre-school children in general in order to set social and intellectual norms. With permission of their parents and teachers, specific pre-school children are then followed into their school careers to elicit data with which to make outcome comparisons.

Several studies have used children from pathogenic families as subjects, but the VCDP is unique in its depth, target population, overall goals, and potential for usefulness. It is unique in its site—Chittenden County, Vermont—a relatively isolated New England valley with a mix of urban and rural areas and a well-balanced population that provides a stable community of subjects and controlled variables. The project works with pre-school children from 2 to 6 years of age, particularly those under age 4, a tough-to-research but extremely important group. Also, no other high-risk child research project actively puts the emphasis on testing therapeutic interventions.

One great advantage of the combination of epidemiological surveys and of intervention programs is, interestingly, the light shed on the behavior of normal children. First, data collected from the general population of children can serve as a base against which to plot and measure the deviations and the patterns of recognized problems; second, they give greater insight into what the norms really are for this age group. So little has actually been known about pre-schoolers that much that had been accepted as fact turns out to be theoretical folklore and often professionally espoused mythology.

### How Normal Is Normal?

One of the most significant findings from prior studies is that there are two major behavior factors that reliably demonstrate the types of disorder among school-aged children: externalizing or "acting-out" behaviors (usually unsocialized aggressiveness) and its opposite, internalizing (withdrawing) behavior. None of these studies, however, has indicated how strong or how widespread these behaviors are among very young boys and girls in day care or at home.

Data from a random sampling of 1,100 VCDP youngsters, not cases referred for treatment or defined as at high risk but taken from the general population, show that examples of both aggressive and withdrawal behaviors can usually be found in the majority of children. For instance, over 41 percent of the boys struggled or picked

fighters with other children at least once a week. But what is most important is the frequency or severity of the fighting: Less than 10 percent made a constant habit of it, struggling or fighting several times a day or continuously all day long. These latter frequencies of fighting define abnormal rates of fighting for pre-school boys and not just the occurrence of fighting per se.

There were other interesting sidelights about sex and age stereotypes. Very young girls may be spice, but in certain situations and at ages less than 3, they are no more sugar and everything nice than the boys. At age 2 they show as much or more aggressiveness, including temper tantrums and constant demands for adult attention. They pick fights as frequently as boys. But, in the later pre-school years, whether from constitutional factors or from watching their elders and television, the boys catch up to and surpass the girls in all categories of aggressiveness.

Most important, perhaps, is the impact these findings must have on our treatment modalities and our pet ideas that are based on concepts of normality which may be only partly true or false. For instance, "hyperactivity" is usually defined as an abnormal condition, synonymous with "minimal brain dysfunction," which in turn is considered to be an organic syndrome and is frequently treated with stimulant drugs. But the VCDP data show that "an overabundance of energy and trouble being in one place for a period of time," the cardinal symptom of hyperactivity, must be expected in normal pre-schoolers. If not, one-fourth of all children from 18 months to 5 1/2 years, rated as being active almost *all* of the time, have "damaged brains." Asks Dr. Rolf, "Which alternative explanation would you choose?"

Classifications of the behavior disorders of the very young have been handicapped by a lack of reliable data—specifically by a lack of sufficient representative samples of children available for examination. There are several reasons for this. First, as previously mentioned, parents are often hesitant to bring their infants and pre-schoolers with troublesome behavior to a clinic or doctor for diagnosis or treatment because they often correctly believe the children will "outgrow it." In some instances psychologically disturbed parents would be, for their own reasons, even less likely to bring their children for study. Indeed, they might not want the signs of child abuse to show or they may need a disturbed scapegoat child to hold their own lives together. But in most instances, parents simply might not consider antisocial or prepsychotic symptoms important or as anything abnormal. Indeed, when members of the staff of the VCDP pointed out to some parents

that their children were violently aggressive, attacking and hurting other kids for little or no apparent reason, a few parents answered with some surprise, "What's wrong with that? I was just like that myself when I was a kid."

Secondly, unlike older children, many seriously and chronically disturbed pre-schoolers will probably not be noticed, screened, or evaluated by professionally trained teachers, guidance officers, or nurses; they will not be referred by concerned and trained nonrelatives for psychological evaluation. As a result, prior to studies such as the VCDP, the incidence and prevalence of behavior disorders among the very young must be inferred from searches of a limited number of clinic cases. How can conclusions about the types and prevalence of abnormal behavior drawn from such records be scientifically sound?

In contrast to previous studies, the VCDP has created a developmental risk profile program, identifying and quantifying normative behaviors among pre-schoolers and measuring their interactions with family background and environmental variables. The data amassed for these profiles are not only useful for epidemiological purposes, but they also provide a baseline against which to measure the effectiveness of early therapeutic interventions for children with different early experiences. Curves that show both how quickly normal developmental skills are acquired and problems are abandoned can be compared between the high-risk children in intervention and the large number of controls who receive no treatment but who have had similar or dissimilar childhood rearing environments. An example of a comparative developmental risk profile follows.

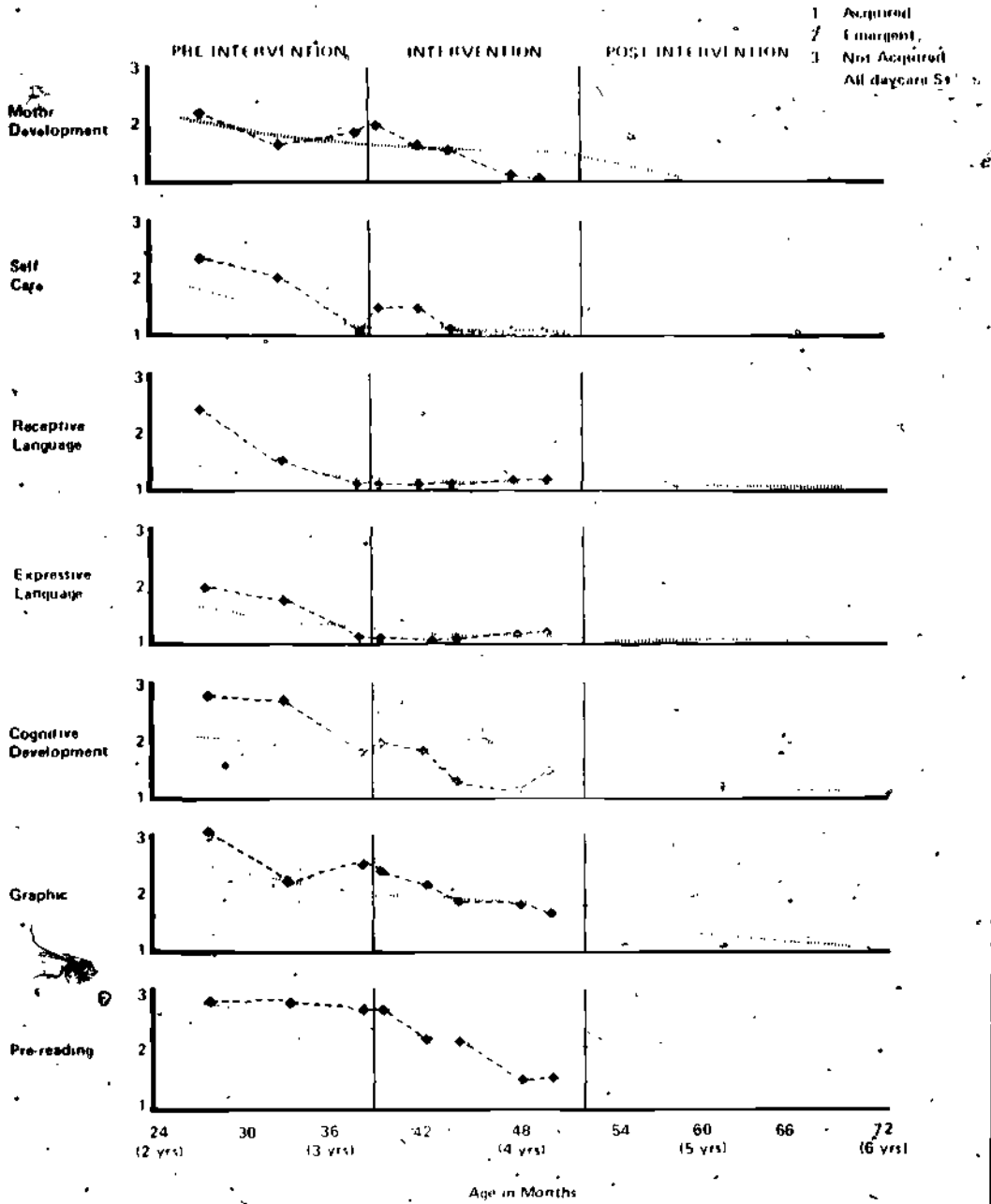
### Early Intervention in Theory and Practice

The theory—or theories—of early intervention stress the relationship of early environment to behavioral development. They date at least to the 1940s and provided the early impetus for the broad scale pre-school intervention programs of the 1960s, including Head Start.

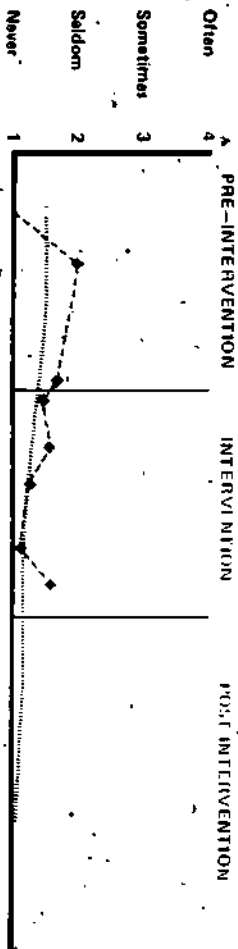
Historically, the first intervention programs concentrated on cognitive development because it was concluded, or felt, that social and emotional immaturity would be expressed, and could be measured, by poor school performance. These programs were predicated on the belief that children who had behavior problems would lose "learning time" because they could not adapt to the school routines, e.g., emotional upset and social disorientation disrupt intellectual concentration and the learning process, creating a substantial gap between potential and performance among children with trouble. A related school of thought

# DEVELOPMENTAL PROGRESS

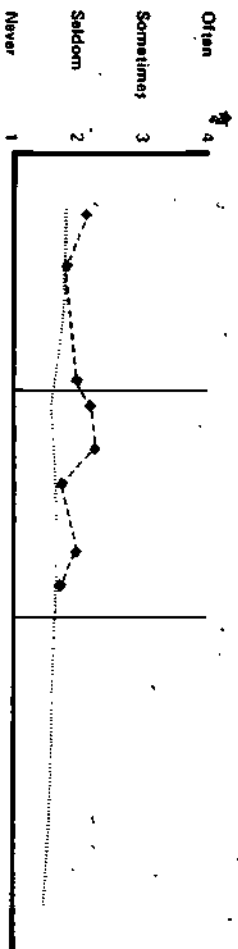
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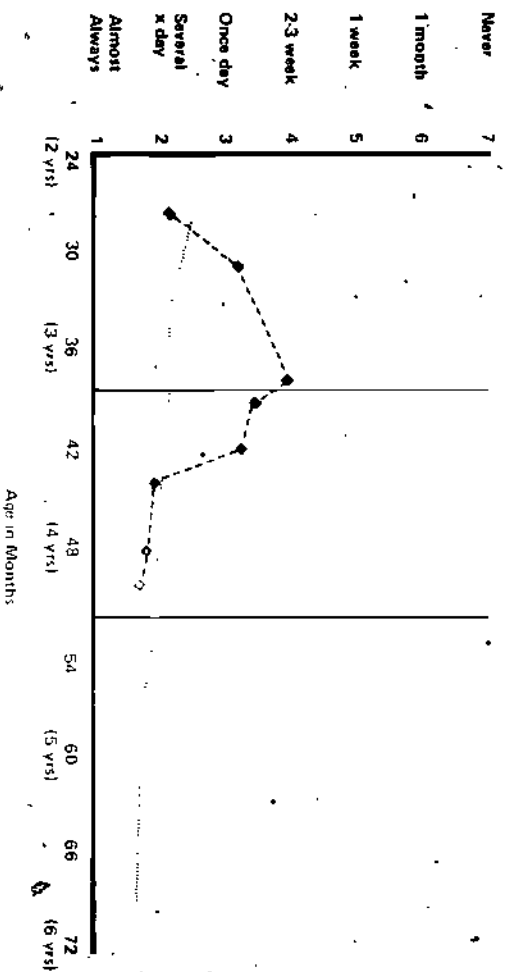
**BEHAVIOR PROBLEMS**



**SPEECH PROBLEMS**



**PRO-SOCIAL BEHAVIOR**



holds that emotional disorders are really defects in social interaction and that the origins for these defects occur in the first few years of life, in interactions with others, young and old, who must contend with the stresses of bad neighborhoods and homes. The obvious solution, therefore, would be to give the children "enriched environments" and better adults and children to use as models. Most federally funded day-care and Head Start programs have tried to do this.

Today, a well-run nursery school or day-care center, particularly one that puts its major emphasis on therapeutic or competence-promoting strategies rather than baby sitting, meets most of the criteria of good models and enriched environment. Says Dr. Rolf, "Coming to day care gives children a chance to get out of a possibly pathogenic home, to meet other kinds of socially capable kids and adults they might not have dreamed about, and whose behavior can serve as examples. At the center they can get good food, attention, a chance to play in a good social atmosphere." The concept of the therapeutic day-care center is not new, but few have existed because of lack of money for specially trained staff and perhaps because our society is unprepared for day care in those terms. Most day-care centers are designed to help parents, not children. For example, the WIN (Work Incentive) program was devised to get mothers off welfare and into the labor market.

Those centers that have used treatment have usually used traditional day-care programs with minor therapeutic modifications. The teacher's or therapist's major job was to turn the child from socially unacceptable forms of behavior toward what would be acceptable. Each center essentially would go its own way in developing a treatment package for each child. Further, there was usually no consensus—and no evaluation or proper definition—about what worked best and why. In retrospect it seems obvious that, regardless of the theoretical bias of a particular center or therapist, what worked best was a combination of various methods adapted to the individual child—the eclectic and pragmatic approach.

### Eclectic Application and Evaluation of Early Intervention

Although both are classified as "at risk," there is a substantial, if not fundamental, difference between those children who come from backgrounds or with handicaps that statistically indicate a greater chance of disorder and those children who already have serious problems when they come to the day-care centers. And there are

even greater differences between "at risk" children and the controls of the VCDP intervention research who remain in their homes.

Different children, different types of children, call for different intervention strategies. This has been a basic precept on which the project has built its program and a basic conclusion drawn from implementing the program. It is also an inevitable and essential part of the "voyage of discovery" approach. The project is trying, simultaneously, to assess the therapeutic effectiveness of two related types of intervention. On one hand, they are trying to judge the impact of day-care and nursery school experiences in general on various samples of children judged to be at risk, as compared to the controls at home. On the other, they are trying to define, develop, and judge the effectiveness of specific and specialized competence-promoting strategies on a select group of already disordered children.

The VCDP does not believe in segregation of children with special problems. In the current intervention site, the Ethan Allen Child Care Center in Winooski, Vermont, no segregation—be it by sex, social class, behavioral problem, etc.—is practiced. Very few children, no matter how severe their disorders, are turned away. (Some are referred when they can get better treatment elsewhere for certain problems.) They are exposed to, and they play with and relate to, a broad range of other kids. Drs. Rolf and Hasazi feel strongly on this point and have written eloquently on it. "If an intervention program is to be implemented within a day-care setting . . . the maladjusted and well-adjusted children must be mixed together in order to facilitate the learning of appropriate social behaviors under controlled conditions." They follow a large number of authorities in public education who find that segregation of handicapped children has seriously damaging effects on self-image and helps initiate a self-fulfilling prophecy. Says Dr. Rolf: "Label a child handicapped, set him aside in special groups for his kind of handicap, and he will probably stay handicapped and labeled."

If the maladjusted can learn appropriate social behaviors from normals, what about the reverse? Dr. Rolf smiles. "This negative modeling can and does happen. For example, one mother came to us, horrified, to tell us that her small son, while being complimented for being a nice boy by an elderly lady they met on the street, told her that she was an old (obscenity)." However, that boy's behavior was quickly corrected by his mother. Most of the modeling and influencing ultimately do go in positive pro-social directions.

Perhaps the most compelling argument for early therapeutic interventions with high-risk children is that it might not only treat and ameliorate, but be prophylactic as well—build up resistances, better methods of coping, greater flexibility of response. For these purposes, too, the intervention program at VCDP serves as a laboratory. The overall goal remains straightforward: to help the children while finding out how. To accomplish this, one can wear the two hats of humanist and experimentalist: The children must be regarded warmly, and the data and evaluations must be regarded with cold objectivity.

### The Intervention Process<sup>1</sup>

Six modes of intervention are used—day-care curricula, consultation, referral, direct child contact, parent and family contact, and advocacy/follow through. Any one intervention mode can be applied to a singular behavior problem, but; more commonly, intervention of necessity involves the simultaneous application of several modes to deal with complex problems. Flexibility is emphasized.

The usual day-care activities are maintained at the Center. However, the intervention aspects are tailored to the special needs of individual children. It would be unwieldy to cite the many variations of a technique adapted to one situation. The general goals are to improve social, intellectual, and physical competencies to give the children self-confidence and a feeling of well-being.

Social competencies are usually developed through a graded series of cooperative play and work activities, group theatrical skits with peer and teacher roles assigned, and practice in socially acceptable behaviors. Visits to various institutions such as churches, stores, and fire stations not only make the children aware of the existence and function of these units but also teach them society can work for the good of all. At the same time, these pursuits enable the children to interact with a variety of people whom they wouldn't usually see, and they learn to appreciate and accept a range of individuals and their differences.

It is difficult to speak of age-appropriate intellectual competence when much of what children learn depends upon their readiness to do so. However, generally, the program objectives are to stimulate creativity, concept development, verbal comprehension and expressions, critical thinking, and sensory discriminations (visual, auditory, and tactual). Perhaps developing inquisitive behavior is the most important part of this effort. Although much environmental-sensory stimulation is done informally



through manipulated play activities, more formal instruction in number, alphabet, and language training is done through tapes and records and repetitive exposure, practice, and reinforcement.

Before attempting to work on physical competence, each child's vision, hearing, motor coordination, and tactual sensitivity are carefully evaluated. Through games, sports, dancing, and rhythm exercises, the children are taught about their bodies and how to control their movements. They also learn the relationship of their bodies to physical structures and objects. Most importantly, they learn to cooperate with other people.

Although the three types of intervention appear to be autonomous, in practice there is much interrelatedness. Many of the activities promote all three competencies at the same time. Should we be overwhelmed with the busyness of the intervention program, Dr. Rolf is quick to point out that free unstructured play opportunities are available in large quantities and that the children derive much pleasure from their experiences.

Paul is an example of one who profited from intervention and whose progress was dramatically portrayed on the developmental profiles. He was one of the early cases and is still in the project. He was referred to the VCDP by a social agency investigating possible abuse and neglect. Both his parents had histories of psychiatric hospitalizations and still showed signs of severe psychological problems. At age 3 1/2 he had almost no language skills, wasn't toilet trained, couldn't take care of his own simple needs, and his social skills were typical of children half his age. Since he was in such bad shape, intervention had to start with the most elementary problems—including getting him to the day-care center on time and in reasonably good condition. His mother, lonely while her husband was away would keep the children up late for company and go to bed so heavily sedated that she could hardly get up and make breakfast for Paul in time to take him to the Center. He missed sessions often, and when he did come was apt to be sleepy, hungry and irritable. Finally, arrangements had to be made by the project staff and funding obtained to hire a driver to pick him up and to bring him to the Center. The intervention programs for Paul had to be addressed to many problems—socialization with other children, cognitive skills, self-help, use of the toilet, and so on, including speech therapy and training in the verbal expression of feelings. He differed from the others not only in degree but in variability. On the developmental profiles his curves rise and fall like those of an erratic steeplechaser, compared to the more smooth curves of all the control subjects. Paul's shifting pattern seemed to reflect the periodic crises the family went through, as well as his uneven attendance at the Center.

With time, most of the developmental curves of the intervention subjects approach the norm as skills are acquired via the therapeutic programs. In Paul's case, by the time he reached age 5 (18 months after his start in day care) his curve was, in most measures, nearly parallel to that of the rest of the subjects. The biggest problems and

greatest deviances were still in social and general behavior—as noted before, the areas most closely affected by the continuing distressing situations at home.

Each child is different. So are the interventions. Dr. Rolf says, "Some kids will respond to more freedom—the open classroom kind of thing—and open up like flowers. But others will just fly apart; they need structure—perhaps a new structure—that they don't get at home. You gently try one approach, then another to find the one that works best.

"In working with children, with parents, and with teachers, we must develop mutual trust on the basis of recognition of our mutual ignorance concerning the causes of behavior problems and the desires to discover new methods to help the children help themselves."

### Rocks and Shoals

Intervention with high-risk children must run into problems, and their nature, and possible approaches to solutions may be as instructive as the successes.

### The Parents

The greatest source of problems in the VCDP intervention program has not been the children. Parental involvement or lack of it, both in relation to the children and the intervention strategies, came around to haunt the staff again and again. Although the programs were meant primarily to revolve around children and their needs, parent participation and cooperation are built in and are vital. When a child enters the program, the parents must agree to meet with project staff at least once a month to discuss progress and behavior at home. Some parents have been seen as often as once a week for counseling and support in childrearing. Nevertheless, when a 10-week program of parent education was designed and developed, though all parents of target children showed interest, only one actually showed up at the first meeting. This poor attendance was both frustrating for the staff and illustrative of the resistance or reluctance of parents to be actively involved. Indeed, such reluctance is very commonly encountered in cases where young children are experiencing developmental delays or behavior problems. Reports from other intervention projects describe recurrent difficulties with engaging the active participation of the parents in the child's treatment programs.

Unlike many other early intervention programs, such as Head Start, that deal primarily with cognitive development, the VCDE has chosen to work with all parents, even those who are themselves seriously disturbed.

Often, some of these parents contribute to their children's problems (and the staff's): They do not get children up in time for day care; they do not give them basic health and nutritional care—clean clothes, baths, or adequate food; they deliberately confuse the children about the treatment program, encouraging them to actively oppose the staff. Sometimes a parent or both parents may need to keep the child disturbed—he may be all that holds them, or the family, together. As noted, Paul's mother, with her husband gone at night, kept the children up to comfort her. At 4 years of age, highly disturbed, Paul would still reassure her, "Don't worry Mommy, I'll be the man of the house." He would take care of her. Says Chris Gault, a primary planner and implementer of the therapy programs, "Children tend to blame themselves for whatever went wrong at home, even for the abuse that was visited on, or befell, them." Paul's statement may have comforted his mother but did little for him.

Working with parents and children at the same time involved walking a tight rope—trying to find that difficult balance between loyalty to the family, so that they would continue to trust the worker, and loyalty to the child's welfare and interest, when that might involve confrontation with the parents; this was especially true when neglect or abuse was involved. With some families it was hard to impress the parents with the seriousness of the child's condition. They had problems of their own, and in their world everyone has troubles. With withdrawn children, of course, the difficulties are not always obvious to the untrained; and to many overburdened mothers a good child is one that makes no trouble.

Because lack of parental cooperation does present a serious obstacle in any program for high-risk children, the VCDP suggests that future research plans include the investigation of new ways to motivate parents to join the therapeutic team.

### Multiplicity of Problems

To a lesser extent, the scope and profusion of a child's own difficulties make trouble in planning. Most of the children in intervention not only have physical and learning problems, but social ones as well.

The broad spectrum approach to intervention—particularly for multiproblem children—has many advantages, mostly that progress is more likely to be made in a limited period of time. Its major disadvantage, apart from the demands on the personnel, is that precisely isolating what led to the positive changes is more difficult when there is more than one uncontrolled variable. This does not mean

that the intervention programs are haphazard—they are all aimed at specific targets—but being initiated at once, or close upon one another, it is hard to determine which one made the difference.

A brief case history might illustrate the problem in intervention planning. Unlike Paul, Fred had been attending the day-care center for some time before intervention. He seemed fine in most areas, but he seldom spoke to or played with other children, though he did interact with adults. This behavior did not improve the longer Fred stayed in day care (without intervention), so the presumably salubrious effects of day care alone were not working sufficiently, at least not for him. In fact, the troublesome ways he increasingly went about attracting the attention of adults led to his referral. The routine day-care center activity was actually increasing the severity of his problems, and he needed special programs to change this trend toward more prosocial behaviors.

At the time intervention began, positive social interactions with other kids in his group were rare, far less frequent than is typical for his age level. The case, having worsened in the months before intervention, was stubborn; it was 6 months before a definite change was noticeable. But after that the gates opened, and his progress was rapid. By the end of another 6 months, his social behaviors were normal and very positive. Intervention was no longer necessary. Fred was not as serious a case, from all appearances, as Paul; even so he received speech and language therapy twice a week, individual work with project staff that concentrated on cognitive development delays, and small group play that was supervised. In the small group he was, first, exposed to children with strong positive social skills who tried to involve him and led into activities and games that encouraged cooperative play; he was literally taught to play with other children and socially rewarded if he did. In addition to all this, project staff worked with day-care center teachers, and their responsiveness to Fred was altered to pay more attention to positive behavior and to ignore attention-getting ones. This fit in with and complemented the peer-play intervention. In short, we might say that Fred was given the "full treatment," or a good deal of it, and the positive results justified the effort.

Since children differ so much it may not be as important to find out what interventions worked with one child as to find that a broad-spectrum approach will work with many. Fred is a success story despite his initially serious problems. So is Paul; and there are others.

#### Prior Agency Affiliations

Related to all this is the fact that most of the families of the high-risk children are not only multiproblem, but multiagency affiliates. They are affiliated with the project, with the day-care center, and with a number of social agencies; some of which might wish they would go elsewhere. All these affiliations, programs, and philosophies must be coordinated or contended with. Some families have had a long and unpleasant history with other agencies and vice versa. They may carry over resentments and stereotypes; or, on the other hand, they may look upon affiliation with

the VCDP and the Ethan Allen Center as a chance for breaking off with the others.

When children are accepted into day care, therefore, several interesting phenomena are likely to occur. Often the referring agencies and parents act as if they had finally succeeded in their dreams of getting the child into a mythical sanctuary in which all needs would be met; and the time had now come to relax and get out from under. So welfare agency case workers, therapists from mental health centers, and visiting nurses all tend to terminate their active participation—in effect, to cut out. "When the agency people leave," says Dr. Rolf, "the parents often 'go to ground.' They withdraw to their homes, close the door, and try to avoid working with day-care and intervention staff. So our staff works hard with the kids during the day and then gets frustrated because the next morning much of the previous day's progress has been undone at night. These parents have developed an avoidance reaction to agency people, so the necessary parent-education work can't be started." The result is that the highest-risk children—with severe disorders, from multiproblem families, who need help the most—are also the poorest risks for steady progress in gains in social and intellectual competence. The same parents who created much of the risk prevent it from being treated realistically. Paul may be considered such an example. Lower-risk children, who may have similar problems but have more reachable parents, are generally the more appropriate short-term intervention cases. Fred is that kind of example, for his parents followed his progress closely and were very pleased with the appearance of each new social skill.

### Worker Resistance

Disturbed parents are not the only ones who may resist researchers intervening with their children. Day-care center staff members who develop proprietary or surrogate parental interests often have attitudes which make cooperative research difficult. Sometimes it seems to Dr. Rolf and his group that some of their more vocal critics among the workers must have been influenced by mad scientist movies, because they could hardly have had any experience (much less bad experience) with real researchers. To those who apparently prefer to rely on practical experience, love, and intuition alone, researchers must by definition be cold manipulators; and tender children (perhaps all society) must be protected from them. Fortunately, negative stereotypic attitudes are exhibited by relatively few, and most parents and day-care providers are understanding and

cooperative. "Maybe," says Dr. Rolf, "this minority is necessary to cool down unethical researchers. But it is very tiring and depressing to have to keep defending ourselves and reassuring everybody that we are not evil and unloving Fagins in search of an Oliver Twist, or agents of a corrupt and authoritarian government. It wastes a lot of time and energy."

Associated with the "all research is evil" attitude is the fact that work with children attracts a wide range of people with differing philosophies and motivations. Some have superb skills and sympathy, with good relations with children, staff, and parents. But some choose to work in day care apparently because they feel they will be free to do as they please—that child care and therapy are varieties of free-form art in which excellence is achieved by untrammelled freedom of expression. Supervision and evaluation of performance by others are not only undesirable but philosophically abhorrent to them. The intuitions of the worker are better for the children than any rules or the past experiences of others. What this means in practice, of course, is that it is often impossible to have consistent approaches to intervention either within or between centers and difficult or impossible to reconcile programs for cooperative effort or transfer. For example, one room in a center may allow "fair fights" (and thus reward physical aggression), while the next room does not permit fights and will separate, even isolate, combatants until the conflict can be resolved some other way. Therefore, says Dr. Rolf, "Anyone who starts intervention studies in an already existing day-care center with such free spirits at work can't expect programs to be either totally accepted or equally implemented by all staff. But, only those programs which will work in such a real world setting can generalize to other real settings."

Having described the frustrations and difficulties, however, Drs. Rolf and Hasazi would like to make one thing clear. While there have been complications (including blizzards, epidemics of flu, and chicken pox) in trying to follow their research design, the complications are really very trivial in light of the enormous support provided to the project by Center staff.

### Forging Ahead

Impediments to progress are encountered only by persons going somewhere and are important only if speed and movement toward goals have been generated. The Vermont Child Development Project has accomplished much since its inception in September 1973.

The epidemiological surveys of pre-school children in Chittenden County, Vermont, have been initiated, and are continuing. Both matched and randomly selected control children have been obtained for comparison with the high-risk children in the intervention program. Much basic data have been collected that will identify specific age-appropriate behaviors in pre-school children and will also provide insight into behavior disorders in the early years. The Vermont Behavior Checklist, one of the more important measures created for this project, has been proven a reliable instrument. Another technique designed specifically for the project—the developmental risk profile—has proven useful for outlining the progress of a single child in areas of motor development, self-care, cognitive achievements, and prosocial behaviors and enables a graphic comparison between children, or within each child, over time.

Weekly visits to psychiatric treatment facilities to recruit patients have provided 50 high-risk families with pre-school children who have participated in the study. These families, as well as an equal number of control families, have had each family member and their pre-school children's development evaluated through structured interviews, tests, self-report measures, and behavioral observations.

To date, 28 children have participated in the intervention program; some having completed their second year or more. Therapy goals—a written set of specific behavioral objectives—were established for each child individually based on their social, cognitive, and preacademic skill levels. Intervention approaches have drawn heavily on behavior modification and Adlerian concepts, and considerable attention has been given to developing interpersonal relationships. Between group comparisons on all dependent variables and a variety of within-subject experiments have been designed to evaluate particular therapy or teaching techniques. Definitive counseling programs were developed for the parents of the intervention children.

The epidemiological surveys of competence and disorder have now followed the children into the public schools, starting in the spring of 1975, with the active cooperation of four district superintendents, the principals of 12 schools, teachers in 46 classrooms, and the parents of about 1,100 children. Competencies in school and related activities have been rated by teachers, classmates, behavioral observations, and cumulative record data. As more of these follow-along data come in, it will be interesting to see what patterns develop.

The voyage of discovery at the University of Vermont has been under way now for more than 3 years. No final

destination has been reached, but much has been learned about research navigation in the community, about research impediments and cross currents, about how to stick on course, about the dimensions and conformations of what is to be explored, even if it cannot now all be seen. Millions of facts have been collected; and tables, charts, and profiles of progress have been made. Certain stereotypes, believed to exist by many, have been proven to be myths; but phenomena that are even more important and remarkable are taking shape, just ahead. Says Dr. Rolf, "We're working toward primary prevention with very young, high-risk children. Sometimes we know where we're going, sometimes we feel our way. It's a long trip, but we're moving with all deliberate speed and respect for all our children."



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