

The Houston Parent – Child Development Center and the Primary Prevention of Behavior Problems in Young Children¹

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This study reports the effectiveness of the Houston Parent–Child Development Center (PCDC) program for preventing behavior problems in young children. The PCDC is a 2-year, intensive parent-child education program for children ages 1-3 and their parents. Low-income Mexican American families were randomly assigned to program or control groups. A follow-up of the program 1-4 years later, when children averaged 5½ years of age, was carried out with 128 mothers who were interviewed about behavior problems of their children. A MANCOVA showed main effects for group and sex as well as a group by sex interaction. The principle result was that control boys were more destructive, overactive, negative attention-seeking, and less emotionally sensitive than program boys and girls and control girls. The program is seen as an effective primary prevention approach to behavior problems. Prior evaluations have shown that it also enhances children's cognitive skills. Other parent–child education programs should be examined as approaches to primary prevention.

Child behavior problems, especially those involving aggression, tend to persist for many years, even developing into serious adult problems (Kohn, 1975; Olweus, 1979). It is also apparent that these problems in childhood are remarkably resistant to therapeutic change (McAuley & McAuley, 1980; Patterson, 1975; Richman, Stevenson, & Grahm, 1975; Wahler, 1976). Clearly, the primary prevention of child behavior problems is much to be desired, if only we knew

¹This research was conducted as a part of the Houston Parent-Child Development Center's follow-up evaluation. It was supported by grants from the Spencer Foundation and the Hogg Foundation.

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how to go about it. Most early primary prevention attempts seem to have failed because they were too brief, did not require sufficient involvement of the participating children and parents, and were often directed at irrelevant behaviors (Brim, 1961). Now, with the advantage of a substantial body of developmental and child clinical psychology knowledge, it is possible to create new methods that will have significant effects in preventing the emergence of problem behaviors.

New approaches have been developed as, for example, the competence-development programs developed by Shure and Spivack (1978) and Rickel, Smith, and Sharp (1979). Such programs are based on a sound prevention rationale from which their operations follow. Positive effects have been shown and their utility in a wide range of situations seems apparent.

Even so, these approaches do not exhaust the range of forms that primary prevention with young children might take. An approach that differs substantially from the two just cited is the one taken by the Houston Parent-Child Development Center (PCDC). This program has as its primary goal improving the later school competence of Mexican American children. A secondary goal is that it promote the mental health of the participating families and that in particular it reduce the incidence of behavior problems among the children.

THE HOUSTON PARENT-CHILD DEVELOPMENT CENTER

The PCDC began in 1970 as an alternative to Head Start, with similar objectives, i.e., to prepare economically disadvantaged children to enter school with cognitive and social skills that would reduce the academic disadvantage they would otherwise have. PCDC guidelines called for (a) working with children from birth to 3 years of age, (b) training mothers to be effective teachers of their children, and (c) providing comprehensive services to counter the effects of poverty.

A local decision was made that the Houston program would be designed for low-income Mexican American families. To serve these families adequately certain frequently occurring characteristics of this ethnic group in Houston had to be considered; the most obvious of these were Spanish-language usage, the primary role of the mother as homemaker, and the presence and active involvement of the father in the home.

The program (Johnson, 1975; Johnson, Kahn, & Leler, 1976) is structured in two stages. The first (beginning when the index child is 1-year-old) includes biweekly home visits to the mother and child, several weekend sessions for entire families, English language classes for the mothers, medical examination of the child, and assistance in gaining access to other community resources. The home visits take up many issues of infant development. The paraprofessional in-home educators were trained to work with the mothers who, in turn, worked with their children. Topics included language development, the use of toys in promoting

cognitive development, and the value of songs and word games. Mothers were helped to become sensitive to their child's developmental level and emotional states. Weekend sessions were scheduled to include fathers and siblings in the program. The English classes were included to help facilitate the transition to an English-speaking urban environment.

In the second year, mother and child participate in the Center's activities four mornings a week. Community services and language classes continue. Evening sessions include fathers. Center activities include homemaker lessons in sewing, buying strategies, and health and safety in the home. Group discussions consider ideas on child care and management and mothers also interact with their children in practicing the techniques discussed. Many of these interactions are videotaped and the mother-child interactions are reviewed by all participants.

The entire program requires about 500 hours of participant time over the 2-year period. Principles of child development are combined with practice in carrying out child-rearing skills.

That the program has been effective in training mothers has been demonstrated through program and randomly assigned control group comparison on several evaluation procedures (Johnson *et al.*, 1976). Laboratory videotaped mother-child interactions have shown program mothers to be more affectionate, to use more praise, and to be more encouraging of their children's verbalizations. Caldwell's HOME inventory (Bradley & Caldwell, 1976) was also used and program mothers were found to (a) provide more appropriate play materials, (b) be more emotionally and verbally responsive, and (c) avoid restriction and punishment.

Although program children were found to be more responsive verbally in the videotaped interactions with their mothers, other measures have been less consistent, thus, program children obtained higher Stanford-Binet IQs and Concept Familiarity Inventory scores in some but not all cohorts. Major positive program effects to date have been with mothers, rather than children.

PRIMARY PREVENTION OF BEHAVIOR PROBLEMS

The program is intended to operate at several levels simultaneously. At the family systems level, the PCDC functions as a resource for people experiencing the stresses of multiple changes. Most of the PCDC families have recently moved to a strange, new, urban area, from the largely traditional society of rural Mexico. Stress is magnified by moving away from prior support systems, from extended families, to a social system in which they are disadvantaged by language and ethnic group differences. That the PCDC functions as a new support network is seen in the satisfaction participants expressed with the program, high attendance at family evening sessions, and the persistence of alumni groups after families have graduated from the program.

Mothers in such transitional states often question old values and are uncertain about majority values they encounter. They want their children to do well and seek the means to help them succeed. The PCDC helps by offering access to resources. The parents declare their needs, and the PCDC makes use of the knowledge of the culture and contemporary developmental psychology to meet these needs. Specifically, mothers learn to apply social learning and cognitive developmental principles in managing their children.

Perhaps the most important primary prevention practice encouraged by the program is the expression of affection toward the child. A review of studies of child-rearing and psychopathology suggests that the dimension of parental acceptance—rejection is salient for a child's well-being (Dielman & Cattell, 1972; Rohner, 1975). Mothers in this study were in general affectionate toward their children, though as noted above, program graduates were more affectionate than controls. The children in this project were selected because of their low family income and minority group status. Beyond these base-rate factors, there was no reason to assume that they were especially at risk for developing childhood behavior or emotional problems.

Although the above summary emphasizes the significant role of parents in the emergence of a child's behavior problems, it should not be construed to mean that parents cause children's problems. Causality may be inferred from many sources including genetic factors, complications of pregnancy and birth, sibling relationships, and parent—child relationships. Since program and control families were randomly assigned in this study, there is no reason to suppose that the children were initially different as to these congenital and family background effects.

The objective of this study was to evaluate the primary prevention effectiveness of the Houston parent-education program. It was expected that program children would have fewer behavior problems as reported by their mothers 1-4 years after completing the program.

METHOD

Subjects

The 128 subjects included 64 program children (34 boys, 30 girls) and 64 controls (33 boys, 31 girls), ranging in age from 4-7, with a mean of 5 years 4 months. Families had originally been assigned randomly to program and control groups when they entered the program at the time the children were 1-year-olds. For each of the 5 years of the study, families were recruited through door-to-door surveys. Enrollment required that the family have a 1-year-old, meet poverty guidelines, be Mexican American, have an interest in participating, and both

mother and child be free of serious emotional or health problems. Approximately 80 families were enrolled each year. Two procedures were used for making initial random group assignments. The first two cohorts were assigned after parents indicated a general willingness to participate. The assignment was made and parents were told which group they were in. For the last three cohorts, parents were first told about the randomization procedures and given a detailed verbal description of the program and control groups and then, if willing to participate no matter which group they were assigned, the random assignment was made. Although the latter procedure better meets the standards of informed consent, the change did not affect either willingness to participate or subsequent dropout.

An analysis of the effectiveness of the initial random assignment indicated that program and control groups did not differ as to child sex, marital status, number of children in the family, family income, language preference, or parents' educational level.

Of the 214 families that began the program 48% dropped out before completing it 2 years later. The dropout rate of 38% was lower for the entering 244 control families, perhaps because fewer demands were placed on them. For example, most families dropped out when mothers went to work. Maternal employment did not affect control group membership but did preclude program participation. The major reason for dropping out was that the family moved away. Comparison of drop and stay families for control and program groups, however, demonstrated that there were no group differences.

This procedure was repeated on the background variables listed above when follow-up families were compared with those who were not located for follow-up. Since these analyses also indicated no evidence of bias in the followed group, it was assumed that families available at follow-up were representative of the originally assigned random groups.

Procedures

Descriptions of child behavior were obtained by interviewing mothers in their homes. The Behavior Assessment Interview (BAI) was an adaptation of the MacFarlane, Allen, and Honzik (1954) interview. The major change made was a rewording of questions to permit positive as well as negative reports on the children. An interview rather than a questionnaire such as Achenbach and Edelbrock's (1981) was used because prior experience with Houston PCDC evaluations had shown that the mothers had great difficulty with rating scales, perhaps reflecting either their limited education and/or unfamiliarity with rating scale formats. No difficulties were encountered with the more conversational approach of the interview. Interviews of about 1 hour each were conducted by fluently bilingual female research assistants.

The interviews were scored according to a 3-point system based on the Achenbach and Edelbrock (1981) procedure. Raters were blind to the sex and program status of the children. Interjudge scoring reliabilities were above 85% agreement. This scoring system was used for the 28 variables included in the study. To reduce the total number of variables for analysis, some of the variables were combined, e.g., Somatic Complaints was the sum of scores for sleep disturbance, nightmares, bed-wetting, other accidents, nail-biting, thumb-sucking, and poor appetite. The total number of variables was thus reduced to 12 for analysis.³

RESULTS

In order to determine whether the groups differed significantly with respect to the time at which the BAI was administered (which was the same as age of child), a Program Status \times Sex ANOVA was performed on the number of months to follow-up (lag time). No significant effects for Program Status, Sex, or the Program \times Sex interaction were revealed. Thus, the results presented are free of any differences in follow-up time. To control for any within-groups variance in BAI scores due to the time of follow-up, however, lag time was used as a covariate in all subsequent analyses. Data were also analyzed without using lag time as a covariate with virtually identical results.

The 12 BAI variables were analyzed simultaneously by a Program Status \times Sex multivariate analysis of covariance (MANCOVA) using the Wilk's *lambda* criterion. Parameter effects were adjusted for the influence of uneven cell size according to the procedures recommended by Appelbaum and Cramer (1974). The assumption of homogeneity of regression of the covariate was found not to be violated ($F(36, 322.78) = .47, p < .996$). The main effects were significant for both Program Status ($F(12, 112) = 2.36, p < .01$) and Sex ($F(12, 112) = 2.44, p < .007$). Control children had significantly higher scores on Destructive ($F(1, 123) = 13.22, p < .001$) and Extraversion ($F(1, 123) = 4.26, p < .04$). As for sex differences, boys were higher than girls on Destructive ($F(1, 123) = 4.64, p < .03$), Resistant ($F(1, 123) = 4.13, p < .04$), and Dependent ($F(1, 123) = 4.45, p < .04$). A significant Program \times Sex interaction ($F(12, 112) = 2.35, p < .01$) was also found however, indicating conditional relationships among group mean scores on the BAI. The Program \times Sex interaction resulted from the distinctive behavior of the control boys compared with the other three groups of children. Multivariate analyses of the simple effects were done to clarify the interaction. Mean scores standardized (*z* scores) to facilitate variable comparisons are shown in Table I.

³ The interview and scoring forms are available from the first author.

Table I. Standardized Score Means for Each Behavior Assessment Interview Variable

Behavior	Program				Control			
	Boys (<i>n</i> = 34)		Girls (<i>n</i> = 30)		Boys (<i>n</i> = 33)		Girls (<i>n</i> = 31)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Protective lies	.65	.49	.69	.53	.73	.45	.65	.66
Destructive	.18	.39	.21	.41	.67	.54	.29	.46
Selfish (with siblings)	.38	.60	.57	.63	.34	.48	.39	.50
Resistant	1.09	.71	.80	.71	.94	.56	.73	.77
Negative								
attention-seeking	.65	.65	.66	.66	.85	.62	.55	.51
Jealous (of siblings)	.44	.61	.63	.67	.58	.71	.84	.69
Temper problems	2.33	2.46	1.83	1.74	2.30	1.89	2.32	1.90
Extraversion	1.10	1.73	.88	1.62	.71	1.88	-.12	1.90
Dependent	-.53	1.40	-1.13	.98	-.54	1.30	-.85	1.12
Emotional								
sensitivity	1.09	.79	.82	1.08	.50	1.12	1.20	.79
Activity	.67	.68	.89	.66	1.03	.64	.61	.67
Somatic difficulties	1.02	1.57	1.13	1.20	.70	.76	1.39	1.36

The multivariate test of the simple effects of sex within the program group was not significant ($F(12, 112) = 1.38, p < .19$). In contrast to that finding, the test for sex differences among control children was highly significant ($F(12, 112) = 3.42, p < .001$). Control boys had significantly higher scores than did control girls on three items: Destructive ($p < .001$), High Activity ($p < .02$), and Negative Attention-seeking ($F(1, 123) = 3.86, p < .05$). There was also a trend for control boys to score higher on Extraversion ($p < .075$). Control girls had significantly higher scores than control boys on Emotional Sensitivity ($p < .006$) and on Somatic Difficulties ($p < .03$).

These results are consistent with the discriminant function for classifying control children given in Table II. Because they are better indicators of the nature of the discriminant function than are the actual discriminant weights (Timm, 1975; Harris, 1975), the correlations of each component BAI variable with the discriminant function are also listed in Table II. These results further reveal that scores on the Dependent and Resistant items contributed to discriminating between sexes within the control group. Higher scores on both of these variables were characteristic of the boys (note the group centroids). Only three variables appear to have little importance in discriminating between boy and girl controls: Protective Lies, Selfish, Temper Problems. Excluding these items, 84.38% of the 64 control children can be correctly classified as to sex on

Table II. Univariate ANOVAs and Standardized Discriminant Function for Control Boys Versus Girls with Correlations Between Component Variables and Function

Variable	<i>F</i> (1, 123)	<i>p</i>	Discriminant weight ^{a,b}	<i>r</i> BAI · DF ^a
Protective lies	.37	.546	167	.090
Destructive	11.15	.001	520	.498
Selfish (with siblings)	.10	.750	070	-.048
Resistant	1.70	.195	-.074	.194
Negative attention-seeking	3.86	.52	179	.293
Jealous (of siblings)	2.51	.115	-105	-.236
Temper problems	.01	.914	-.022	.016
Extraversion	3.23	.075	337	.268
Dependent	.87	.352	404	.139
Emotional sensitivity	7.92	.006	-450	-.419
Activity	6.08	.015	393	.368
Somatic difficulties	4.63	.033	-557	-.321

^aDecimals omitted.

^bGroup centroids (standardized) = .84 (Boys), -.84 (Girls)

the basis of their scores on the remaining nine BAI variables, thus, misclassifying only four boys and six girls.

Although BAI scores did not significantly differentiate program vs. control girls ($F(12, 112) = 1.08, p < .38$), the test of program differences among boys was quite significant ($F(12, 112) = 3.64, p < .001$). Control boys had significantly higher mean scores than program boys on two items: Destructive ($p < .001$) and

Table III. Univariate ANOVAs and Standardized Discriminant Functions for Program Versus Control Boys with Correlations Between Component Variables and Function

Variable	<i>F</i> (1, 123)	<i>p</i>	Discriminant weight ^{a,b}	<i>r</i> BAI · DF ^a
Protective lying	.37	.543	180	.088
Destructive	19.52	.001	744	.638
Selfish (with siblings)	.08	.776	-.073	-.041
Resistant	.79	.377	-459	-.128
Negative attention-seeking	1.81	.181	150	.194
Jealous (of siblings)	.67	.414	361	.118
Temper problems	.02	.892	-122	.020
Extraversion	.78	.378	-135	-.128
Dependent	.00	.956	186	-.008
Emotional sensitivity	5.96	.016	-552	-.352
Activity	5.03	.027	410	.324
Somatic difficulties	1.08	.301	-235	-.150

^aDecimals Omitted.

^bGroup centroids, = .847 (Control), -.847 (Program).

High Activity ($p < .03$). Program boys scored significantly higher on the average than did controls on Emotional Sensitivity ($p < .02$).

DISCUSSION

Evaluation of the Houston PCDC showed that program boys and girls present very few problems and control girls were not discriminably different from them; they too presented few behavior problems. Control boys, however, were different, being viewed by their mothers as more destructive, overactive, and attention-seeking than the other groups. They were also seen as less emotionally sensitive (less "touchy"), and had fewer somatic complaints than control girls.

The problems shown by the control boys are ones commonly found among young children in studies based on parent reports (Achenbach & Edelbrock, 1981; Eme, 1980; MacFarlane et al., 1954). Because these problems are primarily ones of aggression rather than those of inhibition, they might be expected to persist. Two qualifications should be considered. First, although the persistence of aggressive problems has been well documented (Kohlberg, LaCrosse, & Ricks, 1972; Olweus, 1979), longitudinal studies have not been done with Mexican American children. Although there is no compelling reason to expect a different outcome with such youngsters, the issue is an empirical one and we still lack the relevant data.

Second, the behaviors here categorized as "destructive," "overactive," and "negative attention-seeking" must be seen in perspective. For the most part they were not extreme behaviors. Only one mother described her son in terms that earned a "very destructive" score. She said, "He just breaks everything, his toys and the other kids', and I can't get him to obey me." She and the other mothers who described their children as destructive, overactive, and attention-seeking, were annoyed by the behavior, wished it would stop, and felt helpless about controlling it. Even so, none of the children had been referred for professional help. The limits of family coping apparently had not been exceeded even though they had been sorely tested at times.

That program effects were found for boys but not for girls does not mean that a program for boys only is advocated. Control girls presented few behavior problems while control boys presented many. According to Eme (1980) aggressive, resistant behaviors are more common among boys. This generalization is supported by the MacFarlane et al. (1954) and Achenbach and Edelbrock (1981) research. Our findings, although for a different ethnic group, are similar. Thus, the PCDC had an effect on boys because boys are more likely to present problems in the early years. The base rate for girls is low. Stoker and Meadow (1974) reported results of a survey of Mexican American and Anglo American children referred to a Child Guidance Clinic. They concluded that young Mexican American

boys presented conduct disorders involving aggression, and Mexican American girls were referred for depressive conditions later, when they approached puberty. Children in the present study were very young, but we may find in our continuing follow-up that depressive problems will occur less frequently with program girls. Thus the program may have primary prevention effects for girls, but we cannot know until the girls are older.

It was mentioned earlier that the PCDC is a broad-ranging program involving entire families in many activities and having multiple objectives. Given this scope, it is not possible to specify the nature of the program's influence on the children. Evidence exists, however, that the program has had an effect on maternal behaviors and there is reason from other research (Dielman & Cattell, 1972; Rohner, 1975) to think that parental behavior is related to child problems. Using a subset of the present sample for whom mother-child interaction measures were available at age 2, Breckenridge (Note 1) found that follow-up destructiveness, attention-seeking, and resistiveness were positively related to maternal criticism and rigid control and negatively related to affection and praise. These correlational results taken with the outcome evaluation results suggest the program was effective in fostering home environments characterized by affection, acceptance, and nonrestrictive control.

Several features of the program evaluation design lend confidence to the findings. Children were assigned randomly to program and control groups and families followed up were shown not to be different from those that could not be located. Possible "Hawthorne Effects" were minimized in that the children followed had been in five different program cohorts, with five different graduate times. That span of time should have been more than enough to permit novelty effects to disappear and, indeed, no cohort differences were found. All ratings of interview variables were done blind. Finally, the evaluation was conservative in that the assessment was 1-5 years later, rather than when the program ended.

One weakness of the evaluation is that judgments about children's behavior problems were based exclusively on interviews with the mothers and did not include test data or descriptions of objective observers. The latter would have been extremely difficult and time-consuming because the children were not part of a single intact social group as in a school setting. Most of these children were not in school; indeed, they lived in widely scattered households. Thus, observation would have had to have been done on an individual home-by-home basis, something that was not feasible financially. Mother interviews are, in their own way, just as valuable. Mothers of young children probably know the children better than anyone else and have deep concerns for their well-being. McCoy (1976) has shown that clinicians rely more heavily on parental reports than any other source of information for clinical decisions about children.

The dropout problem is substantial in this study and is one that has been puzzling for all of the PCDCs. It may be that the demand for such a long period of participation time is too great. Certainly, fewer families would drop an interesting brief program, but the trade-off would be exposure to fewer program

contents and the loss of opportunity to build relationships with staff and other families. The dropout issue is too complex for full analysis here. A thorough analysis for all of the PCDCs is being carried out by Andrews, Blumenthal, and Wallace (Note 2) of Bank Street College.

The primary prevention of child behavior problems in this study is but one function of many effects expected from the PCDC intervention. Guzman-Smith and Johnson (Note 3) have shown that program children compared with controls have higher WPPSI IQs and show significantly more work motivation, i.e., they try harder in response to examiner demands. Because school data have not yet been analyzed, it is not yet known whether significant differences will be found on achievement test scores or actual classroom behaviors. The program also served the parents as individuals in their own right and although positive effects on parent self-esteem, feelings of security, and sense of group belongingness were expected, the design did not specifically evaluate these variables. The program was intended for families, not just for the index child, and since some of its many objectives were attained it may have had positive effects on other family members as well. To the extent that other family members benefited, the program takes on greater value; it is more cost-effective.

The results of this parent education program suggest that other programs, similar in scope and intensity, may also be effective in preventing behavior problems. Although our literature review suggests that other programs have not been evaluated in this way, they should be encouraged to do so. Many existing parent education programs may be valuable primary prevention resources.

REFERENCE NOTES

1. Breckenridge, J. N. *Predicting child behavior problems from early mother-child interaction*. Unpublished masters thesis, University of Houston, 1980.
2. Andrews, S., Blumenthal, J., & Wallace, D. *Analysis of the Parent-Child Development Centers' attendance and drop-out results*. Personal communication, July 1981.
3. Guzman-Smith, A. M. & Johnson, D. L. *The responses of Mexican-American children to cognitive demands in a testing situation*. Paper presented at the meeting of the American Educational Research Association, Los Angeles, April 1981.

REFERENCES

- Achenbach, T. M., & Edelbrock, C. S. Behavioral problems and competencies reported by parents of normal and disturbed children aged four through sixteen. *Monographs of the Society for Research in Child Development*, 1981, 46(188).
- Appelbaum, M. I., & Cramer, E. M. Some problems in the nonorthogonal analysis of variance. *Psychological Bulletin*, 1974, 81, 335-343.
- Bradley, R. H., & Caldwell, B. M. Early home environment and changes in mental test performance in children from 6 to 36 months. *Developmental Psychology*, 1976, 12, 93-97.
- Brim, O. G. Methods of education for parents and their evaluation. In G. Caplan (Ed.), *Prevention of mental disorders in children*. New York: Basic Books, 1961.

- Dielman, T., & Cattell, R. The prediction of behavior problems in 6-to-8 year old children from mothers' reports of child-rearing practices. *Journal of Clinical Psychology*, 1972, 28, 13-17.
- Eme, R. F. Sex differences in childhood psychopathology: A review. *Psychological Bulletin*, 1980, 86, 574-595.
- Harris, R. J. *A primer of multivariate statistics*. New York: Academic Press, 1975.
- Johnson, D. L. The development of a program for parent-child education among Mexican-Americans in Texas. In B. Z. Friedlander, G. M. Sterritt, & G. E. Kirk (Eds.), *Exceptional infant* (Vol. 3). New York: Brunner/Mazel, 1975.
- Johnson, D. L., Kahn, A. J., & Leler, H. *Parent-Child Development Center Program Houston: Houston Parent-Child Development Center*, 1976. (ERIC Document Reproduction Service No. ED 135-459).
- Kohlberg, L., LaCrosse, J., & Ricks, D. The predictability of adult mental health from childhood behavior. In B. B. Wolman (Ed.), *Manual of child psychopathology*. New York: McGraw-Hill, 1972.
- Kohn, M. *Social competence, symptoms and underachievement in childhood: A longitudinal perspective*. Washington, D.C.: V. H. Winston, 1977.
- MacFarlane, J. W., Allen, L., & Honzik, M. P. *Behavior problems of normal children*. Berkeley: University of California Press, 1954.
- McAuley, R., & McAuley, P. *Child behavior problems*. New York: Free Press, 1980.
- McCoy, S. A. Clinical judgments of normal childhood behavior. *Journal of Consulting and Clinical Psychology*, 1976, 44, 710-714.
- Olweus, D. Stability of aggressive reaction patterns in males: A review. *Psychological Bulletin*, 1979, 86, 852-875.
- Patterson, G. R. The aggressive child: Victim and architect of a coercive system. In E. J. Mash, L. A. Hamerlynck, & L. C. Handy (Eds.), *Behavior modification and families*. New York: Brunner/Mazel, 1976.
- Richman, N., Stevenson, J. E., & Graham, P. J. Prevalence of behaviour problems in three year old children: An epidemiological study in a London borough. *Journal of Child Psychology and Psychiatry*, 1975, 16, 277-288.
- Rickel, A. U., Smith, R. L., & Sharp, K. C. Description and evaluation of a preventive mental health program for preschoolers. *Journal of Abnormal Child Psychology*, 1979, 7, 101-112.
- Rohner, R. P. *They love me, they love me not*. New Haven: HRAF Press, 1975.
- Shure, M. B., & Spivack, G. *Problem-solving techniques in child rearing*. San Francisco: Jossey-Bass, 1978.
- Stoker, D. H., & Meadow, A. Cultural differences in child guidance clinic patients. *American Journal of Social Psychiatry*, 1974, 20, 186-202.
- Timm, N. *Multivariate analysis with applications in education and psychology*. Belmont, Calif.: Brooks Cole, 1974.
- Wahler, R. G. Deviant child behavior within the family: Developmental speculations and behavior change strategies. In H. Leitenberg (Ed.), *Handbook of behavior modification and behavior therapy*. New York: Prentice-Hall, 1976.