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# DOCUMENT RESUME

ED 179 074

CS 014 316

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**TITLE** Predictors of Recidivism in Juvenile Delinquents Participating in a Family Counseling Program.  
**SPONS AGENCY** Virginia State Div. of Justice and Crime Prevention, Richmond.  
**PUB DATE** Apr 79  
**NOTE** 14p.; Paper presented at the Annual Meeting of the Eastern Psychological Association (50th, Philadelphia, PA, April 18-21, 1979); Best copy available  
**EDRS PRICE** MF01/PC01 Plus Postage.  
**DESCRIPTORS** Behavior Change; \*Counseling Effectiveness; Crisis Therapy; \*Delinquent Rehabilitation; Delinquents; \*Family Counseling; Intervention; \*Justice; Parent Child Relationship; \*Predictor Variables; \*Recidivism; Research Projects; Youth Problems  
**IDENTIFIERS** \*Diversion

## ABSTRACT

With the recent trend towards diversionary projects for juvenile law offenders, various therapeutic residential and outreach models have been introduced. It was hypothesized that there are family characteristics which are related to high incidences of continued delinquent behavior, and that males from single parent, low-income families will be the most likely to re-enter the juvenile justice system. It was further hypothesized that there are other salient variables in diversionary strategies which can serve to mediate the relationship between family characteristics and recidivism. Subjects were 53 families referred to a diversionary project utilizing a short-term behavioral family intervention approach. Data on families were collected, along with recidivism data from court records. Post-evaluation data were collected after termination of therapy. Both family and process variables proved important in understanding juvenile recidivism. More attention needs to be directed toward single parent families; smaller families tend to have higher recidivism rates than larger families; and family counseling tends to be the most effective method of lowering recidivism. (Author/BMW)

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# Predictors of Recidivism in Juvenile Delinquents Participating in a Family Counseling Program<sup>1</sup>

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Juvenile delinquency has long been identified as a major social problem and has received a substantial amount of research attention in recent decades. Antecedents of delinquent behavior have been the focus of most of the psychological and sociological literature to date. For example, Glueck and Glueck (1950) comprehensively studies a large number of family background characteristics and Clowden and Placht (1967) similarly pointed to the important role of family characteristics in describing juvenile delinquency. Ganzer and Sarason (1975) suggested that most juvenile delinquents are from broken, low-income homes, concurring with Martin, Clominger and Guze (1978) who pointed to the important role of familial tendencies towards criminality in understanding delinquency. While these and other studies (c.f. Willie, 1967) have revealed family background and socioeconomic variables relevant to an understanding of youths' criminal behaviors, there is a need for a more comprehensive approach to delinquency, focusing on how we can best rehabilitate juveniles who have entered the criminal justice system.

With the recent trend towards diversionary projects for juvenile law offenders, various therapeutic residential and outreach models have been introduced in the treatment of juvenile delinquents. Evaluations of these programs have not kept pace with the swift growth of alternative projects. There is a pressing need for program evaluation and research which aims to combine our knowledge of etiology of delinquency with successful therapeutic interventions and post-intervention adjustment level of program participants.

While the outcomes of interventions at the family level are often considered to be inconclusive (DeWitt, 1978; Well, Dilkes & Burckhardt, 1976), it has been shown that therapy with families of juvenile law offenders has proven to be a successful deterrent to continued criminal behavior. Shostak and Rosmann (1977) found that a short-term behavioral family therapy approach

<sup>1</sup>Paper presented to the meeting of the Eastern Psychological Association, Philadelphia, April, 1979. This project was supported by a grant from the Division of Justice and Crime Prevention of the Commonwealth of Virginia.

<sup>2</sup>Requests for additional copies of this paper should be sent to Karen Jenkins, Department of Psychology, Gilmer Hall, University of Virginia, Charlottesville, Virginia 22901. The authors wish to express their appreciation to the staff of the Family Counseling Program for their assistance in gathering the data reported in this paper.

was more effective as a treatment for juvenile delinquents than was an individual intervention. Similarly, Alexander and Parsons (1973) compared the effects of short-term behavioral family treatment with other types of family therapy and with a no-treatment control group. They found the family behavioral intervention to be most effective, resulting in significant changes in both family interaction patterns and in reduced rates of recidivism. Klein, Alexander and Parsons (1977) found that short-term behaviorally oriented family therapy was effective in both primary and secondary prevention of juvenile delinquency. They found a significant decrease in the recidivism rates of the identified delinquents (secondary prevention) as well as fewer initial court contacts in the siblings of the identified delinquents (primary prevention). This suggests that the efficacy of family therapy is built upon long-term behavioral changes which are maintained and transmitted through the entire family system.

While family therapy, particularly short-term behaviorally oriented family therapy, has proven to be an effective intervention with juvenile delinquents, there is a need for research which utilizes clear and meaningful dependent variables. Since our ultimate goal is to keep juveniles out of the juvenile justice system, recidivism should be expanded as a dependent measure. Intervention may change family interaction patterns or may alter the families' orientation toward the problem, but if high rates of post-intervention recidivism continue to exist, the interventions have questionable merit in helping to decrease the incidences of delinquent behavior.

Previous research which relied on recidivism as an outcome measure has been inconclusive in its ability to predict who will or will not re-enter the juvenile justice system. Ganzer and Sarason (1975) found that youths who were younger, had lower verbal IQ's and sociopathic tendencies were most likely to recidivate. Martin, Clominger and Guze (1978) related recidivism to a series of factors such as drug use, homosexuality and familial criminality while Cowden and Placht (1967) found that both short and long-term post release adjustment was related to family background characteristics. There has been little research done on the recidivism of non-institutionalized juvenile offenders and no attempts have been made to systematically relate recidivism to aspects of the actual intervention process.

Recidivism itself is a measure which has been defined inconsistently in past research. Reppucci and Clingempeel (1978) outlined several salient criticisms of the existing measures of recidivism and made cogent recommendations for future research. They suggested that recidivism be operationally defined, be supplemented with other measures of adjustment and be conceptualized and measured as a continuous rather than a dichotomous variable.

The present study suggests a model for viewing predictors of recidivism in juvenile delinquents unlike any in the existing literature. It is hypothesized that there are family and background characteristics which are related to high incidences of continued delinquent behavior. In accordance with past research, it is hypothesized that males from single parent, low income families will be the most likely to re-enter the juvenile justice system. External social support systems are also hypothesized to affect rates of recidivism. It has been shown in previous research on social networks that structural and functional aspects of social networks are related to adjustment in hospitalized mental patients (Tolsdorf, 1976) and in juvenile delinquents participating in a diversionary project (Kazak, 1978; Garland, 1978). Along with demographic and structural family background characteristics, it is hypothesized that family interaction variables will be important predictors of recidivism. Juveniles of families evidencing low cohesiveness and high conflict should be more likely to recidivise.

In addition to variables related to the family and family background, it is hypothesized that there are other salient variables in diversionary strategies which can serve to mediate the relationship between family characteristics and recidivism. These variables are related to the process and status of family counseling. Therefore, it is suggested that the type of offense precipitating the referral, the nature of the therapy termination, the percentage of sessions that the family keeps and the therapist's rating of family adjustment will be predictors of recidivism. These process variables should provide data on the efficacy of counseling and additionally should suggest changes which can be proposed in therapeutic interventions with juvenile offenders and their families. While some of the family factors can be altered (e.g., family interaction patterns), many of the family background variables are more difficult to change but must be considered in the planning and implementation of diversionary projects for delinquents.

#### METHODOLOGY

Subjects. Subjects were 53 families referred to the Family Counseling Program (FCP), a diversionary project utilizing a short-term behavioral family intervention approach, located at the University of Virginia. The families were referred to the program by local juvenile courts for juvenile offenses such as incorrigibility and truancy as well as for criminal offenses. The mean age of the referred adolescents was 14.1 years. (Description of the client populations can be found in Table 1).

Procedure. All families participated in an initial intake session during which data on all family members were collected. Recidivism data were obtained from court records. Post-evaluation data were collected from the families after termination

of therapy or refusal of services, controlling for the amount of time since the family's original referral. Recidivism data were collected from 2 to 17 months after termination, with a mean of 6 months.

### Measures.

I. Family background data. At the intake session the following data were obtained.

A. Demographic data: 1) age of the referred adolescent; 2) sex of the adolescent; 3) family type (one or two parent families); 4) race; 5) income; 6) residence (urban-within the city of Charlottesville and rural-residing in Albemarle or outlying counties); 7) size of the family.

B. Social network utilization. Information on kin and friends of father, mother and adolescent. For each kin and friend listed, the family member indicated whether or not they sought help from that person. Network utilization scores were obtained by determining the ratio of persons from whom help was sought to the total number of persons listed. A maximum of six network utilization scores were obtained for each family. These were summed to provide a total network utilization score.

C. Interaction data. The Moos Family Environment Scale (1975) was administered to all family members, providing data on five subscales (cohesion, expressiveness, conflict, organization and control) which reflect family interaction patterns.

### II. Process Variables.

A. Adjustment. Adjustment of the families was measured in two ways: 1) a rating by the therapist of the families overall adjustment which was obtained by defining adjustment and asking the therapist to describe the family on a 7 point Likert type scale; 2) change scores were obtained for a sample of 25 families which asked the families to report on pre and post measures of changes in frequency, disruption and emotional reaction to target behaviors. These families also provided a self-report of their adjustment. A correlation of .78 was obtained between the rating of adjustment by the therapist and the families perceptions of their adjustment. Similarly, a correlation of .65 was obtained between the therapist rating of adjustment and the family's self-report of changes in problem behavior. Since these correlations were strong, the counselor ratings of adjustment were accepted as measures of adjustment in the results to be described.

B. Other process variables. The type of offense (criminal vs. status) was introduced into the analyses as was the type of referral (voluntary, probation, court-ordered). A ratio of sessions kept to total number of sessions scheduled was calculated in order to assess the family's level of participation in the counseling process. Counseling status was an additional variable, indicating whether the family terminated with or without therapist approval.

III. Dependent Measure. A seven point recidivism index was constructed, using up-to-date data from the juveniles' records at the Juvenile Court. An attempt was made to incorporate some of the suggestions offered by Reppucci and Clingempeel (1978) in order to develop a more useful measure of recidivism. The seven categories were: 1) no recidivism; 2) any offense committed during therapy only; 3) one status offense or one during counseling and one after; 4) two status offenses or one criminal offense; 5) two criminal offenses or 3 offenses of any kind; 6) four or more offenses; and 7) detainment.

## RESULTS

### Family background variables

Pearson product-moment correlations were computed in order to determine the interrelationships among the family background variables and also to ascertain the relationships of each with recidivism (Table 2). Sex ( $r = -.28$ ,  $p < .023$ ) and size ( $r = -.23$ ,  $p < .05$ ) were the only family background variables to correlate significantly with recidivism, suggesting that adolescents from smaller families, particularly males, recidivise more often. Although network utilization did not correlate significantly with recidivism, it correlated highly with other family background variables. Greater network utilization was found in rural families ( $r = .336$ ,  $p < .007$ ), white families ( $r = .65$ ,  $p < .001$ ), families with two parents ( $r = .44$ ,  $p < .001$ ), and families with higher incomes ( $r = .532$ ,  $p < .001$ ). Sex ( $r = .23$ ,  $p < .047$ ) and age ( $r = .26$ ,  $p < .03$ ) also correlated highly with network utilization, suggesting that families of older adolescent girls utilize their networks most fully.

Family Type was found to be related to residence ( $r = .421$ ,  $p < .001$ ), income ( $r = .419$ ,  $p < .001$ ), race ( $r = .40$ ,  $p < .002$ ), family size ( $r = .32$ ,  $p = .01$ ) and ratio of sessions kept to appointments made ( $r = .27$ ,  $p < .027$ ). Single parent families tended to be black, lived in urban areas and had lower incomes. Additionally, these families tended to keep fewer therapy appointments.

The subscales of Moos Family Environment Scale (1975) were found to be related to recidivism. Adolescents with high conflict scores tended to recidivise more often ( $r = .28$ ,  $p < .023$ ) and lower scores on the mother's expressiveness scale were found to correlate significantly with recidivism ( $r = -.25$ ,  $p < .04$ ). Higher conflict scores in mothers were found to be significantly related to lower levels of family adjustment ( $r = .25$ ,  $p < .05$ ).

Type of offense correlated significantly with race ( $r=.29$ ,  $p<.017$ ), sex ( $r= -.41$ ,  $p<.001$ ) and referral type ( $r=.39$ ,  $p<.002$ ). Criminal offenders tended to be white males who were court-ordered into therapy.

### Predicting recidivism

A stepwise multiple regression analysis was performed with the recidivism index as the dependent variable. This analysis was designed to determine the combination of family background and process variables which best account for the variance in recidivism. Table 3 presents the results of this analysis. The strongest predictor of recidivism was adjustment (measured by therapist ratings), accounting for 27% of the variance. An additional 21% of the variance was accounted for by offense type. The next most significant predictor variable was family conflict as assessed by the adolescent. Other significant predictors were size of the family, counseling status, sex and family type. This complete model accounted for 63% of the variance in recidivism. Clients who were most likely to recidivate had lower rates of adjustment, were more likely to be criminal rather than status offenders, had high scores on the conflict subscale of Moos Family Environment Scale (1975), were from smaller families, had refused counseling or dropped out prematurely and tended to be male adolescents from single parent families.

### DISCUSSION

The present investigation proposed and offered support for a novel model of recidivism in juvenile delinquents. The measure of recidivism used represented a methodological improvement over measures used previously and is one which should be utilized in future studies of recidivism. It was found that both family and process variables were important in understanding juvenile recidivism. Predictors of recidivism included family background variables such as sex, family type, size and family conflict as assessed by the adolescent's Family Environment Score. These variables alone, however, when entered in a multiple regression analysis, accounted for only 32% of the variance. When the process variables (therapist rating, counseling status and offender type) were added to the regression, recidivism was predicted with a much greater amount of the variance accounted for. This suggests that further studies of recidivism in juvenile delinquents should not be limited to purely demographic data nor should therapists ratings and other characteristics of counseling be utilized exclusively. A combination approach is most comprehensive and most powerful in understanding recidivism.



7

The family background variables which were significant in predicting recidivism support the notion that single parent families tend to have greater incidences of juvenile delinquency, with families of male adolescents and with low incomes being the ones most likely to reappear in juvenile court. This indicates that more attention needs to be directed towards single parent families. These families tend to be poorer than two parent families ( $r=.42, p<.001$ ) introducing an element of complexity into our understanding of the relationship between family type and recidivism. It may be that the most effective interventions would be those which could be aimed at increasing the economic power of the single parent, a goal which can best be achieved at the policy level.

Network utilization did not predict recidivism in the multiple regression analysis. However, there is a trend in our correlational results which suggests that greater network utilization is associated with rural, white, two parent, higher income families, families who are less likely to experience recidivism. Families whose adolescents are most likely to recidivise in our sample did not utilize their networks highly, suggesting that they were not using all available resources. Past research (Stack, 1974) has suggested that the concept of social networks is a potent one and that networks should be critical elements in describing the overall life situation of families. Future research should be directed towards understanding and investigating salient dimensions of networks. Tolsdorf (1976) has suggested that function and not structure of networks is the most important dimension to consider in predicting adjustment. Further research should expand network variables and look at dimensions such as perceived helpfulness, degree of network overlap and specific uses made of network resources. In addition, therapists can help develop the families' use of network members, thereby guiding the family in a direction more likely to lead to improved adjustment and less recidivism.

An unexpected finding in our study was that smaller families tended to have higher recidivism rates than larger families. It may be that the presence of siblings provides more role models and supports for adolescents, particularly males, when one parent is absent. The fact that larger families were more successful (recidivised less) also relates to the research of Klein et al (1977) who suggested that family level intervention has powerful effects on other siblings in the system. There may be characteristics of the family therapy approach which are most suited to larger systems, although this idea has not been explored.

While background variables are important, the most powerful predictor of recidivism was found to be the therapists' rating of adjustment. Therapist rating was validated in the present investigation by correlating it with self-report measures of adjustment. The correlation

was substantial, indicating that therapist ratings are predicting a level of adjustment which is clearly congruent with the family's perceptions of adjustment. The fact that this rating of adjustment strongly predicted recidivism is an interesting finding to add to our knowledge of outcome research but needs further specification. Future research efforts need to be directed towards specifying the dimensions of behavior which are being assessed in ratings of adjustment. When this next step is taken, the course of therapy can be understood more clearly. Therapists would have specific goals to be working towards if, for example, family communication clarity or cohesion were found to be the most cogent dimensions related to therapist rating of adjustment.

The present study concluded that those youths who committed criminal offenses were most likely to recidivise. Since many juvenile offenders who are presently committing recurrent criminal offenses initially committed status offenses, programs like the FCP should direct their efforts toward status offenders, as these types of youths are the ones we are most likely to serve successfully.

The fact that we found that counseling tends to be most effective in lowering recidivism when families terminate with the approval of their counselors, suggests that our program has been successful with families who remain in counseling. We need to further explore ways of engaging families of status offenders in family therapy (King, 1978) and combine this outreach approach with our knowledge of background and family variables related to recidivism.

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Table 1

## Client Population

Variable	% of sample
Sex	
Males	56.6
Females	43.4
Offender type	
status	75.5
criminal	24.5
Race	
White	79
Black	21
Residence	
Urban	42
Rural	58
Income	
9000	53
9-12000	23
12000	24
Referral type	
voluntary	70
probation	13
court order	17
Parent type	
1 parent	43.4
2 parents	56.6
Sessions kept (%)	
.75-1.00	50.9
.50-.75	26.4
.25-.50	7.5
.00-.25	15.2
Counseling status	
terminated with	
approval	43.3
dropped out	
3 sessions	26.4
dropped out	
3 sessions	15.1
refused	15.2

Table 2

Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12
1. Residence												
2. Income	.513 ***											
3. Race	.379 ***											
4. Sex												
5. famtyp	.423 ***	.419 ***	.397 **									
6. motive												
7. offtyp			.292 *	-.41 ***		.392 **						
8. const				.335 **								
9. age												
10. size		.257 *			.256 *							
11. sesrat						.309 **		.5116 ***				
12. therat		.328 **			-.297 *			-.597 ***			.507 ***	
13. recid				.275 *			.424 ***	-.266 *			.253 **	
14. network	.336 **	.523 ***	.652 ***	.233 *	.444 ***				.261 *			

☆  $p < .05$   
☆☆  $p < .01$   
☆☆☆  $p < .001$

Table 3  
Multiple Regression Summary

Step	Variable	F <sub>e</sub>	P	R <sup>2</sup> change	R <sup>2</sup>	F	P
1	Therapist rating	15.83	.000	.269	.269	15.83	.000
2	Offender type	16.60	.000	.207	.476	19.09	.000
3	Juvenile Conflict Score	3.74	.060	.044	.520	14.80	.000
4	Size of Family	4.99	.031	.053	.573	13.43	.000
5	Family Type	2.40	.130	.025	.598	11.59	.000
6	Sex of Juvenile	1.41	.243	.014	.612	10.00	.000
7	Counseling Status	1.89	.177	.018	.631	9.04	.000