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PIT-133-73A

*(COMPLING OR RESEARCH MATTER)*

AN EVALUATION OF THE CORA PROGRAM

June 1973 - June 1974

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EVALUATION WORK X

MAJOR EVALUATIONS UNDERWAY OR COMPLETED IN YOUR SPA

Project or Program Being Evaluated:

Grant Title: PH-133-73A CORA-Counseling or Referral Assistance  
(include grant number)

Grantee: Philadelphia Court of Common Pleas

Brief Description: A crisis intervention program for juveniles  
(both project and evaluation effort)  
and their families on a short-term basis.

Scheduled date of final Evaluation Report: June 1974

Person to contact concerning the Evaluation:

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If completed, is Evaluation Report on file with NCJRS? yes  no

Please mail completed form to:

~~Keith Miles~~  
Office of Evaluation  
LEAA-NILECJ  
Department of Justice  
Washington, D.C. 20530

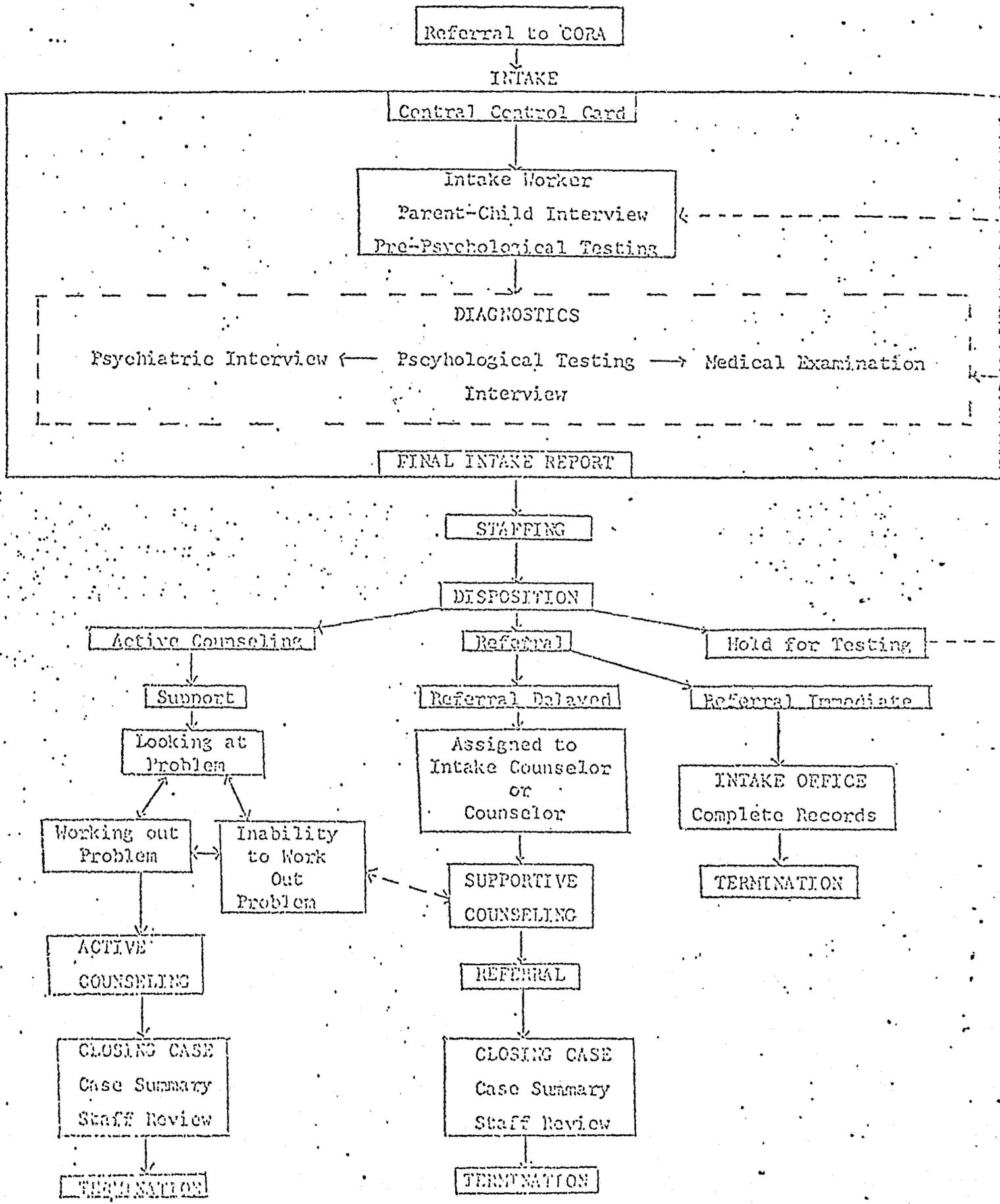
## THE CORA PROGRAM

The Counseling or Referral Assistance program, (CORA), is a non-residential community-based center established for the prevention of delinquency in the Northeastern section of Philadelphia. The aim of CORA is to provide support and assistance to children, and their families, who find themselves in trouble of one variety or another.

As the name implies, CORA accomplishes its aim through one of two channels - either by counseling done at CORA or by referring the youngster to appropriate outside agencies. The staff that is employed in both of these functions includes: a psychiatrist, psychologist, social workers, and a pediatrician, as well as administrative and support personnel.

Since this report is primarily an evaluation of the success of CORA we do not intend to go into great detail in describing how CORA functions. It is essential to deal with this matter briefly however, to place this research project in perspective. (More detailed information on CORA's functioning is contained in Appendix A.)

The flow-chart on the following page presents the operations of CORA in skeletal form. CORA's caseload is initiated when an individual youngster is referred to CORA. Most of these referrals are made by schools and other social agencies but there are referrals from individuals such as the parents of the child or neighbors. After the referral is made, either the child or his parents contact CORA and an initial interview is scheduled.



This interview is the beginning of the intake process during which the nature of the problem is delimited, diagnoses are made and a treatment strategy is developed. To do this, the intake process utilizes a number of information generating techniques. Although every one of these may not be given to every client, they include: interviews with the child and with the parents; psychological testing; physical examinations; and psychiatric interviews.

After these steps are completed, the information generated by them is distilled in the Final Intake Report and the case is prepared for staffing. During this staff meeting, which occurs once a week, the case is discussed and a final disposition is reached. Basically, there are three dispositions that can be made. Either the case is counseled at CORA, referred to an outside agency, or held for further testing. If the later disposition is chosen the client essentially returns to intake and will reappear at staffing.

Thus, there are only two final dispositions - either the individual is counseled or referred. If he is counseled the staff decides which counselor will handle the case, sets guidelines as to how the counselor will proceed and indicates the results that can be expected. The counseling sessions begin immediately after staffing and end when the counselor, client and the client's parents feel that the case has been resolved in a satisfactory fashion.

It should be pointed out here that during the fiscal year covered by this evaluation, CORA instituted a "parents group" program to improve its ability to deal with problems that are systemic to families. These are group sessions, run

by an experienced counselor, which provide an opportunity for the parents to gain some perspective on the problems they are confronting as well as to learn about possible solutions. Thus, the counseling portion of CORA's activities continue to expand so as to provide better and more comprehensive services to its clients.

We can also note that CORA is continuing its attempts to expand its services. For example, it is trying to secure additional funds to establish a more comprehensive approach for treating clients who have drug-related problems. These, and other signs of CORA's continuing innovativeness, are encouraging.

The other final disposition is that of referral. Many cases are referred immediately - when the appropriate agency can be found and can take the case immediately - and the case is then closed at CORA's offices. In other cases however, the referral cannot be made at once so the client is given supportive counseling at CORA until the referral can be made. At that time the case is closed.

This, in brief, is the way in which CORA functions and deals with its clients. After an intensive period of information gathering - the intake process - the case is either counseled at CORA or referred to another agency in order to resolve whatever problems the client is facing so as to prevent more serious problems and a full-blown delinquent career. It is this latter aspect that this research report is interested in studying - the prevention of delinquency.

## RESEARCH DESIGN

To answer this question we have gathered data from three sources. The first is the CORA Data Sheets that contain information about the client, his background, his family and the key decisions made by CORA's staff. During the life of this project these data sheets were substantially revised, with the consultation and advice of CORA's staff, and the new sheets were completed for all of the clients who had been to CORA.

The second data source were personal interviews with a sample of CORA's clients and with a control group (to be defined shortly). (See Appendix B for a copy of the interview schedule.) These interviews gathered information on the subject's attitudes toward his family, school, and self-image, as well as self-reported delinquency. The attitude scale on the family that was used is an adaptation of one originally developed by Rundquist and Sletto and reprinted in Scales for the Measurement of Attitudes (Shaw and Wright, 1967: pp. 418-420). It is a Likert scale with eleven items in our version and the original scale had reliability values ranging from .78 to .84 (Shaw and Wright, 1967: p. 419).

The attitudes toward school and self were measured through the use of the semantic differential scale (see Osgood, Suci and Tannenbaum, 1967). Basically, appropriate stimuli, such as SCHOOL, STUDYING, TEACHERS, etc. for the school scale and I AM, MY TEACHERS THINK I AM, etc. for the self-image scale, were presented to the subject and they responded by using semantic differential scales. For the attitudes toward school we only employed scales from the evaluation dimension

of the semantic differential but for self-image we employed scales from the evaluation and activity scales.

The self-reported delinquency scale that was employed is a shortened version of one that was used in earlier works by Thornberry and Slivka (1967), and which was derived from The Measurement of Delinquency (Sellin and Wolfgang, 1964).

The final data source used was the central files of the Juvenile Court of Philadelphia. The names of all the members of the experimental and one of the control groups were checked to see if they had ever appeared in court. If they had, the type of offense and the disposition were recorded.

The data contained in the CORA data sheets provide the independent variables of this study. The data contained in the self-report section of the interview and the official police data generate the dependent variables, or the criteria of success. Since CORA is a delinquency prevention program these are the key variables of the study. The rest of the interview data - the attitudes toward family, school and self - can be viewed as either secondary dependent variables or as intervening variables. They are secondary dependent variables since, though it would be nice to improve the client's attitudes in these areas, it is not essential to do so in a delinquency prevention program. They can be viewed as intervening variables since attitude change in these areas might serve as a filter for changes in delinquent behavior.

Given these variables, the next step in the research design was to construct

a control group, a continuing problem in this research. One source of control group members comes from the cases that were referred to CORA but were never activated. That is, a youth was referred to CORA. The youth contacted CORA either by telephone or by making one, but not more than one, personal visit to CORA. Presumably these youths are similar to the CORA clients in all respects except that they were not treated in any way by the CORA program. Given the reluctance of these people to come to CORA in the first place it should not be surprising to learn that it proved impossible to interview them for the purposes of this evaluation. Thus, we only have data from the Juvenile Court for these subjects which will be called control group I.

To circumvent this problem of not having interview data for these subjects a sub-set of last year's control group was re-interviewed for the purposes of this year's evaluation. This control group was originally constructed with the aid and assistance of the head of the counseling service at a local high school. This school was chosen since it referred more clients to CORA than any other Catholic high school. Once the school was selected, the next problem was that of setting up criteria for the selection of individuals. Since the counseling department is the source that actually refers clients to CORA, it seemed logical that the members of this department would be the best judges of selecting a control group. Essentially, we asked the counselors to select twenty-five students who were most like the ones that they referred to CORA in the past but who had not yet been referred to CORA. For the present evaluation a sub-set of eleven of this original group was interviewed for comparative purposes; this group will be called control group II.

The experimental group consists of all the CORA clients who entered the CORA intake process during November and December, 1973. These subjects were interviewed during intake and at the end of this evaluation period, and their names were searched for in the Juvenile Court records for incidents of official delinquency. Thus, for these subjects we have a complete set of data - pre- and post-interviews and official delinquency.

The data from the control group will be used as the baseline data for this study. Since the composition of the experimental and control groups is quite similar, save exposure to the CORA program, the CORA clients should have significantly lower rates of both self-reported and official delinquency than the control group. This is the working hypothesis of this study. In addition we would expect, even though it is not essential to the success of the program, that they will have more favorable attitudes toward family, school and self than the control group. Thus, the basic research design of this study is to compare the experimental control groups on these variables.

Rather than relying on an overall success rate based on a comparison between experimental and control groups, we have subdivided the experimental (CORA) group into open and closed cases for additional comparisons. We reasoned that closed cases represent the completion of treatment and that the anxiety and mental conflicts which characterized an open case would have been resolved when the case was closed. Therefore, we should expect some interesting additional differences when open and closed cases are compared.

## DEPENDENT VARIABLES

This section is concerned with an analysis of measures of official and hidden delinquency. In presenting the results we will examine the amount of court involvement or official delinquency for CORA subjects and subjects in control group I. Open and closed cases will also be compared to control group I.

Subsequent comparisons will focus on the hidden delinquency for CORA subjects and control group II. Open and closed cases will also be analyzed.

### I. Official Delinquency (Control Group I)

To get an indication of how CORA subjects differed from subjects who contacted CORA or made one visit (control group I), we made comparisons between the mean number of offenses for the two groups (Table 1).

Table 1

Comparisons of Means of Official Delinquency for Experimental (CORA) Subjects and Control Group I

	CORA	Control Group I
$\bar{x}$	.809	.451
SD	1.37	1.01
N	21.0	51.0

$t = 1.08; p > .05$  NS\*

\*Not Significant

While the difference in means is not significant, it does appear that CORA subjects have a large mean amount of court involvement. As will be seen after making comparisons between open and closed cases, this may be the result of differences in the ages of clients.

A. Official Delinquency: Open and Closed Cases (Control Group I)

Table 2 gives the comparisons for open and closed cases and control group I.

Table 2

Comparisons of Means of Official Delinquency for Open and Closed Cases and Control Group I

	$\bar{x}$	SD	N
Open Cases	1.000	1.83	9
Closed Cases	.666	.85	12
Control Group I	.451	1.01	51

Open vs. Control I:  $t = .837$ ;  $p > .05$  NS

Closed vs. Control II:  $t = .750$ ;  $p > .05$  NS

These comparisons indicate that both open and closed cases have large mean amounts of official delinquency in comparison to control group I, but the differences are not significant. It should be noted that closed cases have lower mean amounts of official delinquency than open cases which suggests that CORA is having some effect.

## 1. The Effect of Age on Official Delinquency

Because we were not able to obtain ages for the experimental and control group I, and because differences in ages represent differences in amount of opportunities for offensivity, we made an inquiry into the effect of age on official delinquency.

It appears that control group I is a significantly older group than either the total CORA group or the open and closed cases (Table 3).

Table 3

Comparison of Mean Ages for Total CORA Group Open Cases,  
Closed Cases, and Control Group I

	$\bar{x}$	SD	N
CORA Total	14.8	1.59	21
Closed Cases	14.8	1.53	12
Open Cases	14.9	1.53	9
Control I	16.6	1.22	51

CORA Total vs. Control I:  $t = 4.73$ ;  $p < .05$  Sig  
Closed Cases vs. Control I:  $t = 4.50$ ;  $p < .05$  Sig  
Open Cases vs. Control I:  $t = 3.77$ ;  $p < .05$  Sig

It must be remembered that while subjects in the control group are older than experimental subjects, they have a small mean amount of offensivity. Conversely, CORA subjects, both open and closed cases, are younger, but have a

greater mean number of offenses.

Conclusions: Official Delinquency (Control Group I)

An analysis of the amount of official delinquency for CORA cases and control group I indicates no significant differences in the mean number of offenses, either when the total experimental group is compared to control group I or when open or closed cases are compared to control group I.

However, there is a tendency for the closed cases to have lower mean amounts of delinquency in comparison to the open cases which would suggest CORA is having some effect.

Because control group I subjects are significantly older and have lower amounts of recorded delinquency in comparison to CORA subjects, it appears to us that CORA may be accepting younger and more seriously troubled clients into their programs. If this is the case, it may be more difficult to demonstrate treatment effects when open and closed cases are compared.

The significant difference in ages between experimental and control group I raises some troublesome questions about the comparability of the control group. Because, however, we have no other data on control group I to check our inferences and because we did not anticipate such differences, we can only raise the comparability question as a hypothesis.

## II. Hidden Delinquency (Control Group II)

In presenting the results of the Hidden Delinquency measure for the experimental and control groups, we utilized two measures. The first indicator is the total number of offenses for each subject while the second indicator is the number of different offenses for each subject in the experimental and control group.

### A. Total Post-Test and Control Group II Comparisons

Table 4 gives the results of comparisons between the post-test experimental group and control group II for the Hidden Delinquency total and different offenses measure.

Table 4

Comparison of Means on Total and Different Offenses (Hidden Delinquency Measure) for Post-Test Experimental\* and Control Group II\*\*

	$\bar{x}$	SD	t-value	p
Experimental: Total	166.7	194.8		
Control II: Total	126.8	139.1	.67	.51 NS
Experimental: Difference	6.8	4.2		
Control II: Difference	5.2	3.5	1.06	.30 NS

\*N = 21

\*\*N = 11

Table 4 indicates that while CORA subjects commit more offenses than the control group, the difference is not statistically significant.

1. Post-Test and Control Group II: Open and Closed Cases

Table 5 gives the results of comparisons between open and closed experimental groups and control group II for the two Hidden Delinquency measures.

Table 5

Comparison of Means on Total and Different Offenses (Hidden Delinquency Measure) for Open and Closed Cases and Control Group II

	$\bar{x}$	SD	t-value	p
*Open Cases: Total	147.7	143.6		
**Control II: Total	126.8	139.2	.33	.75 NS
Open Cases: Difference	6.9	4.4		
Control II: Difference	5.3	3.5	.89	.39 NS
***Closed Cases: Total	181.0	231.3		
Control II: Total	126.8	139.2	.69	.50 NS
Closed Cases: Difference	6.7	4.2		
Control II: Difference	5.3	3.5	.87	.40 NS

\*N = 9

\*\*N = 11

\*\*\*N = 12

As Table 5 indicates, there was a slight tendency for both open and closed cases to have slightly higher total and different offenses hidden delinquency means, but the difference is not statistically significant.

B. Pre-Test and Post-Test Comparisons

Table 6 gives the results of the two hidden delinquency measures when the pre-test results of the experimental group is compared to the post-test results of the experimental group.

Table 6

Comparison of Means on Total and Different Offenses (Hidden Delinquency Measure) for Pre-Test and Post-Test\*

	$\bar{x}$	SD	t-value	p
Pre-Test: Total	127.7	188.7		
Post-Test: Total	166.7	194.8	1.36	.18 NS
Pre-Test: Difference	5.4	3.2		
Post-Test: Difference	6.8	4.2	1.94	.07 NS

\*N = 21

As Table 6 indicates, there are no significant differences between pre-test and post-test results for the hidden delinquency measures.

1. Pre- and Post-Test Comparisons: Open and Closed Cases

Table 7 and Table 8 gives the results of the two hidden delinquency measures when open and closed cases are compared on a pre- and post-test.

Table 7

Comparison of Means on Total and Different Offenses (Hidden Delinquency Measure) for Open Cases\*

	$\bar{x}$	SD	t-value	p
Pre-Test: Total	84.9	121.3		
Post-Test: Total	147.7	143.6	1.23	.26 NS
Pre-Test: Difference	5.3	3.5		
Post-Test: Difference	6.9	4.4	2.33	.05 Sig

\*N = 9

Table 7 indicates that among open cases, subjects commit more different offenses by the time they have taken the post-test. Total scores between pre-test and post-test did not, however, differ significantly.

Table 8

Comparison of Means on Total and Different Offenses (Hidden Delinquency Measure) for Closed Cases\*

	$\bar{x}$	SD	t-value	p
Pre-Test: Total	159.7	226.7		
Post-Test: Total	181.0	231.3	.63	.54 NS
Pre-Test: Difference	5.5	3.2		
Post-Test: Difference	6.7	4.2	1.04	.32 NS

\*N = 12

Among the closed cases there was no significant differences in mean amounts of hidden delinquency when the pre- and post-test results were compared.

Conclusions: Hidden Delinquency Measure

An analysis of the amount of hidden delinquency generally indicates that CORA intervention has had little effect on its clients. When CORA clients, both open and closed cases, were compared to subjects in a control group, no significant differences appeared. When pre- and post-test results were examined, only one mean difference appeared significant. Among open cases, subjects committed more different offenses by the time of the post-test in comparison to the number of different offenses committed at pre-test.

## INTERVENING VARIABLES

This section is concerned with an analysis of various measures designed to assess changes in the beliefs, attitudes and self-image of juveniles being treated by CORA. In presenting the results, we will focus first on comparisons between the post-test results for the experimental group and results obtained from control group II. Following this, the post-test experimental group will be divided into open and closed cases and comparisons made with control group II.

The results from a pre-test of the experimental group will be compared to results obtained from a post-test of the same group. Comparisons will be made for the total pre-test and post-test group and for open and closed cases.

Using the approach just described, results from the Family Attitude scale will be analyzed, followed by an analysis of attitudes toward education and self image measures.

### I. Family Scale

#### A. Total Post-Test and Control Group II Comparisons

To obtain some indication of internal consistency, part-whole correlations were computed for each of the eleven items in the Family Attitude scale for the pre-test, post-test and for control group II. One item had a coefficient of less than .38 and was eliminated. One item had a coefficient of .39 and the remaining items had coefficients of .41 or greater. Ten of the eleven items were retained; the

eliminated item was the second one (see Appendix B).

The results comparing the CORA group with control group II are presented in Table 9. Since a high score indicates an unfavorable attitude towards the family, the CORA groups are doing better than the subjects in control group II. However, the difference is not statistically significant where  $p \leq .05$ .

Table 9

Comparison of Means on Family Attitude Scale for Experimental and Control Group II

	$\bar{x}$	SD	N
Experimental	26.2	7.4	21
Control II	29.0	7.1	11

$t = 1.02; p = .32$  NS\*

\*NS = Not Significant

### 1. Post-Test and Control Group II: Open and Closed Cases

The results for the open and closed cases of the experimental group are given in Table 10.

Table 10

Comparison of Means on Family Attitude Scale for Open and Closed Cases and Control Group II

	$\bar{x}$	SD	N
Open Cases	21.4	6.3	9
Closed Cases	29.7	6.2	12
Control II	29.0	7.1	11

Open vs. Control II,  $t = 2.47$ ;  $p = .02$  Sig.  
Closed vs. Control II,  $t = .26$ ;  $p = .79$  NS

Table 10 indicates that the CORA open cases have significantly better family adjustment than control group II subjects. However, this is not true for the closed cases; there is very little difference between the mean of the closed cases and control group II.

### B. Pre-Test and Post-Test Comparisons

The results of the pre-test on the Family Attitude scale was compared with the results of the post-test and are given in Table 11. The results of the statistical

analysis indicate no significant difference between pre- and post-test measures on the Family Attitude scale. There is an indication that CORA clients are less well adjusted at the post-test stage in comparison to the pre-test stage, but the difference is not significant.

Table 11

Comparison of Means on Family Attitude Scale for Pre-Test and Post-Test CORA Clients

	$\bar{x}$	SD	N
Pre-test	23.9	9.4	21
Post-test	26.2	7.4	21

$$t = 1.72; p = .10 \text{ NS}$$

#### 1. Pre- and Post-Test Comparisons: Open and Closed Cases

To explore the differences in means on the pre- and post-test groups further, we divided each of the two groups into open and closed cases (Table 12).

The results in Table 12 indicate that both open and closed cases show a slight tendency to score worse on the Family Attitude Scale at the post-test stage in comparison to the pre-test stage, but the difference is not statistically significant.

Table 12

Comparison of Means on Family Attitude Scale for Pre-Test and Post-Test CORA Clients: Open and Closed Cases

	$\bar{x}$	SD	N
Pre-Test: Open	20.3	6.2	9
Post-Test: Open	21.4	6.3	9
Pre-Test: Closed	26.5	10.7	12
Post-Test: Closed	29.7	6.2	12

Pre-Test vs. Post-Test: Closed,  $t = 1.43$ ;  $p = .18$  NS  
 Pre-Test vs. Post-Test: Open,  $t = 1.10$ ,  $p = .30$  NS

Conclusions: Family Attitude Scale

Results derived from an analysis of the Family Attitude Scale show that CORA intervention has some effect, but the results are not conclusive. Among the CORA clients, open cases do significantly better than the control group in relation to family adjustment. Closed cases have nearly identical scores when compared to the control group.

When comparisons are made over time (between pre- and post-test) for open and closed cases there are no significant differences although closed cases have a tendency to do less well on family adjustment in the post-test as compared to the pre-test.

One possible explanation can be suggested by examining the pre-test scores of open and closed cases (Table 12). The mean of the pre-test open cases is lower ( $\bar{x} = 20.3$ ) in comparison to the mean of pre-test closed cases ( $\bar{x} = 26.5$ ). This may mean that open cases have less disturbed family relations at the outset of treatment and can, therefore, make greater progress in a short period of time when compared to the closed case group. However, this interpretation is not supported by a significant difference between the two means ( $t = 1.6, p = .10$ ).

## II. Attitudes Toward Education

### A. Total Post-Test and Control Group II Comparisons

The results comparing the CORA clients to control group II are given in Table 13. None of the results of the t test indicated a probability of less than .05; there does not appear to be any significant differences between the experimental and control group II on the various stimuli measuring attitudes toward education.

Table 13

Comparisons of Means of Education Stimuli for Experimental (CORA) Group and Control Group II

<u>Stimuli</u>	<u>CORA Group*</u>		<u>Control Group II**</u>		t-value	p
	$\bar{x}$	SD	$\bar{x}$	SD		
School	14.4	4.4	16.8	4.4	1.46	.16 NS
Teachers	15.6	4.3	15.8	3.1	.19	.85 NS
Study	14.5	3.9	16.6	3.9	1.45	.16 NS
Homework	12.8	6.2	13.9	4.2	.57	.57 NS
Students	15.0	5.2	15.6	3.1	.43	.66 NS
College	14.6	5.3	17.6	2.3	1.82	.08 NS

\*N = 21

\*\*N = 11

1. Post-Test and Control Group II: Open and Closed Cases

Table 14 gives the results of attitudes toward education stimuli for the open cases. For the open cases, three of the stimuli; School, Students, and College were significant in comparisons with control group II. However, for these three stimuli, subjects in the control group had a more positive response than CORA open case subjects.

Table 14

Comparison of Means of Education Stimuli for Open Cases and Control Group II

<u>Stimuli</u>	<u>Open Cases*</u>		<u>Control Group II**</u>		t-value	p
	$\bar{x}$	SD	$\bar{x}$	SD		
School	12.6	3.7	16.8	4.4	2.33	.03 <sup>+</sup>
Teachers	14.6	3.7	15.8	3.1	.81	.42 NS
Study	13.5	3.8	16.6	3.9	1.76	.10 NS
Homework	12.2	6.6	13.9	4.2	.66	.52 NS
Students	11.4	2.9	15.6	3.1	3.14	.006 <sup>+</sup>
College	12.3	5.2	17.6	2.3	3.04	.02 <sup>+</sup>

\*N = 9

\*\*N = 11

<sup>+</sup>Significant

Table 15 gives the results of attitudes toward education stimuli for the closed cases. As Table 15 indicates, none of the education stimuli approached significance. The means attitude of CORA closed cases are about the same as the means for the members of the control group.

Table 15

Comparison of Means of Education Stimuli for Closed Cases and Control Group II

<u>Stimuli</u>	<u>Closed Cases*</u>		<u>Control Group II**</u>		t-value	p
	$\bar{x}$	SD	$\bar{x}$	SD		
School	15.8	4.4	16.8	4.4	.53	.60 NS
Teachers	16.3	4.7	15.8	3.1	.31	.76 NS
Study	15.2	3.9	16.6	3.9	.84	.41 NS
Homework	13.3	6.2	13.9	4.2	.26	.79 NS
Students	17.7	5.0	15.6	3.1	1.18	.25 NS
College	16.2	14.9	17.6	2.3	.88	.39 NS

\*N = 12

\*\*N = 11

#### B. Pre- and Post-Test Comparisons

Table 16 is the result of pre-and post-test comparisons for the CORA clients. Table 16 indicates there are no significant differences among CORA clients in their attitudes toward education when pre- and post-test scores are considered.

Table 16

Comparison of Means of Education Stimuli for Pre- and Post-Test CORA Clients\*

<u>Stimuli</u>	<u>Pre-Test</u>		<u>Post-Test</u>		t-value	P
	$\bar{x}$	SD	$\bar{x}$	SD		
School	13.1	4.6	14.4	4.4	1.19	.25 NS
Teachers	15.1	4.3	15.6	4.3	.37	.71 NS
Study	15.6	5.4	14.5	3.9	1.07	.30 NS
Homework	12.1	6.2	12.8	6.2	.62	.54 NS
Students	14.9	3.9	15.0	5.2	.05	.96 NS

\*N = 21

1. Pre- and Post-Test Comparisons: Open and Closed Cases

Table 17 gives the results of comparisons between pre- and post-tests for open cases. Table 17 indicates that among CORA clients whose cases are open, there are no significant differences in attitudes toward education.

Table 17

Comparisons of Means of Education Stimuli for Pre- and Post-Test  
CORA Clients: Open Cases\*

<u>Stimuli</u>	<u>Pre-Test</u>		<u>Post-Test</u>		t-value	p
	$\bar{x}$	SD	$\bar{x}$	SD		
School	13.1	2.4	12.6	3.7	.46	.66 NS
Teachers	16.2	3.3	14.6	3.7	1.10	.30 NS
Study	14.3	5.3	13.6	3.8	.69	.51 NS
Homework	11.1	6.2	12.2	6.6	.53	.61 NS
Students	13.8	2.7	11.4	2.9	1.61	.14 NS
College	15.2	4.8	12.3	5.2	1.44	.18 NS

\*N = 9

Table 18 gives the results of comparisons between pre- and post-tests for closed cases among CORA clients. Among closed cases of CORA clients, there is no significant difference in attitudes toward education between pre- and post-test.

Table 18

Comparisons of Means of Education Stimuli for Pre- and Post-Test  
CORA Clients: Closed Cases\*

<u>Stimuli</u>	<u>Pre-Test</u>		<u>Post-Test</u>		t-value	p
	$\bar{x}$	SD	$\bar{x}$	SD		
School	13.1	5.9	15.8	4.4	1.65	.12 NS
Teachers	14.3	5.0	16.3	4.7	1.28	.23 NS
Study	16.6	5.6	15.3	3.9	.82	.43 NS
Homework	12.9	6.3	13.3	6.2	.31	.76 NS
Students	15.8	4.5	17.7	5.0	1.41	.18 NS
College	15.7	5.3	16.2	4.9	.43	.68 NS

\*N = 12

#### Conclusions: Attitudes Toward Education

There is no evidence to show that CORA clients have changed their attitudes toward education as a result of CORA intervention. CORA clients do not generally differ significantly from members of the control group in their attitudes toward education. The performance of CORA clients on the post-test does not differ from their performance on the pre-test either when CORA clients are considered as a total sample or when open and closed cases are examined.

### III. Self-Image Measures

#### A. Total Post-Test and Control Group II Comparisons

For measuring self-image of the subjects, two dimensions of the Semantic Differential were used as noted earlier. The evaluation dimension indicates how good the boy thinks he is while the activity scale indicates how active or dynamic he is.

Each subject was asked to rate his self-image in seven areas:

I AM

AS A STUDENT - MY TEACHERS THINK I AM

AS A SON - MY MOTHER THINKS I AM

GIRLS THINK I AM

AS A FRIEND - MY BEST FRIEND THINKS I AM

BOYS THINK I AM

AS A SON - MY FATHER THINKS I AM

Because the results were similar to the other areas rated, we will present results only for the concept, I AM.

Table 19 reports the results of comparisons between the CORA group and control group II for the evaluation and activity dimension.

Table 19

Comparison of Means of Experimental and Control Group II for  
Self-Image: I AM

<u>Dimension</u>	<u>CORA Group</u>			<u>Control Group II</u>			t-value	p
	$\bar{x}$	SD	N	$\bar{x}$	SD	N		
Evaluation	13.3	4.9	21	14.3	2.1	11	.76	.45 NS
Activity	11.8	4.9	21	13.0	4.2	11	.69	.49 NS

As Table 19 indicates, CORA clients and members of the control group do not differ in their view of the component, I AM, of the self-image. Only one other comparison was significant. For the component, GIRLS THINK I AM, the control group subjects ( $\bar{x} = 14.3$ ,  $SD = 2.8$ ) scored higher than the CORA clients ( $\bar{x} = 11.7$ ,  $SD = 4.4$ ) and difference was statistically significant ( $t = 2.08$ ,  $p = .05$ ).

#### 1. Post-Test and Control Group II: Open and Closed Cases

Table 20 gives the results of comparisons for the post-test and control group II for open and closed cases. None of the mean comparisons for I AM were significant. For the component, GIRLS THINK I AM, the control group subjects (14.3,  $SD = 2.8$ ) scored higher than the open cases (11.4,  $SD = 3.0$ ) and the difference was significant ( $t = 2.13$ ,  $p = .05$ ). This latter finding probably accounts for the significant mean difference found when the total experimental group was compared to control group II:

Table 20

Comparison of Means of Post-Test and Control Group II for  
Self-Image I AM: Open and Closed Cases

	$\bar{x}$	SD	N
Evaluation - Open Cases	14.2	3.8	9
Activity - Open Cases	11.0	4.0	9
Evaluation - Closed Cases	12.7	5.6	12
Activity - Closed Cases	12.5	5.5	12
Evaluation - Control II	14.3	2.1	11
Activity - Control II	13.0	4.2	11

B. Pre-Test and Post-Test Comparisons

Table 21 gives the results of comparisons for pre- and post-test groups.

Table 21

Comparison of Means of Pre-Test and Post-Test Groups for Self-  
Image I AM\*

<u>Dimension</u>	<u>Pre-Test</u>		<u>Post-Test</u>		t-value	p
	$\bar{x}$	SD	$\bar{x}$	SD		
Evaluation	12.9	3.0	13.3	4.9	.64	.53 NS
Activity	11.9	3.8	11.8	4.9	.09	.92 NS

\*N = 21

As can be seen from Table 21, none of the differences were significant.

None of the other mean comparisons on the self-image components for the pre- and post-test groups were significant.

1. Pre- and Post-Test Comparisons: Open and Closed Cases

Table 22 gives the results of pre- and post-test comparisons for open and closed cases.

Table 22

Comparison of Means of Pre-Test and Post-Test Groups for Self-Image I AM: Open\* and Closed\*\* Cases

Dimension	Pre-Test		Post-Test		t-value	p
	$\bar{x}$	SD	$\bar{x}$	SD		
Evaluation - Open	13.8	3.2	14.2	3.8	.55	.59 NS
Activity - Open	12.2	4.7	11.0	4.0	1.37	.21 NS
Evaluation - Closed	12.2	2.8	12.7	5.6	.40	.70 NS
Activity - Closed	11.7	3.2	12.5	5.5	.46	.65 NS

\*N = 9

\*\*N = 12

As Table 22 indicates, none of the comparisons between pre- and post-tests were significant. For the other components of self-image only one other comparison was significant. The component, BOYS THINK I AM, was rated significantly higher on the pre-test ( $\bar{x} = 12.7$ ,  $SD = 4.9$ ) than on the post-test ( $\bar{x} = 9.9$ ,  $SD = 3.7$ ) and the difference was significant ( $t = 2.75$ ,  $p = .025$ ).

#### Conclusions: Self-Image Measures

Like the attitudes toward education, there were few changes in the measured self-image which could be attributed to CORA intervention. While there were a few mean differences which were significant, they tended to favor the control group or the pre-test group rather than showing the effect of treatment.

## PARENTS GROUPS

As an additional aspect of CORA services, the parents of CORA clients were invited to participate in a six week program of counseling. The parents of CORA clients met in sessions one night per week for approximately two and a half hours.

The counseling consisted of discussing with the parents their feelings toward the child and how their response to the child could help or hinder the child's development.

As part of the CORA evaluation, the CORA staff administered a questionnaire at the beginning of the sessions and once again at the close of the six week sessions. The questionnaire contained three different scales designed to measure intrafamily attitudes. The first scale measures attitudes about general and child rearing practices. The second is concerned with parental expectations about children and the third measures parental attitudes about a particular child, in this case the child that is a CORA client.

Again, part-whole correlations were computed as a way of measuring internal consistency. As a result, two items were eliminated from the first scale, the lowest remaining coefficient being .33. Five items were eliminated from the second scale with the lowest remaining coefficient being .36. Finally, two items were eliminated from the last scale and the lowest remaining coefficient was .35. In the first two scales a high score indicates a positive attitude toward child rearing and child expectations, but for the third scale, a low score indicates a positive

attitude toward the particular child. The results are presented in Table 23.

Table 23

Comparison of Pre-Test and Post-Test Results for Parents Groups\*

	$\bar{x}$	SD	t-value	p
Scale 1, Pre-test	17.5	3.2	.48	.63
Scale 1, Post-test	18.1	2.0		
Scale 2, Pre-test	12.9	2.9	.15	.88
Scale 2, Post-test	13.0	4.5		
Scale 3, Pre-test	26.5	5.3	3.36	.003
Scale 3, Post-test	24.5	5.6		

\*N = 22

As can be seen, in all three cases, the results are favorable to the CORA program. The means change in the predicted direction and the change is significant for the third scale. Thus, the parents groups were successful in changing the attitudes of the subjects, especially the attitudes of the parents toward the specific child that was being treated by CORA. These results, especially the last one, are encouraging and indicate that CORA should continue its activities in the area of family counseling.

## GENERAL CONCLUSIONS

The results of the evaluation suggest that the counseling efforts are having some effect on the juveniles treated. When the data obtained from juvenile court is examined for the open and closed CORA cases, closed cases do somewhat better than the open cases.

Neither open nor closed cases have lower mean amounts of recorded delinquency when compared to a control group of subjects who have had only one contact with the CORA program. However, since we found that this control group is older than the treatment group, it does seem reasonable to infer that the experimental group is composed of youngsters with more serious problems. This may, in turn, have an effect on the ease with which treatment effects can be demonstrated.

While there were generally no significant differences in mean amounts of hidden delinquency for the CORA group and a second control group, there was a persistent tendency for the CORA group to have greater amounts of hidden delinquency. This finding was true when pre-test results were compared to post-test results for open and closed cases and when the latter was compared to a control group. The tendency for the CORA group to have a larger post-test mean may be due to an increased willingness of subjects to be more open and honest on the post-test than on the pre-test. Despite assurances of anonymity and safeguards to protect the confidentiality of the clients' responses, clients may have been more uneasy about admitting to offenses at the time of the pre-test in comparison to when the post-test

was administered.

Finally, there were few significant differences when the CORA clients were compared to a control group on the Family Attitude scale, attitudes toward education and the Self-Image scale. Because the pre-test was administered in November and December of 1973 and the post-test administered in February and March of 1974, not enough time may have elapsed for attitudes to change on these measures. Perhaps if a longer time period had elapsed between pre-test and post-test attitudinal changes might have been indicated.

Also, we can note that the treatment CORA provided to the parents of these children had some success. There were slight changes, in the predicted direction, for general attitudes, and a significant change in the attitudes toward the child that is being treated at CORA. This last finding is clearly supportive of the CORA program.

In general, our evaluation indicates that where the results depended on the judgement of the client, few positive changes were indicated, except for the parents' group. However, use of objective data like the information from juvenile court does indicate that treatment received from CORA is having a positive effect.

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