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THE EFFECTS OF HOSPITALIZATION  
ON AN INDIVIDUAL'S  
PERSONALITY

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Master of Science

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by  
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## Chapter 1

### INTRODUCTION

During the past years, attention has been directed towards the effect of the environment of the mental hospital on an individual's personality. Different types of environmental conditions have been influential in affecting the individual. Conditions of program therapy, influence of clinicians, personnel, other patients, visitors, duration of stay, and the overall physical aspects of the hospital itself contribute to the existing environment.

Some investigators believe that the patient's role in the "typical" mental hospital. . . , tends to produce what has variously been called "disculturation" or "institutionalism".<sup>1</sup> Others have theorized that:

. . . milieu therapy operates from the principle that behavior will improve as a function of an environment which is structured to meet emotional needs by providing human relationships, by minimizing psychological conflict and deprivations, and by strengthening impaired ego functions.<sup>2</sup>

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<sup>1</sup>Stanley D. Rosenberg, "The Disculturation Hypothesis and the Chronic Patient Syndrome," Social Psychiatry, V, 3 (July, 1970), pp. 155-65.

<sup>2</sup>Gary S. Felton and John Paul Foreyt, "Change In Behavior of Hospitalized Psychiatric Patients In A Milieu Therapy Setting," Psychotherapy: Theory, Research And Practice, VII, 3 (Fall, 1970), pp. 139-41.

## THE PROBLEM

A concern to this investigator was not a single factor, e.g., type of therapy, but rather the total number of factors, e.g., the entire mental hospital environment encompassed in the mental hospital setting. With these factors of mental hospital environment taken into consideration, the investigator was able to establish a possible measurable effect of an individual's personality.

The technique utilized in the study was a pre-post-test situation. Using the California Test of Personality over a ten week duration made it possible to collect personality data at the beginning and again at the end of the duration for purposes of comparison of the individual's personality before and again at the end of the duration.

### Statement of the Problem

The problem was to determine whether or not there was a significant personality change in adolescents at a state mental hospital over a ten week period as measured by the California Test of Personality.

### Statement of the Hypotheses

There is no significant difference between pre and posttest results as measured by the California Test of Personality for a ten week period for females in an adolescent school at a state hospital.

There is no significant difference between pre and posttest results as measured by the California Test of



Personality for a ten week period for males in an adolescent school at a state hospital.

There is no significant difference between pre and posttest results as measured by the California Test of Personality for a ten week period for males in a youth rehabilitation center at a state hospital.

There is no significant difference between pre and posttest results as measured by the California Test of Personality for a ten week period for the total adolescent population at a state hospital.

There is no significant difference between the means of the pre and posttest results as measured by the California Test of Personality for a ten week period between youth rehabilitation center subjects and adolescent school subjects at a state hospital.

#### Purpose of the Study

It was the purpose of this investigation to study the effects and changes, if any, of a group of adolescents over a ten week period at a state hospital. A comparison of pre and posttest scores derived from the California Test of Personality were the basis from which any conclusions were to be reached.

#### Significance of the Study

The significance of this investigation was an attempt to demonstrate the effects and changes, if any, a mental hospital has on an adolescent. Such information

collected by this investigation may be beneficial in the evaluation of a state hospital, in checking on progress or lack of progress made by an adolescent at such a hospital. Variations of this investigation may be of value in determining the effects of various therapeutic techniques.

#### DEFINITIONS OF TERMS

The terms, with their meanings, as used in this study are as follows:

##### Mental Hospital Setting

The total environment of the mental hospital, which includes the physical aspects, personnel, programs of therapy, clinicians, other patients and visitors to the mental hospital.

##### Personality

The term "personality" was operationally defined as the components which are the sub-scales of the California Test of Personality, (CTP). The CTP is divided into Personal Adjustment and Social Adjustment each with a sub-total of scores which together make the total score. These terms as used in the CTP manual are: Under Personal Adjustment--Self-Reliance, Sense of Personal Worth, Sense of Personal Freedom, Feeling of Belonging, Withdrawing Tendencies, and Nervous Symptoms. Under Social Adjustment--Social Standards, Social Skills, Anti-Social Tendencies, Family

Relation, School Relations, and Community Relations.<sup>3</sup>

Thorpe and others have defined these terms as:

Self-Reliance: An individual may be said to be self-reliant when his overt actions indicate that he can do things independently of others, depend upon himself in various situations, and direct his own activities. The self-reliant person is also characteristically stable emotionally, and responsible in his behavior.

Sense of Personal Worth: An individual possesses a sense of being worthy when he feels he is well regarded by others, when he feels that others have faith in his future success, and when he believes that he has average or better than average ability. To feel worthy means to feel capable and reasonably attractive.

Sense of Personal Freedom: An individual enjoys a sense of freedom when he is permitted to have a reasonable share in the determination of his conduct and in setting the general policies that shall govern his life. Desirable freedom includes permission to choose one's own friends and to have at least a little spending money.

Feeling of Belonging: An individual feels that he belongs when he enjoys the love of his family, the well-wishes of good friends, and a cordial relationship with people in general. Such a person will as a rule get along well with his teachers or employers and usually feels proud of his school or place of business.

Withdrawing Tendencies: The individual who is said to withdraw is the one who substitutes the joys of a fantasy world for actual successes in real life. Such a person is characteristically sensitive, lonely, and given to self-concern. Normal adjustment is characterized by reasonable freedom from these tendencies.

Nervous Symptoms: The individual who is classified as having nervous symptoms is the one who suffers from one or more of a variety of physical symptoms such as

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<sup>3</sup>Louis P. Thorpe and others, Manual: California Test of Personality, 1953 Revision, pp. 3-4.

loss of appetite, frequent eye strain, inability to sleep, or a tendency to be chronically tired. People of this kind may be exhibiting physical expressions of emotional conflicts.

Social Standards: The individual who recognizes desirable social standards is the one who has come to understand the rights of others and who appreciates the necessity of subordinating certain desires to the needs of the group. Such an individual understands what is regarded as being right or wrong.

Social Skills: An individual may be said to be socially skillful or effective when he shows a liking for people, when he inconveniences himself to be of assistance to them, and when he is diplomatic in his dealings with both friends and strangers. The socially skillful person subordinates his or her egoistic tendencies in favor of interest in the problems and activities of his associates.

Anti-Social Tendencies: An individual would normally be regarded as anti-social when he is given to bullying, frequent quarreling, disobedience, and destructiveness to property. The anti-social person is the one who endeavors to get his satisfactions in ways that are damaging and unfair to others. Normal adjustment is characterized by reasonable freedom from these tendencies.

Family Relations: The individual who exhibits desirable family relationships is the one who feels that he is loved and well-treated at home, and who has a sense of security and self-respect in connection with the various members of his family. Superior family relations also include parental control that is neither too strict nor too lenient.

School Relations: The student who is satisfactorily adjusted to his school is the one who feels that his teachers like him, who enjoys being with other students, and who finds the school work adapted to his level of interest and maturity. Good school relations involve the feeling on the part of the student that he counts for something in the life of the institution.

Community Relations: The individual who may be said to be making good adjustments in his community is the one who mingles happily with his neighbors, who takes pride in community improvements, and who is tolerant in dealing with both stranger and foreigners. Satisfactory community relations include

as well the disposition to be respectful of laws and of regulations pertaining to the general welfare.

#### LIMITATIONS OF THE STUDY

A small sample size is a problem and further research with a larger sample of subjects and observations made by the investigator, as well as those that are made by clinicians and personnel of the hospital, would be strongly recommended. With these type of data, the analysis of test results may be confirmed through observations.

The use of another personality scale was another consideration: a scale which may detect personality characteristics that are not detected by the California Test of Personality. Another personality scale may be used along with the present test as to confirm the results of the investigation.

Another source of data that may be an aid to the investigator is that of background data of the sample involved. This type of data may prove helpful in detecting changes, if any, in personality with the subject involved in the study.

A value to further research is to extend the duration period. As it was in this study, a ten week period may have been inadequate to achieve a valid source of data for such purposes.

## Chapter 2

### REVIEW OF LITERATURE

A search of the literature revealed that there was not a great deal of material which was directly relevant to the present study. The material that follows is not actually concerned with a change in personality on a general basis, but rather more specific changes in behavior or correlations between types of therapy that affect an individual's behavior or personality.

In a study to evaluate, as a function of psychiatric diagnosis, the change in behavior of hospitalized psychiatric patients in a milieu therapy setting, Foreyt and Felton found, with the use of an abbreviated form of the thirty-four subscale Behavioral Inventory for Chronic Schizophrenics, that patients in all diagnostic groups showed improvement except those in the categories "senile dementia" and "adjustment reaction to adult life."<sup>4</sup> Statistical data included a mean of 62.52 at admission and a mean of 73.28 at discharge for behavioral rating of all

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<sup>4</sup>Gary S. Felton and John Paul Foreyt, "Change In Behavior Of Hospitalized Psychiatric Patients In A Milieu Therapy Setting," Psychotherapy: Theory, Research And Practice, VIII, 3 (Fall, 1970), pp. 139-41.

patients. These values are statistically significant at  $p < .01$ .<sup>5</sup> In addition to the change in behavior, it was also noted that improvement was directly proportional to length of stay. This was based on the fact that psychotic patients were hospitalized longer than the non-psychotic patients.<sup>6</sup>

Using a sample of the population of psychiatric crisis patients seen at the Emergency Room of Yale-New Haven Hospital and the Emergency Treatment Service of the Connecticut Mental Health Center, Rosenberg, by taking measures on a sample from each of these groups at admission and discharge with the member-trainer scoring system developed by Mann for use in a small group setting, found evidence to indicate that the traditional hospital environment does engender and encourage dependency.<sup>7</sup> In concluding remarks, Rosenberg stated:

The hospital system, then, might be more appropriately seen as facilitating and emphasizing certain elements of the patient's personality and sense of self rather than producing these elements in him. The probability of the patient being affected in this matter would be linked to his initial propensities as well as the hospital structure.<sup>8</sup>

Jacobs and others assessed psychiatric open ward patients at the time of their admission and again at

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<sup>5</sup>Ibid., p. 141.

<sup>6</sup>Ibid.

<sup>7</sup>Stanley D. Rosenberg, "The Disculturation Hypothesis and the Chronic Patient Syndrome," Social Psychiatry, V, 3 (July, 1970), pp. 155-60.

<sup>8</sup>Ibid., p. 164.

discharge over a two year period on scales measuring faulty styles of coping and manifest distress.<sup>9</sup> The following is a summary by the authors from the results of their study:

. . . we computed the degree of association (Pearson's product-moment correlation) between the admission profile and rate of improvement. With the exception of the therapists' ratings of changes in ego weakness, all other measures correlated positively (at least at the 10 per cent level of confidence) with the combined construction, withdrawal, helplessness, vulnerability, and worthlessness at intake, the more likely was the patient to improve over the course of treatment.<sup>10</sup>

Further conclusions from their study were:

. . . a much greater proportion of cases were seen as improving with respect to level of manifest distress as a function of open-ward treatment than with respect to intensity of coping pathology.

Short-term hospitalization seems to restore an individual to an affective equilibrium so that he can return to the community.

Thus, hospitalization served to bolster the patient's willingness to try again in the community although it often did not lead to modifications in faulty modes of coping.<sup>11</sup>

In a controlled study of day versus inpatient hospitalization, Herz and others conclude the following:

Both groups of patients improved on virtually all measures of psychopathology at each follow-up evaluation.

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<sup>9</sup>Martin A. Jacobs and others, "Personality Characteristics of Depressive Patients Associated With Improvement In An Open-Ward Setting," The Journal of Nervous and Mental Disease, CLIII, 2 (August, 1971), p. 126.

<sup>10</sup>Ibid., pp. 128-29.

<sup>11</sup>Ibid., pp. 126-36.



. . . on virtually every measure used to evaluate outcome, there was clear evidence of the superiority of day treatment.<sup>12</sup>

Raush and others did a study which was generally exploratory, oriented toward description and a search for order in complex behavioral events, toward the evaluation of behavioral change in treatment, and toward the evaluation of a method for observing and coding interpersonal behavior. This study was in two phases (72 in each phase) a total of 144 observations.<sup>13</sup>

In their study, Raush and others found:

For the early phase observations, the median was 98 interactions for a child toward other children (range 62 to 141), and the median was 89 interactions toward adults (range 66 to 143). In the observations made 18 months later, the median number of interactions toward children was 77 (range 53 to 89): toward adults, it was 69 (range 61 to 98).<sup>14</sup>

Comments by Raush and others about their study included:

The study demonstrates the hyperaggressive children can change in residential treatment in a direction consistent with therapeutic aims.

. . . that the mode of observation described here, together with the scheme for coding interpersonal behavior has some measure of utility.<sup>15</sup>

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<sup>12</sup>Marvin I. Herz and others, "Day Versus Inpatient Hospitalization: A Controlled Study," American Journal of Psychiatry, CXXVII, 10 (April, 1971), pp. 107-18.

<sup>13</sup>Harold L. Raush and others, "The Interpersonal Behavior Of Children In Residential Treatment," The Journal of Abnormal and Social Psychology, LVII, 1 (January, 1959), pp. 9-11.

<sup>14</sup>Ibid., p. 13.

<sup>15</sup>Ibid., p. 25.

A paper by Barron and Leary which reports the results of a study that was aimed to discover what changes, by use of the MMPI, occur, if any, with 150 psychoneurotic patients before and after an interval of time during which some of them received psychotherapy and some of them did not. Their report shows that means between pre and post MMPI scores did not differ significantly from one another except for Hs, D, and Hy.<sup>16</sup> However:

The mean pre-post MMPI scores of patients undergoing both group and individual therapy showed significant improvement on symptom scales.<sup>17</sup>

On the scales which most directly reflect neurotic symptoms of which the patient complains (Hs, D, and Hy), the percentage of change in the direction of fewer complaints ranges in the present study from 61 percent to 67 percent.<sup>18</sup>

#### LITERATURE CONCERNING THE CALIFORNIA TEST OF PERSONALITY

Results obtained from the California Test of Personality (CTP) were the basis for Caldwell, "to determine the possible effects of orientation administration on the stability of scores on a typical inventory."<sup>19</sup> Findings of his study indicated that during a six week

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<sup>16</sup>Frank Barron and Timothy F. Leary, "Changes in Psychoneurotic Patients With and Without Psychotherapy," Journal of Consulting Psychology, XIX, 4 (1955), pp. 239-45.

<sup>17</sup>Ibid., p. 245.

<sup>18</sup>Ibid., p. 243.

<sup>19</sup>Edward Caldwell, "Stability of Scores on a Personality Inventory Administered During College Orientation Week," The Personnel and Guidance Journal, XXXVIII, 4, p. 305.

period (from orientation week, for entering freshmen, to six weeks later) mean test scores were significantly different. This difference was significant at the .01 level with a t-test value of 8.46.<sup>20</sup>

Jackson and Getzels utilized the CTP in a study, "to examine the differences in psychological functioning and classroom effectiveness between two groups of adolescents."<sup>21</sup> Scores from the CTP were the basis for the discrimination between the two experimental groups. The two groups were those satisfied and those dissatisfied with recent school experiences.<sup>22</sup> The CTP proved to be beneficial in their investigation.

In a study to compare a Southern California city system and a British Columbia system, Wilson employed the CTP as part of a battery of tests given to determine differences in achievement. The CTP's use in the battery was for personality pattern differences.<sup>23</sup>

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<sup>20</sup>Ibid., p. 308.

<sup>21</sup>Philip W. Jackson and Jacob W. Getzels, "Psychological Health And Classroom Functioning: A Study of Dissatisfaction with School Among Adolescents," Journal of Educational Psychology, L, 6 (December, 1959), p. 296.

<sup>22</sup>Ibid., pp. 296-97.

<sup>23</sup>John A. R. Wilson, "Differences in Achievement Attributable to Different Educational Environments," Journal of Educational Research, LII, 3 (November, 1958), pp. 83-93.

## Chapter 3

### METHODS AND PROCEDURES

The effects of a mental hospital's environment on an individual's personality over a ten week period were measured. The technique for this measurement will be discussed in this chapter. This chapter has been divided into five sections. These sections are: subjects, instrumentation, procedure, data collection, and statistical procedure.

#### SUBJECTS

The subjects used in this study were the adolescent portion of the Osawatomie State Hospital in Osawatomie, Kansas. This portion of the hospital is composed of two sections. Adolescents (males) referred by a court and classed as juvenile delinquents reside at the Youth Rehabilitation Center (YRC) of the hospital. The other adolescents (males and females) are referred to the hospital for problems of mental illness and reside at the adolescent unit of the hospital. These referrals are made by a court, school authorities, and the adolescent's family.

Because of adolescents entering and leaving the hospital at different time intervals, for various reasons, only those adolescents residing for the ten week duration period were used for the study.

## INSTRUMENTATION

The instrument utilized in the study consisted of the twelve sub-scales of the California Test of Personality (CTP) Form AA for adolescents. The CTP has been designed to identify and reveal the status of certain highly important factors in personality and social adjustment. It also provides data for aiding individuals to maintain or develop a normal balance between personal and social adjustment.<sup>24</sup>

Split half reliability coefficients of the CTP Form AA secondary level are: Personal Adjustment .90, Social Adjustment .89, and total adjustment .93. Intercorrelations of sections are between: total personal adjustment and total social adjustment .63, total personal adjustment and overall total adjustment .91, and total social adjustment and overall total adjustment .89.<sup>25</sup>

Through the use of the CTP, the following components were under investigation: Self-Reliance, Sense of Personal Worth, Sense of Personal Freedom, Feeling of Belonging, Withdrawing Tendencies, Nervous Symptoms, Social Standards, Social Skills, Anti-Social Tendencies, Family Relations, School Relations and Community Relations.

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<sup>24</sup>Louis P. Thorpe and others, Manual: California Test of Personality, 1953 Revision, p. 2.

<sup>25</sup>Ibid., pp. 5-6.

## PROCEDURES

The California Test of Personality was administered once at the beginning of a ten week period (June, 1972) and once again at the end of this ten week period (August, 1972). The subjects were told that the tests were for research purposes and the results of their tests were confidential.

Administration of the tests was done by trained teachers as well as by the investigator. Directions to the subjects for the test were followed according to those that were outlined in the CTP manual for Form AA for adolescents. Scoring of the answer sheets was done by hand.

## DATA COLLECTION

Data collection consisted of administration and collection of answer sheets to be scored and recorded. The recorded results were processed through computers programmed with the formulas, described in the statistical procedure section of this chapter.

## STATISTICAL PROCEDURE

This section of Chapter 3 consists of two separate tests that were utilized in the study: The  $t$ -test for significance of the difference between two means for correlated samples and the analysis of variance for differences between several means.

t-test

To test for the significance between pre and post mean scores for the populations of the YRC group, adolescent males, adolescent females, and the total adolescent population as a group. The formula used to calculate the t-test was the formula for correlated data, as follows:<sup>26</sup>

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2} - 2r\left(\frac{s_1}{n_1}\right)\left(\frac{s_2}{n_2}\right)}}$$

- where,  $\bar{X}_1$  = mean of the pretest scores  
 $\bar{X}_2$  = mean of the posttest scores  
 $s_1^2$  = sample variance for pretest  
 $s_2^2$  = sample variance for posttest  
 $n_1 = n_2$  = number of respondents for the pre and posttest measures  
 $s_1$  = standard deviation for pretest  
 $s_2$  = standard deviation for posttest  
 $r$  = Person's Product Moment Coefficient of Correlation

Analysis of Variance

The analysis of variance was employed to determine significance of pre and post mean scores between YRC

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<sup>26</sup>George A. Ferguson, Statistical Analysis in Psychology and Education, (New York: McGraw-Hill Book Company, 1966), pp. 169-71.

subjects and adolescent males and females. The formulas for analysis of variance are taken from Educational Statistics: Use and Interpretation, by Popham.<sup>27</sup>

Total variance. To compute total SS, all sub-tests scores were handled as if they were one set of measurements. The formula is as follows:

$$SS_1 = SS_w + SS_b$$

Within groups variance. To find within group SS, each individual SS was totaled using the raw score SS formula which yielded quantities to be summed, as follows:

$$\text{Within SS} = \sum X^2 - \frac{(\sum X)^2}{n}$$

Between groups variance. The formula for between groups variance is:

$$\text{Between SS} = \sum \frac{(\sum X)^2}{n_g} - \frac{(\sum X)^2}{n_t}$$

where,  $n_g$  = number of subjects in the group

$n_t$  = total number of subjects

$\sum \frac{(\sum X)^2}{n_g}$  = total of each group's sum of raw scores squared divided by the number of subjects in the group

$\frac{(\sum X)^2}{n_t}$  = sum of all raw scores squared divided by the total number of subjects

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<sup>27</sup>W. James Popham, Educational Statistics: Use and Interpretation, (New York: Harper & Row, Publishers, 1967), pp. 182-85.



F-ratio. The F-value is computed by dividing the between mean square by the within mean square. Thus:

$$F = \frac{\text{Between groups mean square}}{\text{Within groups mean square}}$$

where,  $MS_b = \frac{SS_b}{df}$

and  $MS_w = \frac{SS_w}{df}$

## Chapter 4

### ANALYSIS OF DATA

The data of this study were treated in two parts. The first part deals with the analysis of variance between Youth Rehabilitation Center (YRC) subjects and adolescents (males and females) on pre and post total scores of the California Test of Personality (CTP). The second part deals with t-test scores of pre and post sub-totals and totals of YRC, adolescent males, adolescent females, and the total of all pre and post sub-total scores and total scores of the CTP.

### RESPONSE ANALYSIS

A total of twenty-eight pairs of test results were collected. These twenty-eight pairs consisted of six YRC pairs, sixteen adolescent male pairs, and six adolescent female pairs.

### STATISTICAL ANALYSIS

In this section, each set of data necessary for acquiring results from the analysis of variance and the t-test for correlated means have been discussed. Tables follow each discussion (showing the data) with an evaluation of the results obtained.

Pre-Score Results of  
YRC and Adolescents

The number of subjects for the YRC group was six, the mean was 113, and a standard deviation of 19.035. There were twenty-two subjects in the adolescent group and a mean value of 102.091 was found, along with a standard deviation of 35.366. Table 1, below, shows the degrees of freedom, the sum of squares, and the mean square values for "between" group and "within" group variation, as well as the F-score.

Table 1

Analysis of Variance Between YRC and Adolescents  
(Males and Females) on Pretest  
Total Scores of the CTP

Source of variance	df	Sum of squares	Mean square	F
Between groups	1	561.039	561.039	0.491
Within groups	26	29689.818	1141.916	
Total	27	30250.857		

It was found, by using Table V, Points for the Distribution of F, that an F-value of 4.22 at the .05 level of significance was necessary for the rejection of the null hypothesis.<sup>28</sup> An F-value of 0.491 was obtained, therefore the null hypothesis was accepted. In other words, the pre-test scores obtained between YRC subjects and adolescent subjects were not significantly different and was concluded

<sup>28</sup>N. M. Downie and R. W. Heath, Basic Statistical Methods, (New York: Harper & Row, Publishers, 1965), p. 302.

that there was no significant difference between the means of these two populations.

Post-Score Results of  
YRC and Adolescents

The number of subjects for the YRC group was six, the mean was 118.667, and a standard deviation of 23.228. There were twenty-two subjects in the adolescent group and a mean value of 114.682 was found, along with a standard deviation of 32.07. Table 2, below, shows the degrees of freedom, the sum of squares, and the mean square values for "between" group and "within" group variation, as well as the F-score.

Table 2

Analysis of Variance Between YRC and Adolescents  
(Males and Females) on Posttest  
Total Scores of the CTP

Source of variance	df	Sum of squares	Mean square	F
Between groups	1	74.858	74.858	0.075
Within groups	26	25864.106	994.773	
Total	27	25938.964		

By using Table V, Points for the Distribution of F, it was found that an F-value of 4.22 at the .05 level of significance was necessary for the rejection of the null hypothesis.<sup>29</sup> An F-value of 0.075 was obtained, therefore

<sup>29</sup>Ibid., p. 302.

the null hypothesis was accepted. In other words, the post-test scores obtained between YRC subjects and adolescent subjects were not significantly different and was concluded that there was no significant difference between the means of these two populations.

Pre-Post Score  
Results of YRC

There were six YRC subjects for both pre and post-tests. On the pretests, standard deviations of 11.582 Personal Adjustment, 9.974 Social Adjustment, and 19.035 for Total Adjustment with means of 58.833 Personal Adjustment, 54.167 Social Adjustment, and 113 for Total Adjustment were found. The posttests standard deviations were 14.036 Personal Adjustment, 11.827 Social Adjustment, and 23.228 for Total Adjustment with means of 66 Personal Adjustment, 52.667 Social Adjustment, and 118.667 for Total Adjustment.

Table 3, below, shows the above information, as well as the

Table 3

t-Test for YRC Subjects on Pre-Post  
Scores of the CTP

Group	n	SD	Mean	df	r	t
Personal Adjustment						
Pretest	6	11.582	58.833	5	0.966	-0.189
Posttest	6	14.036	66			
Social Adjustment						
Pretest	6	9.974	54.167	5	0.993	0.055
Posttest	6	11.827	52.667			
Total Adjustment						
Pretest	6	19.035	113	5	0.596	-0.717
Posttest	6	23.228	118.667			

degrees of freedom, correlation, and the value obtained for  $t$ .

With five degrees of freedom, an  $r$ -value of 0.7545 was needed to be significant.<sup>30</sup> Significant correlations were found for Personal Adjustment ( $r=0.966$ ) and Social Adjustment ( $r=0.993$ ), and for Total Adjustment ( $r=0.596$ ) was not found significant. For the significance of  $t$ , a value of 2.571 was needed.<sup>31</sup> The  $t$ -values of -0.189 for Personal Adjustment, 0.055 for Social Adjustment, and -0.717 for Total Adjustment were not significant, therefore the null hypothesis was accepted. In other words, there was no significant difference between pre and posttest scores of YRC subjects.

#### Pre-Post Score Results of Adolescent Males

The number of subjects for both pre and posttests for the adolescent male group was sixteen. Standard deviations for the pretests consisted of 21.367 for Personal Adjustment, 18.383 for Social Adjustment, and 38.112 for Total Adjustment along with means of 51.75 for Personal Adjustment, 56.25 for Social Adjustment, and 108 for Total Adjustment. The standard deviations of the posttests were 18.512 for Personal Adjustment, 17.306 for Social Adjustment, and 33.804 for Total Adjustment. The means of this group were 57.063 for Personal Adjustment, 61.813 for Social

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<sup>30</sup>Ibid., p. 306

<sup>31</sup>Ibid., p. 298.

Adjustment, and 118.875 for Total Adjustment. Table 4, below, shows the above data along with the degrees of freedom, correlation, and the t-value obtained.

Table 4  
t-Test for Adolescent Male Subjects on  
 Pre-Post Scores of the CTP

Group	n	SD	Mean	df	r	t
Personal Adjustment						
Pretest	16	21.367	51.75	15	0.969	-0.154
Posttest	16	18.512	57.063			
Social Adjustment						
Pretest	16	18.383	56.25	15	0.961	-0.203
Posttest	16	17.306	61.813			
Total Adjustment						
Pretest	16	38.112	108	15	0.681	-1.5
Posttest	16	33.804	118.875			

It was found that with fifteen degrees of freedom, an r-value of 0.482 was necessary for significance.<sup>32</sup> Correlations of 0.969 for Personal Adjustment, 0.961 for Social Adjustment, and 0.681 for Total Adjustment were significant. For t, a value of 2.131 was needed for significance.<sup>33</sup> Obtained t-values of -0.154 for Personal Adjustment, -0.203 for Social Adjustment, and -1.5 for Total Adjustment were found to be insignificant, therefore the null hypothesis was accepted. In other words, there was no significant difference between pre and posttest scores of adolescent male subjects.

<sup>32</sup>Ibid., p. 306.

<sup>33</sup>Ibid., p. 298.

Pre-Post Score Results  
of Adolescent Females

For both pre and posttests of the adolescent female group, there were six subjects. Pretests standard deviations were 11.513 for Personal Adjustment, 10.132 for Social Adjustment, and for Total Adjustment 19.267 along with means of 40.333 for Personal Adjustment, 46 for Social Adjustment, and 86.333 for Total Adjustment. Standard deviations of the posttests were 13.499 for Personal Adjustment, 12.267 for Social Adjustment, and 23.493 for Total Adjustment with means of 49.667 for Personal Adjustment, 53.833 for Social Adjustment, and 103.5 for Total Adjustment. In Table 5, below, the above information is shown as well as the degrees of freedom, correlation, and the obtained t-value.

Table 5

t-Test for Adolescent Female Subjects  
on Pre-Post Scores of the CTP

Group	n	SD	Mean	df	r	t
Personal Adjustment						
Pretest	6	11.513	40.333	5	0.966	-0.258
Posttest	6	13.499	49.667			
Social Adjustment						
Pretest	6	10.132	46	5	0.953	-0.271
Posttest	6	12.267	53.833			
Total Adjustment						
Pretest	6	19.267	86.333	5	0.312	-1.661
Posttest	6	23.493	103.5			



An  $r$ -value of 0.7545 was necessary to be significant with five degrees of freedom.<sup>34</sup> It was found that 0.966 for Personal Adjustment and 0.953 for Social Adjustment were significant and the Total Adjustment value of 0.312 was not significant. For a significant  $t$ -value, 2.571 was needed.<sup>35</sup> The  $t$ -values obtained were -0.258 for Personal Adjustment, -0.271 for Social Adjustment, and -1.661 for Total Adjustment. These  $t$ -values were not significant, therefore the null hypothesis was accepted. In other words, there was no significant difference between pre and posttest scores of adolescent female subjects.

#### Pre-Post Score Results of Total Subjects

A total of twenty-eight subjects for both pre and posttests were in the total adolescent group. The standard deviations of the pretests consisted of 17.834 for Personal Adjustment, 15.376 for Social Adjustment, and 32.869 for Total Adjustment. Means of the pretests were 50.821 for Personal Adjustment, 53.607 for Social Adjustment, and 104.429 for Total Adjustment. Posttests standard deviations consisted of 16.646 for Personal Adjustment, 14.187 for Social Adjustment, and 30.437 for Total Adjustment, along with means of 57.393 for Personal Adjustment, 58.143 for Social Adjustment, and 115.536 for Total Adjustment. Table 6, page 28, shows the above data, also the degrees of freedom, correlation, and the obtained  $t$ -value.

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<sup>34</sup>Ibid., p. 306.

<sup>35</sup>Ibid., p. 298.

Table 6

t-Test for Total Subjects on Pre-  
Post Scores of the CTP

Group	n	SD	Mean	df	r	t
Personal Adjustment						
Pretest	28	17.834	50.821	27	0.967	-0.459
Posttest	28	16.646	57.393			
Social Adjustment						
Pretest	28	15.376	53.607	27	0.965	-0.439
Posttest	28	14.187	58.143			
Total Adjustment						
Pretest	28	32.869	104.429	27	0.647	-2.202
Posttest	28	30.437	115.536			

It was found, that with twenty-seven degrees of freedom, an r-value of 0.367 was needed for significance.<sup>36</sup> Correlations consisted of 0.967 for Personal Adjustment, 0.965 for Social Adjustment, and 0.647 for Total Adjustment, which were significant. A value of 2.052 with twenty-seven degrees of freedom was necessary for the significance of t.<sup>37</sup> It was found that t-values of -0.459 for Personal Adjustment and -0.439 for Social Adjustment were not significant, however, the t-value of -2.202 for Total Adjustment was significant. The null hypothesis was accepted for Personal Adjustment and Social Adjustment, but was rejected for Total Adjustment. In other words, there was no significant difference between pre and post scores on the subtests, Personal and Social Adjustment, however, there was a significant difference between pre and post scores on Total Adjustment.

<sup>36</sup>Ibid., p. 306.

<sup>37</sup>Ibid., p. 298.

## Chapter 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The primary attention of the present study was in the direction of observing the effects a state mental hospital's environment had on an adolescent's personality. By the use of the California Test of Personality over a ten week period, testing adolescents, it was possible to measure these effects. In this chapter the findings are discussed.

#### SUMMARY

Evaluation of results indicated that there was no significant difference of scores on pretests between delinquent adolescents of the Youth Rehabilitation Center (YRC) and adolescent mental patients (males and females). Post-test scores between these two groups showed no significant difference. There was no significant difference between pre and posttest scores as indicated by individual group results obtained from YRC, adolescent males and females. However, on the basis of all the adolescents, as a total group, results indicated that while there was no significant difference between pre and posttest scores on Personal Adjustment and Social Adjustment, there was a significant difference on Total Adjustment.

Further inspection of data was as follows: Although there was no significant change of Personal Adjustment and Social Adjustment scores among the groups, a slight change was noticeable for these subtests. Adolescent males and females showed more of a change on Social Adjustment than Personal Adjustment, while YRC subjects had an inverse of this change. Also noted was that females had a greater overall change than adolescent males, and males a greater change than YRC subjects.

### CONCLUSIONS

From individual group results (YRC, adolescent males and females) it was concluded that the environment of a state hospital does not affect an adolescent's personality to any significant degree over a ten week period. It was concluded from combined group results that a state mental hospital's environment does affect an adolescent's personality over a ten week period.

A possible explanation for such diversity of conclusions may be directed towards the size of each individual group. A group consisting of a small number of subjects allows for greater chance of accepting the null hypothesis, thus creating greater probability of an erroneous conclusion.<sup>38</sup> With a group consisting of a large number, such as

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<sup>38</sup>Quinn McNemar, Psychological Statistics, (New York: John Wiley & Sons, Inc., 1949), pp. 231-34.

the aggregate group, the probability of rejecting the null hypothesis is greater.<sup>39</sup> Therefore, it would be safe to assume that the overall conclusion would be that a state mental hospital's environment does affect an adolescent's personality during a ten week period.

### RECOMMENDATIONS

Recommendations of the study are in two areas. First, the use of larger groups might provide more reliable conclusions and assumptions.

The second recommendation is that the duration between pretesting and posttesting be extended. This would assure that the influences of the mental hospital's environment were not due to an adjustment phase made by the subject. In other words, it may eliminate the effects of the adjustment phase. This type of effect may produce temporary feelings by the subject, hence affecting score results.

Two recommendations are made to the Osawatomie State Hospital and other state hospitals. First, it is reasonable to assume that adolescents who are classed by a court as juvenile delinquents are having difficulties in following rules (laws). Therefore, rehabilitation centers for juvenile delinquents at state mental hospitals should adjust their programs of therapy to emphasize the necessity of

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<sup>39</sup>Quinn McNemar, Psychological Statistics, (New York: John Wiley & Sons, Inc., 1962), pp. 105-08.

rules, and to facilitate the subject's understanding of rules and reasons for following them.

Secondly, different types of programs should be initiated for adolescent male and female mental patients than for Youth Rehabilitation Center subjects. For example, programs aimed in the direction of social conformity and social acceptance might be most helpful for YRC adolescents. Programs of shared activities for both YRC and mental patient adolescents might prove of value for purposes of social interaction in groups and social activities. However, the major emphasis of these programs should be placed on structure.

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