This study evaluated the effectiveness of an educational and treatment program for high school dropouts initiated by a private alternative school contracting with a graduate school of social work. The Cassata Program, a joint effort by the Cassata Learning Center and the University of Texas at Arlington, was designed to improve students' academic performance and to change student behaviors so that they might fit the academic objectives of the program. Individual, family, and parent group therapy were among the treatments that contributed to a 73 percent success rate with participating students. Success was defined as posttest increases in math, reading, and overall academic achievement test scores based on the Test of Adult Basic Education (TABE). Posttest improvements in self-esteem were based on standardized behavioral, self-esteem, and family adaptation and cohesion assessment instruments. Statistical analysis of covariance (t-tests) indicated that the various social work and treatment services influenced program outcomes positively. A list of references is included.

(JAM)
A University Based Alternative School
for High School Dropouts

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ABSTRACT

A private alternative school contracted with a graduate school of social work to provide an educational and treatment program for high school dropouts. There was a 73 percent success rate with participating students. Statistical analysis of covariance indicates that the various social work treatment services were impacting the program’s positive outcome.
INTRODUCTION

High school students who drop out prior to graduation are a major social problem (Pallas, 1987). Depending upon the definition of "dropout" that is used, rates vary from approximately 20% to 70%. According to one estimate 20% of all 16/17-year-olds drop out of high school and this may rise to as many as 70% of ethnic minorities (Stevens, 1985). Of considerable alarm also is the trend toward a substantial increase of adolescent dropouts who are middle-class, majority, female, and rural youth (Williams & Gold, 1972, in Ludman, et al, 1976). These majority youth represent a growing population of disturbed young people who have been labeled "behavior disordered" (Wood, 1985).

Behavior-disordered youth have difficulty interfacing with the traditional school system due to a cadre of social and emotional problems. Socioemotional problems they experience range from social alienation, teenage pregnancy, drug/alcohol abuse, family dysfunctions to severe psychiatric illness (Pallas, 1987; Mann, 1986). While some of these youth are clearly learning-disabled and suffer from a variety of cognitive and neurological deficits, the majority do not qualify for traditional special educational services (Wood, 1985).

Historically, the trend has been to place behavior-disordered youth in hospitals, residential treatment centers, and/or other institutions. The more recent trend has been to maintain them in the community through placement in day programs or alternative schools (Mesinger, 1982, 1986). Alternative schools and/or day programs have gained wide acceptance as viable education and socialization programs for behavior-disordered youth. The acceptance of alternative schools has been supported by two
important public policies: 1) Public law 94-142 mandating that school systems provide appropriate services for handicapped youth, and 2) the deinstitutionalization of youth previously treated in residential facilities (Sullivan, 1981).

Increasing reliance on alternative schools as major providers of special services for behavior-disordered youth has burdened the educational system (both public and private) with the responsibility of not only educating but also treating the socioemotional problems these youth experience. To meet the demands of both educating and treating youth with behavior problems alternative schools have typically provided educational programs incorporating various treatment approaches (Baenen, Stephens, & Glenwick, 1986).

Despite the popularity of these educational treatment programs, conclusions vary regarding the type of treatments necessary to assist their students. Some authors have delineated specific programmatic approaches for improving effectiveness. For example, three prominent approaches emerge in the literature: 1) the attitudinal affective approach, 2) the behavioral approach, and 3) the ecological approach. The attitudinal affective approach emphasizes treatments that produce changes in attitudes and emotions (Garner, 1982; Levietes, Hulse, & Blair, 1965). Behavioral approaches emphasize the need to place students in engineered environments and to utilize learning theories as a basis of behavior change (Flipczak, 1979; Cohen, 1974; Maher, 1981). Ecological approaches emphasize skills training, person environment suitability and working with the larger system as a way of creating optimal functioning for a student (Baenen, et al, 1986; Nichtern, 1964).
These approaches have offered some supporting evidence that they have produced efficacious results with alternative school populations. In the final analysis it appears that most programs have similar treatment components (e.g., group therapy, family therapy, behavior management systems, etc.) regardless of their conceived theoretical orientation. In a 1986 review of the literature Baenen, Stephens, & Glenwick (1986) describe the state of the field as being primarily multimodal. Most treatment programs use more than one approach. Searching for the correct theoretical/treatment approach does not seem to be a worthwhile endeavor. Since many programs are multimodal and have many similar components, it seems more useful to systematically evaluate the outcomes of existing as well as new programs to ascertain treatment efficacy.

Mesinger (1986) concludes, after reviewing the literature for the past two decades, that the state of research and evaluation is generally terrible. Baenen, Stephens, & Glenwick (1986) agree that little systematic empirical information regarding outcome in psychoeducational programs exists despite their role in current policy. The current authors concur that little empirical research is available. This is a sad state of affairs given that there are dozens of published articles on the subject of alternative programs. Most of these articles are descriptive and/or anecdotal. At a minimum quasi-experimental designs should be employed to improve our abilities to make causal inferences regarding the impact of treatment.

The alternative school program described in this paper represents an attempt at evaluating an alternative school program through quasi-experimentation. The outcome (dependent) variables chosen for
analysis were selected because they were frequently used in other research or discussed in the literature as being important determinants of success for alternative school populations. The specific outcome variables included in this study are: 1) Personality/behavioral correlates; 2) Self-esteem; 3) Family functioning; 4) Academic achievement.

The program is a collaboration between a private alternative school (known as the Cassata Learning Center) and the Graduate School of Social Work at The University of Texas at Arlington. Cassata Learning Center contracted with the Graduate School of Social Work in order to offer a multimodal educational and treatment program for its participants. Educational services were provided by the alternative school and various treatment services were provided by the faculty and students of The University of Texas at Arlington. Treatment services provided were similar to the special services offered by many other alternative programs; individual therapy, social group work methods, family therapy, parents group therapy. Also included were components identified in other studies: 1) a therapeutic milieu/caring environment; 2) small teacher/pupil ratio; 3) flexible scheduling; 4) voluntary standing of students; and 5) free tuition status (Whalen, 1985; Mann, 1986; Reilly & Reilly, 1983).

In addition to the aforementioned components, the program also was designed to utilize the ecological environment to promote maximum cooperation between students and other systems. This collaboration is demonstrated most proficiently by the cooperative effort of the several community systems that contributed to its formation (e.g., Cassata, The University of Texas at Arlington, The Working Connection, and Private
Industry Council of Fort Worth, Texas). Such collaboration has been previously reported in the literature as necessary elements for successful program outcomes (Greenberg and Lieberman, 1981).

In summary, the program described in this study combined several components identified in the literature as important to the success of alternative school programs. The intent of the program designers was to evaluate systematically the extent to which the program was effective. This paper is a report on some of the first year outcomes. Of particular interest to this study was the differential outcomes and treatment efficacy of the multimodal social work treatment approach.

**METHOD**

School district personnel from the local community were helpful in identifying and referring potential students. The majority of the students had family backgrounds that would be considered middle- to upper-middle-class. The mean age of students was 17 years with a range of 15 to 24 years. Eighty-eight percent of the students were 18 years or younger. The mean of the highest grade completed before dropping out was 9. Slightly less than 20% were minorities. During the first academic year 111 students were enrolled in the program. Students were referred to the Cassata Program for a myriad of reasons. These reasons, as reflected in Table 1, are similar to the reasons for dropping out of school reported by Pallas (1987).
The alternative school, Cassata Learning Center, was housed in the Graduate School of Social Work Complex. Operational expenses including tuition were funded with a Job Training Partnership Act (JTPA) grant that was provided through the Fort Worth Private Industry Council (PIC) and administered by the Working Connection of the City of Fort Worth, Texas.

Academically, Cassata provided students with the following options:

1. To earn a high school diploma;
2. To prepare for the GED test;
3. To earn credits until they could return to traditional high school.

Students were in classes 12 hours per week and could choose morning, afternoon, or evening sessions. Individually-paced educational contracts were developed with each student, and progress reports were mailed to his/her home at six-week intervals. Classrooms were small, but well-lit by overhead fluorescent lights and large windows which looked out on a major thoroughfare that passed through the center of the University campus. Student/teacher ratio averaged 13-to-1 per class. Teachers instructed students individually or in small groups as the need dictated.

Social work graduate students periodically interacted with the students in the classroom and on breaks providing coaching, praise, encouragement, and support. Students were required to attend social work groups twice weekly which met in the same classrooms that were used for instruction. Groups were led by graduate social work field students who were assigned to Cassata for their field placement.
The project was designed to serve 100 students during the academic year which included the months of September through May. Training for all staff took place one month prior to the beginning of the program and was continued through weekly staff meetings and monthly inservice training sessions. Focus of training was upon understanding disordered youth and the social group work method as well as other intervention strategies such as behavior modification and cognitive modalities. Although graduate social work students served as group leaders, teachers frequently participated. Direct supervision of the field students and of the research was done by a Ph.D. student who had several years of experience working with adolescents.

Study Design

A battery of tests was administered to each student entering the program and post-tests were administered when they left the program. The measures utilized are listed below:

1. Standard Sociodemographic Measures (i.e., age, gender, race, etc.);
2. Hilson Adolescent Profile (HAP): a standardized behavioral assessment instrument (Inwald, 1987);
3. Cooper-Smith Inventory (SEI): a standardized measure of self-esteem (Cooper-Smith 1986);
4. Family Adaptation and Cohesion Scale (FACES III): a standardized measure of family functioning (Alson, et al, 1985); (the analysis of FACES III is not discussed in this Study.)
Successful outcome criteria were established by the program funders, educational staff, and social work staff prior to the beginning of the project. Successful matriculation from the program could be accomplished in the following ways: 1) high school graduation; 2) passing the GED test; 3) being gainfully employed; 4) progressing one-and-a-half grade levels on the Test of Adult Basic Education (TABES) in reading and mathematics; 5) earning at least two high school credits per semester; and 6) successfully returning to traditional high school.

**Treatment Conditions**

The major modality of treatment was Social Group Work. A modified Positive Peer Culture (PPC) was introduced as the main treatment approach in the program. Every student received this group work treatment. The total treatment program utilized multimodal interventions including individual, family and parents' group therapy. Students were referred to the multimodal treatments in a non-equivalent manner based on their need and the clinical judgment of social workers and teachers. Some students received a combination of treatments. Table 2 reflects the number of students receiving each of the treatments.

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Insert Table 2 Here

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Positive Peer Culture was developed from the Guided Group Interaction framework (McCorkle, 1949; McCorkle, et al, 1958). The Guided Group Interaction approach (GGI) expresses a philosophical orientation that promotes values of helping, caring, dignity/self-worth, equality, and choice/democracy. These values are an integral part of the profession of social work and represent social work's highest ideals.
(morality). The roots of these values outside traditional religion can be traced in the Behavioral Sciences to Alfred Adler (1938, 1963), Viktor Frankl (1978), and O.H. Mower (1960), among other notable humanistic therapists. Creating a powerful environment of caring and helping others has been advocated by several authors as being an effective approach with behavior disordered youth (Hirschohn, 1982; Gold, 1978, Brendtro and Ness, 1983; Linton and Russel, 1982).

The helping and caring strategy employed in the GGI approach is mainly concerned with the cognitive restructuring of the adolescent from the predominant values of aloofness and/or negativism toward others and self to the more pro-social, pro-self values which propose that we develop strength, autonomy, and positive self-concept by helping others. The basic goal of group treatment was to help group members positively redefine their attitudes toward helping/caring values and behaviors and to provide the adolescent with the opportunity to learn and practice the behaviors associated with these new attitudes (e.g., group members call absent or suicidal group members to offer help). An opportunity for growth was created, thereby using the group as a means and a context for change.

This caring, helping, pro-social value system directed the behavior and activity of the group leader and formed the basis for the norms of the group. It also directed the teaching and treatment staff. Utilization of the caring, participatory philosophy was reflected in how the weekly staff meeting was conducted. All project staff were expected to attend and to participate. This included the social work faculty person who monitored the project. At this meeting all issues related to the project were discussed such as treatment concerns, academic progress,
research goals, staff relationships, and students who needed to be targeted for special assistance. In this meeting all staff contributed and helped one another stay abreast of each student's progress and needs. Decision making for the most part was carried out in a democratic manner.

**Multimodal Treatment Conditions**

Although the caring philosophy and group work method were predicted to be an important and necessary condition for operation of an effective program for dropouts, it was not predicted to be a sufficient condition. Other empirical research indicated that a cognitive/behavioral approach implemented in a multicomponent treatment program might be the most promising treatment approach with behavior disordered youth (i.e., Kazdin, 1987; Shamsie, 1982; Weber, 1986; Wilson, 1984; Patterson, 1986). For this reason other multimodal treatments that were predominately cognitive and/or behavioral were included as a part of the treatment program. Individual and/or family treatment was provided or available to all project students. Additionally a weekly parents' group therapy session was made available to all parents.

Treatments were conducted at the Community Service Clinic, an onsite multipurpose counseling clinic operated by the Graduate School of Social Work. All treatments were free of charge to the students and their families. Individual and/or family therapy was implemented at the students' or parents' request. Additionally, teachers could refer a student for individual therapy. Social workers sometimes requested that family members become involved in the treatment. All parents were strongly encouraged to participate in the parents' group. The parents' participation was defined as being imperative to the student's progress in the program. Parents were also prompted to attend the parents' group
through follow-up letters and phone calls from social workers and parent volunteers.

The individual therapy component utilized a directive approach that was specific, goal oriented, and task centered. The methods employed were primarily cognitive and/or behavioral (i.e., contracting, token systems, biofeedback, challenging irrational beliefs, and changing self-statements).

Family therapy was conducted in a systems and/or behavioral framework. The methods utilized were primarily behavioral, structural and/or strategic (i.e., contracting, positive reinforcement, strengthening boundaries, decreasing triangulation, prescribing a symptom, etc.).

Parents' group therapy was structured to be predominantly a self-help group where parents helped other parents to be better parents. In addition, a psychoeducational approach was also used in the parents' group. Outside speakers were periodically invited to speak on relevant topics such as drug abuse and "tough love."

RESULTS

Standardized outcome measures of pre-test and post-test were evaluated using a t-test. The successful completion of each student was evaluated using the criteria for success established by the Private Industry Council. A statistical design analysis of covariance was used to evaluate the impact of the multimodal social work treatments on the outcome measures. The covariant was the number of months in the treatment program which controlled for the differential effects of differing lengths of exposure to the program.
Preliminary results obtained using a t-test indicate that some portion of all outcome measures showed statistical significance. Table 4 summarizes the pre-test to post-test results with the t-test. The following results were obtained:

Insert Tables 3 and 4 Here

1. Hilson Adolescent Profile -

   a. **Rigidity/Obsessiveness**: There was a positive change in the student's attitude of inflexibility, impatience, and irritability. This type of improvement was usually most evident in the student's cooperation with the teacher and other interpersonal relationships.

   b. **Interpersonal Assertiveness Difficulties**: There was a positive change in the student's ability to communicate directly and comfortably in relationships. This type of change was usually noted in the student's improvement in getting along with adults and peers. There was also a tendency to be less shy, moody, and isolated.

   c. **Anxiety/Phobic Avoidance**: There was a positive change in the student's level of fear/anxiety and tendency toward avoidance of situations. This type of improvement was very noticeable in the student's coping abilities and willingness to deal with stressful situations in an appropriate way (e.g., instead of blowing up and refusing to retake the mathematics test he/she failed, he/she would agree to take the test again after some tutoring).
d. **Unusual Responses:** There was a positive change in the student's thinking and behavior that would indicate the presence of emotional disturbance. These changes commonly were seen as the student behaving more rationally and less immaturely. The student would be seen as being more responsible and having better problem-solving skills. A change in this scale also might indicate a decrease in substance abuse which produces deviant thinking/behavior and mimics emotional disturbances in youth.

2. **Cooper-Smith Inventory** -

   Pre-test and post-test evaluations of self-esteem indicated that the student's self-esteem improved toward his/herself, social relationships, academics, and family life.

3. **Test of Adult Basic Education:**

   Pre-test and post-test evaluation indicated a substantial increase in academic progress in math, reading, and overall academic achievement.

   These statistical results were corroborated by positive reports of student progress given by the treatment staff. The statistical results of the pre-test to post-test evaluations were further confirmed by the percentage of successful completions of students enrolled in the program. Of the 111 students enrolled in the program the following numbers were counted to be successful completions according to the established outcome criteria: 1) nine students received their high school diplomas; 2) twenty-seven passed the GED test; 3) two returned to traditional high school; 4) twelve became gainfully employed or joined the military
service; 5) thirty-two earned two or more credits toward their high school diplomas or gained one-and-a-half grade levels on the TABES test.

Preliminary results of the analysis of covariance indicated that the various social work treatments were contributing to the positive outcomes obtained in the dropout program. Table 5 summarizes the results of the analysis of covariance. On the Test of Adult Basic Education the main effects of the treatments were significant at the .05 level. Family therapy appeared to be responsible for this significant treatment effect. On the scales of the Nilson Adolescent Profile the main effects of the treatments were significant for the rigidity/obsessiveness and unusual responses scales. Individual therapy appeared to be responsible for the significant treatment effect on the rigidity/obsessiveness scale. Parents' group therapy and receiving a combination of individual, family and parents' group therapy appeared to be responsible for significant treatment effect on the unusual responses scale. The other two scales did not show significant main effect for the multiple treatments under comparison here.

DISCUSSION

The results indicate significant progress in both the academic and behavioral goals specified at the beginning of the project. More than two out of three dropouts who enrolled in the Cassata Program have been positively affected by this project as was confirmed by both statistical results and positive outcomes of the participants. These results are believed to be exceptional, taking into account the at-risk and
hard-to-reach population served. It is hoped that in the second year of the project these results can be replicated and improved upon. In the second year a quasi-experimental design with a no-treatment control group will be used. Including such a design is believed to be essential and will correct the major weakness of the initial research endeavor. Lack of empirically-based research appears to be the most neglected aspect of evaluation research for alternative schools (Stevens, 1985; Messinger, 1984; Baenen, Parris & Glenwick, 1986). The Cassata Project hopes to improve upon its methodology in the second year of operation of the program.

With the dropout problem increasing the formation of innovative community programs and their empirical evaluation seems to be paramount (Pallas, 1987; Stevens, 1985). The Cassata Project, which was funded by a Job Training Partnership Act, represents one such program for the purpose of providing intervention with dropouts in a local community and the empirical evaluation of that intervention. The program has been funded in the second year and will continue to exist for that purpose. The results for the community in question are promising. It is important to note that the dropout population under study is nonrepresentative of many youth who would be considered to be a "typical" dropout; that is, they tend not to be socioeconomically disadvantaged. Instead, these youth tended to be white, middle-to-upper-middle-class youth with a variety of socioemotional difficulties that prevent them from completing their education in a regular school setting. They reflect the community in which they live, which is 93% white and has a mean income of $50,000 a year. While these youth do not appear to fit the stereotypical image of what a dropout is, because of their apparent social advantage, they are
still high school dropouts. In addition, most of them had serious social and/or emotional dysfunctions when they entered the program. Their dysfunctions, combined with their dropout status, put them at a high risk for becoming the future disadvantaged. The program examined in this study appears to be responding to a growing need identified in the current literature concerning dropouts and intervention among middle-class majority youth (Lundman, et al, 1976; Wood, 1985).

In the Cassata Project the crucial aspects of the program that appear to have enhanced the positive outcomes described in this study are listed as follows: 1) The caring environment and sense of community created by the staff (e.g., individualized attention of teachers, smaller classrooms, availability of social workers as behavioral coaches). 2) continued peer support and solicitation of prosocial behavior by peers through social group work methods; 3) the flexibility of academic programming and scheduling (e.g., GED option, shorter classes meeting at different times); 4) multiple treatments available on-site as a part of the curriculum and services of the school; and 5) the location of the project in a university setting (e.g. School of Social Work) is believed to have enhanced the status of the program in the community and helped remove the stigma of being a dropout. In addition, the university setting provided numerous role models for the students and made cost effective many aspects of the program implementation.

All of the above factors are believed to be significant to the first year success of the program. The statistical results of the analysis of covariance indicated that the various multiple social work treatments were, at the least, partially responsible for the changes in both the
It should be noted that the two of the sub-scales found to be statistically significant from pre- to post-test on the Hilson Adolescent Profile and the Coopersmith Inventory did not show a significant main effect from any of the multiple treatment conditions. It may be that the social group work method and overall participation in the dropout program were more responsible for the significant pre-test to post-test results on these measures than participation in the various other treatment conditions. The sample sizes in the treatment conditions were small and as a result, there is always the possibility of make a Type 2 error by concluding that the other treatment conditions were not important or meaningful to the success of students. The limitations inherent in the research design prohibit definitive empirical conclusions from being drawn from the results.

Mesinger (1986) concluded, after an exhaustive review of the literature, that three factors are necessary to have appreciable success with difficult adolescents: 1) a cadre of talented staff who share a model of operation; 2) a peer group exhibiting prosocial behaviors to model; and 3) some environmental control over the target youths during treatment. The first factor was operationalized completely in the design and implementation of the Cassata Project. The second was met partially but not to the extent that Feldman, et al (1983) suggests is absolutely necessary. As a result of the research, Feldman, et al, insist that to bring about prosocial behaviors in delinquent youth the group should be composed primarily of prosocial youth. Obviously this was not possible in a program where the entire population of potential group members had been identified as troubled adolescents. Factor three, some
environmental control over the target youths during treatment, existed minimally, if at all. In spite of these weaknesses several promising empirical results have been discovered and warrant more definitive examination in the second year operation of the project.
References


Table 1

Parent and Student Reported Reasons for Referral

<table>
<thead>
<tr>
<th>Reason for Referral</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failing school</td>
<td>55.08</td>
</tr>
<tr>
<td>Learning problems</td>
<td>22.68</td>
</tr>
<tr>
<td>Suspended from school</td>
<td>17.28</td>
</tr>
<tr>
<td>Truancy</td>
<td>44.28</td>
</tr>
<tr>
<td>Runaway</td>
<td>9.72</td>
</tr>
<tr>
<td>Drug/alcohol problem</td>
<td>22.68*</td>
</tr>
<tr>
<td>Pregnancy</td>
<td>17.28</td>
</tr>
<tr>
<td>Job</td>
<td>11.88</td>
</tr>
</tbody>
</table>
Authority problems 47.52

Family problems 30.24

Legal problems 9.64

---

Note: Approximately 88% of the Program Participants were referred by the school system or drug/alcohol agencies. The remaining 12% were referred by the mental health system, legal agencies, personal or other referral source.

Several parents and students reported multiple reasons for referral.

*Substance abuse is believed to be under-reported by screening instruments used to gather referral data.
Table 2

*Number of Program Participants Receiving Individual and Family Intervention*

<table>
<thead>
<tr>
<th>Individual Therapy</th>
<th>Family Therapy</th>
<th>Parents' Group Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>58</td>
<td>53.7</td>
<td>17</td>
</tr>
<tr>
<td>*36</td>
<td>33.3</td>
<td></td>
</tr>
</tbody>
</table>

Note: These conditions are not necessarily mutually exclusive.

One student may be represented across several conditions.

*36 individual parents participated in the Parents Group Therapy Condition.*
Table 3  
Analysis of Covariance\textsuperscript{a} of Treatment  
Conditions on the Total Difference Scores  
on the Test of Adult Basic Education

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>5</td>
<td>41449.602</td>
<td>3.007*</td>
</tr>
<tr>
<td>(Main Effects)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual therapy</td>
<td>1</td>
<td>36890.123</td>
<td>2.676</td>
</tr>
<tr>
<td>Family therapy</td>
<td>1</td>
<td>142323.759</td>
<td>10.325*</td>
</tr>
<tr>
<td>Parents group therapy</td>
<td>1</td>
<td>8031.905</td>
<td>0.583</td>
</tr>
<tr>
<td>Individual, family &amp; parents group therapy</td>
<td>1</td>
<td>13333.675</td>
<td>0.967</td>
</tr>
<tr>
<td>Within</td>
<td>46</td>
<td>13784.070</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51</td>
<td>16496.377</td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{a}The number of months enrolled in the treatment program was a covariate. The covariate was also significant.

*p .05
Table 4

Means and Standard Deviations Before Entering A Dropout Program (Pretest) and Upon Completion of the Program (Post Tests)

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>Before Entering the Program</th>
<th>SD</th>
<th>After Completing the Program</th>
<th>SD</th>
<th>n</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Test of Adult Basic Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math</td>
<td>9.3</td>
<td>2.4</td>
<td>10.2</td>
<td>2.6</td>
<td>59</td>
<td>-3.57***</td>
</tr>
<tr>
<td>Reading</td>
<td>10.4</td>
<td>2.5</td>
<td>11.3</td>
<td>2.0</td>
<td>63</td>
<td>-3.99***</td>
</tr>
<tr>
<td>Total Battery</td>
<td>10.0</td>
<td>2.4</td>
<td>10.8</td>
<td>2.4</td>
<td>58</td>
<td>-4.17***</td>
</tr>
<tr>
<td><strong>Nilson Adolescent Profile</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rigidity/Obsessiveness</td>
<td>49.13</td>
<td>8.4</td>
<td>45.9</td>
<td>8.3</td>
<td>68</td>
<td>3.44***</td>
</tr>
<tr>
<td>Interpersonal Assertiveness</td>
<td>45.9</td>
<td>10.0</td>
<td>43.3</td>
<td>9.0</td>
<td>68</td>
<td>2.92*</td>
</tr>
<tr>
<td>Anxiety/Phobic Avoidance</td>
<td>45.6</td>
<td>8.0</td>
<td>42.6</td>
<td>8.0</td>
<td>68</td>
<td>3.46***</td>
</tr>
<tr>
<td>Unusual Responses</td>
<td>48.8</td>
<td>11.0</td>
<td>46.1</td>
<td>10.0</td>
<td>68</td>
<td>2.52**</td>
</tr>
<tr>
<td>CooperSmith Inventory</td>
<td>59.4</td>
<td>21.0</td>
<td>64.4</td>
<td>22.5</td>
<td>68</td>
<td>-2.19*</td>
</tr>
</tbody>
</table>

* p .05
** p .01
*** p .001
Table 5

Analysis of Covariance\textsuperscript{a} of Treatment Conditions

on the Nilson Adolescent Profile Scales

<table>
<thead>
<tr>
<th>Source</th>
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*a The number of months enrolled in the treatment program was a covariate.

*b The covariate was also significant on the Rigidity/Obsessiveness Scale.

* p .05  ** p .01