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Effects of a Rational-Emotive Mental Health Program on Poorly Achieving, Disruptive High School Students

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The effectiveness of a rational-emotive mental health program was examined. Eleventh and 12th-grade high-risk and failure- and misconduct-prone black and Hispanic high school students (N = 40) were given five weekly sessions of rational-emotive education over a full semester. The dependent measures were grade point average, incidents of disruptive behavior, and class cuts. Comparisons were made with alternate treatment and no-treatment controls. The results revealed differential effects among the treatment groups, with the rational-emotive groups showing greatest improvement on all dependent variables over an extended period of time. Implications and suggestions for further research are discussed.

The high failure and drop-out rate of secondary school students in economically disadvantaged areas has been noted with grave concern by investigators interested in this problem (Taber, 1963). Students demoralized by continuing poor achievement discover after prematurely leaving school that problems are compounded as failure to obtain a high school diploma decreases the chances for obtaining employment. Consequently, an individual's likelihood for involvement in delinquent activities is heightened (Glasser, 1965).

Although studies with drop-out-prone secondary school students are numerous (e.g., Bates, 1968; Gilliland, 1968; McGowan, 1968), most have been either unsuccessful or poorly designed (Anderson, 1969). In considering approaches to decrease school failure among high-risk students, we decided to initiate a systematic cognitive/behavioral group therapy that had been successful with other maladaptive behaviors (Karst & Trexler, 1970; Sharma, 1970; Meichenbaum, Note 1).

In particular, rational-emotive therapy, a system based on the educational model and emphasizing the teaching and application of self-realization rules, seemed to be ideally suited as an intervention strategy that might improve performance on selected criteria considered important for success in a school setting. Encouraged by Sharma's (1970) report, which recommended role-playing and rational-emotive procedures in group sessions with adolescents, we proceeded to adapt rational-emotive educational methods (Knaus, 1974a, 1974b) based upon the rational-emotive therapy model (Ellis, 1962). The focus was upon cognitive restructuring through the practice of adjustive rational appraisal, in vivo activity exercises, small-group-directed discussion, and psychological homework assignments.

In the present study, it was hypothesized that a systematic rational-emotive educational approach employed with a high-risk and failure- and misconduct-prone black and Hispanic high school males and females would positively influence factors such as grade point average (GPA), class cutting, and social behavior.

Method

Participants

Nineteen male and 21 female 10th- and 11th-grade black and Hispanic students served as participants in this research. The students were enrolled in an inner-city school characterized by substandard educational achievement and designated by the U.S. Commissioner of Education as having a high proportion of pupils from low-income families. The forty participants who agreed to participate in what was described as "intense discussion groups to improve school success" were referred

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to the experimenter by guidance counselors. All participants were promised one full social science unit credit for successful completion of the program. The referrals were based on poor performance the previous school year. In this regard, all had (a) GPAs of 65 or below, (b) 40 or more absences, (c) 25 or more latenesses, (d) 25 or more class cuts, and (e) received five or more "dean's cards" for disruptive classroom behavior. In addition, all participants had a minimum 8th-grade ability and an intelligence score in the average range. The mean age for this group was 16 years, 1 month.

Leaders

The two leaders in this study were trained at the post-master's level with 8 years of professional experience each. The leaders' orientation to professional practice was eclectic. They did not identify with any one school of thought, nor were they aware of the experimental hypothesis. Rather, they were given the "set" that both types of treatment would be equally effective. In addition to their formal training, the leaders participated in several training sessions with the author. These sessions were designed to increase the leaders' expertise with respect to the present techniques. All treatment sessions were tape recorded and reviewed by the author to ensure that both leaders followed the prescribed treatment procedure exactly.

Procedure

Participants were stratified on the basis of sex and randomly assigned to one of the following five conditions: (a) rational-emotive education (ns = 8 and 8), (b) human relations (ns = 8 and 8), and (c) no-treatment control (ns = 8). Both leaders in this study conducted one of each of the treatment groups. Treatment groups met 5 days per week for 45 minutes per session for 12 consecutive weeks. A total of 47 sessions comprised one school semester.

Rational-emotive condition. These groups followed the format outlined by Knaus (1974b) and included extensive role playing to help students internalize and apply the concepts presented.[1] The sessions were structured about predetermined themes, and the leaders' approach was highly active, directive, and task oriented. Homework assignments and many dramatic-emotive exercises, including honest expressions of feelings, direct confrontation, and risk-taking experiences, were employed. Emphasis was placed upon teaching members of these groups rules of self-examination through the use of self-questioning techniques.

Human relations condition. This program was developed by Bullis and O'Malley (Note 2) to promote better adjustment by teaching psychodynamic principles of behavior. It was chosen as a comparison to the rational-emotive approach because it was based on a different theoretical position and its effectiveness had been previously demonstrated (Massa, 1959). During these sessions the leaders conducted a discussion on preselected psychodynamic topics. Each session was opened by the leader with a short presentation (e.g., "My Earliest Recalled Memory") adapted in a manner suited to adolescent youngsters. In the discussion that followed, the leaders' style was reflective and clarifying.

No-treatment control. Participants were told that because of a large response to the counseling program, a random selection procedure had to be used to decide who would be selected. They were informed that they were the ones whose counseling had to be temporarily postponed but that they would definitely have an opportunity to participate in the program at a later date.

Dependent Measures and Assessment Procedures

Disruptive classroom behavior. Academic teachers agreed that the behaviors competing most with work on assigned classroom materials always involved students talking out of turn or being out of their seat without permission. Students were frequently reminded of the rules regarding these acts. Accordingly, the disruptive behaviors were defined for recording purposes as speaking out or leaving one's seat without permission. Ratings for all participants were obtained during a 3-hour duration 1 week prior to treatment, 1 week prior to termination, and at a 4-month follow-up period. The mean number of disruptive acts for a given time period was obtained by training each of the classroom teachers to rate disruptive acts according to the agreed upon definition. A reliability measure of detection of disruptive behavior was obtained by having a second observer independently record the incidents during 10 class periods. Ninety-eight percent agreement was obtained.

Grade point average. Final grades in major subject areas at the end of the semester provided GPA data. Follow-up data were based on the next semester's GPA.

Class cutting. Failure to attend a subject class while being marked present in school for the day constituted a cut. Follow-up data were based on the next semester's total cuts.

Results

Of the 40 participants initially selected, all completed the study. Treatment-group absence rate did not exceed 15% for any subject.

In analyzing the dependent variables, the first major factor examined was possible leader differences. No significant leader effect or Leader × Treatment interaction ($F < 1.0$) was found on the dependent measures. The leader variable was not considered further in the analyses.

[1] A complete description of the rational-emotive and human relations lessons is available from the author.

Table 1
Means and Standard Deviations for All Groups on Grade Point Average, Incidents of Disruptive Behavior, and Class Cuts for Pretreatment, Posttreatment, and Follow-up

Variable	Rational-emotive education		Human relations training		No-treatment control	
	M	*SD*	*M*	*SD*	*M*	*SD*
Grade point average						
Pretreatment	60.0	3.9	60.0	3.7	60.5	3.2
Posttreatment	68.8	3.3	60.3	3.7	60.0	4.7
Follow-up	68.0	4.3	59.5	3.8	61.5	2.6
Disruptive behavior						
Pretreatment	26.5	7.0	26.8	6.2	26.7	7.6
Posttreatment	5.0	3.1	23.6	5.9	24.2	9.0
Follow-up	6.1	3.3	25.5	7.0	23.5	5.0
Class cuts						
Pretreatment	31.5	4.8	31.3	5.3	31.6	4.8
Posttreatment	8.8	3.5	31.2	4.4	31.1	5.2
Follow-up	9.3	2.7	31.4	3.7	31.5	4.9

To test the prediction that a significant interaction would occur at posttreatment and follow-up, a 3 × 3 factorial design was employed for each of the dependent variables, with levels of treatment the between factor and time periods the within factor. Pretreatment data were included in the analyses to demonstrate that the groups were not significantly different before treatment.

Table 1 gives means and standard deviations for each of the dependent variables for each group at pretreatment, posttreatment, and follow-up.

As shown in Table 2, the analysis of variance of GPA resulted in a significant interaction effect, $F(4, 74) = 18.86, p < .001$. Because the interaction effect was highly significant, we proceeded to analyze simple main effects. Simple main effects at pretreatment were nonsignificant ($p > .01$). Analysis of posttreatment resulted in a significant simple main effect, $F(2, 111) = 20.47, p < .001$; follow-up was also highly significant, $F(2, 111) = 15.99, p < .001$. Scheffé tests revealed that the rational-emotive education participants' GPAs were significantly higher than those of the human relations and waiting-list control participants at both posttreatment and follow-up.

As shown in Table 3, the analysis of variance of disruptive behavior resulted in a significant interaction effect, $F(4, 74) = 39.76, p < .001$. Simple main effects at pretreatment were nonsignificant ($p > .01$). Analysis at posttreatment resulted in a significant simple main effect, $F(2, 111) = p < .001$; follow-up was also highly significant, $F(2, 111) = 87.80, p < .001$. Scheffé tests revealed that the rational-emotive education participants' incidents of disruptive behavior were significantly lower than those of human relations and waiting-list control participants at both posttreatment and follow-up.

As shown in Table 4, the analysis of variance of class cuts also resulted in a significant interaction effect, $F(4, 74) = 76.94, p < .001$. Simple main effects at pretreatment were nonsignificant ($p > .01$). Analysis at posttreatment resulted in a significant simple main effect, $F(2, 111) = 104.39, p < .001$; follow-up was also highly significant, $F(2, 111) = 101.78, p < .001$.

Scheffé tests revealed that the rational-emotive education participants' degree of class cutting was significantly lower than that of the human relations and waiting-list control participants at both posttreatment and follow-up.

Table 2
3 × 3 Analysis of Variance of Grade Point Average

Source	*SS*	*df*	*MS*	*F*
Treatments (A)	846.04	2	423.02	13.41*
Error	1,166.45	37	31.52	
Time interval (B)	194.09	2	97.04	15.60*
A × B	469.42	4	117.35	18.86*
Error	460.29	74	6.22	

* $p < .001$.

Table 3
3 × 3 Analysis of Variance of Incidents of Disruptive Behavior

Source	*SS*	*df*	*MS*	*F*
Treatments (A)	4,574.61	2	2,287.30	27.69*
Error	3,055.30	37	82.57	
Time interval (B)	1,816.56	2	408.28	64.99*
A × B	2,222.80	4	555.70	39.76*
Error	1,034.13	74	13.97	

$p < .001$.

Discussion

The present results support the proposition advanced by Knaus (1974a) and Ellis (1962) that the principles of rational-emotive therapy can be adequately applied by adolescents, even those of culturally deprived, lower socioeconomic background. Specifically, it was found that high-risk black and Hispanic high school youngsters improved in GPA and decreased their disruptive behavior and class cutting as a result of procedures based on the rational-emotive therapy model. This improvement was maintained over an extended follow-up period. Although on an a priori basis, it would seem that rational-emotive therapy would be too cognitive an approach for the population selected, this did not prove to be true. Further, it was demonstrated that high-risk students who underwent a human relations program based on psychodynamic principles did not improve on school-related criteria. Interestingly, students enrolled in the human relations program attended group sessions as regularly as students in the rational-emotive program. However, the human relations participants did not generalize their regular attendance to subject classes.

The rational-emotive program was based on an active, directive, highly structured style, whereas the human relations program was less structured and based on a clarifying, reflective leadership style. It may be that the contrast in leadership style of the two treatment programs was an influencing factor in the differential results. Recent studies (e.g., Rimm, Hill, Brown, & Stuart, 1974) suggest that a passive approach may not be effective with adolescents from low-income families. Perhaps a lack of direct, action-oriented leadership has also been a contributing factor to the typically disappointing results obtained by workers who have tried to intervene effectively with adolescents from low socioeconomic backgrounds.

Table 4
3 × 3 Analysis of Variance of Class Cuts

Source	*SS*	*df*	*MS*	*F*
Treatments (A)	6,307.30	2	3,153.65	85.65*
Error	1,362.32	37	36.81	
Time interval (B)	1,375.12	2	687.56	66.33*
A × B	3,190.16	4	797.54	76.9
Error	767.00	74	10.36	

$p < .001$.

The present results suggest that the rational-emotive model deserves further study with regard to reducing misconduct and influencing subject grades of high-risk, failure-prone, culturally deprived adolescents. Future studies might employ multiple measures, as well as investigate the outcome effects of factors such as leadership style, sex of participants, or size of instructional groups. However, although further study is desirable, evidence is now available to encourage practitioners to develop mental health programs based on the rational-emotive model.

Reference Notes

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