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THE EFFECTIVENESS OF GROUP PSYCHOTHERAPY
IN THE TREATMENT OF ACADEMIC
UNDERACHIEVEMENT IN
COLLEGE FRESHMEN

by

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A DISSERTATION

IN

PSYCHOLOGY

Submitted to the Graduate Faculty
of Texas Tech University
in Partial Fulfillment of
the Requirements for
the Degree of

DOCTOR OF PHILOSOPHY

Approved

Accepted

December, 1970

ACKNOWLEDGMENTS

Grateful acknowledgment is extended to Professors Joseph B. Ray, Ph.D. and Charles H. Mahone, Ph.D. for their helpful direction of this dissertation. The excellent suggestions of Professors Charles G. Halcomb, Ph.D. and Theodore Andreychuk, Ph.D. are also gratefully acknowledged.

In addition, much appreciation is extended to my wife, Judy, for her inspiring assistance in the execution of this study.

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CHAPTER I

INTRODUCTION

Purpose and Scope of the Research

During the last 20 years educators, psychologists, and psychiatrists have become increasingly concerned with establishing effective treatment programs for underachievers at almost every grade level. As mental health and educational specialists have converged on this problem, there has been a tendency to create treatment techniques that reflect the theoretical bias of the program designer. For example, those who identify more closely with the mental health field have prescribed individual psychotherapy and various forms of group psychotherapy. The working assumption, apparently, is that underachievement results from emotional turmoil. On the other hand, educators have more frequently proposed reading improvement, study skill development, and tutorial programs, assuming, it seems, that the problem of underachievement is more an educational than a psychological problem.

As the number of remedial methods has grown, behavioral scientists of all traditions have conducted research on the reliability of their procedures. In spite of the volume and variety of research, the relative effectiveness of the treatment approaches to underachievement remains inconclusive and contradictory.

This discouraging state of affairs appears to be the product of poor definitions, vague criteria, inadequate experimental designs, and unsophisticated statistical treatment of the data. The result is that concerned professionals are left with an ever-increasing and already complex assortment of remedial methods that are selected on the basis of faith and theoretical bias rather than demonstrated effectiveness.

The goal of this research is twofold. First, the experimenter hopes to adequately test the effectiveness of one of the most frequently recommended and utilized treatment programs for underachievement, namely, group psychotherapy. Second, attempts will be made to develop a model for adequately investigating the reliability of other treatment techniques. A review of the literature suggests a trend toward upgrading the quality of research in this area, a movement which will hopefully be enhanced by this endeavor.

Review of Previous Research

In reviewing the literature on the effectiveness of group psychotherapy in the treatment of underachievement, this author has chosen to avoid prolonged discussion of the concept of underachievement. The reason is simply that the term is so inclusive that it is virtually meaningless. It makes little sense to get involved in a descriptive blind alley. Under the

general rubric of underachievement, it would be possible to include individuals experiencing emotional problems that range from situational distress to chronic psychosis. Moreover, one could include those individuals who are minimally brain damaged, those primarily committed to job and/or family rather than school, those overly ambitious to the point that anxiety erodes their performance on examinations, and those lacking in proper aptitudes or educational preparation for their field of study.

The review of the literature which follows will be limited to research related to group treatment approaches to underachievement. It will, therefore, be within the context of each study reviewed that definitions of underachievement will be discussed, since each study has its own definition. Following the review, the definition this experimenter has selected for underachievement will be discussed.

Of the studies reviewed by the investigator, only 40% reported that group psychotherapy was effective in facilitating improvement in grade point average (GPA). Nevertheless, all of the investigators felt that group psychotherapy with underachievers was a worthwhile venture, even though it might not produce change in GPA (Anderson, 1956; Baymur and Patterson, 1960; Broedel, 1959; Broedel, et al., 1960; Burdon and Neely, 1966; Carlson and Weinberger, 1964;

Chestnut, 1965; Cohn, 1963; DeWeese, 1959; Duncan, 1962; Hart, 1963; Jensen, 1958; Maroney, 1962; Ofman, 1964; Sewer and Levy, 1965; Sheldon and Landsman, 1950; Teahan, 1966; Winborn and Schmidt, 1962). However, as was stated above, methodological problems detract from the validity of the results. The investigator believes that, while the majority of studies suggests group therapy is not effective, there has, as yet, been no adequate test of this hypothesis. The literature will now be reviewed with focus on both the findings and the possible methodological errors.

Research supporting the hypothesis that group psychotherapy is an effective treatment for academic underachievement was first presented by Sheldon and Landsman in 1950. Their findings were based on research with 28 subjects who were second semester college students and defined as underachievers. They were selected from a population of students who performed below expectancy during their first semester in college. The level of expectancy was determined by entrance examination scores. These subjects were divided into an experimental and a control group. No significant differences were found between these groups with respect to intelligence, personality adjustment, reading ability, or GPA. Each group received a weekly lecture

relating to methods of improving academically. These lectures were followed later in the week by two question and answer periods. During these periods the control group received lectures, supervised reading, study habit instruction, and group discussions directed by an instructor. The experimental group received nondirective group psychotherapy during the question and answer periods. The results indicated that the experimental group achieved a significantly higher GPA than the control group. However, major confounding variables invalidate the results. For one thing, different individuals led the experimental and control groups. Attrition rates differed also, in that 7 out of 15 controls dropped out, while 3 out of 12 experimentals dropped out. In addition, there was inadequate follow-up.

Hart (1963) investigated the relative effectiveness of "cognitive" versus "affective" group psychotherapy in the treatment of underachievement. His subjects were college underachievers who volunteered for group psychotherapy. He divided these subjects into three groups: a "cognitive" therapy group, an "affective" therapy group, and a control group. Two therapists were assigned an equal number of subjects, and each conducted both "cognitive" and "affective" oriented groups. Early results indicated that subjects who

attended the "affective" oriented groups did significantly better academically than the controls during the semester of the therapy program. A three month follow-up failed to find reliable differences in the comparisons: "affective" versus control, "cognitive" versus control, or "affective" versus "cognitive". Unfortunately, Hart included only the subjects who remained in therapy and made no provisions for determining the nature or effect of the people who dropped out. He did not consider attrition when including the control group. Furthermore, the effectiveness of therapists who can, with equal skill, direct "affective" and "cognitive" groups must be questioned. The variable of the type of personality represented by volunteers for such research must also be considered.

Perhaps, the most outstanding research on group psychotherapy with underachievers is that of Ofman (1964). His subjects consisted of 300 college students who voluntarily enrolled in a "study habits" seminar. It was discovered that the mean GPA of this group was significantly below that of the general student population. Unlike any of the other studies which used high entrance examination scores as criteria for underachievement, the entrance examination scores of this group were not significantly different from those of the general student population.

Ofman established five groups of 60 subjects each and labelled them: (1) the "baseline" control, which was randomly selected from the achieving population; (2) the "experimental" group, which remained through 80% of treatment; (3) the "dropout" group, which terminated therapy by the fourth group meeting; (4) the "control" group, which received no treatment; and (5) the "wait" group, which was, as the term implies, put on a waiting list and later included in the group therapy program. The GPA's of the subjects in each group were followed for eight semesters.

Ofman found that those subjects in the "experimental" group made significantly higher GPA's than those in the "control" group and the "dropout" group. Furthermore, the "experimental" group improved such that there was no significant difference between the "experimental" group and the "baseline" group in GPA's. Other than the "experimental" group, none of the groups evidenced improvement in GPA. However, when the "wait" group was provided psychotherapy, these subjects improved to the level of the "experimental" subjects.

While Ofman's research is, in many ways, quite excellent, several crucial problems were overlooked. Ofman's definition of underachievement must be examined, for it differs substantially from that of all other

research in this area. While one cannot contest his use of the term underachievement due to the inclusiveness of the term, his was the only research that did not define underachievement in terms of above average intellectual potential, as measured by psychological examinations. Perhaps, his subjects were not as chronic or extreme in their difficulties and, thus, more responsive to treatment. His analysis of the data revealed a significant interaction. However, he failed to interpret this interaction, although it may have been a crucial finding.

Furthermore, possible motivational differences were not investigated between those who voluntarily enrolled in the "study habits" seminar and those who were recruited or required to participate. Of major importance was the fact that the equivalence between the "experimental" and "control" groups was somewhat eroded by attrition of subjects from the "experimental" group. No attrition rate could be established for the "control" group. Furthermore, this research failed to account for the effect of the therapists' personalities and did not clearly specify the length of treatment. The nature of the treatment included focus on study skills and motivational variables. Due to the inadequacies of the experimental design, it is impos-

sible to determine the relative effects of the educational versus the psychological aspects of the program.

Soon after Ofman's research, Chestnut (1965) attempted to assess the effect "structured" and "unstructured" group counseling would have on male college students' underachievement. Responding to demands for more operational definitions of underachievement, he carefully described his subjects as freshman and sophomore college students who had scored above the fiftieth percentile on the College Qualification Test and received a GPA of less than 2.00 on a 4.00 system. Three groups of subjects who fit these criteria were randomly selected and descriptively termed the "counselor structured" group, the "group structured" group, and the control group. The treatment was presented in eight meetings, each lasting 1.5 hours.

During the semester in which therapy was provided, the findings revealed that the "counselor structured" group members obtained significantly higher GPA's than either the "group structured" subjects or the control group subjects. A 3 month follow-up failed to demonstrate differences to any significant degree between the two therapy groups. Only the "counselor structured" group proved to have reliable effects over time, for after

the follow-up period, it was the only group able to demonstrate significant improvement in grades, relative to the control group. Not unlike the experiments mentioned above, methodological problems force guarded consideration of these results. Volunteer effect was not discussed. The terms "group structured" and "counselor structured" were not well defined. In addition, the personalities of the therapists and the treatment approaches were confounding variables.

Teahan (1966) conducted one of the most recent and thorough experiments on the effectiveness of group psychotherapy in the treatment of underachievers. His sample was composed of 80 college sophomores who had received a GPA of 2.3 or below, who had graduated in the upper quartile of their high school class, and who had scored within the upper quartile on the College Qualification Test. The subjects were randomly appointed to therapy groups or control groups. There were proportionately the same number of male and female subjects in the two divisions. The treatment consisted of "one semester" and "two semester" therapy groups. The "two semester" group members were "one semester" group members who wanted to continue in psychotherapy.

Teahan found that the "two semester" group members' GPA's were significantly higher than those of the control group at the .01 level of significance.

The "one semester" group members improved relative to the controls at the .05 level of significance. Teahan discovered, unfortunately, a significant difference among certain MMPI motivational variables when comparing the "one semester" group with the control group. The "one semester" group scored higher on the F scale and lower on the K scale. This was interpreted to mean that the subjects in the "one semester" group, when compared to those in the control group, were more willing to admit to their problems and more interested in receiving help. A host of other interpretations could be suggested, but the major point is that unequivalent groups were compared and the results are, therefore, meaningless. In addition, the fact that the "two semester" group improved to a highly significant degree may reflect motivational variables, rather than or in addition to, the effect of therapy. Moreover, the "two semester" group was not comparable to the control group, because the latter did not have a choice equivalent to continuing group psychotherapy. An overall comparison at a point prior to the second semester of therapy would have been less artificial and more meaningful. Finally, therapist variables were not taken into consideration. Thus, Teahan's effort, like the others, answers few

questions.

Related research reporting the success of group psychotherapy with underachievers at age levels other than college age have led to some interesting, but again frustrating, findings. Jensen (1958) found that, following participation in small group psychotherapy sessions, children achieved higher grades and were better able to accomplish independent classroom tasks successfully.

Burton and Neely (1966) introduced a novel approach in dealing with underachieving children. They provided group psychotherapy for the parents of the under-achievers, while the children received remedial tutoring. The findings indicated that, for the most part, these children were achieving on an average level two years following this program. Due to multiple confounding effects, however, it is impossible to assess the relative contribution of the group psychotherapy. It may well be that improvement in academic areas is solely a function of the individual attention given the child and not of any technical aspect of group therapy and/or tutoring.

Baymur and Patterson (1960) compared the effects of individual counseling, group counseling, and a "one-session motivational experience" with adolescent

underachievers. Thirty-two subjects were divided into the above-mentioned groups and a control group. The findings indicated that group counseling was successful in improving GPA at the .05 level of significance. The authors pointed out that some of the limitations of the study were as follows: no follow-up was done beyond the experimental period; the counselors were limited in their experience; the sample size was small; and the period of counseling was brief.

Of the research reviewed, studies refuting the hypothesis that group therapy is an effective treatment for academic underachievement outnumber studies which support that hypothesis. Anderson (1956) was one of the first to report research concluding group therapy with under-achieving students was not effective. He studied the effects of participation in group counseling on the GPA's of 60 female college students. The treatment consisted of eight group counseling sessions. The findings indicated no significant difference in the GPA's achieved by the experimental and control groups. He noted that, due to the design, it could not be determined whether group psychotherapy per se was not helpful in enhancing academic improvement or whether only short-term group psychotherapy was not effective. Anderson also pointed out the need to investigate the personality

characteristics of the subjects comprising the therapy groups. Other significant confounding variables present in the research include failure to control for the effect of therapist personality and for attrition rate. In addition, possible long range improvement was not investigated.

DeWeese (1959) provided group psychotherapy for college freshmen who, on the basis of their performance on the Ohio State Psychological Examination, were predicted to be low achievers. A total of 110 subjects was divided into three groups receiving, respectively: group psychotherapy 1 hour per week for 10 weeks; remedial reading for 45 minutes twice a week for 14 weeks; and, in the case of the control group, no treatment. The findings indicated that the therapy group had a significantly lower dropout rate in comparison to controls but no reliable GPA difference was produced. It is notable that the major criterion for inclusion in this study was not actual underachievement but rather predicted low achievement. It is conceivable that these students were, in fact, achieving to their level of intellectual potential, and that such a level might not have been sufficient for academic success in college. Also, due to the fact that the length of treatment was different for the counseling group and

the remedial reading groups, they cannot, strictly speaking, be compared.

Duncan (1962) investigated the effects of mandatory group counseling on GPA with college students on probation. The sample consisted of 58 students equally divided between experimental and control groups. The treatment was one semester in duration. Duncan concluded that group psychotherapy was not an effective treatment program for underachievement, as no significant increase of GPA could be demonstrated relative to the control group. There was no control for intellectual potential, however, so all the subjects may not have been achieving below their ability. Moreover, no long range follow-up was undertaken. The effects of requiring a subject to participate in group therapy was not controlled for, yet may have been a major reason the treatment program failed.

In their research, Winborn and Schmidt (1962) found group psychotherapy actually produced a negative effect. Their research was designed to investigate the effects of short-term group psychotherapy on second semester, potentially superior in intellect, but under-achieving freshmen. Their subjects were matched with respect to sex, American Council on Education Psychological Examination for College Freshmen (ACE) scores, GPA, and California Psychological Inventory Scale

profiles. The treatment consisted of six group sessions of one hour duration. The overall time for presenting the six treatment sessions was approximately two months. The results indicated that those in the control group achieved significantly higher GPA's at the .05 level of significance. There was no follow-up on subsequent semesters, however, so that, if a trend existed, it could not be detected. Moreover, the question remains unanswered as to whether or not a more intensive treatment program might be more effective.

Sewer and Levy (1965) studied the effects of group psychotherapy as a part of a study improvement program. Seven college subjects comprised the experimental group. The criteria for inclusion were not specified, no controls were utilized, and no outcome criteria were used other than the subjects' subjective evaluations of the therapy experience. The subjects were volunteers from a reading improvement program who wished to continue their progress with a combined study skill and group therapy program. The length of therapy was not specified. At the conclusion of group psychotherapy "most" of the group members entered individual psychotherapy. The findings were that, while actual improvement in GPA was not noted, the fact that the subjects continued in psychotherapy suggested that they might feel ready to

discuss their problems even more intensively. However, due to the many methodological inadequacies, even this humble statement is difficult to support.

Several research studies investigating the effectiveness of group psychotherapy with adolescent under-achievers, such as those by Broedel (1959), Broedel, et al. (1960), Carlson, et al. (1964), and Cohn, et al. (1963), have concluded that such therapy programs result in either no significant improvement in GPA or significant suppressive effects on GPA. For example, Broedel, et al. (1960) found that the control group achieved a GPA significantly higher than the experimental group at the .05 level of significance. Each of these studies has major methodological problems similar to the other studies reviewed. In fact, the publication of Carlson, et al. (1964) cannot properly be classified as research. It represents nothing more than a dialogue between staff members of a school regarding the merits of a group therapy program.

Conclusions Drawn from the Review of Previous Research

In conclusion, a review of previous research does not generate any reliable trends or findings due to the methodological inadequacies involved. Shaw, et al. (1965), discussing a review of group treatment programs in schools, stated that, "current research leaves essentially un-

answered many of the elemental questions related to the use of group procedures in schools...whether these (research) outcomes are as successful as stated or whether they are the result of inappropriate procedures it is impossible to say (p. 32)." Thus, the major finding appears to be that no adequate test of the effectiveness of group psychotherapy with underachievers has been developed.

Some of the errors discovered in the review of previous research on the effectiveness of group psychotherapy as a treatment for academic underachievement are as follows:

1. Inadequate control of motivational variables.
2. Failure to control for or measure effects of the personality variables of therapists.
3. Failure to establish equivalent experimental and control groups or a tendency to destroy equivalence once it was established.
4. Inadequate follow-up to measure long range effects.
5. A general tendency to use oversimplified experimental procedures or failure to use experimental procedures.
6. In a few cases, failure to use control groups.
7. Failure to spend equal amounts of time on different treatment approaches which were nevertheless

compared.

8. A tendency to rely on vague definitions of underachievement or treatment techniques.

9. Occasionally, failure to establish intellectual potential.

These are but a few of the errors encountered, although, with a few exceptions, no one study evidenced all of these methodological problems.

In general, the findings do suggest that the longer the psychotherapy program, the greater the probability that GPA will be significantly improved, although that probability remains small. Moreover, it appears that remedial programs oriented toward personal adjustment primarily and scholastic skills secondarily are, in general, no more successful than other remedial methods in increasing GPA and decreasing dropout rate. There are some indications that short-term group psychotherapy programs have a suppressive effect on academic achievement and that nondirective therapeutic approaches may not be successful with this population. Finally, it is clear that the term "underachiever" is much too inclusive, leading one to wonder if comparisons between various experiments in this area are valid.

Definitions of Terms

An underachiever, as defined in this study, is

that individual with a Z-score difference of 1.50 or greater between the score on his college entrance examinations (Scholastic Aptitude Test--Verbal) and his first semester grade point average. The Z-score for GPA was based on means for each school within the university. This method of establishing GPA serves to act as a control for the differing degrees of difficulty in various schools within the university as well as their grading policy differences.

Grade point averages were included only if the student was enrolled in 12 credit hours and were not calculated for a student enrolled in more than 18 credit hours. Calculation of GPA changes following the treatment period included compensation for the students who changed schools within the university by appropriately adding or subtracting the differences between the mean grade point averages of the schools involved.

Casualty rate is defined as any withdrawal from the university. The academic suspension policy is quite lenient. Therefore, most students who leave school during the first two years do so voluntarily.

Group psychotherapy in this experiment is loosely defined as any ethical group procedure designed to enhance personal adjustment and improve academic skills.

The therapists involved selected their approaches on the basis of their own experience and preference. The therapists were senior graduate students with at least 400 hours of supervised individual and group psychotherapy experience, including therapy groups composed of college underachievers. The duration of the treatment program was 8½ weeks. There were bi-weekly meetings of 1½ hours duration. In all, there were 17 group meetings totalling 25.5 hours of psychotherapy per group. The group psychotherapy was provided during the semester immediately following that semester in which the students performed below their academic potential.

Hypotheses

It is proposed, as the principal research hypothesis of this study, that group psychotherapy will significantly improve the grade point averages of college freshman underachievers. The null hypothesis which will be subjected to analysis is that group psychotherapy will not significantly affect the grade point averages of college freshman underachievers.

The minor research hypotheses are as follows:

1. Group psychotherapy will significantly decrease the academic casualty rate of college freshman underachievers.

2. The group of students who drop out of therapy (the attrition group) will demonstrate a significantly lower GPA than those who remain in therapy.

CHAPTER II

METHOD

Description of the Sample

The sample was composed of 62 second semester college freshmen who met the criteria for underachievement defined above. They were single, unemployed, middle-class, Protestant Caucasians between the ages of 18 and 19. All attended the same, large, Southwestern state university. The subjects were all of above average intelligence. Their above average intellect was largely guaranteed by the definition of underachievement used in this study. The definition specifies at least a 1.50 Z-score difference between SAT-V and GPA. Those who did poorly on the SAT-V and GPA could not evidence a difference of this magnitude. To further support the proposition of above average intellect, the subjects scored, on the average, 2.3 sten scores above the mean on the Informational Intelligence subscale of the Motivation Analysis Test.

There were somewhat more males in the sample than females, but not significantly so. No subject reported being overburdened by extracurricular activities. Any subject who reported previous exposure to remedial methods of any type was excluded from the study. Any subject who attempted other forms of remedial

procedures during the treatment or follow-up period was also eliminated from the experiment. None of the subjects presented themselves for counseling. All were recruited and matched according to the following guidelines:

Recruiting Procedure

Step 1: The names of students who fit the criteria for underachievement were randomly assigned to the participating therapists. Each therapist was responsible for recruiting, interviewing, testing, and providing therapy for those students to whom he was assigned.

Step 2: The therapists then contacted by telephone those individuals who were to become their experimental and control subjects. The telephone communication with the subjects followed a structured guideline. (See Appendix A.)

Step 3: If the individual expressed interest in the "group discussions" over the telephone, his therapist met with him individually to answer questions, to have him complete an information form (see Appendix B), and to collect information regarding times the subject would be available for therapy. One crucial element introduced in this step was the explanation to the subject that he might not be selected to be a member of a group psychotherapy program. The rationale for

excluding an individual was presented as due to the limited staff available. The subjects were told they would be eliminated if the times they indicated as being available for therapy did not match times of other subjects. In fact, however, the subjects were randomly selected. The above explanation served, hopefully, to guard against introducing to the control subjects an emotionally charged event that might have significant effects on academic performance.

The interview procedure for this step followed established guidelines. (See Appendix C.)

Step 4: The therapists again met with their subjects to administer the Motivation Analysis Test. This test is described in Appendix D. The role of this test in the research will be discussed in the next section of this chapter.

Step 5: Subjects were randomly assigned to experimental and control groups. Those subjects who were to form the experimental group were informed by postcard of the time of their first meeting. Those subjects who were to form the control group were sent a handwritten form letter notifying them that they could not be included in the group discussions at the present time. The letter was signed by the same therapist who had contacted them during previous steps. (See Appendix E for a copy of the letter sent to control subjects.)

Step 6: After therapy began, any member of the experimental group who appeared to have dropped out of therapy by failing to attend two consecutive therapy sessions during the first eight sessions was contacted by telephone according to the guidelines established in Appendix F. At no point were therapists, other than the one responsible for a particular subject, in contact with that subject. Furthermore, at no time were the subjects informed they were participating in an experiment.

Purpose of the Rigorous Recruiting Process

The purpose of this rigorous recruiting process was to eliminate individuals who would not likely be motivated to seek therapy or who were not motivated to seek change through therapy. It was felt that the more rigorous the selection process, the more confidence one could place in generalizing these results to individuals who might present themselves for psychotherapy on their own initiative. All of the subjects involved in the experiment had ample 'face saving' opportunities to reject group counseling.

Procedures for Maintaining Motivational Equivalence

It is necessary to explain the procedures and rationale for attempting to maintain motivational equivalence between the experimental and control groups following

attrition from the experimental group. As would be predicted, several subjects dropped out of group psychotherapy. Any comparison between the experimental group and the intact control group after this attrition would be invalid, since the equivalence established prior to attrition would have been destroyed. The Motivation Analysis Test (MAT) was employed largely to differentiate between those who remained in therapy and those who dropped out. Later it was used to eliminate those individuals in the control group who were similar in personality characteristics to the therapy terminators.

In a study with this same sample group, seven MAT variables were found to significantly differentiate those who remained in therapy and those who terminated within the first eight sessions (Trotter, 1969). The terminators achieved significantly higher scores than those of the remainers in the areas of Unintegrated Self-Sentiment, Informational Intelligence, and Total Integration. The terminators received significantly lower scores on such variables as Unintegrated Mating, Unintegrated Pugnacity, Conflict with Sweetheart-Spouse, and Total Motivation-Pugnacity.

Sweney (1967) outlined a general interpretation for these scales on the MAT. From his manual for interpretation, one could conclude that the terminators, as compared to the remainers, appeared more insightful, yet

overly idealistic. Also the terminators showed more motivation to gain knowledge and less frustration in satisfying affectional needs. However, they showed considerably more difficulty dealing with hostile and competitive feelings and, thus, evidenced a tendency to avoid conflict and open confrontation. It seems that they achieved affectional satisfaction at the expense of avoiding competition. It is clear by this description that individuals such as these who remain in the control group serve to confound the results. Therefore, no comparison between experimental and control group members was made without controlling for motivational differences.

Experimental Design

As has been indicated above, each subject was recruited, interviewed, tested, and randomly appointed to either the experimental or control group. Each therapist met with the experimental subjects in groups of less than 8 subjects on a bi-weekly basis. Each therapy session lasted 1½ hours.

Following the treatment period, a long-range observation period began. The experimental and control groups were observed at the end of the treatment semester and the two subsequent semesters. Any subject who did not remain in school or, for any reason, could not be observed for each semester was dropped from the

experiment. By evaluating the difference between scores on the MAT, it was possible to determine if the control group was equivalent to the experimental group.

The criteria of GPA and casualty rate were selected for their objectivity, relevance, and previous use in research in this area. GPA and casualty rate appear to be less amenable to change as opposed, for example, to many mood variables. In the review of previous literature, almost all therapists expressed a subjective opinion that those who elected to participate in group psychotherapy felt better after therapy. This investigator speculates that they were looking at the positive effect of therapy on mood variables. Nonetheless, the under-achiever is defined by his grades and his casualty rate, not by his mood. A successful therapy program must justify itself on the basis that it can raise a bright student's GPA and prevent him from becoming an academic casualty.

A conceptual framework for understanding the type of research program which has been discussed above has been presented by Campbell, et al. (1967). The experimental design is a somewhat modified "Pretest-Posttest Control Group Design". The design may be graphically illustrated as follows, given that O_N represents observation of criteria, O_{PT} represents pretesting with the

MAT, X represents the treatment of group psychotherapy, and RM represents application of randomization and matching procedures:

Experimental Group--RM O₁ O_{PT} X O₂ O₃ O₄

Control Group--RM O₅ O_{PT} O₆ O₇ O₈

The experimental design presented above is only a general representation of this experimental procedure. The specific experimental designs and statistical procedures necessary to test the hypotheses will be outlined in detail in the next chapter. The designs necessarily vary with each hypothesis, as do the statistical analyses.

CHAPTER III

RESULTS AND DISCUSSION

Results

The Principal Research Hypothesis

The principal research hypothesis, namely, that group psychotherapy will significantly improve the GPA's of college freshman underachievers, was converted to a null hypothesis and tested as such. The subjects included had met the criteria of completing group psychotherapy and remaining in school throughout the follow-up period of three semesters.

It should be noted that the criterion, that a student remain in school for the follow-up period, proved to be a highly limiting requirement, as the attrition rate was marked. Therapist 1 (T_1) began with 20 experimental subjects, but he retained only 6 subjects following attrition. Therapist 2 (T_2) retained only 2 of the 11 subjects who initially formed his experimental group. While most of the statistical analysis was performed on subjects who had completed the follow-up, the standards were relaxed at several points with respect to the long-range follow-up period for the purpose of better comprehension of the data.

In testing the principal hypothesis, the initial analysis of variance utilized was a "three factor experiment, case II model", described by Weiner (1962, pp. 337-349). This model was adjusted to deal with an unequal number of

subjects through the use of an "unweighted means solution" (Weiner, 1962, pp. 374-378). The S's were nested in the therapist and experimental-control variables with repeated measures over 3 semesters. The dependent variable was grade point average.

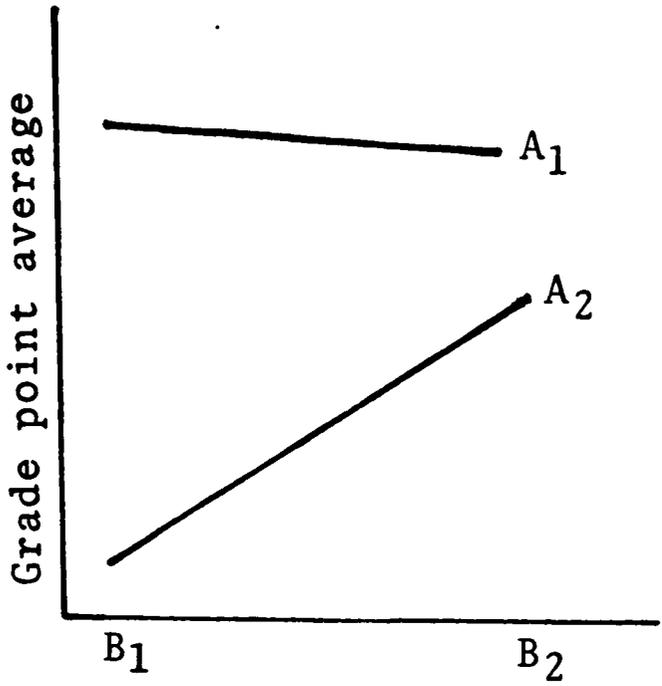
Referring to Table 1, the null hypothesis can be accepted, that is, group psychotherapy will not significantly improve GPA's of college freshman underachievers. Furthermore, no significance was discovered with respect to the effects attributable to the therapist personality or with respect to the improvement over semesters. Due to the fact that the ABC interaction approached significance, the interactions in Table 1 were analyzed further. These interactions are illustrated in Figures 1a, 1b, 1c, and 1d.

Figure 1a illustrates the AB interaction or the interaction between the therapist (A) over the experimental and control groups (B). No significant difference was indicated, although there is some slight difference in initial GPA between the two experimental groups. This difference, which will be described in more detail below, appears to be a function of the small number of subjects in the experimental group, influenced adversely by one extremely low score.

Figure 1b illustrates the AC interaction or the inter-

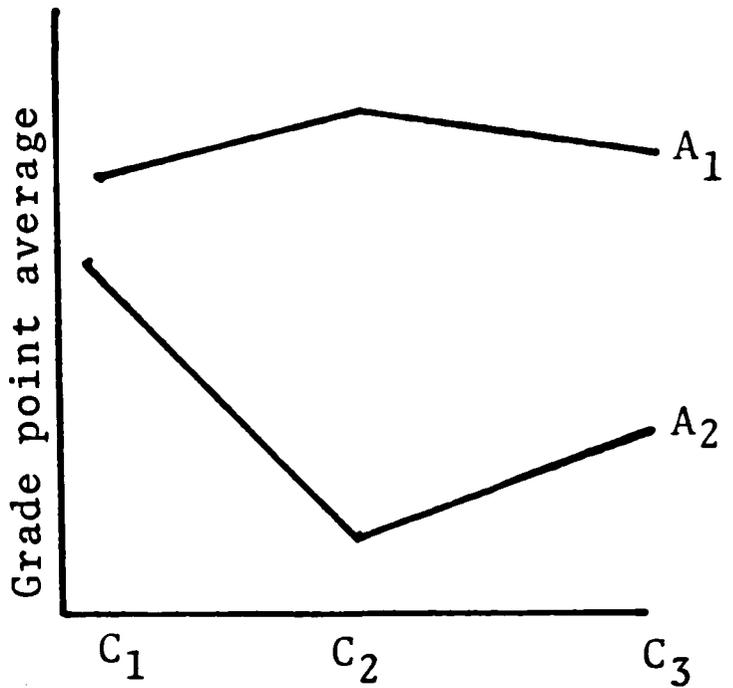
TABLE 1
ANALYSIS OF VARIANCE OF EFFECTS OF THERAPY ON GPA

Source	SS	df	MS	F	P
Therapist (A)	1.8025	1	1.8025	1.2024	>.25
Exp-Control (B)	0.2454	1	0.2454	<1	NS
AB	0.2562	1	0.2562	<1	NS
SS within Groups	32.9791	22	1.4990		
Semesters (C)	0.1696	2	0.0848	<1	NS
AC	0.5531	2	0.2766	1.2105	>.25
BC	0.1014	2	0.0507	<1	NS
ABC	1.0892	2	0.5446	2.3834	.11
C x SS within	10.0557	44	0.2285		



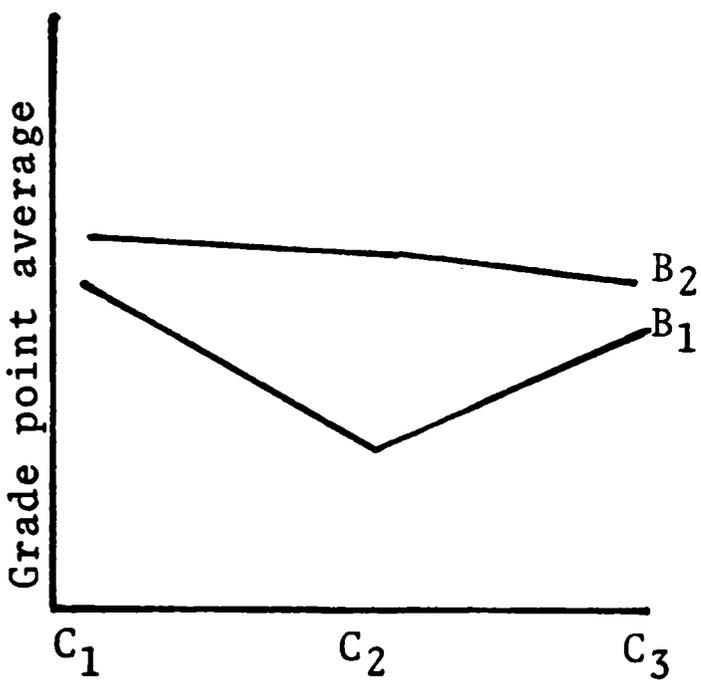
Exper'1 (B₁)-Control (B₂)

Figure 1a



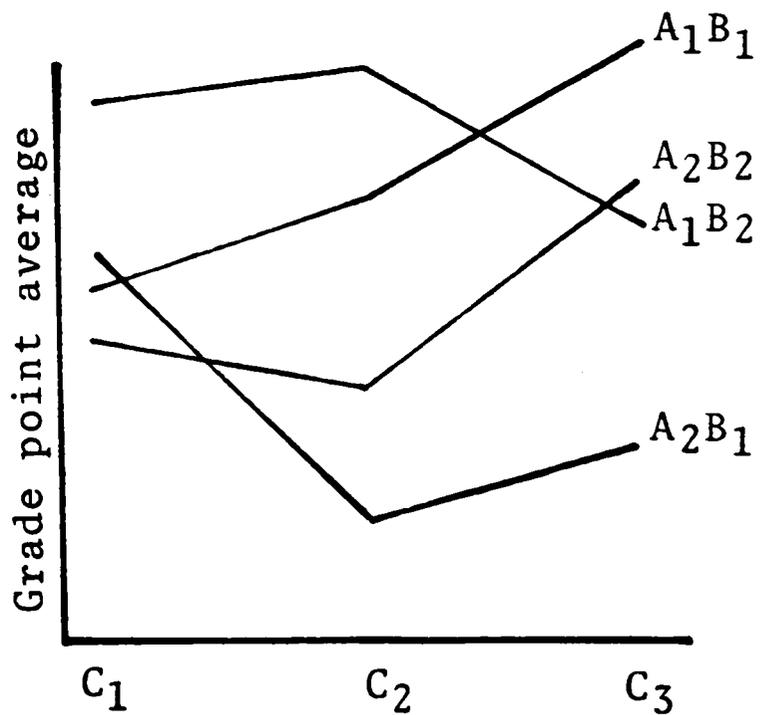
Follow-up semesters

Figure 1b



Follow-up semesters

Figure 1c



Follow-up semesters

Figure 1d

Fig. 1.--Graphs of interactions from Table 1: 1a= therapist x experimental-control (AB); 1b=therapist x semesters (AC); 1c=experimental-control x semesters (BC); 1d= therapist x experimental-control x semesters (ABC).

action between therapist effect on the combined experimental and control groups over the 3 semesters. No significant effect is suggested upon inspection of the graph.

Figure 1c refers to the BC interaction or the trend of experimental and control groups over the 3 semesters. The experimental group achieved a somewhat lower mean GPA than the controls, but the difference was not significant. The direction of the effect of therapy was not significant.

Figure 1d illustrates the ABC interaction or the interaction between therapist and experimental-control over semesters. Visual inspection of this graph leads one to suspect the possibility that a significant difference exists between A_1B_1 and A_2B_1 , particularly at the end of the third semester. A t-test was used to determine if the difference apparent on the graph was significant. The results indicated that there is no significant difference when A_1B_1 and A_2B_1 are compared at this point or over all follow-up semesters using Duncan's Multiple Range Test ($t=.80$, NS). Both statistical tests were corrected for unequal number of subjects in the two experimental groups.

Inspection of the data revealed that one of the two A_2B_1 subjects performed very poorly. Because of the small number of subjects in this group, his GPA led to a spuriously low and unrepresentative mean GPA. Several subjects in the A_1B_1 group performed just as poorly, but

they had less of an effect on the mean GPA because of the greater number of subjects. Compensation for the unequal number of subjects in the statistical treatment of the data minimized the effect of the one extreme score, and the apparent significance did not materialize. It did appear that Therapist 1 was able to achieve some positive effect, but not to a reliable degree. The effectiveness of T_2 was difficult to estimate because of the small number of subjects.

In order to provide a more complete investigation of the primary hypothesis that group psychotherapy will improve GPA's of underachieving college freshmen, another analysis was performed. In this case, the same S's involved in the prior analysis were used. All had remained in college throughout the follow-up period. The major difference between this analysis and the one discussed above was that, rather than investigating follow-up grades, the comparison involved grades received at the end of the first semester and grades received at the end of the second or treatment semester. The purpose of this analysis was to determine if, perhaps, most subjects improved because of the shock of bad grades, and/or if the S's involved in group therapy demonstrated a significantly greater degree of improvement.

The statistical analysis involved a 2 x 2 x 2 factorial design with the S's nested in therapist and experimen-

tal-control factors and fully crossed with semesters. Weiner's (1962, pp. 337-349) "three factor experiment, case II model", modified for an unequal number of S's by an 'unweighted means solution', was the statistical tool.

The results, shown in Table 2, correspond closely to the first analysis. Again, group therapy did not produce any demonstrable effect on GPA. Moreover, the therapist variable is not significant, nor is any interaction between treatment and semester (BC). This interaction will be further investigated below. The most notable finding was a semester effect which reached the .01 level of significance.

Below, Figure 2 illustrates the BC interaction. The control group (B_2) made somewhat more rapid GPA advancement than the experimental group (B_1). A t-test checking for significance between B_1C_1 and B_2C_1 was not significant ($t=1.3702$, $P=.20$).

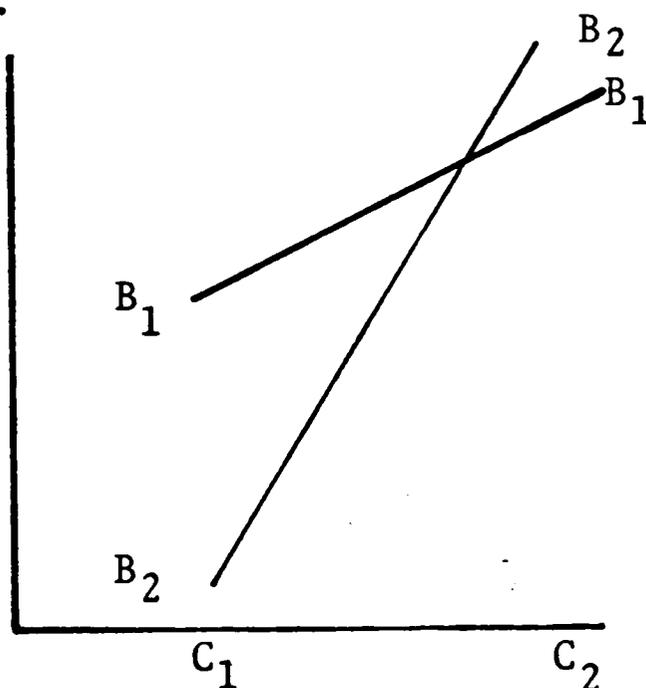


Fig. 2.--Graph of experimental-control x semester interaction (BC) from Table 2.

TABLE 2
ANALYSIS OF VARIANCE ON THE EFFECTS OF THERAPIST,
THERAPY, AND FIRST AND SECOND SEMESTER

Source	SS	df	MS	F	P
Therapist (A)	0.8335	1	0.8335	1.3060	>.25
Exp-Control (B)	0.2916	1	0.2916	<1	NS
AB	0.5935	1	0.5935	<1	NS
S within Groups	14.0402	22	0.6382		
Semesters (C)	3.0990	1	3.3990	12.8994	<.01
AC	0.2849	1	0.2849		>.25
BC	0.5154	1	0.5154		>.10
ABC	0.0314	1	0.0314		NS
C x S within	5.7980	22	0.2635		

In order to evaluate the primary hypothesis from yet another perspective, the criterion of a long-range follow-up was relaxed. First and second semester grades were compared as in the previous analysis. However, in this case, all S's who had completed more than five therapy sessions were included in the experimental group whether or not they remained through the follow-up period. Thus, T₁ retained 20 subjects in his experimental group, and T₂ retained 11. The same statistical procedure was utilized as in the previous 2 x 2 x 2 factorial design.

The results, as indicated in Table 3, correspond to other findings with respect to the effect of group therapy. That is, the null hypothesis was again accepted. No therapist effect was noted, although there was some tendency toward significance. The major finding was a failure to determine significance between first and second semester grades, as had been discovered in the previous analysis.

Minor Research Hypothesis 1

The first minor research hypothesis, which stated that group psychotherapy will significantly decrease the casualty rate of college freshman underachievers, was converted to a null hypothesis and subjected to statistical analysis. This hypothesis was relegated to a minor role because of the extreme difficulties in reliably defining "casualty rate".

The hypothesis was tested on all S's who began group

TABLE 3

ANALYSIS OF VARIANCE ON THE EFFECTS OF THERAPIST, THERAPY,
AND FIRST AND SECOND SEMESTER (RELAXED STANDARDS)

Source	SS	df	MS	F	P
Therapist (A)	2.236	1	2.236	<1	NS
Exp-Control (B)	1.746	1	1.747	<1	NS
AB	0.994	1	0.994	<1	NS
S within Groups	62.379	27	2.310		
Semesters (C)	0.341	1	0.341	<1	NS
AC	0.284	1	0.284	<1	NS
BC	0.124	1	0.128	<1	NS
ABC	0.483	1	0.483	<1	NS
C x S within	20.091	27	0.744		

psychotherapy (T_1 's group included 20 S's; T_2 's group included 11 S's; Total $N=31$). These S's were given numerical ratings as follows: "1" if they dropped out of school during the semester of therapy, "2" if 2 semesters were completed prior to terminating school, and "3" if they remained in school through the follow-up period.

A "2 x 2 experimental design" modified for unequal number of S's by an "unweighted means solution" (Weiner, 1962, pp. 241-244) was utilized for the analysis. The factors involved were T_1 , T_2 , the experimental group, and the control group. The dependent variable was casualty rate.

Referring to Table 4, the findings suggest acceptance of the null hypothesis. That is, group psychotherapy will not significantly decrease the casualty rate of college freshman underachievers. No reliable difference was discovered with respect to therapist effect (controls and experimentals pooled). Furthermore, no significant difference in casualty rate was determined between experimental and control groups. The direction of effect of the two therapists was not significant.

Related to this hypothesis, the experimental and attrition groups were also compared. There was no significant difference between these groups with respect to casualty rate ($t=.897$, $df=29$, $P=.38$).

Minor Research Hypothesis 2

The second minor research hypothesis stated that the

TABLE 4

ANALYSIS OF VARIANCE OF THE EFFECT
OF THERAPY ON CASUALTY RATE

Source	SS	df	MS	F	P
Therapist (A)	0.3751	1	0.3751	1.3975	.24
Exp-Control (B)	0.0255	1	0.0255	<1	NS
AB	0.1214	1	0.1214	<1	NS
S within Cell	56.9617	58	0.2684		

students who drop out of therapy (the attrition group or terminators) will demonstrate a significantly lower GPA than those who remain in therapy. This was converted to a null hypothesis and subjected to statistical analysis.

A 2 x 2 experiment with repeated measures on the second factor was used (Weiner, 1962, pp. 302-318). This model was modified in order to deal with unequal numbers of S's. The S's included all the remainers and terminators. The GPA's were observed at the ends of both the selection and treatment semesters.

The results, seen in Table 5, indicate no significant difference between terminators and remainers with respect to GPA. Moreover, there was no reliable difference with respect to semester effect of the interaction between remainder-terminator and semesters.

Control for Motivational Equivalency

One underlying assumption of this research was that there would be no significant motivational differences, as measured by the Motivation Analysis Test, between the experimental and control groups. The variables found by Trotter (1969) to differentiate the terminators from the remainers were tested on subjects who had completed the follow-up period. As Table 6 indicates, no significant differences were found to differentiate the experimental and control groups.

reported by some researchers. It can be reported here, as in other studies in this area, that those S's who remained in therapy regarded it as an invaluable experience and, with one exception, were certain that it would positively influence their academic performance. Subjectively speaking, the general mood of the S's was improved by the therapy program. The seeming inconsistency between no reliable GPA or casualty rate improvement and considerable positive mood change probably occurred, because, in this author's opinion, mood is comparatively easy to change. On the other hand, general life patterns that have more to do with day to day functioning, including academic performance, may be more resistant to change. The total behavioral repertoire that supports adequate academic achievement, perhaps, cannot be learned in 25.5 hours of group psychotherapy.

One of the most interesting findings was the significant improvement in GPA between the first and second semesters demonstrated by those S's who remained in school throughout the follow-up period. This finding is especially intriguing, considering that S's who participated in the study, but did not necessarily complete the entire follow-up period, evidenced no improvement in GPA during this same period or later.

It is speculated here that those who remained in school and those who dropped out constitute two different groups

with respect to motivation for achievement. The majority of the S's (23 of 31) could be termed individuals with low motivation for academic success, in that they dropped out of school. The minority (8 of 31) could be termed the high motivation group, in that they remained in school.

The group with low motivation did not evidence a significant rebound from poor grades and did not seem willing to persist in academic work. The high motivation group improved significantly in GPA after the first semester and, no doubt, received considerable reinforcement for doing so.

Group therapy and the experience of failure seemed to have little effect on those who have been termed here as having low motivation for academic success. Those more highly motivated for success did not respond to 25.5 hours of group therapy, but they did seem to be influenced by their poor grades. While it remains a possibility that differences in motivation are not variables that would explain these findings, it is noteworthy that the motivational variables, discovered by Trotter (1969) to differentiate terminators from remainers in group therapy, also differentiated between those who remained in school and those who dropped out. Adequate preparation for college was, no doubt, an additional factor that interacted with these variables.

It is interesting, in light of many university suspension policies, that certain students (if this sample is rep-

resentative) begin a pattern of self-exclusion from college, while others attempt to improve their performance.

The term, high motivation for academic success, must be qualified, for once the students responded to the failure experience of poor grades, their GPA's leveled off. This pattern of leveling, once out of danger of suspension, was evidenced in both the experimental and control S's. Apparently, the best treatment of underachievement for these S's was the experience of failure and the accompanying consequences, coupled with sufficient time to adapt to the new aspects of college life.

The fact that therapist effect was not significant was a surprise, particularly since a third therapist, who had been associated with this project initially, was forced to withdraw from the study, because he had experienced 100% attrition in his experimental groups by the end of the third week of therapy. While it was impossible to assess exactly why his S's left, factors worthy of note have been considered. First, his therapy approach was extremely non-directive, and he received complaints from group members for not interacting more. Second, in one group, an individual with a severe stutter was allowed to remain in the group. Apparently, everyone felt very uneasy and irritated by this individual.

The fact that the difference in technique and perso-

nality style produced the type of response T_3 received would lead one to expect significant differences with respect to the therapist factor in the statistical analysis. The finding that there was no significance on this factor does not seem to be due to similarity of approach between T_1 and T_2 . Indeed, T_1 conducted his groups in a semi-directive, insight oriented fashion, while T_2 was very directive and focused on the 'here and now'. His groups spent considerable time role playing. It is speculated that, if a therapist effect was present, it was largely masked by the unresponsiveness of the dependent variable, GPA, to treatment.

Apparently, underachievement is a fairly stable and complex set of behaviors that is not easily modified. This is supported in a recent article by Strupp and Bergin (1969). They reviewed research in psychotherapy which has suggested that a 60-70% spontaneous recovery rate generally occurs without psychotherapy. Since the underachievers studied here did not even approximate such a rate, it appears that they are, at least, more resistive to change than those S's about whom Strupp and Bergin report. Further evidence for this resistance is suggested in the finding in this study that two rather well crystallized types of motivational patterns emerged.

It should be mentioned, however, that underachievers who request therapy might be less resistive and, thus, have a recovery rate more closely approximating that reported by Strupp and Bergin. Significant effort was made, through a rigorous recruiting procedure, to select subjects closely resembling individuals who would request therapy, but this goal may not have been satisfactorily achieved.

A secondary purpose of this study was to enhance the general area of research in psychotherapy by developing a more reliable experimental model for such research. However, as precision was pursued in the form of more exact definitions, more objective criteria, and more sophisticated procedures and experimental designs, the net effect was to produce a highly conservative test of the hypotheses. The results should be considered in this light.

It is felt that many suggestions for future research and treatment of academic underachievement can be derived from this research. To begin with, it has been speculated that group therapy may be useful only in terms of improving mood. No doubt, there are more efficient methods to accomplish this than 25.5 hours of group therapy. In order to prevent academic failure and improve mood at the same time, procedures other than traditional group therapy seem indicated. Some of these alternatives are mentioned below.

It would seem appropriate to attempt to prevent failure

and improve mood before the end of the first semester of college. Methods to teach study skills, to reduce feelings of alienation, to improve relationships between students and faculty, and to motivate reluctant students need to be further investigated and implemented. One method would be to automatically divide new students into small groups which would meet regularly with older student volunteers to assist in problems confronted during the first semester of college life. This would be a type of buddy system which could provide a reference group for the student, decreasing his feelings of loneliness in a large school.

An additional method would be to increase incentives for making good grades. Programs, such as qualifying for helping other students, undergraduate fellowships, and academic intramural competition among various campus groups might prove useful. Also, fraternities, sororities, and independent organizations could be encouraged to provide more mood support and academic orientation to the incoming freshmen. Students could be required to meet with professors individually or in small groups to discuss their progress. Instructors could give trial tests and sample examinations to allow the students to check whether they are studying properly.

In addition, well advertised and administration-supported counseling programs, which could include individual

and group therapy, study skill and remedial reading courses, and a full range of diagnostic procedures, would certainly be helpful. Perhaps, sensitivity training programs or encounter group approaches would be more efficient in changing mood and be interesting enough to reduce attrition of underachievers from treatment. It may be that group psychotherapy, combined with study skill development, would be more effective than either approach attempted independently.

Recent developments involving nonprofessional therapists, such as Alcoholics Anonymous, Weight Watchers, Inc., and others, seem to continue to evolve and demonstrate effectiveness. It may prove worthwhile to investigate and develop an "Underachievers Anonymous" organization modeled after the above groups.

It is this author's opinion that failure can produce, simultaneously, a response of more study and better grades, yet it can erode self-esteem and discourage the individual as well. Thus, borderline, out-of-danger performance apparently is tolerated and potential is not realized. Further research in this area seems warranted. This study should be replicated and improved. Above all, the findings suggest that it would be wise to invest highly in research on prevention and early detection of academic underachievement.

CHAPTER IV

SUMMARY AND CONCLUSIONS

This study was primarily designed to investigate the effectiveness of group psychotherapy in the treatment of academic underachievement in college freshmen. The primary dependent variable was grade point average (GPA). The principal research hypothesis was that group psychotherapy would significantly improve GPA.

An operational definition of underachievement was presented that controlled for intelligence, academic performance, and coursework difficulty. GPA was corrected statistically to compensate for student transfer across schools within the university. The Motivation Analysis Test (MAT) was utilized to test for motivational differences between experimental and control groups. A recruiting procedure for the several therapists involved in the study was standardized and outlined in detail.

Sixty-seven subjects were recruited by two therapists and randomly divided into experimental and control groups following interviewing and testing with the MAT. Only eight subjects were permitted in a treatment group. Group psychotherapy consisted of 1½ hours of therapy on a bi-weekly basis, totaling 25.5 hours for each group. There was a marked attrition from therapy during treatment and also from school during the three semester follow-up period.

The analysis of variance statistical procedures and experimental design allowed for determination of the effects due to the personality of the two therapists involved, effects due to treatment through group psychotherapy, and effects due to long-term follow-up over three semesters. Interactions between these variables were also investigated.

The results indicated that group psychotherapy did not significantly improve the GPA's of college freshmen underachievers. No therapist effect or long-range semester effect was found to be significant, and the interactions examined did not demonstrate reliable differences. The same finding was true with respect to casualty rate. The most unexpected result appeared in the form of a significant (.01) improvement in GPA of all subjects who completed the follow-up when their first and second semester GPA's were compared. However, in examining first and second semester grades of all subjects involved in the experiment, whether or not they completed the follow-up, no significance was found.

In the discussion, it was speculated that group therapy, as presented in this study, was useful only in improving mood. Apparent motivational differences between subjects who remained in school through the follow-up period (improved GPA) versus those who dropped out (unimproved GPA)

were discussed in terms of the first group possessing higher motivation for academic achievement. It was hypothesized that life patterns associated with academic success are more resistive to change and, thus, necessitate more time for improvement than was allowed. The significant response to poor grades was discussed, and the general, 'just get by' performance that followed was analyzed. The absence of a significant therapist effect was attributed to the general resistance to change of GPA. The limitations of the study with respect to a conservative test of the hypothesis were also discussed.

The positive effect of an achievement oriented freshman's experience with failure was contrasted with the apparent lack of effect of failure on low motivated subjects' GPA's. Procedures, other than traditional group psychotherapy, were suggested, as were areas for future research. Methods dealing with early detection and prevention were stressed. Particularly stressed were methods designed to provide the student with early feedback relative to their performance.

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APPENDIX

- A. Procedure Followed in Initial Contact with Subjects
by Telephone
- B. Information Form
- C. Procedure to be Followed in Initial Personal Meeting
with Subject Following Contact by Telephone
- D. Motivation Analysis Test
- E. Letter to Control Group
- F. Procedure Followed with those who Fail to Attend
Therapy

APPENDIX A: PROCEDURE FOLLOWED IN INITIAL
CONTACT WITH SUBJECTS BY TELEPHONE

1. Identify subject correctly using name and student identification number.
2. Identify yourself as associated with the Psychology Department.
3. Inform the subject that it has been brought to your attention that he was not doing as well as expected with respect to grades on the basis of his entrance exam.
4. State that we realize what a tremendous investment in time, energy, and money college has become. Therefore, we have designed a free program to help him with problems which may be interfering with his academic progress.
5. Describe the project as follows:
 - a. It consists of small group discussions.
 - b. The groups are composed of other students who entered the university at the same time and are experiencing similar difficulty.
 - c. State that you will meet with the group to assist in the discussions.
 - d. Report that, in many instances, it has been found helpful for people with similar problems to meet regularly in such groups.
6. State that you would like to invite the subject

to participate in such groups.

7. Then immediately state that you would also like to meet with the subject in your office to discuss it further if he thinks he is interested.

8. Answer questions regarding length, frequency, and duration of meetings if asked. Otherwise, this will be covered in the initial meeting with the subject.

9. If asked when the groups will start, inform him that they will start as soon as groups can be assembled with similar times open in their schedules.

10. State that in your meeting with the subject, you will answer any questions that he may have. Furthermore, you will gather information with respect to times he has available and additional information which will help you plan the most effective kind of group meeting for him.

11. Schedule a time to meet with the subject, preferably that same day or the next. If some delay is encountered, call the subject back or send a postcard reminding him of the time of the meeting. Leave your name and a phone number where you can be reached in case the subject has to change the time he meets with you.

12. Finally, impress upon the subject that you are eager to meet him and that you are counting on him meeting with you or calling if he cannot come.

APPENDIX B: INFORMATION FORM

Please complete this accurately, as it will help us plan the most effective program for you.

Name _____ Sex _____ Age _____

School Address _____ Phone _____

GPA: Fall, 1967 _____ School: Fall _____ Spring _____

Course Load: Fall _____ Spring _____

Marital Status _____ Children _____ Ages _____

Employment _____ Hours per Week _____

Extracurricular Activities _____

_____ Hours per Week _____

Do you plan to attend this university next fall? _____

If not, why? _____

Since coming to this university have you participated in (and if so when?):

1. Speed reading course _____

2. Study skills course _____

3. Individual counseling _____

4. Group counseling _____

5. Discussion group (if so what was the purpose?) _____

List times available for your participation in the current program by marking an "X" in the hours convenient for you.

	Mon	Tues	Wed	Thurs	Fri	Sat
8						
9						
10						
11						
12						
1						
2						
3						
4						
5						
6						
7						
8						
9						

APPENDIX C: PROCEDURE TO BE FOLLOWED IN
INITIAL PERSONAL MEETING WITH SUBJECT
FOLLOWING CONTACT BY TELEPHONE

1. Identify yourself again.
2. Invite the subject to ask questions that he might have regarding the group meetings.
3. Establish (either in response to the subject's questions or by presenting it yourself) the length, frequency, and duration of the meetings.
4. State that you feel that the benefits the subject will receive far outweigh the time investment he would make.
5. Answer in general fashion any questions dealing with topics to be discussed, etc.
6. If the subject expresses interest in the groups, have him fill out the Information Form, and schedule a time to administer the Motivation Analysis Test.
7. Tell the subject that the groups will be formed by matching the schedules of those interested in the groups. Inform the subject that you will contact him by mail when and where he is to meet with a group if his schedule matches others.
8. Inform him that the more hours he can give as available for the group meetings, the greater are his chances of being included in a group.
9. Record by name and student number those who show up for the meeting.

APPENDIX D: MOTIVATION ANALYSIS TEST

This test is designed to measure the dynamic factors involved in adult motivation, according to Cattell, et al. (1964) in their handbook on the MAT. Ten "dynamic structures" were chosen on the basis of research to be included in this test. These 10 "dynamic structures" are considered to reflect major sources of adult motivation. Five of these structures are regarded as "basic drives" or "ergs" and are sources of "reactive energy...directed toward a particular goal" (p.2). The other 5 areas are termed "sentiments", each being essentially an "aquired aggregate of attitudes built up by learning and social experience, but also, like an erg, a source of motivation and interest" (p. 2).

Each "dynamic structure" is measured with respect to conscious and unconscious components. The structures are labelled as follows:

1. "Mating erg" or "strength of the normal, heterosexual or mating drive".
2. "Assertiveness erg" or "strength of the drive to self-assertion, mastery, and achievement".
3. "Fear (Escape) erg" or "level of alertness to external dangers".
4. "Narcissism-comfort erg" or "level of drive to sensuous, self-indulgent satisfactions".

5. "Pugnacity-sadism erg" or "strength of destructive, hostile impulses".

6. "Self-concept Sentiment" or "level of concern about the self-concept, social repute, and more remote rewards".

7. "Superego Sentiment" or "strength of development of conscience".

8. "Career Sentiment" or "amount of development of interests in a career".

9. "Sweetheart-Spouse Sentiment" or "strength of attachment to wife (husband) or sweetheart".

10. "Home-parental Sentiment" or "strength of attitudes attaching to the parental homes" Cattell, et al., 1964, p. 3).

APPENDIX E: LETTER TO CONTROL GROUP

This letter is to be written in longhand and sent to control group members informing them that they are not to be provided with group psychotherapy at this time.

Dear _____,

Unfortunately I was not able to include you in a group at this time. The times you submitted either did not match other students' or were, by chance, already filled to capacity. My time is such that I am only able to see a limited number of groups at this time. However, if you feel that personal counseling is critical, I recommend you call the Psychology Clinic or the Counseling Center.

In future months I may be calling students for other groups. If you are still experiencing difficulty in school, we will try again to arrange times suitable to your schedule.

Until then, I wish you the utmost success in school and your personal life. I regret that I was not able to include you in the group project at this time.

Sincerely,

(Therapist's signature)

APPENDIX F: PROCEDURE FOLLOWED WITH
THOSE WHO FAIL TO ATTEND THERAPY

This is the procedure to be followed when a member of the experimental group fails to attend 2 therapy sessions consecutively during the first 8 sessions. The therapist to whose group he belongs will contact him.

1. Contact subject by telephone immediately.
2. Express your disappointment that he has not attended recently and ask him if he has decided to discontinue coming to the group meetings.
3. If he has decided to terminate, state that it is important for you to know why he has decided to drop out, because you are trying to find methods to help others like himself to do better academically.
4. Record the stated reason why he is dropping out.
5. Record his name, student number, and the number of sessions attended.
6. Classify the subject as a member of the therapy attrition group.