THE EFFECTS OF MOTIVATIONAL GROUP TECHNIQUES
UPON SELECTED PERSONALITY AND
BEHAVIORAL VARIABLES

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Stanley Ballard, Th. B., Th. M., M. S.

Denton, Texas
May, 1971

This study was undertaken to investigate the effects of motivational group techniques upon grade point average, self-concept and the need to achieve of volunteer freshmen college students. The purposes of this study were (1) to ascertain the effects of certain planned group techniques upon selected personality and behavioral variables and (2) to analyze the implications of group procedures for assisting college students in the development of their potentials. A review of literature indicated that some group experiences have produced significant effects in terms of the above variables, whereas other research efforts have produced nonsignificance.

Specific hypotheses to be examined were (1) At the end of the treatment period, the experimental group will achieve a significantly higher grade point average than the control and placebo groups. (2) On the counseling form of the *Tennessee Self-Concept Scale*, the experimental group will achieve significantly greater mean increases than the control and placebo groups on (A) the Total P which reflects the overall level of self-esteem, (B) the subscale of Self-Satisfaction, (C) the subscale of Personal Self, and (D) the subscale of Social Self. (3) On the *Edwards Personal Preference Schedule* subscale of Achievement,
the experimental group will achieve a significantly greater mean increase than the control and placebo groups.

The subjects used in this study were 90 freshmen students of a small, liberal arts college in southwest Ohio who volunteered for the group sessions. Through randomization, they were divided into an experimental, placebo, and control group. All groups completed the Tennessee Self-Conceot Scale and the Edwards Personal Preference Schedule and on the same day registered for the group experience. These scores served as pretest data. After the conclusion of the treatment period for the experimental group (10 group sessions), all groups again completed the above measuring instruments. These scores served as posttest data of this study. In order to test the effectiveness of group counseling in the academic realm, grade point averages for the total sample were obtained soon after the close of the school quarter.

The .05 level of significance was established for each hypothesis. The analysis of variance was used for testing the various hypotheses. No significant differences in means or in mean gains were shown among the groups on any of the hypotheses. However, the experimental group was beginning to show positive trends in the hypothesized direction at the end of the treatment period. This trend was seen in the variables of Total P, Self-Satisfaction, and Social Self. Several possible reasons were given to account for the nonsignificant results.
Based on the information gathered, it was concluded that (1) short-term group procedures utilized in this study were not effective; (2) the group procedures used are beneficial for students when subjective evaluations are utilized as outcome criteria; (3) the group techniques used in this study do hold some promise with a treatment program of longer duration.

It was recommended that (1) more well-planned research be done where specified, planned group procedures of the type used in this study are applied; (2) further research utilizing motivational group techniques be applied to students characterized by known underachievement rather than to a mixed, volunteer sample; (3) a replication study be done which increases the number of sessions, utilizes a different instrument to measure achievement motivation, and increases the number of subjects and group leaders; (4) small colleges seriously consider some type of group experience for freshmen students.
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CHAPTER I

INTRODUCTION

There is much contemporary interest in the hypothesis that the average "healthy" human being is functioning at a fraction of his potential. The human organism is viewed as having an unexplored capacity for plasticity, self-transformation, adaptation, change, and organismic regeneration. Present-day behavioral scientists who subscribe to this hypotheses are Gardner Murphy, Abraham Maslow, Erich Fromm, and Carl Rogers (14, 26, 29, 35).

The aim of helping persons to fulfill their potential through the exploration and learning of new attitudes, values and skills has traditionally been within the province of individual counseling. Within recent years, however, group procedures have been utilized increasingly in an effort to develop human potential. The research findings indicate that while group procedures have not empirically demonstrated the absolute effectiveness of their methodology, their potential has been demonstrated (20, p. 293). In general, the majority of reported research findings have been of a positive nature. This is especially true in group work with college students (20, p. 293).

This study focused attention upon specific group methods or techniques which were utilized in a group situation involving college
students. The group methods focused on the individual group participant's strengths and personal resources. Utilizing effective group reinforcement, the group experience was designed to build on the personal strengths, resources, and success experiences of each group participant. The experimental group activities were designed to change human behavior by identifying strengths and defining personally-motivated goals, and then providing opportunities for the establishing of constructive behavior. The effectiveness of these activities in the awakening or drawing out of human potential was measured in terms of selected personality and behavioral variables.

Statement of the Problem

The problem of this study was to investigate the effects of motivational group techniques upon selected personality and behavioral variables. Particular emphasis was placed upon changes in personality and behavior with respect to freshmen college students.

Purposes of the Study

The purposes of this study were (1) to ascertain the effects of certain planned group techniques upon selected personality and behavioral variables and (2) to analyze the implications of group procedures for assisting college students in the development of their potentials.
Hypotheses

In view of the theory presented for the present study and the specific empirical findings of previous studies, the following hypotheses were submitted. It was hypothesized that

1. The experimental group will achieve a significantly higher grade point average than the control and placebo groups at the end of the treatment period.

2. The experimental group will achieve significantly greater mean increases than the control and placebo groups on the counseling form of the Tennessee Self-Concept Scale on
   A. The Total $P$ which reflects the overall level of self-esteem.
   B. The subscale of Self-Satisfaction.
   C. The subscale of Personal Self.
   D. The subscale of Social Self.

3. The experimental group will achieve a significantly greater mean increase than the control and placebo groups on the Edwards Personal Preference Schedule subscale of Achievement.

Background and Significance of the Study

A recent survey by Corsini and Putzey (9) is indicative of the present status of group methodology as it is applied to psychotherapy. The survey indicates that the use of group psychotherapy has had
phenomenal growth within the last twenty-five years. Group work which goes under designations other than psychotherapy has also flourished. Group dynamics, group process, group guidance, and group counseling are other terms used to describe group procedures (40).

In advancing reasons for the growth of group procedures dealing with various types of individuals, the first reason that is usually stressed has to do with personnel shortage. One adequately trained person can handle a large number of individuals who seek assistance in their intellectual and emotional concerns. Corsini admits to this fact but stresses, along with Cartwright and Zander, that there are inherent qualities within the group context which are conducive to personal growth (5).

In reviewing theoretical positions as to what beneficial elements emerge from the group experience, one recent survey reports the following facts (2). Many theoretical positions have influenced group work theory and practice. Included are field theory, interaction theory, sociometric conceptualizations, psychoanalytic theory, cognitive theory, learning theory, and client-centered theory. All of these theoretical frameworks attempt to explain the efficacy of group procedures in the amelioration of personality difficulties. In one current study (9) Corsini and Rosenberg searched 300 articles in the literature of group practice and found cited 166 mechanisms which were hypothesized as determinants of individual growth in group
settings. Corsini and Rosenberg reasoned that some identical mechanisms were being described in various manners and set out to arrange, classify, and synthesize these 166 elements into an orderly and meaningful system. They emerged with nine major classes of mechanisms which could be placed into three broad areas. They are acceptance, altruism, and transference (EMOTIONAL); spectator therapy, universalization, and intellectualization (COGNITIVE); and reality testing, ventilation, and interaction (ACTIONAL).

As shown by the review of Le May (20), educators have realized the applicability of group methodology to individuals in an educational context. This has been especially true of efforts with college students. In Le May's review, studies are cited where group techniques have been utilized with college students in vocational counseling, academic recovery, orientation procedures, global adjustment efforts, and certain special situations.

The findings of researchers pertaining to the improvement of GPA by the utilization of group techniques have been mixed and somewhat contradictory (45). Several (1, 7, 30) studies have been reported which provide data that reflect no significant increases in academic achievement as a result of group counseling. Preus (33) studied the effects of individual counseling, group counseling, remedial reading, and adviser interviews in conjunction with students on probation.
After a period of time in one of these services, no significant differences were noted in the GPA of those undergoing the various treatments. De Weese (10), using similar multiple procedures, reports inconclusive results since the GPA of the students who were group counseled was higher than those in the other treatments but not significantly so. Maroney (24) investigated short-term group guidance with subjects admitted to college on academic probation. The experimental group, which experienced short-term group guidance, did not have significantly higher GPA's than the control group, which received no group guidance. Marx (25) compared the effects of group counseling with both individual counseling and an absence of counseling. Significant differences were found favoring individual counseling and the non-participating control group over those receiving group counseling. Winborn and Schmidt (48) found that underachieving college freshmen who did not receive short-term group therapy earned a significantly higher GPA than those who received group therapy.

In contrast to the above-reported research results, other studies have reported the earning of significantly higher GPA's as a result of involvement in group processes (19, 39, 41, 44). With high-anxiety college students, Spielberger, Wertz, and Denny (43) observed improved GPA following group therapy. Dickenson and Truax (11), working with essentially neurotic underachieving college freshmen, produced results to the effect that the experimental group subjects
who received group counseling showed significantly greater improvement in GPA than a matched noncounseled control group. Le May and Weigel (21) investigated the possible differential effects of group counseling with high and low-ability groups of poorly achieving freshmen. They found that the high-ability experimental group yielded a significantly higher mean GPA than the high-ability control, the low-ability experimental, and the low-ability control groups. The low-ability control group was found to have a significantly higher mean GPA than the low-ability experimental group. In comparing the effectiveness of "counselor-structured" versus "group-structured" group counseling with male freshmen and sophomores, Chestnut (6) noted that the students who attended counselor-structured group meetings had a significantly greater rate of change in GPA than the students in either the group-structured or the control groups.

Several opinions have been offered for the differing results of the above-reported studies. Roth, Mauksch, and Peiser (37, p. 394) suggest that the inconsistent results

... may be a function of the ineffectiveness of group therapy with underachievers or these results might be the spurious effect of the heterogeneity of psychodynamics of subjects, assumptions of the therapist regarding the dynamics of underachievement, and different therapeutic approaches.

Le May (20, p. 293), in reflecting on the same problem writes that
. . . . Difficulties in measuring slight and more immediate changes in the behavior of relatively normal college students may account for the small number of significant research with group procedures as well as the descriptive rather than experimental nature of the available studies.

Le May does affirm, however, that the potential of group procedures in the amelioration of many of the problems which college students face has been established. He holds this viewpoint because in his review on group procedures with college students the majority of researchers' findings and feelings were of a positive nature.

Some theorists (22, 34, 38, 42) have viewed the self-concept as central to man's behavior. Where there are discrepancies between one's self-ideal and the phenomenal self or between one's self-concept and experiences, the greater will be the chance of personality maladjustment in many areas. In contrast, adequate self-conceptualization is held to be conducive to good adjustment and personal growth. The self-concept formulation has been applied with increasing frequency to education theory and practice (47, p. 478).

This application appears to be significant in view of research findings which indicate correlations between self-conceptualization and educational adjustment and achievement. Several studies show the importance of self-evaluation as a nonintellectual factor in academic achievement (3, 8, 13). These findings reveal positive relationships between the self-concept and academic achievement. Because of these findings, educators have turned their attention to
group procedures in an effort to develop adequate self-concepts on the part of students.

Research in the area of group counseling with college students and change in self-concept has been productive. Several studies have reported significant changes in the improved direction of self-concept after some type of group experience (4, 6, 12, 15, 17). Manis (23) conducted a study on the effects of social interaction on self-concept. This investigation explored changes in the similarity of a person's self-concept and friends' impressions over a period of time. After six weeks of group contact, the second self-description was more similar to the friends' description. Otto and Griffiths (32) have used group procedures in a seminar arrangement with students. Their research demonstrated favorable gains in self-worth and self-confidence. In yet another study using heterogeneous student groups over a one-semester period, students were able to respond more positively toward themselves (27). In the same study 69 percent of the students in these groups raised their grade point an average of nearly one whole grade point. In a 1965 study by Rohde (36) no significant differences were observed between individual and group counseling in increasing acceptance of self and others.

Veroff (46, p. 378) writes that "... research findings strongly support the proposition that people who have high achievement motivation pursue and attain excellence, thereby meriting ... a sense of
self-fulfillment. He continues his discussion by indicating that research in the achievement setting has shown that people with high-measured motives for achievement will seek out and be gratified by challenge to their capacities, will solve problems effectively, further their own education, and yet have reasonable aspirations in their jobs. The conclusion of these studies is that individuals with high-measured achievement motives are pursuing excellence. According to such previously mentioned theorists as Murphy, Maslow, Fromm, and Rogers, every "healthy" normal individual can function in the above-described manner. The potential for this functioning resides within the person. Bringing out these potentials by certain group techniques and quantifying the results was the main concern of this study.

Work with college students in a group setting which has focused on achievement motivation has been of a very general nature (12, 31). Two other studies that have dealt with this area are reported in qualitative terms (27, 32). The researchers report that students at the end of group counseling demonstrated favorable gains in self-motivation and self-determination.

In view of the related research the present study appears to be of significance in that (1) it dealt with a heterogeneous, "normal" college sample; (2) it focused upon specific group techniques which
were designed to effect change in defined areas rather than just emphasizing the beneficial effects of group interaction; and (3) it dealt with group techniques not heretofore researched to any extent. A positive group experience similar to the one utilized in this study at the beginning of one's college career carries with it the following implications:

1. It can be utilized to establish a positive and constructive feeling about the self and the college situation.

2. It can be utilized to identify and analyze past and present personal successes. The student can then rely on this success pattern to meet the demands and changing challenges of college life.

3. It can be utilized as a general procedure for all freshmen in a small college context in an effort to reduce academic casualities.

4. It can be utilized to increase self-motivation and greater self-determination.

In summary, it would appear that a significant group experience such as the one utilized would act so as to enhance, enrich, and make the individual's college experience more meaningful from the outset.

Definition of Terms

For the purpose of this study, the following definitions were adopted:
1. **Self-concept.** The self-as-object definition is utilized because "... it denotes the person's attitudes, feelings, perceptions, and evaluations of himself as an object" (18, p. 468). Used in this sense, the self is what a person thinks of himself.

2. **Achievement motivation.** H. A. Murray's (18, p. 173) definition of achievement motivation is utilized. This definition states that achievement motivation is concerned with wanting:

   ... to accomplish something difficult. To master, manipulate, or organize physical objects, human beings, or ideas. To do this as rapidly and as independently as possible. To overcome obstacles and attain a high standard. To excel oneself. To rival and surpass others. To increase self-regard by the successful exercise of talent.

3. **Group experience.** As used in this study, group experience consists of processes occurring in organized, small groups which are calculated to attain rapid changes in selected personality and behavioral variables through specified and controlled group interactions (2, p. 4). In the group experience the dynamics of trust, caring, understanding, acceptance, and support were emphasized.

**Limitations of the Study**

This study was limited to freshmen level college students who volunteered for the group experience. The emphasis was on a "normal" heterogeneous group whose members were motivated to engage in a group experience. Only students of one small, private, liberal arts college were utilized in the study. Only one group leader was involved
in working with the students. A further limitation of the study is that the findings of the study can be said to apply only to that population used in the study; and until further studies of a similar nature are made, it would not be appropriate to generalize too broadly on the basis of these findings.

Basic Assumptions

It was assumed that on both pre- and posttest instruments all subjects, whether designated as experimental, placebo, or control, would respond honestly. It was further assumed that all uncontrollable effects throughout the course of the experiment would be operating similarly for all groups so that any difference in change for the three groups resulted from the experience of the experimental group.

Procedures for Collecting Data

The subjects for this study were freshmen students of a small, liberal arts college in southwest Ohio. On the first day of the 1969, fall, freshmen orientation week, ninety students registered for the group sessions. The group experience had been described on posters as a series of meetings which were designed to help students in their first quarter of college life. The posters were displayed at various sign-in places. On the same day as they registered for the group sessions, these ninety students were given the Tennessee Self-Concept
Scale and the Edwards Personal Preference Schedule (EPPS). These instruments were given to obtain pretest scores on variables relating to self-concept and achievement. The subjects were then randomly divided into the experimental, placebo, and control groups. Near the end of the quarter, all groups were retested on the above instruments; and these scores served as posttest scores on the self-concept and achievement variables. Grade point averages for all group members were obtained from the registrar's office soon after the close of the 1969 fall quarter.

Procedures for Treating Data

Since each of the three hypotheses involved three groups, analysis of variance was utilized in an effort to determine significant differences and mean gains on the various variables of the hypotheses (28).

Significance of the difference in means and mean gains for the various variables was tested at the .05 level.

Summary

Several prominent, contemporary psychologists are convinced that many individuals are not functioning at the maximum of their inherent potential. In the last few years researchers have applied group procedures in an effort to bring out this untapped potential.
The problem of this study was to investigate the effects of a well-defined set of group techniques upon selected personality and behavioral variables of a freshmen college population. After briefly discussing the purposes of the study, the hypotheses were stated.

Previous studies which bear on the utilization of group procedures with college students were surveyed. Some of these studies will be analyzed further in the second chapter of this study. The survey indicated that group procedures have produced some significant results in terms of personality and behavioral variables in their application to a college population.

Operational definitions were given for the crucial terms involved in the study. The limitations and assumptions inherent in the study were outlined. Procedures for collecting the data were presented and methodology was discussed. The procedure for treating the data was indicated.
CHAPTER BIBLIOGRAPHY


CHAPTER II

A REVIEW OF LITERATURE

The theory which seeks to delineate the values of group counseling exists at all levels of complexity and formality. In some cases it is a logically consistent system of postulates whose design is to impose order upon a whole constellation of group phenomena. In other cases it is a loosely related and only partially articulated body of assumptions, intuitive impressions, and hypotheses derived from a blend of experience and speculation. In recognizing this variety of theoretical orientations, Cartwright and Zander (14) feel that it reflects the youthfulness and vigor of the field.

In viewing group processes from the standpoint of encounter, Burton (12, p. 2) stresses that the ancient understanding of community, set in a framework of honesty, openness, and responsibility, is enlivening and healing. Other contributors in Burton's volume emphasize such growth and actualizing concepts as the following. An individual in a group setting can experience himself totally, verbalize his expectations, and listen to his self-condemnations against the background of group response. In groups there are elements which promote new behavioral directions, the realization of potential, heightened self-awareness, and a richer perception of one's circumstances, as
well as the circumstances of others. Further emphases are the release of aggression without violence, an experience of being a free member of a creative and growing group, an opportunity to develop new theories that integrate values and his world, and an opportunity to take full responsibility for behavior.

In a recent volume, Muro and Freeman (53, pp. 10-11) stress similar values in the group process. They write in terms of group acceptance, peer support, and the opportunity for each person to offer help to others, thus contributing directly to the definition of meaning in individual existence. In group counseling members can discover problems, as well as solutions, thereby acquiring facility in a process of inquiry which must be used over and over to establish meaningful relationships with the world. These authors also write of the immediate feedback value in groups which reinforces or extinguishes the tentative idea, meaning, or value one is exploring. Other writers have also stressed the above rationale to explain group effectiveness (16, 71).

Theoretical systems which have been utilized to explain the therapeutic and growth dynamics of the group process are psychoanalysis (70), client-centered theory (35, 44), interaction theory (34), and learning theory (21). Significant individuals who have clarified the beneficial results of group dynamics are Moreno (51), Bach (6),
Bion (10), Klapman (41), Bennett (7), Luchins (45), Gazda (25), Luft (46), Kemp (40), and Ohlsen (57).

In summarizing the value of group counseling which is elucidated by the foregoing systems and individuals, the statement of Muro and Freeman (53, p. 10) is comprehensive and helpful:

Yet the core of group counseling is the effort, through group interaction, to help each individual gain different perspectives on the many experiences he has in coping with a world of change and to find through these new perspectives a personal meaning and set of values which will guide his decision-making and his problem-solving outside the group.

With this theoretical overview in focus, group process, as it has been applied to education will be reviewed in four sections: (1) general applications of group counseling to collegiate education, (2) grade point average and group counseling, (3) self-concept and group counseling, and (4) achievement motivation and group counseling.

General Applications of Group Counseling to Collegiate Educational Concerns

Educators have recognized the values of group procedures, and many attempts have been made to unite them with educational objectives. Present-day students no longer seem content to accept the traditional education pattern as adequate to their needs and personalities (12, p. 191):

What are some of the changes students ask for? Mainly, they ask for more direct and personal involvement in class work, more relatedness between what happens in class and life experience, and a deeper, personal, more meaningful relationship with the more knowing member of the class experience, the professor. One of the most important words to students is personal. In relating the
most significant and satisfying experience during their four years in college, students invariably look to the time a professor took a personal interest in them or a project in which they felt involved and needed.

In correlating group counseling with the present mood of students, Muro and Freeman (53, p. 10) make the following statement:

Among the new perspectives to be nurtured by group counseling is that from inside the individual, tuning in on the creative, subjective processing of experience which may be hidden under a too exclusively abstract, verbal, and bookish experience in formal education.

Burton (53, p. 9) views group procedures as a new method of general education--of emotional rather than cognitive learning. Several contributors to Burton's book affirm that group techniques can be used in several ways in higher education. They suggest their usage in student service programs such as counseling centers, psychological clinics, and deans of students programs, as well as classroom application (53, p. 193). In perusing the literature pertaining to research with group procedures and college students, it becomes apparent that group concepts have had extensive applicability.

Hewer (33) studied college students enrolled in a course entitled, "Choosing Your Vocation," to evaluate the comparative effectiveness of group and individual counseling plus the class in vocations for assisting students in choosing a vocation. Hewer found no significant differences during one academic quarter for the two treatment groups on the criteria of certainty and realism of vocational choice and satisfaction.
with vocational choice. In a more recent study, Volsky and Hewer (75) attempted a program of short-term vocational counseling. The case conference approach was utilized wherein the vocational plans of each group member were discussed by the group. Although results were not definitive, the authors report that results have generally been favorable, and the needs of their subjects were met. Hoyt (37) compared the effects of group and individual vocational counseling and found significant gains under both treatment methods in certainty, satisfaction, and realism in vocational choice. Biersdorf (9) found statistically significant differences only between an extended-treatment group and the control group with respect to reduction in degree of concern about vocational problems. In a recent application of Hewer's case-centered group counseling, Sprague and Strong (73) report on group members who either made a definite vocational choice or were making progress in acquiring firm alternatives as a result of group counseling.

Group counseling procedures have also proven valuable in terms of orientation to college. In one well-planned study, Williams (77) hypothesized that a one-semester orientation course in college would significantly reduce problems. He utilized 150 first-semester college women selected at random as an experimental group and another 150 women similarly selected as control subjects. Both groups were given the Mooney Problem Check List at the beginning and at the close of the
period. The problem areas covered in this inventory are health and physical development; finances, living conditions, and employment; social and recreational activities; social-psychological relations; personal-psychological relations; courtship, sex, and marriage; home and family; morals and religion; adjustment to school work; the future--vocational and educational; and curriculum and teaching procedure.

Reduction in incidence of problems among the experimental subjects was found in all of the above-mentioned areas, whereas slight increases were found in four areas among the control subjects. These areas were finances, living conditions, and employment; courtship, sex, and marriage; adjustment to school work; and the future--vocational and educational. An analysis of covariance controlling initial level of problem incidence confirmed the hypothesis, showing significant differences favoring the experimental subjects. In other orientation procedures involving groups, beneficial results have been reported in terms of adjustment (3), continuance in college (71), and positive viewpoints toward learning in college (62).

Several studies are illustrative of the usage of group techniques in the classroom. McKeachie (49) reports on the value of group discussion as compared to the lecture method in teaching. In both methods students learned about the same amount of subject matter in psychology, but the group-centered class developed greater insight into personality dynamics than the straight lecture class. Morris, Pflugrath, and Taylor (52)
recount how group methods were used in a class titled, "Personal and Social Adjustment." In the course lectures were reduced in number, and an encounter group format was introduced as part of the course experience. In evaluating the experiment, the authors report the following (52, p. 194):

At the end of the first quarter, the students found that the addition of the encounter groups increased their involvement in the course and made it a much more meaningful and relevant experience when compared with other college courses already taken. During the second quarter, encounter groups were used exclusively in one section of the class (without lectures) and compared to a lecture group control (without encounter groups) in another section. Students in the encounter group section not only found their experience more personally meaningful and relevant when compared with the traditional lecture section but also performed as well as the lecture section on the assigned content of the course.

Group principles have also been applied to special problem areas in the educational realm. Golsburgh and Glanz (30) found short-term group counseling effective in helping college freshmen overcome difficulty in verbalizing during classroom discussions. Willerman (76) reported, after only one discussion session with university fraternity members, significant increases in acceptance of the university administration as an authority and in the belief that the university is interested in the welfare of the fraternities. No changes were observed in the control group. Utilizing probationary transfer students as subjects, Abel (1) found that small group activity could be an effective and efficient approach in helping this type of student know and perform within the accepted standards of his "new" institution. In a study by
Jones, Trumble, and Altmann (39), three group counseling techniques were designed to help students improve their study performance. These treatment groups were then compared with two control groups. Two of the experimental group counseling procedures were more effective than no counseling approaches. Group counseling has also demonstrated its effectiveness in reducing the anxiety of test-anxious students (39, 72) and in facilitating the dissemination and interpretation of test data to students (79).

Grade Point Average and Group Counseling

In a recent comprehensive appraisal of group and multiple counseling, Gazda and Larsen (26) include approximately 100 abstracts of research studies which have been done in group counseling. They report (26, p. 60) that the most popular means for evaluation of treatment was the grade point average (GPA). Of the 100 studies surveyed, 30 of them reported some use of the GPA for evaluating subjects' change. In summarizing their appraisal these authors indicate that about 50 percent of the studies utilizing GPA showed significant increases or improvement versus an equal number which showed no significant improvement (26, p. 64).

In the first chapter of this paper 16 of the 30 studies reported on by Gazda and Larsen were briefly reviewed in terms of significance or nonsignificance with respect to GPA. About half of the studies
showed significant improvement and half did not. The chief purpose of this section of review of the literature is to briefly cite a number of the studies on GPA which are not included in chapter one. Having completed this, a more extensive review will be given to a representative number of the studies showing significant and nonsignificant improvement in GPA after group counseling. This more extensive review will focus upon such concepts as purpose of the study, type of group, size of research and control samples, treatment, statistics employed, experimental design used, and outcomes.

Gilbreath (28), in attempting to determine the effects of two methods of group counseling (leader-structured and group-structured) on male college underachievers, found no significant differences in GPA at the end of the winter or spring terms between the two methods. Semke (68) concluded from his research that time-limited group counseling (eight one-hour sessions) was not associated with significant academic improvement. Riegert (63) reports that group counseling did not result in significant academic improvement for marginal risk college freshmen. Daniels (20) secured no significant differences in the achievement of underachieving college freshmen who received either (1) individual counseling, (2) group counseling, (3) instruction in study habits and skills, or (4) no treatment.

In contrast to the above studies are the following. Harper (32) indicates that students in group counseling improved their GPA
significantly more than a control group which did not undergo counseling. Katahn, Strenger, and Cherry (39), using group counseling with a form of systematic desensitization, report a significant rise in GPA for their subjects. Other researchers reporting significant improvement in GPA as a result of group counseling are Ewing and Gilbert (22) and Ryan (67).

In giving extended review to some of the studies, representative samples in terms of nonsignificance will be considered first.

Winborn and Schmidt (78) attempted to ascertain if there would be differences between underachieving, potentially-superior freshmen who received short-term group counseling and those who did not. Their subjects were sixty-eight freshman college students who scored at or above the 80th percentile rank on the American Council Examination (ACE) and who earned a first-semester GPA of 1.50 or below (based on 3.00 formula). One half of the students were selected at random for the experimental group, and one half made up the control group. The experimental group was divided into six smaller groups for the counseling sessions. They were then exposed to six counseling sessions for a period of approximately two months. The subjects' GPA was compared before and after counseling. Results favored the control group whose increase in GPA was statistically significant at the 5 percent level. The authors were unable to explain adequately their results, although they suggested that the period of time was too short.
They did feel that their findings indicate that group counseling can produce negative effects upon academic achievement of potentially-superior freshmen.

Riegert (63) designed a study to investigate the question: Is group counseling with marginal-risk college freshmen effective in improving their academic performance? He hypothesized that group-counseled students would have significantly higher grade point averages than noncounseled control group members at the end of two semesters. Five hundred and fifty-two beginning freshmen at the University of Illinois who were predicted to do poorly in their first semester in college were invited to participate in a group counseling experience. Fifty-six students volunteered and were randomly divided into two groups—control group and the experimental group. Group counseling did not result in significant academic improvement for marginal-risk college freshmen, as measured by grade point average earned during their first two semesters in college.

Semke (68) conducted a doctoral study which was designed to ascertain if time-limited group counseling (eight one-hour sessions) would be effective in changing high-ability underachievers to achievers during the second semester of their freshmen year. One hundred sixty-three University of Colorado Arts and Sciences freshmen served as the experimental population. Seventy-five of this number volunteered for group counseling and were assigned randomly as follows:
twenty-eight to case study structured group counseling, twenty-seven to unstructured group counseling, and twenty to the volunteer control group (noncounseling). Fifty-five nonvolunteers became a second control group, and thirty-three underachievers who had never been contacted about the project were a third control group. Multiple analysis of covariance showed that group counseling was not associated with significant academic improvement.

In terms of GPA, the thrust of Daniels' research (20) was to determine the relative effects of (1) individual counseling, (2) group counseling, and (3) a course in study habits and skills on the academic achievement of a group of underachieving college freshman. Eighty students were randomly placed in five experimental groups of sixteen students each. The subjects in Group A received individual counseling one hour a week for twelve weeks. Subjects in Group B received group counseling in two groups one hour a week for twelve weeks. Subjects in Group C received instruction in study habits and skills one hour a week for eleven weeks. Subjects in Group D served as a control group and participated in pre and post experiment testing but no other treatment, and subjects in Group E received no treatment and did not participate in pre and post experiment testing. Daniels' hypothesis that there would be no significant differences in the achievement of underachieving college freshmen who receive either (1) individual
counseling, (2) group counseling, (3) instruction in study habits and skills, or (4) no treatment was confirmed.

In giving attention to research that has shown significant increases in GPA, the study of Ofman (56) is representative. Ofman's design included the following five group conditions, with sixty students in each group: (1) an experimental group of volunteers who received group counseling, (2) a control group composed of volunteers who were refused group counseling, (3) a wait group composed of volunteers who were not given the experimental group procedure until two semesters had passed, (4) a dropout group composed of volunteers who attended less than four group sessions, and (5) a baseline group of students enrolled at the institution who were identified at random to be used as a basis for comparison but who were given no treatment. Grade point averages for all eight semesters at the university were tabulated. Prior to the experimental treatment; all volunteer groups had a significantly lower grade point average than the baseline group. After treatment the experimental group's grade point average became comparable to that of the baseline group and significantly higher than those of the control and dropout groups. The wait group showed no significant change until after it received the group procedures, at which time its grade point average increased to the level of the experimental and baseline groups.
Ryan (67) tested the use of reinforcement counseling in a residence hall setting to improve academic achievement. The study population consisted of 928 male and female members. Four treatments were employed: (1) specific cue-reinforcement in which the counselor gave specific cues, such as "what do you think about planning time for relaxation and rest?", and then verbally reinforced those responses which suggested "good" study behavior; (2) general cue-reinforcement in which the counselor used the same procedure as specific cue-reinforcement to reinforce responses to general questions, such as "what do you think about planning your schedule?"; (3) placebo counseling in which they discussed effective study techniques; and (4) inactive control in which subjects took criterion tests. Subjects in the reinforcement groups had a higher adjusted mean GPA following treatment than subjects in the placebo and inactive groups.

Katahn, Strenger, and Cherry (39) used two groups of six and eight students each to assess the effect of systematic group desensitization combined with group discussion. Two control groups were utilized. The mean GPA of the treatment groups increased significantly compared to the control groups which yielded no significant increases. In a survey given to the numbers of the treatment groups, it was indicated by the students that it was the informal group discussion, rather than the desensitization procedures, which were responsible for the results.
Roth, Mauksch, and Peiser (66) demonstrated that group counseling for two one-hour sessions per week for a semester was effective in helping fifty-two failing college students (freshmen, sophomores, juniors, and seniors) improve their academic achievement. In the first five to eight sessions, group members identified particular study problems, e.g., daydreaming, and received prescriptions for change from the counselor. When the study difficulties were under control, the counselor used what was termed client-centered therapy to explore, for the balance of the semester, the assumed basic reasons for the students' failure. These reasons included problems of defensiveness, relationships with parents, and independent decision-making. Counseled students showed a significant increase in GPA, and control students indicated a chance increase. For twenty of the thirty counseled students who were still available for follow-up, the significant improvement held for one semester after termination of counseling.

The Self-Concept and Group Counseling

In the history of psychology, the achievement of a favorable attitude toward oneself has been regarded as important by a number of personality theorists—Rogers (64), Murphy (55), Horney (36), and Adler (2). Taken together, these theorists feel that one's self-concept determines the individual's behavior in terms of feelings, thoughts, and actions. It is only within the last few years, however, that these theoretical
beliefs concerning the importance of the self-concept have been experimentally tested. In 1959 Coopersmith (18, pp. 3-4) was able to identify or infer from psychological research several lines of evidence pointing to the importance of self-esteem. In summarizing his findings, he came to the following conclusions (18, p. 19):

The results of the clinical and experimental studies ... strongly suggest that self-esteem has pervasive and significant effects. These and similar investigations ... provide us with relatively consistent information regarding the behavior of persons with high and low self-esteem. ... the findings ... generally indicate that persons high in self-esteem are happier and more effective in meeting environmental demands than are persons with low self-esteem. The picture is not a pleasant one for persons with low self-esteem, suggesting as it does withdrawal from other people and consistent feelings of distress ... the results further suggest that self attitudes are generally integrated with behavior ... .

Individual research efforts in the area of the self-concept have produced some important psychological considerations. Miller (50) found that feelings of adequacy or self-esteem were significantly related to the perception of others and perception of the environment. In the same vein, Levy (43) demonstrated that self-concept is not an isolated phenomenon but that it spreads out to all phases of life; i. e., the individual may view his town, church, school, etc., in much the same way he construes himself. The work done by Sheerer (69), Berger (8), and Omwake (58) all show clearly a positive relationship between the subject's acceptance of self and his acceptance of others.
A crucial inquiry facing educators is why some students are positively oriented toward academic pursuits while others of ostensibly comparable ability and background are negatively inclined.

Differences in academic motivation may partially be attributed to differences in self-concept. Several specific studies in this area (11, 17, 23) highlight the importance of the self-concept as a non-intellectual factor in academic achievement. These research efforts indicate positive correlations between the self-concept and academic achievement. In view of the foregoing research, educators and counselors in the academic setting have sought to utilize group procedures as a means of developing adequate self-concepts on the part of students.

In the area of group counseling with college students which has been directed at positive changes in self-concept, encouraging results have been reported. Many researchers indicate significant changes toward that which is positive after some treatment process which revolved around group procedures (13, 15, 21, 29, 47, 48, 59, 60).

In addition to these studies, there are a number of other research efforts which have arrived at positive outcomes in terms of self-concept and are worthy of review. Grater (31) investigated the effects of free group discussion in a leadership training course on changes in disparity between self-perception and ideal self for thirty college students elected to leadership positions. Twenty-two group discussion sessions
constituted the experimental period and differences between pretreatment and post treatment on the Bills Inventory of Adjustment, the experimental measure. Significant reductions were found in the discrepancy between the ideal and the perceived self. Grater concluded that experiences in a group situation can make significant changes in attitudes toward self.

Peterson (61) compared the effects of two types of group counseling programs upon a selected population of university students. One treatment group received a short-term group counseling program while the other group received a short-term group counseling program combined with a social interaction program consisting of assigned out-of-group social activities. The research population consisted of unmarried university students between the ages of twenty-five and thirty. There was a sample of ninety subjects: thirty counseling group subjects, thirty counseling plus social interaction group subjects, and thirty nontreatment control group subjects. The Tennessee Self-Concept Scale was used as the measuring instrument for the self-variable. After treatment, statistical formulations revealed a significant difference between the counseling plus social interaction group and the control group on the self-concept variable.

Leib and Snyder (42) attempted to determine the effect of specific group procedures on underachievement and self-actualization as
measured by the *Personal Orientation Inventory*. Twenty-eight under-achieving college students who voluntarily dropped out of a psychology reading and study methods course were randomly assigned to either a special lecture session or to one of three group discussion sections. The discussion groups met twice a week, one hour per session, for nine weeks. The discussion leader guided group discussions and interactions on the general topics of motivation, achievement, self-direction, parental communication, and resolution of common problems. The fourteen subjects in the lecture control met as a group and covered material typically covered in the regular psychology course. The data indicated that there were significant increases in self-actualization as measured by the self-actualization scale (SA) of the *Personal Orientation Inventory* within the three group discussion sections.

Muro and Ohnmacht (54) designed a research project to determine the effects of group counseling on attitudes of college freshmen. Twenty-eight students enrolled in the "Orientation Course of the College of Education" at the University of Maine served as the subjects for the experiment. Two experimental groups of eight students each received group counseling for a period of fifteen weeks. The nontreatment control group was composed of thirteen students. After treatment, both experimental groups were found to have statistically significant increases on the self-acceptance scale of *Bills Index of Adjustment*. 
Some research has also demonstrated nonsignificant improvement of self-concept after group counseling \((65, 68)\). Two recent studies serve as examples of group counseling experiences which have not significantly changed the subjects' self-concept.

One of the purposes of Axmaker's \((5)\) research was to investigate the effect of group counseling on the self-concept. His specific hypothesis was that group counseling would result in a greater improvement in self-concept for counseled than for noncounseled students. There were twenty-eight students in the group-counseled experimental group and twenty-three students in the noncounseled control group. After treatment, a comparison of the difference in scores between the pre and posttests for the control group and the pre and posttests for the experimental group on the *Tennessee Self-Concept Scale* showed a greater positive increase in the control group than in the experimental group.

Corell \((19)\) investigated the effects of two types of group counseling on self-esteem. Forty-eight academically deteriorated students at Indiana University were selected randomly and divided into two experimental and two control groups. One experimental group viewed video-taped models to emulate prior to group discussion with no counselor present; the other received small-group counseling. Each experimental group was divided into two subgroups, each meeting for forty-five minutes on a different week night for four weeks. In both
groups the participants' task was to come to satisfactory solutions to problems of academic deterioration. Analysis of covariance yielded no statistically significant differences on the self-esteem variable.

Achievement Motivation and Group Counseling

After reviewing many studies on achievement motivation, Veroff (74, p. 378) concludes that individuals with high-measured achievement motives are pursuing excellence. Other studies have indicated that achievement motivation is a motive that generally enhances performance in achievement situations (4) and that it is a factor in problem-solving effectiveness (24).

There is not too much literature pertaining to group counseling with college students where the avowed purpose has been to raise the achievement motive. As reported in chapter one of this study, two researchers (48, 59) indicate in qualitative terms that group counseling with college students was effective in the improvement of self-motivation and self-determination. In terms of specific research which has clearly focused on the group process and achievement motivation, the following three studies can be reported.

One of the purposes of Gazda and Ohlsen's (27) study with prospective counselors was to test the effectiveness of group counseling on manifest needs. One of the manifest needs under consideration was achievement motivation as measured by the Edwards Personal
Preference Schedule. Thirty-four prospective counselors served as the subjects. There were sixteen males and eighteen females. This experimental group was further subdivided into four groups. Control groups were selected from students enrolled in various graduate classes. Each of the experimental counseling groups met twice a week for one-hour sessions, over a period of seven weeks. At the end of the treatment period, there was a significant increase for the combined experimental group in achievement motivation.

Harper's (32) research also pertains to achievement motivation. One of his purposes was to investigate the relative effectiveness of group counseling versus individual counseling as indicated by change in need to achieve. His sample consisted of forty Auburn University freshmen. The sample was divided in half. Twenty students underwent group counseling one hour per week for six weeks while the other half had individual counseling one hour per week for six weeks. A control group of twenty-five students did not undergo counseling. Using the achievement scale of the Edwards Personal Preference Schedule to measure need to achieve, Harper reports that the students who had either individual or group counseling had a greater need to achieve than the control group.

One of the intents of Axmaker's (5) research was to test a specific hypothesis pertaining to achievement motivation. He hypothesized that group counseling would result in a greater improvement in
motivation to achieve for counseled than for noncounseled students.

Using the **Motivation Analysis Inventory** to measure need to achieve, he found that after treatment there were no significant differences between the experimental and control groups.

**Summary**

A general theoretical overview as to the values of group counseling was discussed in the introductory paragraphs of this chapter. Cartwright and Zander (14) view the variety of theoretical orientations as indicative of the youthfulness and vigor of the field. A number of studies were discussed which speak of the benefits of group counseling (12, 16, 53, 71). Reference was made to both theoretical systems (21, 34, 35, 44, 70) and individuals (6, 7, 10, 25, 40, 41, 45, 46, 51, 57) that have made significant contributions to the study of group dynamics and procedures.

The next section was devoted to general applications of group counseling to collegiate educational concerns (12, 53). Application was seen in terms of vocational counseling (9, 33, 37, 73, 75), orientation to college (3, 62, 71, 77), classroom use of group concepts (49, 52), and special problem areas (1, 30, 38, 39, 72, 76, 79).

Attention was then shifted to GPA and group counseling. The greatest amount of group counseling on the college level has been invested in this area (26). A cursory review was given to studies which
were ineffective in bringing about significant changes in GPA (20, 28, 63, 68) and to those studies that were effective (22, 32, 39, 67). More extensive review was then given to representative studies which yielded nonsignificant (20, 63, 68, 78) and significant (39, 56, 66, 67) changes after group counseling.

The importance of the self-concept has been emphasized by Rogers (64), Murphy (55), Horney (36), and Adler (2). Coopersmith (18) reports recent research which adds credence to the views of the above theorists. Individual research efforts were reviewed as to the cruciaility of the self-concept in terms of individual functioning (8, 11, 17, 23, 43, 50, 58, 69). Studies wherein group counseling has been beneficial in raising the self-concept of college students were reviewed (13, 15, 21, 29, 31, 42, 47, 48, 54, 59, 60, 61). Some of the research also revealed nonsignificance after group counseling (5, 19, 65, 68).

The last topic covered in the chapter was achievement motivation and group counseling. By way of preliminary introduction to the topic, a number of studies were cited as to the importance of achievement motivation (4, 24, 74). Then group counseling which was efficacious in raising the need to achieve was reviewed (27, 32, 48, 59), as well as one reported study which yielded nonsignificance (5).
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At one time or another, almost every educator has become interested in the goals of education. One of the goals of education is for the counselor and the teacher to nurture, draw forth, and enable the student to develop towards fruition his own particular capacities. This goal can never be reached unless educators and the student know what his capacities are. Any type of program which provides the opportunity for either the educator or the educated to become thus knowledgeable would be beneficial.

Subjects

The subjects used in this study were freshmen students of a small liberal arts college in southwest Ohio. The ages of the subjects ranged from eighteen to twenty-one years. Members of both sexes were included in the sample. On the first day of the 1969, fall, freshmen orientation week, ninety students registered for the group experience. The group sessions had been described on posters at various sign-in places for the new students. They were described as a series of group meetings which were designed to help students in their first quarter of college life. After registering for the group
sessions, the subjects were given the Tennessee Self-Concept Scale and the Edwards Personal Preference Schedule (EPPS). These instruments were given to obtain pretest scores on variables relating to self-concept and achievement motivation. Before administering the two instruments, it was explained that only sixty of the ninety students would be a part of the group experience during that quarter. It was explained that this was because of the availability of only one group leader. It was emphasized that the sixty who were selected would be done so on a random basis so that each of the ninety students would have an equal chance of being admitted into the group experience. It was further explained that the thirty students not selected through this process would have two options open to them: (1) They would have an opportunity later in the school year for participation in the same type of group experience; or (2) either during the second or third quarter of the school year, they would have the opportunity, as a group, of having their personality test scores explained and interpreted to them. These arrangements were satisfactory to the subjects, and all took the aforementioned personality inventories.

Utilizing a table of random numbers, the subjects were then divided into the experimental, placebo, and control groups. At the outset of the experiment, all groups which constituted the sample had thirty students. At the end of the quarter, because of nonattendance at group sessions and failure to take the posttests, the experimental
group consisted of twenty students. For similar reasons the placebo group had twenty-one students. Because of difficulty in getting the control group (those who were waiting for either the group experience or group interpretation of test scores) to complete their posttests through inter-campus mail, only twenty students turned in posttests. In order to make all the groups equal, one student—by means of a table of random numbers—was dropped from the placebo group. Thus, in terms of statistical treatment at the conclusion of the experiment, all groups had an equal number of twenty students.

Posttests on the above instruments were given to all groups just before the end of the fall quarter. These scores served as posttest measures on the self-concept and achievement motivation variables. Grade point averages for all group members were obtained from the registrar's office soon after the close of the 1969 fall quarter.

Instruments

Two instruments were utilized in this study: the Tennessee Self-Concept Scale for the variables relating to self-concept and the achievement subscale of the Edwards Personal Preference Schedule (EPPS) as a measure of achievement motivation.

The Tennessee Self-Concept Scale consists of 100 self-descriptive statements which the subject uses to portray his own picture of himself (7, p. 1). The scale is self-administering and can be used with
subjects age twelve or higher. In responding to the 100 statements, the subject puts a circle around one of the five possible responses which describes himself as he sees himself. The responses, in conjunction with each statement, are designated into categories labeled completely false, mostly false, partly false and partly true, mostly true, and completely true. The counseling form of this self-concept instrument, which was utilized in this study, yields five basic scores. These are (1) the self-criticism score (SC); (2) the positive scores of total P, identify, self-satisfaction, behavior, physical self, and social self; (3) variability scores (V); (4) a distribution score (D); and (5) a time score. In terms of this study the following scores of the scale, as described by the manual, were employed (7, pp. 2-3):

1. **The total P score** which reflects the overall level of self-esteem. Persons with high scores tend to like themselves, feel that they are persons of value and worth, have confidence in themselves, and act accordingly.

2. **The positive sub-scale score of self-satisfaction.** In general, this score reflects the level of self-satisfaction or self-acceptance.

3. **The positive sub-scale score of personal self.** This score reflects the individual's sense of personal worth, his feeling of adequacy as a person and his evaluation of his personality apart from his body or his relationship to others.

4. **The positive sub-scale score of social self.** This score reflects the person's sense of adequacy and worth in his social interaction with other people in general.
Fitts validates (7, pp. 17-31) his instrument by listing thirty studies in the areas of (1) content validity, (2) discrimination between groups, (3) correlation with other personality measures, and (4) personality changes under particular conditions. Crites (5) asserts that preliminary research on the instrument's psychometric characteristics indicates that it "measures up" by traditional criteria rather well. The device has demonstrated that it can measure change which has occurred as the result of group counseling (1, 16). Reviewing specific group studies where this instrument has been used, the research of Lamb (11) can be cited. His work dealt with determining the consequences of directive and client-centered group counseling as used with individuals demonstrating internal and external reward expectancies. One instrument which was used in defining these consequences was the Tennessee Self-Concept Scale. He found client-centered group counseling more effective than directive group counseling in facilitating positive self-concept change. Berryman (3) experimentally investigated the effect of group counseling upon the perception of visual images and self-concept. He also wanted to determine if there was a relationship between changes that occur in visual perception and self-concept. As a measure of self-concept, the Tennessee Self-Concept Scale was utilized. Group counseling did produce significant positive changes in visual perception. However, the hypothesis which predicted a significant correlation between a change in perception of visual images and
positive increases in self-concept was rejected. Test-retest reliability on the subscales ranges from .61 to .92. The total score test-retest reliability is .89 (19, p. 17). The standardization group from which the norms were developed was a broad sample of 636 people from all over the country of different ages and intellectual abilities. Since this scale has not as yet been listed in Buros' Mental Measurements Yearbook, no information on the scale could be obtained from this source.

The instrument used as a measure of achievement motivation was the subscale score of achievement on the Edwards Personal Preference Schedule (EPPS). This instrument was designed for counseling and research purposes. It was specifically intended to provide quick and convenient measures of a number of relatively independent normal personality variables (6, p. 5). These variables are fifteen in number, but only the achievement variable was utilized in this study. In the manual the following description is given of this variable (6, p. 11):

Achievement: To do one's best, to be successful, to accomplish tasks requiring skill and effort, to be a recognized authority, to accomplish something of great significance, to do a difficult job well, to solve difficult problems and puzzles, to be able to do things better than others, to write a great novel or play.

In consulting Buros on the validity of the EPPS, one conclusion that he has drawn is important to the nature of this study (4, p. 87):

A decade of research into the validity of the EPPS offers little justification for assuming that its scales measure the constructs that they are intended to reflect . . . with the important exception of the link between the achievement scale and academic achievement.
With respect to test-retest reliability of three weeks' duration, the ranges were from .55 to .87 with a median of .73 (4, p. 87). The report in Buros goes on to state that the achievement scale of the EPPS doesn't appear to correlate too well with two other need achievement measures based on the TAT--McClelland's and the French Test of Insight.

Several other fairly recent studies, however, are significant with respect to the achievement variable of the EPPS. Weiss, Wertheimer, and Groesbeck (20) reported a positive correlation between the EPPS achievement scale and the McClelland instrument which is based on the TAT. Their conclusions were that the two achievement motivation measures were correlated and may actually be indices of the same thing, although measuring it differently. In addition, a measure of ability in combination with a motivation measure appears to be a powerful predictor of academic performance. Bay (2), in evaluating several instruments designed to assess one's achievement motivation, concluded that the EPPS achievement scale was the most promising personality scale of those studied for predicting GPA. In two recent group studies (9, 10), group techniques were effective in significantly raising the need for achievement on the part of the treatment groups. In both instances achievement motivation was measured by the EPPS.

In relating the preceding instruments to this study, it was felt that group procedures would be beneficial and effective in bringing about
changes in self-concept (measured by the Tennessee Self-Concept Scale); a change in self-concept in the positive direction would effect a higher level of achievement motivation (measured by the achievement scale of the Edwards Personal Preference Schedule); and this raised achievement motivation would be further reflected in significant differences in GPA between the experimental and other two groups at the end of the fall quarter.

Procedures for Collection of Data

Procedure for the Experimental Group

There were thirty subjects in the experimental group. The total thirty subjects of the experimental group, for purposes of facilitating group dynamics, were further subdivided into two groups of fifteen each. In effect, the experimental group at the outset of the experiment consisted of two subgroups of fifteen each. As indicated in an earlier section of this chapter, the original thirty subjects of the experimental group were reduced to twenty at the conclusion of the group experience. Reasons for this reduction were noted.

The group sessions with both experimental subgroups began during the first week of the 1969 fall quarter. There was one session per week for each subgroup, and each session lasted approximately one hour and thirty minutes. Each subgroup determined the best time for that group to meet. One of the subgroups met on Monday evening at 6:00 p.m.,
and the other one met on Tuesday afternoon at 2:00 p.m. There were ten group sessions during the quarter. The author of this dissertation met with each subgroup and facilitated the group techniques.

The techniques used in conjunction with the experimental subgroups are known as achievement motivation systems (11). This is a program for developing human potential through specified group activities. This specific group of techniques was chosen for investigation because one of the common criticisms of much of group research is that the exact nature of the treatment process is not reported by the researchers (8, 18). The achievement motivation process focuses primarily on what the student has going for him—on his personal resources. In order to do this, the group sessions elicit individual discovery and immediate group reinforcement of the personal strengths, resources, and success experiences of each group participant. In carrying out the total group experience, the following outline was followed for each of the two experimental subgroups. The most crucial sessions were three through five and six through nine because in these sessions the major independent variables of this study were introduced.

Sessions 1-2.--These sessions were used to orient the subjects to the group sessions. Major topics of discussion centered around confidentiality of content discussed by the group and freedom to discuss any subject area. Also, general group procedures, as suggested by
Otto (14), were introduced by the group leader in an effort to get each member familiar with one another.

Sessions 3-5. --At the outset of the third session the technique of strength bombardment was introjected into the group sessions. Each subject in the total experimental group participated in this experience. In utilizing this technique, the methodology of McHolland and McInnis was followed somewhat literally (11). Each subject told the group what he felt his personal strengths were. When he had accomplished this, he then asked the group to respond by indicating what strengths they saw him as having. The group invariably responded with a further list of strengths, frequently longer than that offered by the subject himself. The subject then asked, "What do you see that is preventing me from using my strengths?" It was at this point that the group identified some of the individual's weaknesses, but in the highly positive context of the experience this was perceived and accepted as highly constructive in that it called attention to how strengths could be used more fully. Following the strength bombardment, the group members constructed a group fantasy for the person involved in which they imagined what he could be doing five or more years from that point if he were using his strengths. Finally, the subject was asked to relate to the group how he felt while undergoing the experience. This almost always elicited group involvement and interaction.
Sessions 6-9. --With session six the success bombardment technique began. Each subject in the total experimental group participated in this experience. Again, the methodology of McHolland McInnis was followed in carrying out this technique (11). The subject began by telling the group about the most successful experiences in his entire life. Following this, he told the group about three recent experiences which were unsuccessful. The group then analyzed the failures in the light of the success or achievement pattern revealed in the subject's discussion of his successes. The purpose of the success bombardment was three-fold: (1) to make the subject more conscious of his own personal success pattern, (2) to indicate whether his failures exhibit the nonapplication of his success pattern, and (3) to suggest areas of human experience in which the person apparently has not attempted achievement— in other words has not tapped into his own potential.

The goal setting experience which was used through sessions 3-9. -- The third major technique utilized was the goal setting experience, which was a weekly feature of each session for the total experimental group. At the close of each session, subjects were asked to set individual goals which were to be accomplished before the next meeting. This was meant to get the individual doing, rather than merely thinking about, what he wanted to do. Each goal was to be characterized by six criteria. It was to be conceivable, believable, achievable, measurable
(in accomplishment and time), stated with no alternatives, and something that the individual wanted to do. From time to time, various subjects reported to the group some of their experiences while attempting to reach their goals. Goal setting was limited to the immediate, present life of the subject, and its purpose was to help the subjects realize that they can have some control over what happens in their lives.

Session 10 - closure. - - Group members took posttests on the Tennessee Self-Concept Scale and Edwards Personal Preference Schedule. In addition, a written account was obtained from each group member pertaining to their subjective evaluation of the group experience.

Procedure for the Placebo Group

The major purpose of this study was to test the effectiveness of a specific set of motivational group techniques on selected personality and behavioral variables. A placebo group was included in the design to check the possibility that just the fact of students meeting together in an interactive social setting might account for positive changes, as well as the specific, planned, experimental group techniques. A placebo is a procedure that is similar to the specific, tested, experimental techniques but lacks the active, presumably therapeutic ingredients (17).

As was the case for the experimental group, after initial randomization, there were thirty subjects in the placebo group. They, too, were further subdivided into two groups of fifteen each. For reasons
indicated earlier in this chapter, the original thirty subjects of the placebo group were reduced to twenty at the conclusion of the experiment.

The group sessions with both placebo subgroups began during the first week of the 1969 fall quarter. There was one session per week for each subgroup, and each session lasted approximately one hour and thirty minutes. Each subgroup determined the best time for that group to meet. One of the subgroups met on Thursday evening at 6:00 p.m., and the other met on Tuesday afternoon at 3:00 p.m. There were ten group sessions during the quarter. The author of this dissertation met with each subgroup.

The following is an account of what was done in each session for both placebo subgroups.

**Session 1.** --The placebo subgroup were asked by the group leader to suggest ways in which the group could get to know one another. After some hesitation, it was suggested that the group have a brainstorming session on how to get acquainted. Some of the suggested ways were tried by the group.

**Session 2.** --In this session the "who am I?" technique was introduced by the group leader. Each group member wrote a paragraph account of some childhood experience. These accounts were then
collected by the group leader. As each account was read by the leader, the group participants tried to guess who the paragraph was describing.

**Session 3.** The film entitled, *Eye of the Beholder*, was shown. This film delved into the psychological area of perception. After viewing the film, the group leader facilitated discussion of it.

**Session 4.** At this session Albert Ellis' (15, pp. 110-112) eleven illogical ideas or values which cause neurosis in Western society were introduced. After the group leader read each one, opportunity was given for group discussion.

**Session 5.** At this session the leader walked in and asked, "OK, where would you like to start today?" After several suggestions by various group members, the group finally initiated a discussion involving the pros and cons of certain school rules.

**Session 6.** Peggy Lee’s record, *Is That All There Is?*, was played. The group was then asked what message the song was trying to get across.

**Session 7.** Three Rorschach cards were displayed before the group. Each group member was to write subjective responses to each card. Then each group member read his interpretations. The rest of
the group was allowed to comment on and discuss the interpretations with the person who had written them.

**Session 8.** --At this session the group leader walked in and said, "What would you like to talk about?" The discussion went in many directions from that point on.

**Session 9.** --The group leader walked into the room and didn't say anything. Finally the group became somewhat uncomfortable and wanted to know what they were supposed to do. Reasons for their anxiety in connection with the way the meeting was opened were then discussed.

**Session 10 - closure.** --Group members took posttests on the Tennessee Self-Concept Scale and Edwards Personal Preference Schedule. In addition, a written account was obtained from each group member pertaining to their subjective evaluation of the group experiences.

**Procedure for the Control Group**

While the experimental and placebo groups were meeting weekly, the control (no treatment) group of thirty students was engaged in normal college pursuits. Just before the close of the fall quarter, each of these subjects (through inter-campus mail) were sent copies of the Tennessee Self-Concept Scale and the Edwards Personal Preference Schedule. Since several of these students had dropped out of school and
because of the crowded schedule at this time in the school quarter, only twenty students returned tests. These returns constituted posttest measures for the control group.

Procedures for Analysis of Data

Since each of the three hypotheses involved three groups, analysis of variance was computed in an effort to determine significant differences and mean gains on the various variables of the hypotheses (13). If a significant F would have existed in connection with the hypotheses, Duncan’s new multiple range test would have been used to determine the groups involved. Statistical analysis was facilitated by a computer terminal at the college where this study was conducted.

Summary

The subjects used in this study were described. Names of the instruments used were given, as well as evidence of the appropriateness of the instruments for this study.

Procedures for collecting the data were discussed. This discussion included descriptions of how the total sample was secured; randomization into the experimental, placebo, and control groups; and the specific group procedures which transpired in the experimental and placebo groups.

The data were entered into the computer terminal located on the campus where this study was conducted. Using this terminal, all the
appropriate statistical treatments were applied. The appropriate tests of significance were made.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

ANALYSIS OF DATA

This study was designed to test the effectiveness of group techniques with college students upon selected personality and behavioral variables. In making a comprehensive review of past and current group counseling research with college students, a common deficiency was found in the area of defining the treatment process that was used. The present study defined and utilized planned, specific group techniques known as achievement motivation techniques. In testing these techniques a pretest-posttest control group design was used. Since the design of the experiment involved three groups (experimental, placebo, and control), the statistical technique of analysis of variance was selected to test the significance of outcome measures. The data were analyzed in terms of the six hypotheses stated in Chapter I. The .05 level of significance was accepted.

Hypothesis I

It was stated in Hypothesis I that at the end of the treatment period the experimental group would achieve a significantly higher grade point average than the control and placebo groups. As seen in Table I, this hypothesis was not upheld.
TABLE I

SUMMARY OF ANALYSIS OF VARIANCE OF GPA
FOR EXPERIMENTAL, PLACEBO,
AND CONTROL GROUPS

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>d. f.</th>
<th>Variance Estimate</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>1.3593</td>
<td>2</td>
<td>.679691</td>
<td>1.83*</td>
</tr>
<tr>
<td>Within</td>
<td>21.0853</td>
<td>57</td>
<td>.369918</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22.4446</td>
<td>59</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

*Not significant at .05 level.

Comparison of the F value in Table I with tabled values for significance at the 5 percent level revealed no significance in terms of mean grade point average at the end of the fall quarter. The planned, specific group procedures utilized in the experimental group were not effective in producing statistically significant higher grade point averages for that group than for the control and placebo groups.

Hypothesis II

Hypothesis II, which involved predictions pertaining to measures on the Tennessee Self-Concept Scale, was stated in the form of four corollary hypotheses. Each corollary will be viewed separately in terms of statistical significance or nonsignificance.
It was predicted in corollary A of Hypothesis II that on the counseling form of the Tennessee Self-Concept Scale, the experimental group would achieve significantly greater mean increases than the control and placebo groups on the Total P which reflects the overall level of self-esteem. Inspection of the $F$ value in Table II shows an $F$ value of 2.78, which falls short of the $F$ of 3.15 (16, p. 198) required for significance at the .05 level.

**TABLE II**

**SUMMARY OF ANALYSIS OF VARIANCE OF TOTAL P FOR EXPERIMENTAL, PLACEBO, AND CONTROL GROUPS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>d. f.</th>
<th>Variance Estimate</th>
<th>$F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>3653.43</td>
<td>2</td>
<td>1826.72</td>
<td>2.78*</td>
</tr>
<tr>
<td>Within</td>
<td>37422.90</td>
<td>57</td>
<td>656.54</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>41076.33</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant at .05 level.

Although not significant at the .05 level, this obtained $F$ value represents significance at the .10 level of significance (16, p. 198). This positive trend toward significance was manifested by the experimental group. As hypothesized, however, group counseling did not produce a statistically significant outcome for the experimental group.
It was hypothesized in corollary B of Hypothesis II that on the counseling form of the Tennessee Self-Concept Scale, the experimental group would achieve significantly greater mean increases than the control and placebo groups on the subscale of Self-Satisfaction. This hypothesis was not confirmed. Table III indicates an F value of only .54, a value which falls far short of significance.

**TABLE III**

**SUMMARY OF ANALYSIS OF VARIANCE OF SELF-SATISFACTION FOR EXPERIMENTAL, PLACEBO, AND CONTROL GROUPS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>d. f.</th>
<th>Variance Estimate</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>190,533</td>
<td>2</td>
<td>95.2667</td>
<td>.54*</td>
</tr>
<tr>
<td>Within</td>
<td>10149.200</td>
<td>57</td>
<td>178.0560</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10339.733</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Not significant at .05 level.

The treatment condition was ineffectual in producing significant differences between the groups.

Corollary C of Hypothesis II stated that on the counseling form of the Tennessee Self-Concept Scale, the experimental group would achieve significantly greater mean increases than the control and
placebo groups on the subscale of Personal Self. Table IV depicts statistical data for this hypothesis.

**TABLE IV**

**SUMMARY OF ANALYSIS OF VARIANCE OF PERSONAL SELF FOR EXPERIMENTAL, PLACEBO, AND CONTROL GROUPS**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>d. f.</th>
<th>Variance Estimate</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>160.533</td>
<td>2</td>
<td>80.2667</td>
<td>1.96*</td>
</tr>
<tr>
<td>Within</td>
<td>2329.800</td>
<td>57</td>
<td>40.8737</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2490.333</td>
<td>59</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

*Not significant at .05 level.

The data indicate that this prediction was not statistically confirmed.

It was hypothesized in corollary D of Hypothesis II that on the counseling form of the *Tennessee Self-Concept Scale*, the experimental group would achieve significantly greater mean increases than the control and placebo groups on the subscale of Social Self. Table V pictures the statistical data for this hypothesis. Inspection of the data shows that the obtained F value was not large enough to demonstrate any significant treatment effects.
TABLE V

SUMMARY OF ANALYSIS OF VARIANCE OF SOCIAL SELF FOR EXPERIMENTAL, PLACEBO, AND CONTROL GROUPS

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>d. f.</th>
<th>Variance Estimate</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>108.4</td>
<td>2</td>
<td>54.20</td>
<td>1.29*</td>
</tr>
<tr>
<td>Within</td>
<td>2398.2</td>
<td>57</td>
<td>42.07</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2506.6</td>
<td>59</td>
<td>. . .</td>
<td>.</td>
</tr>
</tbody>
</table>

*Not significant at .05 level.

Even though a slight positive trend was emerging for the experimental group, it must be concluded that group procedures produced no significant differences in mean gains on the Social Self variable among the three groups.

Hypothesis III

It was stated in Hypothesis III that on the Edwards Personal Preference Schedule subscale of Achievement, the experimental group, after treatment, would achieve a significantly greater mean increase than the control and placebo groups. In Table VI the results of the statistical analysis of this prediction are shown. The obtained F was not large enough, and the null hypothesis was accepted.
TABLE VI

SUMMARY OF ANALYSIS OF VARIANCE OF ACHIEVEMENT
FOR EXPERIMENTAL, PLACEBO, AND
CONTROL GROUPS

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>d. f.</th>
<th>Variance Estimate</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>35.2333</td>
<td>2</td>
<td>17.6167</td>
<td>1.47*</td>
</tr>
<tr>
<td>Within</td>
<td>682.1000</td>
<td>57</td>
<td>11.9667</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>717.3333</td>
<td>59</td>
<td>. . .</td>
<td>. .</td>
</tr>
</tbody>
</table>

*Not significant at .05 level.

Group methodology was not beneficial in terms of significantly raising the need to achieve for the experimental group.

Subjective Evaluation of the Group Experience
by the Experimental and Placebo Groups

At the last session each member in both the experimental and placebo groups was asked to write a subjective evaluation of the group experience. Of the forty students polled, only one reported that the group experience was a disappointment. Participants in the experimental group reported the following evaluations:

- "In the sessions I began to analyze and seriously consider myself as a person."
"... I was unable to achieve some of my goals, but I learned to get out of the realm of thinking into doing to accomplish something."

"The group meetings were a success to me in ... finding out others' reactions to various situations."

"I feel a set-up such as this would be very helpful for all college freshmen."

"The discussions helped ... release anxieties and form new impressions."

"It was profitable from the standpoint of the evaluation of oneself by others, and it helped as far as developing self-confidence."

"I did learn my strong and weak points from the viewpoint of others."

"We became acquainted with peers in the same predicaments as ours."

"We shared our problems and offered solutions which helped me a lot in being at ease in a new environment."

"... It helped us to understand other people and ourselves."

"I found out what others think of me on first impression and later on."

"The main strong point of the group for me was that it began a search for me in terms of self-identity."
"It served as a tension release."

"I feel the group was profitable because I heard open opinions which were needed in my college experience."

"I feel that because of this group I have become a little more sure of myself in some phases of my life."

"This group revealed to me more of what I am but also more of what I can be if I put forth effort."

"It has shown me ways to accomplish my goals, as well as the importance of setting goals."

Participants in the placebo group reported the following evaluations:

"I enjoyed it a lot, and I think that what I really liked was when we just talked and found out things about each other."

"My capacity for self-analysis and analysis of others and things was renewed or revitalized through our activities in the group . . ."

"It was good in that we were able to talk about things that were 'today' and not having to worry if it was right or wrong."

"This whole experience showed me that deep down inside we are essentially the same. With this understanding, one finds it easier to communicate with his peers."
"On the whole, most of the sessions provided food for thought after I left... I hope that you provide this opportunity for students next year."

"I enjoyed sharing my viewpoints on different subjects."

"Just talking in an informal manner about our individual interests helped to get to know each other better."

"I think getting to know the other kids and just talking was beneficial."

"I found the free thinking quite profitable."

"The informal atmosphere, I believe, was the high point of the sessions."

"...A good idea for beginning freshmen. It helped me feel more at ease in college from the start."

"I found out how others see me..."

"It was something everyone enjoyed coming to."

"I've learned the excitement of really getting to know interesting people."

"It was very satisfying to know that one hour was set aside each week to meet with a small group of friendly people with whom we could talk and feel at ease."

"It was worth an hour a week of my time."

"It's reassuring to have to go to something besides classes."
Discussion of Results

Analysis of the data failed to yield any statistically meaningful results. It would appear that group methodology was ineffective in terms of the tested variables of this study. However, some positive trends emerged. In view of these findings, each of three major hypotheses will be discussed; and an effort will be made to put forth reasons for the statistical results. Reviewing previous research on group procedures with college students, several points are worthy of introducing which might account for the obtained results of the present study.

Focusing attention upon Hypothesis I, Table VII indicates the Mean grade point averages for the three groups following treatment. There were no significant differences among the means of the three groups.

**TABLE VII**

RAW SCORE DATA FOR GPA FOR EXPERIMENTAL, PLACEBO, AND CONTROL GROUPS

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>2.38</td>
<td>.47</td>
</tr>
<tr>
<td>(N=20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placebo</td>
<td>2.71</td>
<td>.56</td>
</tr>
<tr>
<td>(N=20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>2.69</td>
<td>.74</td>
</tr>
<tr>
<td>(N=20)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In a statistical sense, this study seems to justify Semke's conclusion that short-term group counseling is ineffective in producing improved academic performance (23). In relating length of treatment to this study, the findings of Gazda and Larsen may be appropriate (8, p. 60). Upon appraising 100 studies in group counseling, they found that treatment consisted, on the average, of seventeen group counseling sessions of one hour each week over approximately seventeen weeks. This average, however, is somewhat deceiving in view of the extensive range pertaining to duration of treatment in the studies that were surveyed. The authors summarize by saying (8, p. 60),

... the range was extensive: two sessions of behavioral-type group counseling to one year of group counseling of three-to-five sessions per week represent the range or "intensiveness" of the treatment. One study reported sixty sessions over a period of two years and another fifty sessions over a period of nine months. These represent the most intensive treatment and long-term studies.

The present study was designed with ten sessions being the treatment duration because it was felt that the specific, planned experimental techniques would be effectual in and of themselves regardless of a specific time component. In terms of research on group methodology, length of treatment is still a theoretical issue and has not been settled by empirical data.

As another check on the effectiveness of the experimental techniques utilized in this study on GPA, a suggestion by Ofman (20) was partially carried out. He suggests that the grade point averages
earned during the semester in which the students are members of the experimental group may not be sufficient criteria on which to judge the effectiveness of the treatment utilized. He recommends a measure of grade point average which is taken over the total undergraduate stay. This suggestion could not be used in its entirety, but a grade point average measurement was taken for each group at the end of the 1970 spring quarter. The results can be seen in Table VIII.

**TABLE VIII**

**SUMMARY OF ANALYSIS OF VARIANCE OF GPA FOR EXPERIMENTAL, PLACEBO, AND CONTROL GROUPS AT END OF THE SPRING QUARTER**

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>d. f.</th>
<th>Variance Estimate</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>.1850</td>
<td>2</td>
<td>9.2540</td>
<td>.213*</td>
</tr>
<tr>
<td>Within</td>
<td>24.7939</td>
<td>57</td>
<td>.4349</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24.9789</td>
<td>59</td>
<td>. . . .</td>
<td>.</td>
</tr>
</tbody>
</table>

*Not significant at .05 level.

There were no significant differences between the means of the three groups on grade point average two quarters after termination of the group sessions.

Another factor which possibly contributes to the nonsignificant results for the grade point variable pertains to client selection. In most studies where group counseling has been used in connection with
grade point average, groups were assembled according to the common problem of low academic achievement (1, p. 210). In studies of this type, conceivably it is not as difficult to bring about improvement. When offering group counseling to an unknown mixed group, it is likely not to produce a significant average gain in grade point average since gains by some subjects are cancelled by losses of others (13, p. 244). The groups for the present study were not selected on the basis of known academic deficiencies. Group counseling involved volunteer freshman students whose academic achievement was not a factor in initial subject selection. Still, grade point average was selected as a criterion outcome measure in this study. This was done to experimentally test the hypothesis that self-concept is an important nonintellectual factor in academic achievement. Some of the determinative variables tested were in the realm of self-concept. The thinking was that if self-concept changes could be effected in a so-called "normal" (not academically deficient) college sample, this change would be reflected in a higher grade point average for the experimental group.

Other factors related to nonsignificance in the area of grade point average may be related to the group size utilized, intensity of treatment, quality of treatment, and instruments of evaluation (8, pp. 64-65). As yet, group theory has not yielded concrete principles for
guidance in the above areas. Andersen makes the statement that (1, p. 209):

Despite the masses of data being collected and analyzed, most studies are relatively unrelated, small-scale efforts which provide only the accumulation of bits of evidence. There is still no body of theoretically related knowledge on which the practice of group counseling can be solidly grounded.

In discussing statistical results for Hypothesis II—which is composed of four corollary hypotheses—and Hypothesis III, Table IX is used as a reference point.

TABLE IX

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean Gain (N=20)</th>
<th>Mean Gain (N=20)</th>
<th>Mean Gain (N=20)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Experimental</td>
<td>Placebo</td>
<td>Control</td>
</tr>
<tr>
<td></td>
<td>Group</td>
<td>Group</td>
<td>Group</td>
</tr>
<tr>
<td>Total P</td>
<td>10.70 26.58</td>
<td>-2.25 20.77</td>
<td>-7.95 28.83</td>
</tr>
<tr>
<td>Self-Satisfaction</td>
<td>3.30 12.54</td>
<td>.50 11.47</td>
<td>-1.00 15.65</td>
</tr>
<tr>
<td>Personal Self</td>
<td>1.90 6.74</td>
<td>2.70 6.95</td>
<td>-1.10 5.36</td>
</tr>
<tr>
<td>Social Self</td>
<td>2.20 6.55</td>
<td>-.70 6.60</td>
<td>-.60 6.29</td>
</tr>
<tr>
<td>Achievement</td>
<td>.75 4.11</td>
<td>-.85 2.53</td>
<td>-.90 3.53</td>
</tr>
</tbody>
</table>

Relating Table IX to Hypothesis II, it can be seen that there are some positive trends for the experimental group. Although the mean
gains were not statistically significant, they were gains in the hypothesized direction. This pattern can be seen in the variables of Total P, Self-Satisfaction and Social Self. The exception is the variable of Personal Self, where the placebo group made more of a gain than either the experimental or control groups. Another factor of possible significance in this connection is that on all of the variables represented in Table IX, the control group had negative scores in terms of outcomes. This no-treatment group showed no positive trends on post tests as indicated by the measuring instruments utilized.

Since positive trends were beginning to emerge for the experimental group, more sessions might have revealed significance for the experimental group on post tests. This is especially true of the Total P score. On this variable the experimental group almost produced a mean gain which was significant at the .05 level. It was significant at the .10 level.

Another factor to consider at this juncture is the possible effects on outcome measures of the ten drop-out students from the experimental group. Table X shows comparative means of the subjects who remained in the group sessions with those who dropped out. The table compares the two groups on all pretest variables which were used in the study and also on grade point average, a measure obtained for both groups at the end of the treatment period.
TABLE X

COMPARISON OF MEANS AND STANDARD DEVIATIONS FOR DROP-OUT STUDENTS AND THOSE WHO REMAINED IN THE EXPERIMENTAL GROUP SESSIONS ON THE VARIABLES OF TOTAL P, SELF-SATISFACTION, PERSONAL SELF, SOCIAL SELF, ACHIEVEMENT AND GPA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Drop Outs from the Experimental Group (N=10)</th>
<th>Remainders in the Experimental Group (N=20)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total P</td>
<td>314.90</td>
<td>327.55</td>
<td>-1.37</td>
</tr>
<tr>
<td>Self-Satisfaction</td>
<td>94.90</td>
<td>96.65</td>
<td>-0.35</td>
</tr>
<tr>
<td>Personal Self</td>
<td>57.00</td>
<td>59.20</td>
<td>-0.84</td>
</tr>
<tr>
<td>Social Self</td>
<td>59.60</td>
<td>65.40</td>
<td>-2.57**</td>
</tr>
<tr>
<td>Achievement</td>
<td>13.50</td>
<td>14.00</td>
<td>-0.40</td>
</tr>
<tr>
<td>GPA</td>
<td>2.38</td>
<td>2.38</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Significant at .02 level.

The drop-out subjects differed significantly on one variable from those who remained in the group sessions. This difference was on the variable of social self and was significant at the .02 level. This finding is in agreement with that of Frey and Becker (7) who found drop-out subjects less sociable than a group of nonvolunteer subjects. It can be conjectured that the experimental group in this study might not have produced a significant difference on this variable between themselves.
and the other two groups because the ones needing improvement most in this area dropped out of the experimental group.

The nonsignificant results of the experimental group may be analyzed from yet another perspective. Perhaps the Tennessee Self-Concept Scale is not sensitive enough as an instrument to show all changes in an affective area such as self-concept. Several sources lend credence to this as a possible consideration. Carl Rogers (12) suggests that perhaps we should call a moratorium on "rigid scientific research" in the behavioral sciences and go back and do much more naturalistic observation to understand people, behavior, and dynamics. The Cohn report (4) also recommends the use of "clinical judgments" in the evaluation of outcome research. If one were to accept the foregoing suggestions even as possible criteria of research outcomes, the present study appears significant in that all members of the experimental group reported the experience as being helpful. This was brought out by the subjective evaluation obtained in session ten. McHolland and McInnis, who have used achievement motivation seminars at Kendall College, Evanston, Illinois, feel that present indices of measurement are not adequate to measure the changes that take place in the seminars (17).

In an effort to determine differences in the subjective evaluations of the experimental and placebo groups, the following procedure was utilized. Each of the seventeen evaluations from both groups were
analyzed in terms of Corsini and Rosenberg's (5, p. 39) three broad determinants of individual growth in group settings. In taxonomic form, these determinants are summarized as follows:

I. EMOTIONAL FACTORS

A. Acceptance - "Friendly environment, support, communal feeling."

B. Altruism - "Implies helping the other person."

C. Transference - "Liking, mutual attraction, sympathy."

II. COGNITIVE FACTORS

A. Spectator Therapy - "Watching and listening to the example of others."

B. Universalization - "Others have similar problems."

C. Intellectualization - "Re-evaluation of concepts."

III. ACTIONAL FACTORS

A. Reality Testing - "Practice in being a new and desired self in a safe social field."

B. Ventilation - "Emotional release, release of unconscious and repressed drives and material."

C. Interaction - "Relationships, contagion, interstimulation."

The seventeen statements for each group were extracted from the subjective written evaluations obtained in session ten. The criterion for inclusion of a subjective statement in the analysis involved instances
where the group participants gave definite value judgments or de-
finitive conclusions on the group sessions.

In the experimental group, none of the evaluations were viewed as
EMOTIONAL. For the placebo group, analysis indicated the following
EMOTIONAL evaluations:

- "This whole experience showed me that deep down inside we
  are essentially the same. With this understanding, one finds
  it easier to communicate with his peers."
- "I enjoyed sharing my viewpoints on different subjects."
- "Just talking in an informal manner about our individual in-
  terests helped to get to know each other better."
- "I think getting to know the other kids and just talking was
  beneficial."
- "The informal atmosphere, I believe, was the high point of
  the sessions."
- "It was very satisfying to know that one hour was set aside
  each week to meet with a small group of friendly people with
  whom we could talk and feel at ease."

Viewing the evaluations of the experimental group from the COG-
NITIVE aspect, the following statements stand out:

- "I feel a set-up such as this would be very helpful for all
  college freshmen."
- "We became acquainted with peers in the same predicaments as ours."
- "... It helped us to understand other people and ourselves."  
- "I feel the group was profitable because I heard open opinions which were needed in my college experience."
- It has shown me ways to accomplish my goals, as well as the importance of setting goals."

COGNITIVE evaluations for the placebo group were:
- "I enjoyed it a lot, and I think what I really liked was when we just talked and found out things about each other."
- "It was good i.; that we were able to talk about things that were 'today' and not having to worry if it was right or wrong."
- "On the whole, most of the sessions provided food for thought after I left... I hope you provide this opportunity for students next year."
- "I found the free thinking quite profitable."
- "... A good idea for beginning freshmen. It helped me feel more at ease in college from the start."
- "I found out how others see me."
- "It was something everyone enjoyed coming to."
- "It was worth an hour a week of my time."
- "It was reassuring to have something to go to besides classes."
For the remaining dimension of ACTIONAL, the following statements were given by the experimental group:

- "In the sessions I began to analyze and seriously consider myself as a person."

- "... I was unable to achieve some of my goals, but I learned to get out of the realm of thinking into doing to accomplish something."

- "The group meetings were a success to me in ... finding out others' reactions to various situations."

- "The discussions helped ... release anxieties and form new impressions."

- "It was profitable from the standpoint of the evaluation of oneself by others, and it helped as far as developing self-confidence."

- "I did learn my strong and weak points from the viewpoint of others."

- "We shared our problems and offered solutions which helped me a lot in being at ease in a new environment."

- "I found out what others think of me on first impressions and later on."

- "The main strong point of the group for me was that it began a search for me in terms of self-identify."
"It served as a tension release."

"I feel that because of this group I have become a little more sure of myself in some phases of my life."

"This group revealed to me more of what I am but also more of what I can be if I put forth effort."

The placebo group's ACTIONAL statements were:

"My capacity for self-analysis and analysis of others and things was renewed or revitalized through our activities in the group..."

"I've learned the excitement of really getting to know interesting people."

Summarizing the statements of both groups, the following conclusions appear to be valid. The placebo group had six statements classified as EMOTIONAL, whereas the experimental group had none that were so judged. It might be inferred that in the placebo group, where the sessions were not rigidly structured by the group leader, the participants relied more on one another to initiate and maintain the group process. This can be seen in their EMOTIONAL evaluations, which are indicative of group acceptance, fuller understanding of the circumstances of others, communal feeling, liking, sympathy, and mutual attraction. Relating this subjective analysis to the Social Self variable (social interaction) of this study, it appears that the placebo group was more effective in bringing this about. It must be emphasized,
however, that in a statistical sense, no significant differences appeared after treatment between the two groups on this variable.

In the COGNITIVE area, the experimental group was judged to report five COGNITIVE statements, whereas the placebo group reported nine. From this it might be inferred that the loosely-structured group was more effective in bringing to the fore such beneficial factors as realizing that others have similar problems, re-evaluation of concepts, and an opportunity to develop and integrate new ideas concerning one's immediate world. Analysis of the subjective statements in the area of the COGNITIVE seems to indicate a relationship of these factors to the Social Self variable of this study. In analyzing the subjective statements, it appears as though the somewhat unstructured placebo group activities were more beneficial in fostering personal feelings which are related to the Social Self variable of this study.

Examining the statements of the two groups in terms of ACTIONAL factors, the experimental group was judged to report twelve such statements and the placebo group two. The ACTIONAL factors involve concepts such as experiencing oneself totally, practice in being a new and desired self in a safe social field, emotional release, and inter-stimulation. In this area it might be said that the structured, planned activities of the experimental group were more productive than those of the placebo group. Reviewing the factors which are judged by Corsini and Rosenberg as being ACTIONAL, there seems to be a relationship
between these and the Self-Esteem (Total P), Self-Satisfaction (self-acceptance), and Personal Self (personal worth) variables of this study. By way of analysis of the subjective statements, it may be said that the experimental group techniques were effective. Again, it must be pointed out that no significant statistical differences were found between the two groups on the above variables.

Based on Carl Rogers' previously mentioned naturalistic observation or clinical judgment evaluation of outcome research, it can be guardedly said that the experimental procedures of this study were effective in bringing about constructive changes in the areas of Self-Esteem, Self-Satisfaction, and Personal Self.

Shifting attention to Hypothesis III, Table IX shows a slight positive trend in mean gain on the achievement variable in favor of the experimental group. This gain in the predicted direction does not even approach statistical significance. The most obvious interpretation of this finding is that achievement motivation group techniques were not effective in raising students' need to achieve.

Several conjectures can be discussed, however, in this connection. The finding might be related to inadequate instrumentation. The assessment of the concept of achievement motivation by any instrument is difficult in terms of present psychological knowledge pertaining to this variable (21, pp. 385-388). Even if increases in need to achieve...
are produced by group procedures, present instruments may not be adequa
to indicate the change.

Duration of treatment may also be pertinent. Gazda and Ohlsen's group counseling was effective in significantly raising the subjects' need to achieve (9). This increase was measured by the Edwards Personal Preference Schedule. Their study differed from the present study in that the treatment period was longer. Their treatment involved fourteen sessions whereas the present study utilized ten. If treatment had been longer, the need to achieve might have increased; and the EPPS possibly would have indicated this increase.

In a further effort to account for the results of this study, the personality patterns of volunteer subjects and the possible effect of these patterns on research outcomes were investigated. In order to carry out this investigation, the pretest scores of Total P, Self-Satisfaction, Personal Self, and Social Self for the experimental group were utilized. These scores came from one of the measuring instruments used in this study--the Tennessee Self-Concept Scale. All fifteen variables of the Edwards Personal Preference Schedule were used even though only the variable of achievement was considered in the study. Again, it was the pretest scores for the experimental group that were utilized.

As for self-concept measures, Table XI depicts the pretest scores of the ten males and females of the experimental group on these variables.
TABLE XI

COMPARISON OF PRETEST MEANS AND STANDARD DEVIATIONS OF THE MALE AND FEMALE VOLUNTEER EXPERIMENTAL POPULATION WHO REMAINED IN THE GROUP SESSIONS ON THE VARIABLES OF TOTAL P, SELF-SATISFACTION, PERSONAL SELF, AND SOCIAL SELF

<table>
<thead>
<tr>
<th>Variable</th>
<th>Men (N=10)</th>
<th>Women (N=10)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\bar{x}$</td>
<td>SD</td>
<td>$\bar{x}$</td>
</tr>
<tr>
<td>Total P</td>
<td>331.00</td>
<td>25.92</td>
<td>324.10</td>
</tr>
<tr>
<td>Self-Satisfaction</td>
<td>96.70</td>
<td>12.68</td>
<td>96.60</td>
</tr>
<tr>
<td>Personal Self</td>
<td>62.30</td>
<td>5.10</td>
<td>56.10</td>
</tr>
<tr>
<td>Social Self</td>
<td>66.30</td>
<td>5.85</td>
<td>64.50</td>
</tr>
</tbody>
</table>

*Not significant at .05 level.

As can be seen, there were no statistically significant mean sex differences within the experimental group with reference to self-concept pretest scores.

Table XII pictures pretest scores on the self-concept variables for experimental males and females as compared to the norm group. The table shows that the females of the experimental group differed significantly from the norm group of the Tennessee Self-Concept Scale on the Personal Self variable.
TABLE XII


<table>
<thead>
<tr>
<th>Variable</th>
<th>Norm Group</th>
<th>Exp. Group Men</th>
<th>Exp. Group Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N=626)</td>
<td>(N=10)</td>
<td>(N=10)</td>
</tr>
<tr>
<td>X</td>
<td>SD</td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>Total P</td>
<td>345.57</td>
<td>331.00</td>
<td>324.10</td>
</tr>
<tr>
<td>Self-Satisfaction</td>
<td>103.67</td>
<td>96.70</td>
<td>96.60</td>
</tr>
<tr>
<td>Personal Self</td>
<td>64.55</td>
<td>62.30</td>
<td>56.10</td>
</tr>
<tr>
<td>Social Self</td>
<td>68.14</td>
<td>66.30</td>
<td>64.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at .02 level.

The significant difference on the Personal Self variable possibly can be related to the present study by considering Thelen and Harris' finding (24, p. 564). They found that self-concept was positively correlated with improvement in grade point average following group psychotherapy. The female members of the experimental group had a low sense of personal worth (Personal Self) at the beginning of the group sessions. Evidently, the group experimental techniques were not useful in significantly changing this self view. Therefore, no
significant mean gain was shown by the experimental group on this variable. Possibly, this could have contributed to the nonsignificance of the experimental group's grade point average as compared to the placebo and control groups' following experimental treatment.

Considering pretest scores on the Edwards Personal Preference Schedule, the analysis proceeded as follows. Initially, any mean sex differences within the experimental group and their implications for the present study were explored. Following this, the scores of the male and female subjects of the experimental group were compared with the Edwards' male and female college sample norm group scores on the fifteen variables. Again, significant differences between the groups were discussed in relationship to the present study. Finally, the pretest scores of the total volunteer experimental group were compared to the college sample norm group of the Edwards Personal Preference Schedule. This type of analysis did show significant differences on some of the variables between the experimental and norm group. The possible effects of these differences on the outcomes of the present study were then discussed.

Table XIII shows male and female pretest mean scores on the fifteen variables for the experimental group. Only on the variable of exhibition was there a significant difference in mean scores between the male and female members of the group.
TABLE XIII

COMPARISON OF PRETEST MEANS AND STANDARD DEVIATIONS
OF THE MALE AND FEMALE VOLUNTEER EXPERIMENTAL
POPULATION WHO REMAINED IN THE GROUP
SESSIONS ON THE EDWARDS PERSONAL
PREFERENCE SCHEDULE
VARIABLES

<table>
<thead>
<tr>
<th>Variable</th>
<th>Men (N=10)</th>
<th>Women (N=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>Achievement</td>
<td>14.50</td>
<td>1.72</td>
</tr>
<tr>
<td>Deference</td>
<td>12.20</td>
<td>4.66</td>
</tr>
<tr>
<td>Order</td>
<td>8.80</td>
<td>4.98</td>
</tr>
<tr>
<td>Exhibition</td>
<td>17.40</td>
<td>2.55</td>
</tr>
<tr>
<td>Autonomy</td>
<td>10.90</td>
<td>3.81</td>
</tr>
<tr>
<td>Affiliation</td>
<td>16.80</td>
<td>3.22</td>
</tr>
<tr>
<td>Intraception</td>
<td>17.70</td>
<td>6.06</td>
</tr>
<tr>
<td>Succorance</td>
<td>14.40</td>
<td>5.72</td>
</tr>
<tr>
<td>Dominance</td>
<td>13.70</td>
<td>5.38</td>
</tr>
<tr>
<td>Abasement</td>
<td>15.60</td>
<td>3.60</td>
</tr>
<tr>
<td>Nurturance</td>
<td>17.90</td>
<td>5.30</td>
</tr>
<tr>
<td>Change</td>
<td>13.20</td>
<td>4.64</td>
</tr>
<tr>
<td>Endurance</td>
<td>13.40</td>
<td>4.67</td>
</tr>
<tr>
<td>Heterosexuality</td>
<td>12.10</td>
<td>5.04</td>
</tr>
<tr>
<td>Aggression</td>
<td>11.60</td>
<td>4.81</td>
</tr>
</tbody>
</table>

**Significant at .02 level.

The implications of the experimental males' high need for ex-
hibition will be discussed in the forthcoming comparison of their scores
and the Edwards' male normative scores.

Table XIV will be used as a reference point in examining the male
and female scores of the experimental group as compared with the
Edwards' male and female college sample norm group scores.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Norm Males (N=760)</th>
<th>Exp. Males (N=10)</th>
<th>Norm Females (N=749)</th>
<th>Exp. Females (N=10)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>15.66 4.13</td>
<td>14.50 1.72</td>
<td>13.08 4.36</td>
<td>13.50 3.34</td>
<td>-.40</td>
</tr>
<tr>
<td>Deference</td>
<td>11.21 3.59</td>
<td>12.20 4.66</td>
<td>12.40 3.71</td>
<td>11.80 3.91</td>
<td>.49</td>
</tr>
<tr>
<td>Order</td>
<td>10.23 4.31</td>
<td>8.80 4.98</td>
<td>10.24 4.34</td>
<td>10.50 3.89</td>
<td>-.21</td>
</tr>
<tr>
<td>Exhibition</td>
<td>14.40 3.53</td>
<td>17.40 2.55</td>
<td>14.28 3.59</td>
<td>12.90 4.36</td>
<td>1.00</td>
</tr>
<tr>
<td>Autonomy</td>
<td>14.64 4.45</td>
<td>10.90 3.81</td>
<td>12.29 4.53</td>
<td>12.10 2.28</td>
<td>.26</td>
</tr>
<tr>
<td>Affiliation</td>
<td>15.00 4.32</td>
<td>16.80 3.22</td>
<td>17.40 4.36</td>
<td>17.10 3.21</td>
<td>.30</td>
</tr>
<tr>
<td>Intraception</td>
<td>16.12 5.23</td>
<td>17.70 6.06</td>
<td>17.32 5.01</td>
<td>18.10 5.02</td>
<td>-.49</td>
</tr>
<tr>
<td>Succorance</td>
<td>10.74 4.70</td>
<td>14.40 5.72</td>
<td>12.53 4.65</td>
<td>14.90 4.31</td>
<td>-1.74</td>
</tr>
<tr>
<td>Dominance</td>
<td>17.44 4.88</td>
<td>13.70 5.38</td>
<td>14.18 5.01</td>
<td>10.20 4.16</td>
<td>3.03**</td>
</tr>
<tr>
<td>Abasement</td>
<td>12.24 4.93</td>
<td>15.60 3.60</td>
<td>15.11 5.14</td>
<td>18.20 3.91</td>
<td>-2.50**</td>
</tr>
<tr>
<td>Nurturance</td>
<td>14.04 4.80</td>
<td>17.90 5.30</td>
<td>16.42 4.76</td>
<td>17.20 3.33</td>
<td>-.74</td>
</tr>
<tr>
<td>Change</td>
<td>15.51 4.74</td>
<td>13.20 4.64</td>
<td>17.20 4.88</td>
<td>17.20 3.94</td>
<td>.00</td>
</tr>
<tr>
<td>Endurance</td>
<td>12.66 5.30</td>
<td>13.40 4.67</td>
<td>12.63 5.25</td>
<td>15.40 5.56</td>
<td>-1.57</td>
</tr>
<tr>
<td>Heterosexuality</td>
<td>17.65 5.48</td>
<td>12.10 5.04</td>
<td>14.34 5.68</td>
<td>9.80 4.18</td>
<td>3.43**</td>
</tr>
<tr>
<td>Aggression</td>
<td>12.79 4.59</td>
<td>11.60 4.81</td>
<td>10.59 4.73</td>
<td>10.80 3.55</td>
<td>-.19</td>
</tr>
</tbody>
</table>

*Significant at .05 level.
**Significant at .02 level.
***Significant at .01 level.
For the males, significantly different mean scores can be seen on the variables of exhibition, autonomy, abasement, nurturance, and heterosexuality.

On the variable of exhibition, the experimental group's mean score was significantly different from the norm group mean score at the .01 level. No research data were found which might have shed light on the relationship between the need for exhibition by the experimental group and the outcomes of this study. It might be hypothesized, however, that the males of the experimental group, in light of the high need for exhibition, used the experimental techniques of strength bombardment and success bombardment as attention-seeking devices. Utilized in this narrow, egotistical way, the experimental techniques became ineffective in producing any beneficial changes for the experimental males participating in the study. This ineffectiveness possibly was reflected in the total experimental groups' scores on the dependent variables of the study.

On the variable of autonomy the experimental males had significantly different lower mean scores than the male norm group. Gordon (11, p. 11) reports similar significant lower mean differences on this variable between male volunteers and the Edwards' male norm sample in an experiment which he conducted. A low score on autonomy by the male experimental population could be construed as a form of a dependency motivational system, the behavioral manifestations of
which are help seeking, attention seeking, and approval seeking.

Bernardin and Jessor (3, p. 63) viewed low autonomy scores in this fashion and found that in problem-solving situations where assistance is available, the dependent person will ask help of others more often than the independent person. In the present study, the experimental males might have perceived the experimental techniques of strength bombardment and success bombardment as reinforcing their low motivational need for autonomy (dependency). This was reflected in the nonsignificant outcome measures for the total experimental group. This would appear to be especially relevant to the experimental variable of achievement.

The experimental males also had significantly different mean scores on the variable of nurturance. Gebhart and Hoyt (10) found that high scores on nurturance were characteristic of underachieving freshmen men. Considering these findings, in the present study the experimental males possibly could be viewed as a group of underachievers. The experimental techniques were not beneficial in effecting changes in the area of nurturance, and the experimental males remained underachievers. The nonsignificant grade point averages among the three groups at the end of the treatment period might confirm this kind of interpretation.

On the variables of abasement and heterosexuality, the experimental males show significant mean differences as compared to the Edwards' norm group males. On the variable of abasement, the
experimental males reveal strong needs for punishment and acceptance of blame for wrong doing. This need can be related to the experimental variables of Self-Esteem, Self-Satisfaction, and Personal Self. Evidently, the experimental techniques were not therapeutic enough to change these pre-experimental needs. Again, this can be seen on the outcome measures of the dependent variables of this study for the total experimental group. The same type of conjecture may be applied to the variable of heterosexuality. The experimental males were significantly lower on this need than the norm group males. This finding conceivably could have affected outcome measures in the area of Social Self.

The females of the experimental and norm groups also show significant mean differences on certain of the Edwards' variables. In comparison to the norm group, the females of the experimental group had a low need for dominance. Two studies (15, 19) have shown that for females academic achievement is correlated positively with dominance. Since the experimental group females were low on this variable, this could have accounted for the total experimental group's nonsignificant grade point average as compared to the other two groups of the study. On the variables of abasement and heterosexuality, the females of the experimental group show the same pattern as the male experimental group. The experimental females evidenced a greater need for abasement than the norm group and less need for heterosexuality. As pointed
out for similar male scores on these variables, the experimental outcome measures on the self variables could have been affected by these pretreatment needs of the female experimental group.

Table XV shows the pretest scores of the total experimental group compared to the Edwards' college sample norm group.

### Table XV

**Pretest Means and Standard Deviations for the Volunteer Experimental Population Who Remained in the Group Sessions Compared with the Edwards College Sample Norm Group**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Edwards Norm Group (N=1509)</th>
<th>Volunteer Experimental Group (N=20)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
<td>X</td>
</tr>
<tr>
<td>Achievement</td>
<td>14.38</td>
<td>4.36</td>
<td>14.00</td>
</tr>
<tr>
<td>Deference</td>
<td>11.80</td>
<td>3.71</td>
<td>12.00</td>
</tr>
<tr>
<td>Order</td>
<td>10.24</td>
<td>4.34</td>
<td>9.65</td>
</tr>
<tr>
<td>Exhibition</td>
<td>14.34</td>
<td>3.59</td>
<td>15.15</td>
</tr>
<tr>
<td>Autonomy</td>
<td>13.31</td>
<td>4.53</td>
<td>11.50</td>
</tr>
<tr>
<td>Affiliation</td>
<td>16.19</td>
<td>4.36</td>
<td>16.95</td>
</tr>
<tr>
<td>Intraception</td>
<td>16.72</td>
<td>5.01</td>
<td>17.90</td>
</tr>
<tr>
<td>Succorance</td>
<td>11.63</td>
<td>4.65</td>
<td>14.65</td>
</tr>
<tr>
<td>Dominance</td>
<td>15.83</td>
<td>5.02</td>
<td>11.95</td>
</tr>
<tr>
<td>Abasement</td>
<td>13.66</td>
<td>5.14</td>
<td>16.90</td>
</tr>
<tr>
<td>Nurturance</td>
<td>15.22</td>
<td>4.76</td>
<td>17.55</td>
</tr>
<tr>
<td>Change</td>
<td>16.35</td>
<td>4.88</td>
<td>15.20</td>
</tr>
<tr>
<td>Endurance</td>
<td>12.65</td>
<td>5.25</td>
<td>14.40</td>
</tr>
<tr>
<td>Heterosexuality</td>
<td>16.01</td>
<td>5.68</td>
<td>10.95</td>
</tr>
<tr>
<td>Aggression</td>
<td>11.70</td>
<td>4.73</td>
<td>11.20</td>
</tr>
</tbody>
</table>

^Significant at .05 level.  
**Significant at .02 level.  
***Significant at .01 level.
Overall, it can be seen that there were significant differences between the two groups on the variables of autonomy, succorance, dominance, abasement, nurturance, and heterosexuality.

On the autonomy variable, the experimental group shows a lower need in this area than the norm group. Bernardin and Jessor (3) speak of individuals who score low on this variable as being dependent. Their study showed that dependent individuals had the need to rely on others for approval and help. Izard (14), in a study which investigated resistance to change in response to an authority figure's attempt to influence, reported the following results. For men, autonomy correlated positively with resistance to change. This correlation did not hold for the females of his group. Pepper (22), in a doctoral dissertation, hypothesized that there would be a significant negative relation of autonomy to academic achievement. In view of his findings, this hypothesis was rejected. Since the experimental group of this study may be viewed as dependent, it would be feasible to expect that the techniques of strength bombardment and success bombardment would serve as strong reinforcers and suggestions for change. Consequently, these changes would be seen in terms of significant mean gains on the experimental variables. This would seem to hold especially for the self variables. This was not empirically demonstrated. Pepper's results show that there is not an empirical relationship between a low need for autonomy and academic
achievement. It may be concluded that the experimental techniques, and not necessarily a low score on autonomy, were responsible for the nonsignificant grade point averages of the experimental group at the end of the treatment period.

On the succorance variable the experimental group showed a significantly higher need than the norm group. Two studies (10, 18) show that this variable does not distinguish academic overachievers from underachievers, or discriminate between a group of college students with low predicted academic achievement who seem to be overachieving academically and a group of similar students who seem to be performing as predicted and, thus, are failing. In view of these findings, it is difficult to relate the precise significance of the experimental groups' high need on this variable to their outcome measure on grade point average. Some researchers view high scores on the succorance variable as being indicative of suggestibility and dependency (26). If this is admissible, it would seem logical that the experimental techniques of this study should have been more effective. They may be construed as possessing strong social reinforcement value which would have a strong influence on suggestible individuals. If this would have been the case, the experimental group, conceivably, would have showed significant differences in mean gain on the self variables as compared with the control and placebo groups. This was not empirically demonstrated.
The experimental group shows a low need for dominance on the Edwards' pretest. Pepper's study (22) can again be referred to in this connection. He found that there was not a significant positive relation between the need for dominance and academic achievement. Merrill and Murphy (18), however, did find that this variable discriminated between a group of college students with low predicted academic achievement who seem to be overachieving academically and a group of similar students who seem to be performing as predicted and, thus, are failing. The failing students scored significantly lower on the dominance variable. It is difficult to interpret the grade point results of the experimental group (low need for dominance) of this study in light of these findings. Again, a low need for dominance may be seen as a form of dependency. Therefore, the foregoing hypothetical reasoning done in connection with dependency and the experimental group's scores on the self variables may apply to this variable as well.

The experimental group showed a significantly different higher need for nurturance than the norm group. Two studies may be related to this finding. Uhlinger and Stephens (25) found that there was a trend for low achievers to score higher on this variable than high achievers. Gebhart and Hoyt (10) found that underachievers, as compared to overachievers, scored significantly higher on this need. In attempting to account for this, they hypothesized that the pattern of
underachievement may be associated with social motives (nurturance), wherein friendship may be placed above scholarship. It is possible that this pattern may have been operative in the experimental group, and this could have accounted for the no differences in mean gains for grade point average for the three groups of the study.

The last two variables wherein the experimental group significantly differed from the norm group are those of abasement and heterosexuality. The experimental group had a greater need for abasement and a lower need for heterosexuality. Two studies were reviewed which appear to bear some relationship to the above findings. Izard (14) found that males with a high need for abasement were more apt to change various responses in connection with an authority figure's attempt to influence change. As will be recalled from Table XIV, the experimental males showed a higher need for abasement as compared to the Edwards' male norm sample. Pepper (22) found a significant negative relation of academic achievement to heterosexuality need. Izard's findings may be related to the present study in that gains in the hypothesized direction on the variables of Total P, Self-Satisfaction, and Social Self were beginning to emerge at the conclusion of the treatment period for the experimental group. Perhaps the leader-structured techniques of the experimental group were beginning to effect change in subjects who showed a high need on this variable. On the other hand, it might be that no significant mean gains were shown by the
experimental group on any of the variables because of a very high need by the experimental group on this variable. They differed significantly from the norm group at the .01 level. As described by the Edwards' manual, a high need for abasement could easily retard improvement on all the variables of this study. Viewing Pepper's finding in connection with heterosexuality, the experimental group's significantly low need on this variable conceivably could have had some relation to the experimental group's making a significantly higher grade point average than the other two groups at the end of the treatment period. Their low need for heterosexuality plus the experimental techniques could have been seen as elements making them more sensitive to change in terms of GPA. Empirically, this was not demonstrated. It is also possible that this low heterosexual need could have effected the experimental group's outcome score on the variable of Social Self.

Concluding this discussion on the relationship of pregroup measurement of personality characteristics on group performance and change, several summary statements are in order. Two contemporary researchers (2, p. 35; 6, pp. 76-77), after reviewing studies dealing with this aspect of research, feel that the problem is still not clearly defined. The precise relationship of pregroup personality characteristics to outcomes in group experimentation and the effects of volunteer subjects on research outcomes is yet to be
delienated. The experimental group of this study did differ significantly on pretest measures for some of the variables when compared to norm groups. In any event, the experimental techniques were not effective in producing significant hypothesized differences among the experimental group and the other two groups of this study.

Summary

In this study on the effects of motivational group techniques upon selected personality and behavioral variables, three hypotheses were tested by the statistical method of analysis of variance.

In Hypothesis I it was predicted that at the end of the treatment period the experimental group would achieve a significantly higher grade point average than the control and placebo groups. The null hypothesis was accepted as a result of the failure to find significant differences in grade point averages between the three groups after group treatment procedures.

In Hypothesis II (consisting of four corollary hypotheses), it was predicted that on the counseling form of the Tennessee Self-Concept Scale, the experimental group would achieve significantly greater mean increases than the control and placebo groups on

A. The Total P which reflects the overall level of self-esteem.
B. The subscale of Self-Satisfaction.
C. The subscale of Personal Self.
D. The subscale of Social Self.

Statistical results were not significant and again the null hypothesis was accepted.

In Hypothesis III it was predicted that on the Edwards Personal Preference Schedule subscale of Achievement, the experimental group would achieve significantly greater mean increases than the control and placebo groups. The null hypothesis was accepted in view of a slight, nonsignificant increase on the part of the experimental group.

A subjective evaluation of the group experience by both the experimental and placebo groups was discussed. Students in both groups gave favorable reports as to the beneficial qualities of their group experience. Based on the analysis of the subjective reports of the two groups, it was guardedly concluded that the experimental procedures were effective for the experimental group in bringing about constructive changes in the areas of Self-Esteem, Self-Satisfaction, and Personal Self.

Some reasons were discussed which might have accounted for the nonsignificant statistical results of this study. This discussion revolved around such concepts as length of treatment, client selection, instruments of evaluation, and the possible effects of pretest personality characteristics of the volunteer subjects on outcome data.
CHAPTER BIBLIOGRAPHY


CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Within the past few years, group procedures have been utilized with increasing frequency in the educational context. If it could be determined that a particular cluster of group techniques are beneficial in meeting the problems of the college population, the body of knowledge relating to group counseling would be enlarged.

Summary

This study was undertaken to investigate the effects of motivational group techniques on grade point average, self-concept, and on the need to achieve of volunteer freshmen college students. The research revealed that present evidence in this area is inconclusive. Some group experiences have produced significant effects in terms of the above variables, whereas other research efforts have produced non-significance.

The limitations of this study were recognized, and a number of terms relevant to the written discussion of the group experiment were defined. A number of assumptions pertaining to the study were discussed.
The subjects used in this study were freshmen students of a small, liberal arts college in southwest Ohio. The ages of the subjects ranged from eighteen to twenty-one years. They volunteered for the group experience during orientation week of the 1969 fall quarter.

The Tennessee Self-Concept Scale and the Edwards Personal Preference Schedule were the main instruments used in this study. Pretest measures were obtained from all volunteer subjects on the same day as they registered for the group experience. In order to test the effectiveness of group counseling in the academic realm, grade point averages for the total sample were obtained soon after the close of the 1969 fall quarter.

Through randomization, the total group of students who volunteered for group counseling were divided into experimental, placebo, and control subgroups. At the outset of the study, there were thirty students in each of these subgroups. Due to students' leaving school, nonattendance of group sessions, and failure to take posttests, outcome measures were computed on only twenty students for each group. After the conclusion of the quarter of treatment for the experimental group, data on all groups were entered on data work sheets. Statistical analyses were computed by a computer terminal at the college where the study was run.
Three main hypotheses were investigated in an effort to gain information relative to the effectiveness of specific, planned, group techniques on grade point average, self-concept, and need to achieve. Hypothesis II was composed of four corollary hypotheses.

The level of significance established for each hypothesis was the .05 level. The statistical method used for testing the various hypotheses was analysis of variance.

In Hypothesis I it was stated that at the end of the treatment period the experimental group would achieve a significantly higher grade point average than the control and placebo groups. No significant differences in grade point average were found between the groups as was predicted in the hypothesis. It was concluded that specific group motivational techniques were not effective in facilitating significantly greater grade point averages for the experimental group.

Hypothesis II was composed of four corollary hypotheses. This hypothesis stated that on the counseling form of the *Tennessee Self-Concept Scale*, the experimental group would achieve significantly greater mean increases than the control and the placebo groups on

A. The Total P which reflects the overall level of self-esteem.
B. The subscale of Self-Satisfaction.
C. The subscale of Personal Self.
D. The subscale of Social Self.
There were no significant differences in mean gains for the three groups on any of the preceding variables relating to self-concept.

In Hypothesis III it was predicted that on the Edwards Personal Preference Schedule subscale of Achievement, the experimental group would achieve a significantly greater mean increase than the control and placebo groups. Data analysis revealed no significant differences in mean gains for the three groups on this variable.

As a whole, the results of the study were interpreted as failing to give support to the hypotheses of the study. However, by way of discussion several reasons were given to account for the nonsignificant results.

This study was designed to increase the fund of knowledge concerning the application of group procedures to educational concerns. The specific application pertained to the effectiveness of specified group techniques in raising the grade point average, self-concept, and need to achieve of volunteer freshmen students. Previous research indicated that the effectiveness of group procedures as applied to education is inconclusive. The results of this study seem to confirm this judgment. Even though statistically significant results were not found, positive trends were emerging for the treatment group on the research variables.
Findings

Several findings emerged on the basis of this study.

Positive, significant, statistical effects of motivational group counseling were not determined by this study in terms of grade point average, self-concept, and need to achieve.

In terms of subjective evaluation, both the experimental and the placebo groups appraised favorably their group experience.

Although the data failed to yield any statistically meaningful results, some positive trends in the hypothesized direction emerged for the experimental group.

Conclusions

The following conclusions were drawn on the basis of this study.

The short-term group procedures utilized in this study were not effective.

The group procedures used are beneficial for students when phenomenological or subjective evaluations are utilized as outcome measuring criteria.

The group techniques used in this study do hold some promise with a treatment program of longer duration.

Recommendations

Further research in this area should be pursued. Previous research has been vague in specifying the group procedures which have
been utilized to investigate the variables of this study. More well-planned research is needed where specified, planned group procedures of the type used in this study are applied.

Further research utilizing motivational group techniques might be applied to students characterized by known underachievement rather than to a mixed volunteer sample.

A replication study should be done increasing the number of sessions in an effort to ascertain if the positive trends indicated in this study would increase to statistical significance.

A study should be done in which different instrumentation is used in connection with the measurement of the need to achieve variable.

It is recommended that future studies which might utilize the achievement motivation techniques use more subjects and more group leaders to facilitate this increase in numbers.

Small colleges should seriously consider some type of group experience for freshmen students. Even though the results of this study were not statistically significant, subjective evaluations of the experience were positive.
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