EFFECTS OF THE EPI-C MODEL UPON SELF-ACTUALIZATION OF CLIENTS IN GROUP COUNSELING

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

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The problem with which this investigation is concerned is that of the evaluation of the effectiveness of the EPI-C model as a guide to group counseling. The purposes of the study are (1) to determine whether group counseling employing the EPI-C model results in positive gain in self-actualization, and (2) whether group counseling using the EPI-C model is more effective than a topical discussion group or no treatment at all in producing greater positive change in subject self-actualization.

To carry out the purposes of the study, it was hypothesized that the experimental group would show statistically significant improvement in self-actualization as measured by an upward movement of the C-scores on the General Activity, Ascendance, Emotional Stability, Objectivity, and Thoughtfulness scales of the Guilford-Zimmerman Temperament Survey; a score of 50 or more on the Inner Support scale of the Personal Orientation Inventory; and a decrease in actual-ideal discrepancy scores on the EPI-C Scales of
Emotional Self-Assessment, Physical Self-Assessment, and Intellective Self-Assessment. It was further hypothesized that the placebo and control groups would show no significant improvement and that the experimental group would show greater change than either the placebo or control group with respect to all variables.

Subjects of the EPI-C groups were master's level students enrolled in a course in group counseling at North Texas State University. Four EPI-C groups were formed with eight subjects in each group. Two doctoral interns, trained in the use of the EPI-C model, facilitated two EPI-C groups each. The leaders followed the procedure outlined in the EPI-C manual: Effective Personal Integration: A Guide for Group Leaders by Berg and Smallwood.

Subjects for the topical discussion group were fifteen students chosen at random from a graduate counseling class and the control group were twenty students in a graduate lecture class in education.

All groups met for one and one-half hours for a period of thirteen weeks. Subjects in all six groups were tested immediately before the initial session and again immediately after the thirteenth session.

The EPI-C groups followed six exercise units consisting of (1) perception and feedback skill building, (2) self-disclosure/
self-exploration skill building, (3) assessment and understanding of self, (4) personal contracting for change and growth, (5) development of programs for achieving personal growth, and (6) achieving and assessing personal goals and growth.

The experimental design of the study was a pre-test-post-test control group design with the addition of an attention placebo group. All hypotheses for within groups were tested using one-tailed t-tests for related samples. All hypotheses for between groups were tested using an analysis of covariance. The .05 level of significance was used for all statistical tests.

The experimental group showed significant change on the Ascendance, Inner Support, Physical Self-Assessment, and Intellective Self-Assessment scales within its group. Between groups, the experimental group showed significant change on the Ascendance, Emotional Stability, Objectivity, Inner Support, Emotional Self-Assessment, and Physical Self-Assessment scales.

This report concludes that the EPI-C model as a guide to group counseling is effective as a means of increasing reliance on inner support, increasing ascendance levels, emotional stability, and objectivity. The model also produced changes in assessed congruence of the emotional, physical and intellective self. It demonstrated that the EPI-C model facilitated the growth of individuals on certain dimensions of self-actualization.
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CHAPTER I

INTRODUCTION

The American scene in the last decade and more has displayed numerous efforts to advance the cause of individual awareness, growth, and self-fulfillment for more effective living. Such efforts range from a flood of studies and publications to a spate of institutes and programs designed to implement the fullest integration of the individual within himself and with others. Individual involvement in group-oriented counseling has long been recognized as a particular process by which individuals interact with others and become increasingly aware of themselves. The group setting, it has been demonstrated by many, serves to enhance and facilitate the growth of intra- and interpersonal patterns and relationships. Similarly, individual dysfunction is magnified and thus more easily identifiable through group interaction. "Group," in short, has become a convenient setting for the identification, measurement, and evaluation of a host of human feelings, attitudes, values, and behaviors.

Although many participants are the beneficiaries of group counseling, others—although exposed to group for long periods of
time—do not grow or significantly develop intrapersonally or inter-personally. It is important, therefore, to distinguish between those factors or structures within a group which significantly contribute to constructive changes within and between individuals and those which do not so effect such changes or growth. Accordingly, this study makes use of the newly-conceived EPI-C model, a design which emphasizes the emotional, physical and intellective levels of individual functioning within a group. EPI-C, moreover, asserts that these dimensions of human living can best be constructively changed in a group setting through programs of awareness, skill acquisition, remediation, change, and fulfillment of human potential. Further, EPI-C is so fashioned that it provides determinations as to the degree or extent to which an individual's total life style is integrated, with such determinations made within and according to its levels of human functioning. EPI-C thus must be examined to determine its contribution and the nature of that contribution to the fields of group counseling, group structures, and group processes.

Statement of the Problem

The problem of this study was the evaluation of the effectiveness of the EPI-C model as a guide to group counseling.
Purposes of the Study

The purposes of this study were (1) to determine whether group counseling employing the EPI-C model would result in positive gain in subject self-actualization, (2) to determine whether group counseling using the EPI-C model would be more effective than a topical discussion (placebo) group as a method of increasing subject self-actualization, (3) to determine whether group counseling utilizing the EPI-C model would produce greater positive change in subject self-actualization than no group treatment at all, and (4) to provide information that might be beneficial with regard to future research involving the use of the EPI-C model in group counseling.

Hypotheses

To carry out the purposes of this study, the following hypotheses were tested:

Hypothesis I: From pre-test to post-test there will be a statistically significant improvement in self-actualization for the group under the EPI-C model as measured by the Guilford-Zimmerman Temperament Survey.

a. Subject scores on the General Activity scale will tend to move upward on the C-score range to a significant degree following counseling.
b. Subject scores on the Ascendence scale will tend to move upward on the C-score range to a significant degree following counseling.

c. Subject scores on the Emotional Stability scale will tend to move upward on the C-score range to a significant degree following counseling.

d. Subject scores on the Objectivity scale will tend to move upward on the C-score range to a significant degree following counseling.

e. Subject scores on the Thoughtfulness scale will tend to move upward on the C-score range to a significant degree following counseling.

Hypothesis II: There will be no statistically significant improvement in self-actualization of subjects under the topical discussion (placebo) group model as measured by the General Activity, Ascendance, Emotional Stability, Objectivity, and Thoughtfulness scales of the Guilford-Zimmerman Temperament Survey.

Hypothesis III: There will be no statistically significant improvement in self-actualization of subjects who are in the no-treatment (control) group as measured by the General Activity, Ascendance, Emotional Stability, Objectivity, and Thoughtfulness scales of the Guilford-Zimmerman Temperament Survey.
Hypothesis IV: There will be a statistically significant improvement in self-actualization of subjects under the EPI-C model as measured by the **Personal Orientation Inventory.** (Specifically, subject scores on the Inner Support scale will move toward the score of 50 or more to a significant degree following counseling.)

Hypothesis V: There will be no statistically significant improvement in self-actualization of subjects who are in the topical discussion (placebo) group as measured by the Inner Support scale on the **Personal Orientation Inventory.**

Hypothesis VI: There will be no statistically significant improvement in self-actualization of subjects who are in the no-treatment (control) group as measured by the Inner Support scale on the **Personal Orientation Inventory.**

Hypothesis VII: There will be statistically significant improvement in self-actualization of subjects under the EPI-C model as measured by the convergence of actual-ideal \((X,O)\) self-descriptions on the **EPI-C Semantic Differential of Emotional Self-Assessment.**

Hypothesis VIII: There will be no statistically significant improvement in self-actualization of subjects who are in the topical discussion (placebo) group as measured by the convergence of actual-

Hypothesis IX: There will be no statistically significant improvement in self-actualization of subjects who are in the no-treatment (control) group as measured by the convergence of actual-ideal \((X,O)\) self-descriptions on the EPI-C Semantic Differential of Emotional Self-Assessment.

Hypothesis X: There will be statistically significant improvement in self-actualization of subjects under the EPI-C model as measured by the convergence of actual-ideal \((X,O)\) self-descriptions on the EPI-C Semantic Differential of Physical Self-Assessment.

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Hypothesis XVI: The EPI-C model group will show significantly greater change (from pre-test to post-test) than the placebo group with respect to the following variables:

a. General Activity Scale of the **Guilford-Zimmerman Temperament Survey**.

b. Ascendance Scale of the **Guilford Zimmerman Temperament Survey**.
d. Objectivity Scale of the Guilford-Zimmerman Temperament Survey.
e. Thoughtfulness Scale of the Guilford-Zimmerman Temperament Survey.
f. Inner Support Scale of the Personal Orientation Inventory.
g. Emotional Self-Assessment Scale of the EPI-C Semantic Differential.
h. Intellective Self-Assessment Scale of the EPI-C Semantic Differential.
i. Physical Self-Assessment Scale of the EPI-C Semantic Differential.

Hypothesis XVII: The EPI-C model group will show significantly greater change (from pre-test to post-test) than the control group with respect to the following variables:

d. Objectivity Scale of the Guilford-Zimmerman Temperament Survey.

e. Thoughtfulness Scale of the Guilford-Zimmerman Temperament Survey.

f. Inner Support Scale of the Personal Orientation Inventory.

g. Emotional Self-Assessment Scale of the EPI-C Semantic Differential.

h. Intellective Self-Assessment Scale of the EPI-C Semantic Differential.

i. Physical Self-Assessment Scale of the EPI-C Semantic Differential.

Background and Significance of the Study

Robert Berg and Kathie Smallwood (1) of the Institute for Studies in Effective Living developed in 1974 a new model for group counseling. The Effective Personal Integration Center (EPI-C) model focuses upon the emotional, physical, and intellective levels of individual functioning. The emphasis of the EPI-C model is on the degree to which these levels are integrated into a person's total life style. The theoretical construct for the model specifies that if a
person's interpersonal relationships are essentially positive and provide for the emotional, physical, and intellective skills necessary to reach his potential, the chances are good for that individual to become a full, responsible, healthy person. The model is constructed using six developmental exercise units.

Carkhuff (2) has postulated that the fully-functioning, integrated whole person is one who self-actualizes by the integration of his three major dimensions. Physically, the self-actualizing individual generates and sustains high levels of energy and tolerates and endures hardships. Intellectively, he synthesizes relevant data and creatively applies it to a particular circumstance. Emotionally, he is able to offer appropriate dimensions of interpersonal responsiveness and initiative.

Rogers (11) has agreed that a good helper/helpee is one who has the intellect for high level communication skills and who can communicate accurate empathic understanding.

Ellis (4) underscores the need for intellective functioning in his writings in Reason and Emotion in Psychotherapy. In rational-emotive therapy clients are taught to use their thought processes to distinguish between rational and irrational thoughts and behaviors.

Carkhuff (5) points out that the potent helper/helpee is a person who is living effectively himself and is able to disclose himself
in a genuine and constructive manner in response to others. He is confident, spontaneous, intense, open, and flexible. The Carkhuff research indicates that people who offer high levels of the interpersonal conditions of empathy, warmth, genuineness, concreteness, confrontation, immediacy, and self-disclosure tend to create an atmosphere for helpee growth. Low-level functioning counselors retard client growth whereas high-level functioning counselors help low-level-functioning clients toward growth and facilitate the high-level-functioning client to maintain his positive level. The EPI-C model incorporates the Carkhuff dimensions within the various exercises in the physical, emotional, and intellectual areas.

Investigating the degree of congruence between physical appearance (and ability) and self-report of self-actualization, Morgan and Pollock (9) have found that an individual's perception of his body image and prowess affects his personality characteristics and his actual performance, motivation, and confidence level.

Morgan (8) in an experiment with the United States Olympic wrestling team in 1972 found that those contestants who scored highest in their self-reports on body image were winners or placed higher than did those who (with equal competency levels) scored lower on the self-report scales.
Research conducted at the Aerobic Research Center (3) has shown that body self-image is related to behavior and positive (total) self-image. Studies in weight control and reduction have indicated that as one is more satisfied with his own body image, he reports greater satisfaction with his social, interpersonal, and intrapersonal behavior. In essence, a positive body image seems directly related to an increase in positive emotional well-being.

Otto (10) has developed several group methods (designed to actualize human potential) that are akin to the exercise units described in the EPI-C model. His methods emphasize positive depth involvement, strength acknowledgment, sensory experiences, life goals inquiry, and conflict resolution. McHolland (7) synthesized the model and Kleeman (6) found such exercises, structured and implemented in the classroom for a semester, increased positive self-perception in the student. Further, the student carried out goals and commitments never accomplished, but desired, before the specific exercise treatment.

Definition of Terms

For the purposes of this study the following definition was formulated:

Self-actualization:--self-actualization was defined operationally as:
a. a configuration of scales score on the Guilford-Zimmerman Temperament Survey factors of General Activity, Ascendence, Emotional Stability, Objectivity, and Thoughtfulness with a general upward move as stated in the hypotheses.

b. the level of a movement toward the score of 50 on the Inner Support scale of the Personal Orientation Inventory as stated in the hypotheses.

c. the convergence of actual-ideal (X,O) self-descriptions on the EPI-C Semantic Differential of Emotional Self-Assessment as stated in the hypotheses.

d. the convergence of actual-ideal (X,O) self-descriptions on the EPI-C Semantic Differential of Physical Self-Assessment as stated in the hypotheses.

e. the convergence of actual-ideal (X,O) self-descriptions on the EPI-C Semantic Differential of Intellective Self-Assessment as stated in the hypotheses.

Limitations

As with any self-report inventory, one limitation of the study was the unknown verification of the absolute veracity of the reportee and the degree of convergence between the self-report of the subjects and the actual performance.
The study was also limited with respect to the degree to which the counselor who used the EPI-C model adhered to his model in the presence of the dynamics of the group and its internal variables.

The EPI-C groups were limited to those students taking the master's level group counseling course at North Texas State University.

The placebo group was limited to those students enrolled in Education 578 (The American Student in Higher Education) at North Texas State University.

The control group was limited to those students enrolled in Education 544 (Curriculum in Secondary Education) at North Texas State University.

The psychometric viability of the EPI-C scales has not yet been established; however, they do have important heuristic value.

Basic Assumptions

It was assumed that the measures provided by the instruments used in this study were adequate representations of the psychological constructs with which the study was concerned. It was further assumed that the counselors were equally trained and equally competent in their group leadership skills and that they adhered to the model for which each was responsible. The assumption also was made that the personality characteristics of facilitators of the EPI-C
groups did not interfere significantly with their leadership dynamics. Finally, it was assumed that the subjects responded honestly to the items on the self-report inventories.
CHAPTER BIBLIOGRAPHY


CHAPTER II

A REVIEW OF THE RELATED LITERATURE

The review of related literature is presented in the following sections: (1) Group Counseling as a Viable Modality; (2) Self-Actualization Studies in Group Counseling; (3) Studies Involving Change in Self-Perception Reports in Group Counseling; (4) Structured Units as a Program for Group Counseling; and (5) Synthesis of the Literature. There is no presentation of literature concerning the EPI-C model since this study is the first to investigate the effectiveness or use of the model.

Group Counseling as a Viable Modality

The EPI-C model is a model specifically designed for group counseling.

Driekurs and Sonstegard (11) have commented on a rationale for group counseling which supports the modality by reasoning that, as social beings, we constantly interact with each other and form our perceptions of self via this social interaction. According to Driekurs and Sonstegard, group process affords a duplication of the reality of the social being, and most feedback on our behavior is conveyed in
group settings. The authors also contend that more learning takes place in groups where other members are used as sounding boards and are seen as equals. The redefinition of goals and perceptions can often take root in a group situation more easily than on a one-to-one basic with individual counseling.

Rogers (29) points out that, as a member of a group, the individual learns "what it means to give and receive emotional support and understanding in a new and more mature fashion. The self is redefined in a context not unlike that which initially created the need to distort the perception of self, and of the self in relation to others. This is the most compelling quality of the group experience." His case studies with patients traumatized by war experiences showed that counselees were unable to talk of the war traumas with several individual therapists; but, within a group counseling setting, they found the stimulus and acceptance needed to permit them to relive the terrible experiences which they were sealing off from their awareness.

Rogers maintains that group experience also is a helpful modality in that it facilitates modeling of healthy behavior. Reticent members will gain courage and support from those who speak out and are reinforced. Group members help to relieve pressure and set examples for those who are more fearful. Group affords more possible gains
in freedom and more opportunities for numerous remarks of support and reinforcement than do individual sessions.

Rogers, finally, makes a potent argument in stating that group counseling provides a wider range of values, perceptions and options from varied personalities, thereby representing a better cross section of reality as it exists beyond the counseling ambiance. It is also possible that the act of giving help, as one member does for another, is a therapeutic experience itself. He states: "In group therapy a person may achieve a mature balance between giving and receiving, between independence of self and a realistic and self-sustaining dependence on others."

Sonstegard (31) mentions that virtually every individual is a member of some group: family, work, or social. He believes society is moving from authoritarian to democratic in nature, thereby giving groups more significance. Democratic revolution has brought more equality for everyone, between races, management and labor, and between men and women. He sees group counseling as a natural tool for dealing with relationships. Through group counseling we can experiment with interactions and produce changes in mistaken goals. Man as a social being is primarily motivated by a strong desire to belong. Only within a group can he fulfill his potential. Group counseling, according to Sonstegard, is a four-phase method to
Ohlsen (24) conducted a study to determine the effects of counseling within a group setting. It was conducted in an outstanding four-year high school with excellent counseling facilities. The sample was composed of ninth-grade students who as eighth-grade students ranked in the top 10 per cent of their class on the California Test of Mental Maturity and at the ninth decile or below in grade-point average earned in the eighth grade. The twenty-nine subjects were divided into four small groups: two experimental and two control groups. The subjects met for one class period twice a week for eight weeks. The director of the project was the counselor for all four groups. Growth of clients was evaluated with reference to three variables: (1) academic performance as measured by the California Achievement Test Battery and grade-point averages earned in high school, (2) acceptance of self and of others as revealed in responses to a picture story test, and (3) behavior in interpersonal relationships reported on the Behavior Inventory by the pupils themselves and the five members of each observer team, parents, and counselor. Ohlsen found growth on two of the three measures for the experimental group: increased acceptance of themselves and of others, and improved behavior at home and at school. Parents and
counselors' descriptions of clients indicated that the behaviors of the underachievers became more congruent with ideal adjustment. These changes were maintained over the eighteen-month period following counseling.

Palmo and Kuzniar (27) studied the modification of behavior through group counseling and consultation. Fifty-six children were selected who exhibited maladaptive behavior in the classroom. Three experimental groups were formed utilizing group counseling. One control group was used. Pre-tests and post-tests were conducted with the Behavior Checklist and the Coping Analysis Schedule for Educational Settings. The differences between pre-treatment and post-treatment test scores were examined by analysis of covariance. All experimental groups proved superior to the control group in improving classroom behavior.

Warner (33) reports a similar study where 180 juniors in high school who had indicated a high degree of alienation on Dean's Scale of Alienation were randomly assigned to four groups: two experimental groups involving group counseling, a placebo group, and a control group. In the experimental groups, the goal of the counselor was to keep the discussion focused on the students' feelings of alienation and to give positive verbal reinforcement to statements made by the students which suggested positive attitudes toward their
position in the social structure. Teacher ratings from the Teachers Behavior Rating Scale by Cower were computed. The means indicated that the two experimental groups were rated by their teachers as exhibiting more appropriate behavior than students who participated in the placebo or control group.

Caplan (7) studied the effect of group counseling upon self-concept, school achievement, and behavior. Subjects were twelve to fifteen year old junior high school students with long records of frequent conflict with the school authorities and regulations of the system. The thirty-four boys were referred by teachers who described them as unruly, anti-social, hard-to-teach, and incorrigible. Seventeen were placed in the experimental group, and an equal number in the control group. They were not told of the purpose of the group, but did admit to guessing at the real purpose. Self and ideal-self Q sorts were used on the pre-test and post-test. These consisted of fifty self-referrent phrases dealing with self in school. The results showed significant "non-random" increase in congruence of self/ideal-self Q sorts and a significant "non-random" decrease in poor citizenship grades for the experimental group.

A comparative work by Baehr (2) presents some findings very much in contrast to the above studies. His investigation was designed to test the hypothesis that treating patients by a combination
of group and individual psychotherapy is more effective than treatment by one method alone.

The criterion of therapeutic effectiveness was discontentment, which was defined as the sense of ill-being coupled with dissatisfaction. The subjects were to "show" how much a certain thing bothered them by placing a degree of description on an eight-interval scale. There were 230 statements involving many subject areas.

The experimental population consisted of sixty-six World War II hospitalized, male veterans ranging in age from twenty to fifty-eight years, with the median age of thirty. They met the following criteria: voluntary admission for treatment, voluntary discontinuance of treatment, and discharge from the hospital, a diagnosis of psychopathology, and legal competence. Each subject was given the Discontentment Scale at the beginning and end of his period of hospitalization. They were divided into three categories: (1) those treated predominantly by group therapy; (2) those treated predominantly by individual therapy; and (3) those treated by an approximately equal amount of group and individual psychotherapy. It was found that the category treated with both group and individual therapy had the highest relative movement index on the scale, whereas the category treated predominantly with the group therapy had the lowest movement index.

The findings strongly suggest that although all three methods did
produce beneficial results, the combined method is superior to one method alone. They also suggest that the methods rank themselves, from most to least effective in the following order: group-plus-individual psychotherapy, individual therapy, and group therapy.

Self-Actualization Studies in Group Counseling

Foulds (12) studied the effects of a Personal Growth Group on a measure of self-actualization using Shostrom's Personal Orientation Inventory to assess the characteristics associated with self-actualization. Using a Gestalt orientation as the facilitating mode for his experimental group, he conducted two-hour sessions once a week for twelve weeks. He also employed a control group of nineteen members, the same number as in the experimental group. After pre-testing and post-testing, he found that the results, as assessed by t-tests, showed significant score increases in eight of the twelve scales on the POI. The other four scales showed some score increases, but they were not statistically significant. The author concluded that the Personal Growth Group is effective in increasing a member's self-actualization.

Culbert and Clark (10) conducted research in measures of change toward self-actualization in two sensitivity training groups. The purpose of the research was twofold: (1) to determine whether the two groups of advanced university students undergoing treatment
aimed at increasing self-actualization would produce changes on the **Personal Orientation Inventory**, and (2) to determine whether positive increases in early-to-late POI ratings would agree with changes in self-awareness behavior as measured with the **Problem Expression Scale**.

The sample population was made up of UCLA seniors and graduate students. Two groups of ten students, each with the same two co-trainers, were used in the study. The groups met for a single two-hour session per week for fourteen weeks. The members also participated in one two-hour controlled pairing assignment per week. The leader-goals in the group were to promote authentic interaction and increased self-awareness among the members. The POI was administered prior to the first group meetings and prior to the last group meetings. Analysis of the initial administration of the POI showed that the two groups were different. Group I POI scores were equivalent to those produced by a population of self-actualizers, whereas group II's scores were relatively similar to a population of normal adults.

Group I did not show any appreciable change on the POI mean scores with group treatment. Group II mean scores did increase significantly. The inner-directedness score increased to a mean closely approximating the mean value for a comparison population of self-
actualizers. Thus the group treatment in the study did bring about increased POI scale scores for a group initially resembling normals and did not disturb the mean scores for a group which initially appeared to be near the self-actualizing level.

The data from the POI and the PES failed to show any correlation between the two. Thus, although group treatment does help to support and promote self-actualizing values, concepts, and precepts for the participants, the holding of such values by each participant does not correlate with change in self-actualizing behavior.

A study which tends to verify the conclusion of Culbert and Clark (10) is one conducted by Reddy (28) which focused on the relationship between personal growth as a result of group treatment and the composition of groups in achieving self-actualization reports of the members. The subjects were forty interdenominational missionaries. Each group consisted of ten members. Four groups were formed: T-groups, non-verbal exercise groups, lecture groups, and community exercise groups. The POI was administered for pre-treatment and post-treatment scores. The group met for five days. At the end of the training, the results indicated that groups precomposed to be incompatible and dissonant on the scale values of the POI made greater gains than compatible groups. The authors felt that
anxiety must be high before any change takes place in movement
toward self-actualizing reports by members in group.

Klingberg (16) evaluated the effects of group training upon
self-actualization of theological students. Forty-eight students were
selected at Gordon-Conwell Theological Seminary and were controlled
for age, sex, academic level, and curriculum, and they were ran-
domly assigned to four groups of twelve. Three groups met for
group training two hours weekly for ten weeks. Two were profes-
sionally-directed and one was self-directed. A fourth group was
formed, receiving no treatment for control.

Three of the nine hypotheses of the Klingberg study were
supported, and several other relationships of interest to this study
were discovered: (1) the researcher led one experimental group and
the data indicated that experimenter bias was not a significant variable
on any measure when compared to the other experimental group with its
disinterested professional leader; (2) there was no general upheaval
of theological beliefs in the experimental groups; (3) the leaderless
group was given mixed support, though it was equally effective in
some change areas on the POI but less effective than the professionally-
directed groups on most of the others; (4) on the POI the effects of
the experimental groups were to change scores in both directions; there
was no overall gain or loss, but there was significant movement in
variance structure; (5) the results were statistically significant in confirmation of the prediction that the experimental groups would tend to bring students toward center, away from the extremes. The author suggests that the implications of the research are that groups are apparently neither destructive nor constructive intrinsically.

At Northwestern University in 1971, Mase (20) attempted to measure the effects of two types of residential group experience using encounter techniques. The dependent variable was personal growth in terms of self-actualization as developed primarily by Maslow. One group was treated with small-encounter experience without formal cognitive input, whereas the other group was treated with small-group encounter method with the addition of formal cognitive input in the form of lectures and reading assignments.

Over the period of one year, twelve six-day resident sessions were studied. The first six sessions were of the first-treatment type, and the second six sessions were of the second-treatment type. Twelve to twenty-three subjects participated in each group with a total sample of 205 and an age range from nineteen to sixty-five, equally composed of men and women.

The overall design of the study was a $3 \times 3 \times 2$ factorial with pre-test measures, immediate post-test measures and delayed measures two months after the conclusion of treatment. The
Personal Orientation Inventory was again utilized as the instrument to measure changes in self-actualization. The data were analyzed in three separate $3 \times 2$ factorial designs, each of which had the pre-test scores as a covariate. Mase reports the following:

One analysis used treatments and blocks as the independent variables and immediate post-test scores as the dependent variable. Another analysis used the same independent variables and the delayed post-test scores as the dependent variable. The last analysis used the same independent variables and the difference scores for the immediate and delayed post-test scores as the dependent variables. The covariate was used in order to reduce the variability of subjects within groups by removing these sources of variance indicated in the pre-test measures. The use of blocks was an attempt to control for temporal effects, to remove the variability between sessions during the calendar year.

The study demonstrated that there was no differential difference in the two types of treatment; that the milieu of the six-day resident group experience does influence personal growth in terms of self-actualization; and that on most measures used, there was some saving of the original treatment effect at the delayed measure.

That same year, at the University of Missouri, Hull studied the effects of three different methods of laboratory training, varying in degrees of structure, upon self perception and self-actualization of the members. Three treatment groups were compared with each other and with a control group with thirty students in each group. The author investigated three questions: (1) Is one method more effective than another method in changing self-concept? (2) Is
one method more effective than another in changing self-actualization?

(3) Is there a difference in the type of experience among the three experimental treatment methods?

All treatment groups were subdivided into smaller groups of ten: one two-session structured microlab group, a six-lesson unstructured sensitivity group, and a six-session group combining two initial structured microlab sessions with four subsequent unstructured sensitivity sessions. All structured groups adhered to specific directions and exercises developed by the researcher. Each leader-team of male and female led three groups, one of each treatment type, to control for leadership variability.

All groups were administered the Personal Orientation Inventory prior to training, again after two sessions and after four additional sessions (except the structured-microlab-only group which had only two sessions, but was actually measured again so as to coincide with the termination of the other groups' last four sessions). The control group received the same measures.

Analysis of variance was used to determine differences in gain in self-actualization and self-concept among treatment and control groups from the first to second, first to third, and second to third measurements on the POI. Differences in type of experience were derived through counter-analysis of the reported experiences and were
tested by chi square. The findings regarding altered self-concept and self-actualization were inconclusive. Findings in the area of group process also proved inconclusive. No differences in types of experimental experience were found. The structured group appeared to have no effect at all. However, there were some significant differences between the structured group and the structured-plus-four-session-unstructured group after two sessions, favoring the latter-group type. The completely unstructured group had effects over time regarding reduction of stereotyping and increased expression of feeling from initial to final session. In most instances of significance, the combined-type group resulted in greater effects of change than the other two.

An important study conducted by Bellenti (4) attempted to analyze the effects of encounter group experience on three facilitative conditions of a helping relationship (empathy, respect, and congruence) and to determine whether these facilitative dimensions are related to changes in self-actualization. Graduate students were randomly assigned to an encounter group or an unstructured control group. There also was a no-treatment control group. The POI was used as the measure of self-actualization. Trained raters evaluated the Carkhuff scale's level of trainees. Measures were obtained from a pre-test, immediate post-test, and three-month delayed post-test.
After eight two and one-half hour sessions, the following results were obtained. Trainees who participated in the encounter groups showed significant increases in immediate post-test and delayed post-test scores for empathy, respect, and congruence. Trainees in the unstructured group and the control group did not. However, trainees who participated in the experimental groups did not show significant increases in self-actualization scales corresponding to the Carkhuff dimension measurements. He suggests that the relationship between changes in self-actualization and changes in levels of the three core facilitative conditions are complex and minimally understood at this time.

A corollary to this study is one by Carkhuff (8) which found that people who offer high levels of the interpersonal conditions of empathy, respect, and five other facilitative dimensions tend to create an atmosphere for helpee growth. Low-level functioning counselors retard client growth, whereas high-level functioning counselors help low-level functioning clients toward growth and facilitate the high-level functioning client to maintain his positive level. This seems to suggest that the functioning level of the group member corresponds to the functioning level of the group leader and that if, indeed, self-actualization of members occurs as related to Carkhuff
facilitative dimensions, it should be modeled and reinforced by the leader.

A new model called Creative Risk Taking (CRT) was developed by Byrd (6) in 1970 and tested with a sensitivity training group to determine the effect of the model and method upon self-actualization. He conducted four five-day "live-in" sessions and one seven-day "live-in" session. Sixty-seven CRT subjects and thirty-eight ST subjects were tested with researcher-constructed instruments prior to training and three months later. CRT subjects showed greater changes than ST subjects in POI dimensions of Independence, Spontaneity, and Risk Taking. ST subjects showed greater change than CRT subjects on characteristics related to social sensitivity and self-control, such as awareness of behavior and sensitivity to others' feelings. No one comprehensive type of change predominated. Byrd concludes that specifically desired attitude and behavioral ends can be planned and predicted as a result of systematically designed procedures and that the learning method itself may be the catalyst of change. Therefore, research on laboratory outcomes needs to treat data discretely rather than observing comprehensive changes.

Challenging the notion that group counseling does effect changes in measures of self-actualization, the Counseling Center
Staff (9) at the University of Massachusetts examined whether participants in group counseling evidence greater change in self-actualization than non-participants and whether different methods lead to differential outcomes in terms of self-actualization.

The subjects were forty-eight college students who were randomly assigned to one of three groups: (1) a time-restricted group in which students were told that they would meet weekly for two-hour sessions for five weeks, (2) a time-extended group which also met weekly for two-hour sessions but with no set time limit, and (3) a marathon group which met for one ten-hour session. The pre-test-post-test instrument utilized was the Personal Orientation Inventory.

The data were analyzed in several ways. To control for initial variability in the groups on each of the twelve POI scales, a series of univariate analyses of covariance was conducted. There was no significant difference obtained on any subscale. As an added check, the Wilks lambda yielded .452 (F = .842, p = .71).

The second part of the study was an attempt to confirm a finding from the first, that although the analysis of covariance and the discriminant analysis failed to find clear-cut group differences, a large within-group variability suggested that some kind of Subject by Treatment interaction could be operating to obscure actual differences. To test this hypothesis, the authors formed a new group of thirty
students. The Gough and Heilbrun Adjective Checklist was administered prior to the group experience, and a semantic differential constructed especially for this study was administered as a post-test correlate. This latter consisted of peer and counselor ratings on the dimensions of activity, openness, affectivity, and supportiveness.

Two correlations ($r = .42$, and $r = .39$) for abasement and counselor rating, and adjectives checked and counselor rating, respectively, were high but could have occurred by chance alone. The conclusive statement for this study was that participation in a group does not produce changes in the self-actualization process.

Another study which confirms that of the University of Massachusetts' study (9) is one by Leib and Snyder (18). They also set up experimental and control groups to test for the effects of group counseling and discussion upon underachievement and self-actualization. The three experimental groups met one hour a day, two days a week, for eighteen weeks to discuss motivation, failures in college, goals, efficient use of time, study problems, difficulties with parents, and resolution of common problems and conflicts. The control group were members of a psychology lecture class. The Personal Orientation Inventory was administered for pre-treatment and post-treatment measures. An analysis of variance was used to evaluate
the effects of discussion groups versus lecture sections. There were no significant differences between the two groups.

Studies Involving Change in Self-Perception
Reports in Group Counseling

Behaviorists have contended that one acts out behavior according to the words he gives his percepts. Therefore, if one wants to self-actualize, he must be capable of having and recognizing percepts that facilitate behaviors which are defined as self-actualizing. Thus it follows that if group counseling can facilitate such positive changes in self-perception or self-concept, it may well be a preliminary step to change in self-reported actualization or behavior change.

Apostal and Muro (1) tested the hypotheses that group counseling is associated with changes in self-reports of counselors in training and that group counseling increases self-recognition abilities of counselors in training. Twenty students participated in the experimental group and twelve in a control group. The Hill Interaction Matrix provided the counseling frame of reference, and the Edwards Personal Preference Schedule and the Motivation Analysis Test were administered for pre-treatment and post-treatment data. The results indicated change, though not statistically significant, in self-reports of subjects regarding improved self-concept, but showed no change regarding increased self-recognition abilities.
Truax, Schuldt, and Wargo (32) investigated verification of the existence of a negative relationship between self-ideal concept congruence and psychological measures of anxiety and inadequate adjustment, a positive relationship between increases in self-ideal congruence and constructive therapeutic outcome, and changes in self-ideal congruence correlating higher with changes in self-concept than with changes in ideal self-concept.

Subjects were carefully selected from a hospitalized population which showed no evidence of organic brain damage, no prior evidence of intellectual deficiency, no electro-shock therapy or massive tranquilization, and no expectation of immediate release after treatment. All groups participated in twenty-four sessions on a twice-weekly basis for three months. Highly sophisticated and standardized instruments were used. The researchers found that pre-therapy self-ideal congruence seems positively related to other measures of adjustment and negatively related to anxiety and maladjustment. Changes in self-ideal congruence tend to correlate with other psychological test measures of therapeutic improvement. Changes in self-ideal congruence are primarily a function of change in self-concept.

Using the Semantic Differential, Koile and Draeger (17) wrote of research conducted at the University of Texas at Austin investigating how members of a human relations laboratory change in their
perceptions of their group leaders during different T-group sessions and in their perception of themselves during a laboratory group experience. Forty-four members were assembled for eight general sessions with the laboratory director. Groups were then divided into four sections with different leaders who structured activities of discussion, role playing, psychodramatic scenes, demonstration groups and a variety of other verbal and non-verbal encounter. The Semantic Differential was used in developing a rating scale. Each leader used the thirty adjective scales to rate the T-group leader at the end of the six-session exercise and to rate himself in the beginning and conclusion of the laboratory session.

Ratings of the leaders indicated that members saw leaders more positively in the last T-group session than in the first, but shifts in members' perceptions of the leaders from session to session were not continuously positive. It was found that members came to perceive the leaders more the way leaders perceived themselves. T-group members saw themselves more positively at the end than at the beginning of the laboratory experience. They particularly saw themselves as more authentic and natural, more sensitive and supporting, and more able to trust and care for others and themselves.

Hoping to determine and describe the changes in self and other perceptions following brief educational-vocational group counseling,
Williams (35) studied 121 undergraduates at Wake Forest College. After matching subjects on sex, year in college, and general intelligence, he composed three groups: the experimental group \(N = 45\), the client control group \(N = 40\), and the non-client group \(N = 30\). The experimental group received group counseling and were tested with the Self-Ideal-Ordinary evaluation preceding counseling and again three to four weeks later at the end of counseling. The client-control group was given the S-I-O and placed on a waiting list for counseling. After three weeks they were retested and counseling was begun. At the termination of the group experience, they were tested for the third time. The data provided evidence as to whether motivation for counseling was, in itself, sufficient to bring about changes in the measures being studied.

The non-client group took two evaluations with three-week intervals. The data provided normative reference information for the study.

The Butler and Haigh Q Sort was used to study adjustment changes and changes in congruence among concepts of Self, Ideal Self, and Ordinary Person as a function of the counseling. It was found that prior to counseling, clients showed a lower adjustment level and less over-all concept congruence than did non-clients. The adjustment level and the over-all concept congruence of counseling clients
increased significantly more than did that of client and non-client controls over a comparable period of time. Following counseling, the adjustment level of the concept congruence of clients was not significantly different from that of non-clients and over a four-month follow-up period, adjustment level remained constant. It was concluded that educational-vocational group counseling restores a normal level of adjustment and degree of congruence among the clients' perceptions of self, his ideal self, and other persons.

Similarly, Williams and Cole (36) examined the extension of the role of the self-concept in the explication of academic behavior by focusing on the relationship between self-concept indices and a series of variables construed to be fundamental to school adjustment. The series of dependent variables included conception of school, social status at school, emotional adjustment, mental ability, reading achievement and mathematical achievement.

Sixty urban-school sixth graders and twenty rural-school sixth graders were administered the Tennessee Self-Concept Scale, a researcher-constructed questionnaire on school attitudes, and an unpublished social esteem scale with the California Test of Personality and the California Short-Form Test of Mental Maturity. Reading and arithmetic batteries were also given from the California Test Battery. All tests were given weekly.
Analysis of the results produced few high correlations, but all were statistically significant. A student's self-appraisal was significantly related to the group's appraisal of him, which supports Brookover's contention that communication from significant others affects the self-concept. The authors feel that it is reasonable to infer a reciprocal cause-effect relationship between self-concept and academic achievement. There was evidence that when intellectual ability is controlled, self-concept is a basic causal factor in determining achievement level in school.

The authors also found a significant relationship between mental ability and self-concept. The academic reinforcement consistently received by the brighter student, but infrequently by the less bright, undoubtedly affects self-concept.

Using a pre-test-post-test control-group design, Muro and Ohnmacht (23) tested the effects of group counseling on attitudes of self-acceptance of college freshmen. Twenty-eight students of the experimental group received group counseling twice a week for one hour for fifteen weeks. A control group without treatment was also constructed. The Rockeach Dogmatism Scale, Bills Index of Adjustment and Values, and the Barron Complexity Scale were administered.
There was a statistically significant increase on the self-acceptance scale of the Index of Adjustment and Values for the experimental group only. There was no statistically significant difference between the experimental group and the control group on the other two instruments.

In 1968, Lewis (19) studied the effect of long-group therapy sessions on participant perceptions of self and others. His threefold purpose included: (1) determination of the effect that group therapy would have on each participant's opinion about the type of person he is and his description of the type of person he would like to be, (2) the effect of group therapy upon the ability of the group members to make more accurate estimations of how their spouses feel about themselves, and (3) the effect of how spouses see each other after treatment on a list of pre-treatment grievances.

Forty-eight couples, twelve in each group, were tested prior to the first therapy session and again two weeks later with the Q-sort on themselves and their spouse. Each listed grievances. Of the four groups, two were experimental groups with an emphasis upon effective interpersonal interaction. The third group received an educational-discussion experience and the fourth group attended no meetings but were tested.
There were no significant differences in any of the groups between how the clients saw themselves or how they would like to be. Clients did not make significantly more accurate estimates after therapy of how their spouses felt. There was not a significant trend for the clients to rate their spouses as having improved on the list of grievances. The results suggested that neither the educational-discussion group nor the group therapy is superior to the no-group experience.

Conducting Management Training Laboratories, French and Sherwood (13) researched a two-week conference in human relations involving twenty middle-management employees. The design consisted of two T-groups, and data were received at five points in time—the second day, three times during the next twelve days, and then months later.

The researchers found that the hypothesis that the greater the amount of communicated objective public identity (COPI), the greater the change in self-identity was not supported. Neither was the hypothesis that the greater the centrality of a dimension to the subject, the greater the change in one's self-identity along that dimension supported. However, they did find significance for the hypothesis that the lower a person's self-evaluation (or the higher his dissatisfaction) on a dimension of self-perception, the greater the change in his
self-identity along that dimension. Therefore, they concluded that
the state of the individual plays a great part in opportunity for signifi-
cance. Apparently, the more one is dissatisfied with his present
self-perceptions, the more he is likely to change them.

Knowing that body-image is also a significant part of self-
concept, Wheeler (34) investigated the effects of the small encounter
group experience upon selected measures of the body image in the
group member. The intent of the study was to examine the impact of
certain methods and procedures upon selected aspects of the body
image. Also, the study examined the relationship between elements
of the body image and the self-concept. Body image refers to the
image of the way one believes his body appears to himself and to
others.

The researchers found that there was a change in the six
groups on the selected body-image measures following the treatment
period. Most consistently, the three treatment groups which prac-
ticed the non-verbal exercises revealed a greater change in the expected
direction than the three groups which were not exposed to the treatment
method. The researchers therefore concluded that the application of
non-verbal methods in the encounter group seems to effect a change in
subject's body image and, secondly, that there appears to be a moderate
but complex relationship between the body image and self-concept.
Secord and Jourard (30), in their studies of groups, found that feelings about the body are commensurate with feelings about the self. Indeed, the studies showed significance with extremely high correlations. Low body cathexis (the degree of feeling of satisfaction or dissatisfaction with the various parts or processes of the body) was also found to be highly associated with anxiety in the form of undue autistic concern with pain, disease, or bodily injury. Lastly, the hypothesis that low body cathexis was associated with insecurity was confirmed.

In an adjunctive study, Bauste (3) confirmed that body cathexis changed significantly as a result of group interpersonal interaction, and even more so if that interaction contained feedback as to physical appearance.

Structured Units as a Program for Group Counseling

In the field of human potential training, two individuals have become quite well known for their structured units outlined as a method for group counseling. Otto (25) has produced a well-defined manual which contains units for the depth unfoldment experience, strength acknowledgment, strength role assignment, existential encounter, life goals inquiry, Shapiro mirror technique, Minerva experience, death-in-life experience, sex-fantasy sharing, historical-character method,
strength-block perception, meaningful-object experience, peak-joy method, and many others. McHolland (21) has developed a national institute using these exercises as a method of developing growth in group members. Otto (25, 26), in conducting numerous laboratories, has found that four significant findings have emerged, particularly if the depth unfoldment exercise is utilized at the beginning of group counseling: (1) communication and class discussion are greatly facilitated; (2) participation in class activities, assignments, etc., are facilitated; (3) use of the method encourages formation of friendship ties and affinity relationships early in the group life; and (4) the quality of the initial sharing by the leader influences and determines the quality of the depth expression experiences shared by the members.

Munzer (22) conducted a study to investigate factors which could facilitate therapeutic interaction in the early stages of a psychotherapeutic group. The author hypothesized that through the use of certain warm-up exercises and procedures the group would become more cohesive at an earlier stage than a control group. The experimental group was given the following procedures in hopes of facilitating group cohesiveness: predicting the roles of other members, sharing childhood memories, sharing dreams and fantasies, projective drawings, and life-space drawings.
The author found that the experimental group used the words "we" and "us" significantly more often than did the control group. There was also a significant difference between the two groups with respect to depth of control of the subjects' remarks. The subjects of the experimental group indicated a higher degree of satisfaction than did the controls. No difference was found in the amount of verbalized negative effect. The author concluded that the warm-up procedure facilitated therapeutic interaction.

Berzon and Solomon (5) developed an eighteen-session program of stimulus materials and tested them with a vocational rehabilitation client population. Eight small groups met twice weekly for nine weeks. Four of the groups were professionally-directed (PD) and did not use the stimulus materials. Four other groups did not have professional leadership and used the materials instead. These were the self-directed groups (SD). The SD group members each had a booklet containing the stimulus exercises. The contents were read aloud, paragraph at a time, around the circle. Each session had an exercise to be completed. Quantitative assessment was made using a battery of seven research instruments. The researchers included pre-tests and post-tests to measure personality and self-concept change, counselor-rated progress toward vocational rehabilitation, and early and late subject-ratings of the therapeutic conditions.
perceived to be present in the groups. They also measured session-
by-session ratings of the degree of self-disclosure and ratings of group "therapeutic climate" made by an observer monitoring the live inter-
action via one-way vision windows.

The results of the study indicated a change in self-concept in
the direction of a more positive evaluation by both the PD and SD
subjects, as compared to control subjects who did not have a group
experience. The data revealed a significant increase in self-disclosure
from early to late sessions for both the PD and SD conditions. In
both instances improved self-concept and increased self-disclosure
were achieved in the SD condition to the same extent as was possible
under the guidance of a professionally-trained leader.

Hanson, Rothaus, and O'Connell (14) experimented with a
four-week, five-hour-a-day group experience with the objective of
having subjects examine their own relationships and become more
effective in group interaction. The training laboratories dealt with
structured information on group dynamics through lectures, discus-
sion, movies, and exercises in problem solving and role playing.
The structured exercises were (1) unfreezing-freer sensing and
expression of feelings, (2) change through personal involvement and
analysis of group process, and (3) refreezing-integration of newly
learned attitudes and behavior. The techniques included rating scales,
feedback instruments, gatekeeping, DIFG (dilemma-intervention-feedback-generalization process concerning given hypothetical situations), and FFA (force field analysis of specific, actual problems of the patients).

Emphasis was placed upon the value of experimentation in an atmosphere supportive of self-examination and reductive of risks. The participant was to see himself as master of his own fate, not as a pawn to be moved about by staff-made decisions—to learn that he has real power to change his own life.

The results of a nine-month follow-up study on the 1500 participants indicated there was a decrease in somatic complaints, anxiety, depression, dependency, resentment, overprotectiveness and overcomplaining and an increase in self-confidence, activeness, and self-satisfaction.

Synthesis of the Reviewed Literature

In postulating rationales for the use of group counseling as a viable modality of treatment, Driekurs and Sonstegard (11), Rogers (29), and Sonstegard (31) are consistent in stating that, as social beings, we constantly interact with each other and form our perceptions of self via this social interaction. Group, therefore, affords a duplication of the reality of the social being. They also contend that more learning takes place in group where other members are used as
sounding boards. The member learns what it means to give and receive emotional support and understanding in a context not unlike that which initially created the need to distort the perception of self and of the self in relation to others.

Group, also, facilitates the modeling of healthy behavior. Reticent members gain courage and support from those who speak out and are reinforced. A wider range of values, perceptions, and options is made available through contact with varied personalities. Finally, members may gain a mature balance between giving and receiving, greater independence, and a realistic and self-sustaining dependence on others. Members move through stages of forming new relationships, analyzing, interpreting, and reorienting.

Ohlsen (24), Palmo and Kuzniar (27), Warner (33), and Caplan (7) report studies which indicate that group counseling is an effective modality for positive change in self-concept and internal/external congruence. Their studies indicate that group therapy also substantiates the group-treatment form as a viable method for a constructive change vehicle for maladaptive behavior.

Baehr (2) concluded that group counseling is effective, especially when combined with individual therapy.

Studies which particularly focused upon the effects of group counseling upon self-actualization of clients report varied conclusions.
Foulds (12) found that Personal Growth Groups were effective in increasing a member's self-actualization as measured by eight of the twelve scales on the Personal Orientation Inventory and assessed by t-tests. Culbert and Clark (10) found similar results in the increase of self-actualization in clients after group counseling, but they found also that the holding of such values did not correlate with actual behavioral change. Reddy (28) verified the results of Foulds (12) and Culbert and Clark (10) and further discovered that groups precomposed to be incompatible and dissonant on the POI scale values made greater gains than did compatible groups, indicating the anxiety must be high before any change takes place in movement toward self-actualizing reports by members in the group.

Klingberg (16) confirmed that using group counseling with experimental groups tended to bring subjects toward center, away from the extremes, as measured by the instruments. The research did not show, however, that the people became more self-actualizing, just that they did change in some way. Mase (20) studied the effects of group counseling upon self-actualization with and without formal cognitive input. After one year he found that there were no differential differences in the two types of treatment, that both treatments influenced personal growth in terms of self-actualization, and that the original treatment effect was saved at the delayed measure.
Hull (15) investigated the effects of structured versus unstructured groups in effecting self-actualization in clients. He found no differences in experimental experience between the groups except for reduction in stereotyping and increased expression of feeling. However, Bellenti (4) found that groups formed in the same configuration as in Hull's (15) study showed significant increases in their level of empathy, respect, and congruence, but did not increase in self-actualization behavior. A study by Carkhuff (8) suggests that the increase in empathy, respect, and congruence is due to the modeling of the facilitator of the group.

Byrd (6) walks the middle line and reports that a new model called Creative Risk Taking, when used in group, increases self-actualization dimensions of independence, spontaneity, and risk taking, but does not affect social sensitivity and self-control. The Counseling Center Staff at the University of Massachusetts (9) and Leib and Snyder (18) are more emphatic about the results of their studies which showed that group counseling did not produce changes in self-actualization in any of three different group configurations: a time-restricted group of five weeks, a time-extended group with no time limit to the sessions, and a marathon group which met for one ten-hour session. They also discovered that eighteen weeks of group discussion
about common problems to college students did not effect an increase in self-actualization on any dimension.

Looking at the possible change in self-concept reports by members of groups and believing that self-concept change is necessary to increased levels of self-actualization, Apostol and Muro (1) experimented with groups and found that group counseling significantly improved self-concept but did not increase self-recognition abilities.

Truax, Schuldt, and Wargo (32) concurred that changes in self-ideal are primarily a function of change in self-concept, whereas Koile and Draeger (17) seconded the findings and further concluded that members saw themselves as more authentic, natural, sensitive, and supporting after group experience. However, measuring the same dimensions of self-concept change and using similar methods, Williams (35) found that the adjustment level of the concept of congruence of clients was not significantly different from that of non-clients over a four-month follow-up period. Williams and Cole (36) investigated still another dimension of self-concept and found that when intellectual ability is controlled in the study, self-concept is a basic causal factor in determining achievement in school, thereby finding a significant relationship between mental ability and self-concept. Muro and Ohnmacht (23) verified these same positive changes with measurement on the Index of Adjustment and Values.
To the contrary, Lewis (19) and French and Sherwood (13) conducted extended group therapy sessions and educational-discussion sessions with clients and found that the two different groups were not superior in any way to the no-group experience of other subjects. Group therapy had no significant effect upon each participant's opinion of the type of person he was or the description of the type of person he would like to be. The subjects were no more accurate in their perceptions at the end of the treatment period than they were at the beginning of it. However, interestingly, there were significant changes in self-concept for a partialed-out segment of the group population. Those who entered group with very low self-evaluations elevated their self-concept more than those who entered with reports similar to the national norms. The researchers concluded that groups may reach significance in level of change if they are reported at the extreme of the national norms initially. The more one is dissatisfied with his present self-perceptions, the more he is likely to change them.

Assuming that body image is a factor in self-concept reports, Wheeler (34) investigated the effects of the small encounter group experience upon selected measures of body image in the group member with the intent of examining the impact of certain methods upon selected aspects of body image. The treatment group using non-
verbal methods showed improved body image in post-test measurements. Secord and Jourard (30) found that low body cathexis (the degree of feeling of satisfaction of dissatisfaction with the various parts or processes of the body) was associated with insecurity and low self-concept, whereas Bauste (3) found that body cathexis changed significantly as a result of group interpersonal interaction, and even more so if that interaction contained feedback as to physical appearance.

Structured units or exercises are becoming more popular as guidelines for management and programming of growth in group encounters. Otto (25, 26) and McHolland (21) have developed the Human Potential Seminars with over thirty specific structured exercise units which are arranged in sequential order for programmed growth areas needed by clients involved in group counseling. Their research suggests that a successful unit for diminishing threat in a group is the depth unfoldment exercise. Similarly, Munzer (22) used warm-up exercises with significant results indicating that group members developed greater group unity, depth of control, and a higher degree of satisfaction with themselves than did the control group. The procedures facilitated therapeutic interaction. Berzon and Soloman (5) also found positive results with structured exercise units designed to raise a patient's self-concept. In fact, the specific
program units were successful in both professionally-directed and self-directed groups.

Hanson, Rothaus, and O'Connell (14) conducted laboratory training sessions with group subjects who were asked to attend lectures, discussion groups, movies and exercises in group dynamics. All sessions contained structured information and lesson plans to be completed before departure. The follow-up period study showed a mean decrease in somatic complaints, anxiety, depression, dependency, resentment, overprotectiveness, and overcomplaining as well as a mean increase in the self-confidence, activeness, and self-satisfaction of the 1500 participants.
CHAPTER BIBLIOGRAPHY


CHAPTER III

METHOD

The purposes of this study were (1) to determine whether group counseling employing the EPI-C model would result in positive gain in subject self-actualization, (2) to determine whether group counseling using the EPI-C model would be more effective than a topical discussion (placebo) group as a method of increasing subject self-actualization, (3) to determine whether group counseling utilizing the EPI-C model would produce greater positive change in subject self-actualization than no group treatment at all, and (4) to provide information that might be beneficial with regard to future research involving the use of the EPI-C model in group counseling.

This chapter provides an explanation of the procedures used to achieve the purposes of the study.

Description of Subjects

Subjects for the EPI-C groups involved in the study were master's level students enrolled in Education 574 (Group Counseling) at North Texas State University. Two classes were used with a total of thirty-two students. Four EPI-C groups were formed with eight
students in each group. Two doctoral interns, trained in the use of the EPI-C model, facilitated two EPI-C groups each. The groups met once a week for one and one-half hours for a period of thirteen weeks. Each group leader followed the procedure outlined for leaders in the EPI-C manual: *Effective Personal Integration: A Guide for Group Leaders* by Berg and Smallwood (1).

Subjects for the topical discussion (placebo) group were fifteen students chosen at random from the population in a graduate counseling and student personnel class, Education 578, at North Texas State University. They met thirteen times for one and one-half hours each to discuss the American Student in Higher Education and Student Personnel Problems in an environment of lecture and discussion. The parameters of the time period of study were the same as for the experimental group. The facilitator of the placebo group was a professor in the Department of Education.

The control-group population of twenty students was an intact graduate lecture class in education at North Texas State University.

Subjects in all six groups were tested immediately before the initial session and again immediately after the thirteenth session.

No subject was told anything of the design or hypotheses of the study. Each was asked to complete an entire packet of testing materials which contained the *Personal Orientation Inventory*, the
Guilford-Zimmerman Temperament Survey, and the EPI-C Scale for Emotional Self-Assessment, the EPI-C Scale for Physical Self-Assessment, and the EPI-C Scale for Intellective Self-Assessment.

EPI-C Model Treatment

The EPI-C Model, developed by Robert Berg (1), focuses upon assisting the group member to become the fullest person that he is capable of becoming. The model is one that is designed specifically for group counseling, based on the belief that "groups move more quickly toward productive behavior when there is a didactic/experiential blend used as a format for growth" (1, p. 18). Berg also asserts that "groups seem to profit more when they expressly practice, in a concrete way, the skills that they need for group membership and individual growth" (1, p. 18).

Accepting these assumptions, he set forth a series of approximate steps and activities in sequential order as vehicles to achieve individual goals. These six exercise units were employed by the trainers of the experimental groups.

Exercise One: Perception and feedback skill building exercise:--At the first session, the leader asked his group of eight to break into triads. Each member was to try to join a triad in which the other two members were relatively unknown to him. One at a time, one individual of the triad was designated as the "focus
person" while the other two shared their perceptions with him as he remained silent. The two contributing members of the triad were asked to draw their perceptions from the "focus person's" style of dress, facial expressions, body build, and carriage, prior verbal interaction, and any other clue that seemed to add to the overall impression. Verbalizations were to be concrete and specific. After perceptions were shared, the "focus person" broke his silence and responded to any material that had been offered him, and perceptions of contributing members were clarified. When the process was completed, it rotated to the second and then to the third member of the triad.

The exercise took approximately forty-five minutes for each triad. Members then joined a different triad and repeated the exercise, thereby enabling each member to share with four different individuals and to receive feedback from those same four persons.

Exercise Two: Self-disclosure/self-exploration skill building exercise:--Each member of the group was asked to spend five minutes sharing the high points of his life with the other members. He specifically was to mention significant people in his life history, the peak experiences and constructive happenings. The leader also joined in on this exercise to model good self-disclosure/exploration skills.
Exercise Three: Assessment and understanding of self:--
The leaders utilized the EPI-C Self-Assessment Scales of each member as a vehicle for focusing upon what each had reported as his self-concept and behavioral patterns. Again, the groups used the triad model to gain feedback on the perceived accuracy of their reports and as another opportunity for self-exploration. The facilitator was primarily concerned with aiding group members by providing assistance in understanding of themselves. Members were encouraged to explore their own attitudes and behaviors, and they were positively reinforced for focusing upon their behavior. They were specifically told that they were capable of controlling, changing, modifying, discarding, implementing, or enhancing any behavioral characteristics they might find in their exploration.

Exercise Four: Personal contracting for change and growth:--
Individual members were asked to enter into a contract with the group in which each contracting member promised to effect some desired behavior change and/or feeling change. Each subject was asked to be specific enough so that the resulting behavior could be checked out in the group. Criteria for the contract required that the change be achievable, observable, measurable, and repeatable. Leaders emphasized that all contracts could be modified or discarded entirely if they became out-of-date or non-functional.
Exercise Five: Developing programs for achieving personal growth:—After the exploratory process was completed and contracts made, members were asked to initiate a plan of action for personal growth which they themselves formed individually and shared with the group or which was formed by the individual jointly with the assistance of the group leader and/or other group members. Only in extreme cases did the leader assist with a leader-initiated plan for a member. All members were told that there would be a procedure in group for checking out behavioral progress.

Exercise Six: Achieving and assessing personal goals and growth:—At this stage, the group leader acted as a potent reinforcer for members who continued their exploration process, were meeting their contracts and making new ones, were risking their new behaviors, and were pushing and demanding of themselves in new modes of effective living. Leaders modeled conditionality for members who exhibited inappropriate or self-defeating behaviors.

Description of Instruments

The Personal Orientation Inventory, the Guilford-Zimmerman Temperament Survey, the EPI-C Scale for Intellective Self-Assessment, the EPI-C Scale for Physical Self-Assessment, and the EPI-C Scale for Emotional Self-Assessment were used to provide a measure of self-actualization.
Personal Orientation Inventory

The Personal Orientation Inventory (7) is an instrument which assesses values, attitudes, and behavior relevant to Maslow's descriptive concept of a self-actualized person (see Appendix A). For the purpose of this study, the measurement indicated on the Inner Support scale was utilized. The scale measures the tendency of a person to act on and be guided by his own principles and motives in contrast to a wide variety of external pressures. The support scale also measures whether the individual's mode of reaction is characteristically "self" or "other" oriented. Within the scale there is measurement for five facets of self-actualization. Each facet consists of a pair of closely related, but contrasting, variables. Pair I deals with interpersonal values, such as self-actualizing values (the valuing of acting on one's own principles) paired with existentiality (the valuing of flexibility in applying these principles). Pair II deals with admitted responsivity to one's feelings such as feeling reactivity (sensitivity to one's own feeling) paired with spontaneity (the free expression of those feelings). Pair III deals with attitudes toward self, such as self-regard (the liking of oneself as a person) paired with self-acceptance (the attitude of acceptance of one's weaknesses). Pair IV deals with "awareness" in looking at the nature of man (the attitude that man is basically good) as it is paired with synergy (the
perception of opposites in life, such as lust and love, as really having something in common). Pair V deals with sensitivity to important aspects of interpersonal relations such as the acceptance of aggression (the acceptance of one's own hostile feelings) paired with a capacity for intimate contact (the desire to respond to expectations and obligations without becoming a slave to them or using them to exploit people).

The Personal Orientation Inventory consists of 150 non-threatening items based on significant problems of value judgments seen by several therapists over a five-year period. Each item is a two-choice comparative value and behavior judgment.

The author of the instrument, Everett Shostrom, believes that "inner" or self-directed people are guided by internalized principles and motivations, whereas "other" directed people are greatly influenced by their peer group or other external forces. He describes the self-actualizing individual as one who is more fully functioning and lives a more enriched life than does the average person. The self-actualizer develops all of his unique potentialities and is relatively free of the emotional turmoil as compared with others who are less self-actualized.

Test-retest reliability coefficient reported in the Manual (7) was established at .84 for the Inner Support scale. The normative
data are biased toward the college student population, based on 2,007 entering freshmen.

Shostrom reports the content validity of the POI is good. The variables being assessed by the items are broadly defined. The content of the items is appropriately quite varied. The validity of the POI can be well documented by summarizing the results of studies of the Inner Support scale which show a considerable degree of validity as a measure of feelings, values, and attitudes appropriate to self-actualization. According to the Manual, in five of six therapy studies using the Inner Support scale, the scores of patients increased from pre-therapy to post-therapy more than they did for non-patient controls. In studies using person-rating methods, Inner Support scale scores were found to be positively related to clinical ratings of self-actualization, to ratings of empathy and facilitative genuineness in practicum students.

The Seventh Mental Measurements Yearbook lists 123 studies using the Personal Orientation Inventory. Bruce Bloxom (4) states that the POI lacks some desirable properties as an inventory because of an item overlap on its subscales; but if only the Inner Support scale is used (as was the case in this study), this problem ceases to exist.
Guilford-Zimmerman Temperament Survey

The Guilford-Zimmerman Temperament Survey (5) was used to measure self-reports of self-actualization (see Appendix A). The survey is a systematic classification of personality traits determined by factor analysis. The items in the Guilford-Zimmerman Temperament Survey are expressed in the form of affirmative statements rather than questions. Most of the items concern the examinee directly. A few represent generalizations about other persons. The use of the affirmative item form is an effort to reduce the resistance that a series of direct questions is likely to arouse in the examinee. In addition, three verification keys are provided to detect falsification and carelessness of response.

This instrument was additionally pertinent to this study because the percentile and standard score norms were derived chiefly from college samples, and the subjects of this study were derived chiefly from college populations.

The Guilford-Zimmerman Manual indicates that split-half reliabilities of separate factor scores range from .75 to .85. The means of the traits range from 15.0 to 18.2 and the standard deviations range from 4.90 to 6.02.

The internal validity of factorial validity of the scores is fairly well assured by the foundation of factor-analysis studies plus the
successive-item analyses directed toward consistency and uniqueness. Evidences of practical validity, based upon correlation studies with practical criteria of adjustment, have accumulated (5).

This study used only the General Activity, Ascendance, Emotional Stability, Objectivity, and Thoughtfulness scales as a protocol pattern for self-actualization as suggested by the definition in the Manual (5) of each of the traits scored on the instrument.

The Fourth Mental Measurements Yearbook and The Fifth Mental Measurements Yearbook lists fifty-three studies using the Guilford-Zimmerman Temperament Survey. Van Steenberg (5) states that there is a general bias toward the favorable pole; however, he finds that such directionality is not surprising and that the personnel technician who heeds this general warning is able to adjust his evaluation by relating to the configuration of scores in consideration.

The EPI-C Semantic Differential Scales

The Semantic Differential scales used in this study followed the design suggested by Osgood (6). They were designed to take into account the multidimensionality of the meaning space and followed the assumptions of Stagner and Osgood which give support to the construct and use of the scales (see Appendix A).

a. The process of description or judgment can be conceived as the allocation of a concept to an experiential continuum defined by a
pair of polar terms. Such polar terms are represented in the EPI-C scales regarding emotional, physical, and intellectual self-assessment (see Appendix A).

b. Many different experiential continua, or ways in which meanings vary, are essentially equivalent and hence may be represented by a single dimension. The EPI-C scales conform to this concept.

c. A limited number of such continua can be used to define semantic space within which the meaning of any concept can be specified. The EPI-C scales are constructed with eight meaning spaces.

Osgood explains that the reliability studies that have been conducted show high degrees of correspondence between two profiles given to numerous subjects. Using different, but somewhat similar word concepts, Osgood found validity in the differentiations. However, he clearly states that the factor analytic work with the scales, basic to selecting the scales to be used in a semantic differential, has only begun, and the various checks on reliability, sensitivity, and comparability remain to be made. Another dissertation is in progress at North Texas State University which includes a factor analysis of the EPI-C scales.

Scoring of the EPI-C Semantic Differential scales was performed in such a manner as to yield a composite description score for
each of the three scales' dimensions. Change was evaluated using a pre-test-post-test difference value derived from these composites.

Procedures for Collecting Data

Subjects for the EPI-C groups involved in this study were thirty-two master's level students enrolled in Education 574 at North Texas State University. Four EPI-C groups were formed with eight students in each group. Two doctoral interns, trained in the EPI-C model facilitated two EPI-C groups each. The groups met once a week for one and one-half hours for a period of thirteen weeks. Each group leader followed the procedure outlined in the EPI-C manual: Effective Personal Integration: A Guide for Group Leaders, by Berg and Smallwood (1). The procedure included six specific exercises:

a. Perception and Feedback Skill-Building
b. Self-Disclosure/Self-Exploration Skill Building
c. Assessment and Understanding of Self
d. Personal Contracting for Change and Growth
e. Developing Programs for Achieving Personal Growth
f. Achieving and Assessing Personal Goals and Growth

The four experimental groups completed the Personal Orientation Inventory, the Guilford-Zimmerman Temperament Survey, the EPI-C Scale for Emotional Self-Assessment, the EPI-C Scale for Intellective Self-Assessment, and the EPI-C Scale for Physical Self-
Assessment before the first meeting and again at the end of the thirteenth meeting.

The topical discussion (placebo group) and the no-treatment (control) group met identical times and were administered the same instruments according to the same time schedule as the experimental groups.

The experimental design of the study was the pre-test-post-test control group design from Stanley and Campbell (8) with the addition of an attention discussion placebo group to control for an Hawthorne effect.

\[
\begin{array}{cccc}
R & O_1 & X & O_2 \\
R & O_3 & & O_4
\end{array}
\]

Symbols \(O_1\) and \(O_3\) were pre-test measures on the Guilford-Zimmerman Temperament Survey, the Personal Orientation Inventory, the EPI-C Scale for Intellective Self-Assessment, the EPI-C Scale for Physical Self-Assessment, and the EPI-C Scale for Emotional Self-Assessment, whereas \(O_2\) and \(O_4\) were post-test measures for the same instruments. The symbol \(X\) represented the treatment of the EPI-C model for group counseling.

Data from the five instruments were coded and punched for automatic data processing procedures.
Procedures for Analysis of Data

Means and standard deviations were computed from the experimental, placebo, and control group pre-test and post-test scores on the Personal Orientation Inventory and the Guilford-Zimmerman Temperament Survey. Group mean-change scores were also computed for each of the three groups.

Mean-difference scores (actual-ideal--X, O) were computed from experimental, placebo, and control groups' pre-test and post-test scores on each of the three EPI-C Semantic Differential scales. Standard deviations were computed for all groups.

Hypotheses Ia, Ib, Ic, Id, Ie, II and III were tested using one-tailed t-tests for related samples. The groups' mean scores on pre-test and post-test measures on General Activity, Ascendance, Emotional Stability, Objectivity, and Thoughtfulness on the Guilford-Zimmerman Temperament Survey were each compared separately. The null hypothesis that there would be no significant differences between pre-test and post-test means was utilized for the statistical tests. The .05 level of significance was used.

Hypotheses IV, V, and VI were tested using one-tailed t-tests for related samples. The groups' mean scores on the pre-test and post-test measures of Inner Support on the Personal Orientation Inventory were compared. The null hypothesis that there would be no
significant differences between pre-test and post-test means was utilized for the statistical tests. The .05 level of significance was used.

Hypotheses VII, VIII, IX, X, XI, XII, XIII, XIV, and XV were tested using one-tailed t-tests for related samples. The groups' mean scores on the pre-test and post-test measures of the Emotional Self-Assessment scale, Physical Self-Assessment scale, and Intellectual Self-Assessment scale on the EPI-C Semantic Differential were compared separately. The null hypothesis that there would be no significant differences between pre-test and post-test means was utilized for the statistical tests. The .05 level of significance was used.

Hypotheses XVI and XVII were tested using simple analysis of covariance. An F ratio was obtained for each variable. The .05 level of significance was used.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

RESULTS AND DISCUSSION

In this chapter are reported the pre-test and post-test means and standard deviations of the nine variables used in the comparison of the experimental, placebo, and control groups. t-ratios, F-ratios, and levels of significance are reported for the statistical tests of significance.

Since the t-tests are one-tailed, all groups which showed negative t-ratios reported a level of significance equal to one-half p subtracted from 1.000. All positive probabilities (p) were simply divided in half as outlined by Winer (2).

To obtain analysis-of-covariance computations, a program was activated by computer to yield total regression coefficients, within regression coefficients, tests of homogeneity of regression weights, an analysis of covariance summary table (reported intact in Tables XIX-XXVII) and adjusted means of all the experimental, placebo, and control groups. The Dunn Multiple Comparison Procedure was then applied to the data because it is an a priori procedure designed for significant difference between adjusted mean scores of

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groups with unequal populations. All computations were computed using the following formulas:

\[ d = t' \frac{D}{a/2}; C \sqrt{\text{MS error}} \frac{(C_j)^2}{n_j} + \frac{(C_j')^2}{n_j'} + \ldots + \frac{(C_j'')^2}{n_j''} \]

Experimental minus Placebo:

\[ d = 2.47 \sqrt{\text{MS within}} [0.08125] \]

Experimental minus control:

\[ d = 2.47 \sqrt{\text{MS within}} [0.10268] \]

This formula yielded a significant-difference score which was then compared with the actual difference score of adjusted means for the two groups involved. If the significant difference score was less than the actual difference score, the .05 level of significance was reached.

All procedures used in analysis-of-covariance computations were conducted as outlined by Kirk (1).

Hypotheses Ia, IIa, and IIIa

For testing purposes the stated hypotheses of Chapter 1 were restated in the null form.

Null hypotheses Ia, IIa, and IIIa were, From pre-test to post-test there will be no significant improvement in self-
actualization for the subjects under the EPI-C model (Ia), the
topical discussion (placebo) group model (IIa), or the no-treatment
(control) group (IIIa) as measured by the upward movement of the C-score on the General Activity scale of the Guilford-Zimmerman Temperament Survey.

The mean scores and standard deviations obtained from the General Activity scale of the Guilford-Zimmerman Temperament Survey are presented in Table I.

TABLE I
MEANS AND STANDARD DEVIATIONS FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (GENERAL ACTIVITY SCALE)

<table>
<thead>
<tr>
<th>Group</th>
<th>Means</th>
<th>Standard Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>Experimental</td>
<td>5.34</td>
<td>5.81</td>
</tr>
<tr>
<td>Placebo</td>
<td>6.14</td>
<td>5.71</td>
</tr>
<tr>
<td>Control</td>
<td>5.55</td>
<td>4.95</td>
</tr>
</tbody>
</table>

This table shows that the experimental group and control group scored almost the same on the pre-test of the General Activity scale of the Guilford-Zimmerman Temperament Survey, whereas the placebo group scored slightly more than one-half point higher than the
other two groups on the ten-point scale. Both the placebo and control
groups showed a decrease from the pre-test to the post-test (.43 and
.60 respectively), but the experimental group gained almost one-half
point (.47) on the post-test.

The standard deviations for the groups indicated that score
variability on the pre-test was higher for the placebo group than for
the experimental and control groups. The experimental-group
scores became less homogeneous, as evidenced by the pre-test and
post-test standard deviation change from 2.13 to 2.40, whereas the
placebo-group scores became more homogeneous with a standard devia-
tion change from 2.51 to 2.09. The control group showed no change
in standard deviation.

A one-tailed \( t \)-test for related samples was used to test the
three hypotheses. The .05 level of significance was used as the cri-
terion for accepting or rejecting the null hypotheses. The results
of the \( t \)-test are presented in Table II.

This table shows that there was no significant change for
any of the groups with regard to scores for the General Activity scale,
although there were wide differences between the experimental group
and the latter two groups. The null hypotheses were not rejected.
TABLE II

_**t**_-TEST RATIOS, DEGREES OF FREEDOM, AND LEVELS OF SIGNIFICANCE FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (GENERAL ACTIVITY SCALE)

<table>
<thead>
<tr>
<th>Group</th>
<th><em>t</em>-ratio</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>.825</td>
<td>31</td>
<td>.206</td>
</tr>
<tr>
<td>Placebo</td>
<td>-.491</td>
<td>13</td>
<td>.686</td>
</tr>
<tr>
<td>Control</td>
<td>-.942</td>
<td>19</td>
<td>.824</td>
</tr>
</tbody>
</table>

Hypotheses Ib, IIb, and IIIb

Null hypotheses Ib, IIb, and IIIb were, From pre-test to post-test there will be no significant improvement in self-actualization for the subjects under the EPI-C model (Ib), the topical discussion (placebo) group model (IIb), or the no-treatment (control) group (IIIb) as measured by the upward movement of the C-score on the Ascendance scale of the Guilford-Zimmerman Temperament Survey.

The mean scores and standard deviations obtained from the Ascendance scale of the Guilford-Zimmerman Temperament Survey are presented in Table III.
TABLE III

MEANS AND STANDARD DEVIATIONS FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (ASCENDANCE SCALE)

<table>
<thead>
<tr>
<th>Group</th>
<th>Means</th>
<th>Standard Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>Experimental</td>
<td>6.53</td>
<td>7.31</td>
</tr>
<tr>
<td>Placebo</td>
<td>6.36</td>
<td>4.93</td>
</tr>
<tr>
<td>Control</td>
<td>4.90</td>
<td>4.56</td>
</tr>
</tbody>
</table>

This table shows that the experimental and placebo groups scored very similarly on the pre-test of the Ascendence scale of the Guilford-Zimmerman Temperament Survey, whereas the control group scored considerably lower than the other two groups. Both the placebo and control groups showed a decrease in mean score from the pre-test to the post-test (1.43 and .34 respectively), but the experimental group gained .78 on the post-test.

The standard deviations for the groups indicated that score variability on the pre-test was considerably higher for the placebo and control groups than for the experimental group. All groups became more homogeneous, with marked movement toward homogeneity for the experimental and control group.
A one-tailed, t-test for related samples was used to test the three hypotheses. The .05 level of significance was used as the criterion for accepting or rejecting the null hypotheses. The results of the t-tests are presented in Table IV.

**TABLE IV**

<table>
<thead>
<tr>
<th>Group</th>
<th>t-ratio</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>2.296*</td>
<td>31</td>
<td>.013</td>
</tr>
<tr>
<td>Placebo</td>
<td>-1.689</td>
<td>13</td>
<td>.949</td>
</tr>
<tr>
<td>Control</td>
<td>- .513</td>
<td>19</td>
<td>.691</td>
</tr>
</tbody>
</table>

*Significant

This table shows that there was significant change for the experimental group only. The null hypothesis Ib was rejected. Null hypotheses IIb and IIIb were not rejected.

**Hypotheses Ic, IIc, and IIIc**

Null hypotheses Ic, IIc, and IIIc were. From pre-test to post-test there will be no significant improvement in self-actualization for the subjects under the EPI-C model (Ic), the topical discussion
(placebo) group model (IIc), or the no-treatment (control) group (IIIc) as measured by the upward movement of the C-score on the Emotional Stability scale of the Guilford-Zimmerman Temperament Survey.

The mean scores and standard deviations obtained from the Emotional Stability scale of the Guilford-Zimmerman Temperament Survey are presented in Table V.

**TABLE V**

MEANS AND STANDARD DEVIATIONS FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (EMOTIONAL STABILITY SCALE)

<table>
<thead>
<tr>
<th>Group</th>
<th>Means</th>
<th>Standard Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>Experimental</td>
<td>6.59</td>
<td>6.91</td>
</tr>
<tr>
<td>Placebo</td>
<td>5.93</td>
<td>5.50</td>
</tr>
<tr>
<td>Control</td>
<td>5.50</td>
<td>5.25</td>
</tr>
</tbody>
</table>

This table shows that the experimental group scored much higher on the pre-test of the Emotional Stability scale than did the placebo or control group. The latter two groups also decreased in mean scale scores on the post-test, whereas the experimental group increased .32 on the post-test.
The standard deviations for the groups indicated that score variability on the pre-test was lower for the placebo group than for the experimental and control groups. At post-test measurement, the experimental group maintained its score variability; the placebo group became less homogeneous; and the control group became more homogeneous.

A one-tailed $t$-test for related samples was used to test the three hypotheses. The .05 level of significance was used as the criterion for accepting or rejecting the null hypotheses. The results of the $t$-tests are presented in Table VI.

**TABLE VI**

$t$-TEST RATIOS, DEGREES OF FREEDOM, AND LEVELS OF SIGNIFICANCE FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (EMOTIONAL STABILITY SCALE)

<table>
<thead>
<tr>
<th>Group</th>
<th>$t$-ratio</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>.643</td>
<td>31</td>
<td>.261</td>
</tr>
<tr>
<td>Placebo</td>
<td>-.732</td>
<td>13</td>
<td>.765</td>
</tr>
<tr>
<td>Control</td>
<td>-.520</td>
<td>19</td>
<td>.697</td>
</tr>
</tbody>
</table>
This table shows that there was no significant change for any of the groups, so null hypotheses Ic, IIc, and IIIc were not rejected.

Hypotheses Id, IId, and III\text{d}

Null hypotheses Id, IId, and III\text{d} were, From pre-test to post-test there will be no significant improvement in self-actualization for subjects under the EPI-C model (Id), the topical discussion (placebo) group (IId), or the no-treatment (control) group (III\text{d}) as measured by the upward movement of the C-score on the Objectivity scale of the Guilford-Zimmerman Temperament Survey.

The mean scores and standard deviations obtained from the Objectivity scale of the Guilford-Zimmerman Temperament Survey are presented in Table VII.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|}
\hline
\textbf{Group} & \textbf{Means} & & \textbf{Standard Deviations} & \\
 & \textbf{Pre-test} & \textbf{Post-test} & & \\
\hline
Experimental & 6.19 & 6.47 & 1.91 & 1.68 \\
Placebo & 5.43 & 5.00 & 2.10 & 2.29 \\
Control & 4.90 & 4.95 & 1.77 & 1.64 \\
\hline
\end{tabular}
\caption{Means and Standard Deviations for the Guilford-Zimmerman Temperament Survey (Objectivity Scale)}
\end{table}
This table shows that the experimental group scored much higher on the pre-test and post-test of the Objectivity scale than did the placebo and control groups. The experimental group increased its post-test mean score by .28, whereas the placebo group decreased its post-test mean score by approximately one-half point. The control group remained about the same on the post-test measurement.

The standard deviations for the groups indicated that score variability on the pre-test was the lowest for the control group, slightly higher for the experimental group, and highest for the placebo group, with no difference greater than .33. Both the experimental and control groups became more homogeneous on the post-test measurement, whereas the placebo group indicated less homogeneity for the final measurement.

A one-tailed t-test for related samples was used to test the hypotheses. The .05 level of significance was used. The results of the t-tests are presented in Table VIII.

This table shows that there was no significant change for any of the groups. The null hypotheses I’d, II’d, and III’d were not rejected.
Hypotheses Ie, IIe, and IIIe

Null hypotheses Ie, IIe, and IIIe were, From pre-test to post-test there will be no significant improvement in self-actualization for subjects under the EPI-C model (Ie), the topical discussion (placebo) group (IIe), or the no-treatment (control) group (IIIe) as measured by the upward movement of the C-score on the Thoughtfulness scale of the Guilford-Zimmerman Temperament Survey.

The mean scores and standard deviations obtained from the Thoughtfulness scale of the Guilford-Zimmerman Temperament Survey are presented in Table IX.

This table shows very slight difference between any of the groups on the pre-test mean scores on the Thoughtfulness scale. All three groups decreased their post-test mean scores.
TABLE IX

MEANS AND STANDARD DEVIATIONS FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (THOUGHTFULNESS SCALE)

<table>
<thead>
<tr>
<th>Group</th>
<th>Means</th>
<th>Standard Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>Experimental</td>
<td>6.44</td>
<td>5.84</td>
</tr>
<tr>
<td>Placebo</td>
<td>6.21</td>
<td>5.71</td>
</tr>
<tr>
<td>Control</td>
<td>6.35</td>
<td>6.00</td>
</tr>
</tbody>
</table>

The standard deviations for the groups indicated that score variability on the pre-test was lowest for the placebo group, followed by higher variability in the experimental group, and considerably higher variability in the control group. At post-test measurement, the experimental group became slightly less homogeneous, the placebo group less homogeneous by a difference in standard deviation of .24, and the control group maintained its variability throughout the study.

A one-tailed $t$-test for related samples was used to test the three hypotheses. The .05 level of significance was used as the criterion for accepting or rejecting the null hypotheses. The results of the $t$-tests are presented in Table X.
TABLE X

_t_-TEST RATIOS, DEGREES OF FREEDOM, AND LEVELS OF SIGNIFICANCE FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (THOUGHTFULNESS SCALE)

<table>
<thead>
<tr>
<th>Group</th>
<th><em>t</em>-ratio</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>-1.409</td>
<td>31</td>
<td>.918</td>
</tr>
<tr>
<td>Placebo</td>
<td>-.961</td>
<td>13</td>
<td>.827</td>
</tr>
<tr>
<td>Control</td>
<td>-.516</td>
<td>19</td>
<td>.696</td>
</tr>
</tbody>
</table>

This table shows no significant change for any of the groups. The null hypotheses Ie, Ile, and IIIe were not rejected.

Hypotheses IV, V, and VI

Null hypotheses IV, V, and VI were. From pre-test to post-test there will be no significant improvement in self-actualization for subjects under the EPI-C model (IV), the topical discussion (placebo) group (V), or the no-treatment (control) group (VI) as measured by movement toward the score of 50 or upward on the Inner Support scale of the Personal Orientation Inventory.

The mean scores and standard deviations obtained from the Inner Support scale of the Personal Orientation Inventory are presented in Table XI.
## TABLE XI

MEANS AND STANDARD DEVIATIONS FOR THE PERSONAL ORIENTATION INVENTORY (INNER SUPPORT SCALE)

<table>
<thead>
<tr>
<th>Group</th>
<th>Means</th>
<th></th>
<th>Standard Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
<td>Pre-test</td>
</tr>
<tr>
<td>Experimental</td>
<td>53.81</td>
<td>58.97</td>
<td>7.59</td>
</tr>
<tr>
<td>Placebo</td>
<td>53.36</td>
<td>50.93</td>
<td>8.26</td>
</tr>
<tr>
<td>Control</td>
<td>45.30</td>
<td>42.90</td>
<td>9.11</td>
</tr>
</tbody>
</table>

This table shows nearly equal pre-test mean scores on the Inner Support scale for the experimental and placebo groups. The pre-test mean for the control group is much lower than the other two groups by a difference of about eight points. Both the placebo and control groups decreased their post-test mean scores by approximately three points, whereas the experimental group increased its post-test mean by a little over five points.

The standard deviations for the groups indicated that score variability was lowest for the experimental group on the pre-test. The difference between extremes of standard deviations was 1.52 on the pre-test. At post-test measurement, the experimental group became somewhat more homogeneous by .55 difference in standard
deviation over the time period of the study, and the control group gained even greater homogeneity, showing a 2.09 decrease in standard deviation over time. The placebo group showed considerable less homogeneity at post-test measurement with a difference of 1.87.

A one-tailed $t$-test for related samples was used to test the three hypotheses. The .05 level of significance was used as the criterion for accepting or rejecting the null hypotheses. The results of the $t$-tests are presented in Table XII.

<table>
<thead>
<tr>
<th>Group</th>
<th>$t$-ratio</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>2.819*</td>
<td>31</td>
<td>.003</td>
</tr>
<tr>
<td>Placebo</td>
<td>-.695</td>
<td>13</td>
<td>.753</td>
</tr>
<tr>
<td>Control</td>
<td>-.934</td>
<td>19</td>
<td>.821</td>
</tr>
</tbody>
</table>

*Significant

Because of the high level of significance for the experimental group shown in Table XII, null hypothesis IV was rejected. There was no significant change for the placebo or control group; therefore, null hypotheses V and VI were not rejected.
Hypotheses VII, VIII, and IX

Null hypotheses VII, VIII, and IX were, From pre-test to post-test there will be no significant improvement in self-actualization of subjects under the EPI-C model (VII), the topical discussion (placebo) group (VIII), or the no-treatment (control) group (IX) as measured by the convergence of actual-ideal (X, O) self-descriptions on the EPI-C Semantic Differential of Emotional Self-Assessment.

The mean scores and standard deviations obtained from the EPI-C Semantic Differential of Emotional Self-Assessment are presented in Table XIII.

**TABLE XIII**

MEANS AND STANDARD DEVIATIONS FOR THE EPI-C SEMANTIC DIFFERENTIAL (EMOTIONAL SELF-ASSESSMENT)

<table>
<thead>
<tr>
<th>Group</th>
<th>Means</th>
<th>Standard Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>Experimental</td>
<td>37.97</td>
<td>29.75</td>
</tr>
<tr>
<td>Placebo</td>
<td>27.07</td>
<td>36.07</td>
</tr>
<tr>
<td>Control</td>
<td>33.40</td>
<td>37.10</td>
</tr>
</tbody>
</table>
This table shows a spread of approximately ten points between the pre-test mean score of the experimental group and the pre-test mean score of the placebo group. The control group pre-test mean score was located near the middle of the two extremes between experimental and placebo groups. At post-test measurement, the experimental group showed a positive decrease in mean score of 8.22 points, whereas the placebo group showed a negative increase of nine points, and the control group, similarly, showed a negative increase of 3.70 points.

The EPI-C scale scores were derived from an accounting of the difference between actual and ideal \((X, O)\) markings of the subjects. Therefore, a decrease in post-test means would indicate a positive movement toward self-actualization.

The standard deviations for the groups indicated that score variability at pre-test was lower for the placebo and control groups. At post-test measurement, the experimental group showed greater homogeneity, accomplished by approximately a six-point decrease in standard deviation. Both the placebo and control group became less homogeneous with increases in post-test standard deviations.

A one-tailed \(t\)-test for related samples was used to test the three hypotheses. The .05 level of significance was used as the
criterion for accepting or rejecting the null hypotheses. The results of the $t$-tests are presented in Table XIV.

**TABLE XIV**

$t$-TEST RATIOS, DEGREES OF FREEDOM, AND LEVELS OF SIGNIFICANCE FOR THE EPI-C SEMANTIC DIFFERENTIAL (EMOTIONAL SELF-ASSESSMENT)

<table>
<thead>
<tr>
<th>Group</th>
<th>$t$-ratio</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>1.534</td>
<td>31</td>
<td>.065</td>
</tr>
<tr>
<td>Placebo</td>
<td>-1.290</td>
<td>13</td>
<td>.896</td>
</tr>
<tr>
<td>Control</td>
<td>- .541</td>
<td>19</td>
<td>.704</td>
</tr>
</tbody>
</table>

This table shows no significant change for any of the groups, although the experimental group approached statistical significance with $p = .065$. The null hypotheses VII, VIII, and IX were not rejected.

Hypotheses X, XI, and XII

Null hypotheses X, XI, and XII were. From pre-test to post-test there will be no significant improvement in self-actualization of subjects under the EPI-C model (X), the topical discussion (placebo) group (XI), or the no-treatment (control) group (XII) as
measured by the convergence of actual-ideal \((X, O)\) self-descriptions on the **EPI-C Semantic Differential of Physical Self-Assessment**.

The mean scores and standard deviations obtained from the **EPI-C Semantic Differential of Physical Self-Assessment** are presented in Table XV.

### TABLE XV

**MEANS AND STANDARD DEVIATIONS FOR THE EPI-C SEMANTIC DIFFERENTIAL (PHYSICAL SELF-ASSESSMENT)**

<table>
<thead>
<tr>
<th>Group</th>
<th>Means</th>
<th>Standard Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>Experimental</td>
<td>21.44</td>
<td>15.78</td>
</tr>
<tr>
<td>Placebo</td>
<td>24.14</td>
<td>25.71</td>
</tr>
<tr>
<td>Control</td>
<td>24.45</td>
<td>25.80</td>
</tr>
</tbody>
</table>

This table shows that the experimental group had a pre-test mean score approximately three points lower than the pre-test means of the placebo or control group. At post-test measurements, the experimental group showed a positive decrease of 5.66, whereas the placebo and control groups showed a negative increase of approximately one and one-half points each.
The standard deviations for the groups indicated that score variability at pre-test placed the placebo group highest, the experimental group in the middle, and the control group lowest. At post-test measurement, the experimental group lowered its standard deviation by about two points, and the placebo group became more homogeneous by a one-point decrease. The control group lost some of its pre-test homogeneity with a post-test standard deviation increase of approximately two points.

A one-tailed t-test for related samples was used to test the three hypotheses. The .05 level of significance was used as the criterion for accepting or rejecting the null hypotheses. The results of the t-tests are presented in Table XVI.

**TABLE XVI**

t-TEST RATIOS, DEGREES OF FREEDOM, AND LEVELS OF SIGNIFICANCE FOR THE EPI-C SEMANTIC DIFFERENTIAL (PHYSICAL SELF-ASSESSMENT)

<table>
<thead>
<tr>
<th>Group</th>
<th>t-ratio</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>1.769*</td>
<td>31</td>
<td>.041</td>
</tr>
<tr>
<td>Placebo</td>
<td>-.282</td>
<td>13</td>
<td>.610</td>
</tr>
<tr>
<td>Control</td>
<td>-.323</td>
<td>19</td>
<td>.626</td>
</tr>
</tbody>
</table>

*Significant
This table shows significant change for the experimental group only. Null hypothesis X was rejected, but because there was no significant change for the placebo or control groups, null hypotheses XI and XII were not rejected.

Hypotheses XIII, XIV, and XV

Null hypotheses XIII, XIV, and XV were, From pre-test to post-test there will be no significant improvement in self-actualization of subjects under the EPI-C model (XIII), the topical discussion (placebo) group (XIV), or the no-treatment (control) group (XV) as measured by the convergence of actual-ideal \((X, O)\) self-descriptions on the EPI-C Semantic Differential of Intellective Self-Assessment.

The mean scores and standard deviations obtained from the EPI-C Semantic Differential of Intellective Self-Assessment are presented in Table XVII.

This table shows the placebo group with the lowest pre-test mean score of 25.71. The experimental group is higher by 2.73 points on the pre-test mean, and the control group has the highest mean, ranking 6.19 points above the placebo group and 3.46 points above the experimental group. At post-test measurements, the placebo group increased its mean score by about one point, whereas
the experimental group showed a positive decrease of 5.44. The control group showed a slight positive decrease of .85.

**TABLE XVII**

MEANS AND STANDARD DEVIATIONS FOR THE EPI-C SEMANTIC DIFFERENTIAL (INTELLECTIVE SELF-ASSESSMENT)

<table>
<thead>
<tr>
<th>Group</th>
<th>Means</th>
<th>Standard Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td></td>
<td>Pre-test</td>
<td>Post-test</td>
</tr>
<tr>
<td>Experimental</td>
<td>28.44</td>
<td>23.00</td>
</tr>
<tr>
<td>Placebo</td>
<td>25.71</td>
<td>26.79</td>
</tr>
<tr>
<td>Control</td>
<td>31.90</td>
<td>31.05</td>
</tr>
</tbody>
</table>

The standard deviations for the groups indicated that score variability at pre-test was almost equal for the experimental and placebo group, whereas the control group showed a standard deviation figure of two or three points higher than the other two groups. At post-test measurement, both placebo and control groups decreased slightly in their homogeneity, and the experimental group increased slightly, becoming more homogeneous.

A one-tailed $t$-test for related samples was used to the three hypotheses. The .05 level of significance was used. The results of the $t$-tests are presented in Table XVIII.
### TABLE XVIII

_t_-TEST RATIOS, DEGREES OF FREEDOM, AND LEVELS OF SIGNIFICANCE FOR THE EPI-C SEMANTIC DIFFERENTIAL (INTELLECTIVE ASSESSMENT)

<table>
<thead>
<tr>
<th>Group</th>
<th><em>t</em>-ratio</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>1.705*</td>
<td>31</td>
<td>.047</td>
</tr>
<tr>
<td>Placebo</td>
<td>-.229</td>
<td>13</td>
<td>.590</td>
</tr>
<tr>
<td>Control</td>
<td>.174</td>
<td>19</td>
<td>.432</td>
</tr>
</tbody>
</table>

*Significant

This table shows significant change for the experimental group only. Null hypothesis XIII was rejected. There was no significant change for the placebo or control groups; therefore, null hypotheses XIV and XV were not rejected.

**Hypotheses XVIa and XVIIa**

Null hypotheses XVIa and XVIIa were, From pre-test to post-test, the experimental group will not show significantly greater change than the placebo group (XVI) or the control group (XVII) with respect to the General Activity scale of the Guilford-Zimmerman Temperament Survey.
The analysis of covariance data for the groups on the Guilford-Zimmerman Temperament Survey are presented in Table XIX.

The F-value of 2.713 shown in Table XIX is not significant at the .05 level. This means that the adjusted means of the post-test scores of the groups did not differ enough to be significant. On the basis of the data, null hypotheses XVIa and XVIIa were not rejected.

Hypotheses XVIb and XVIIb

Null hypotheses XVIb and XVIIb were, From pre-test to post-test, the experimental group will not show significantly greater change than the placebo group (XVI) or the control group (XVII) with respect to the Ascendance scale of the Guilford-Zimmerman Temperament Survey.

The analysis of covariance data for the groups on the Guilford-Zimmerman Temperament Survey are presented in Table XX.

The F-value of 23.44 shown in Table XX is significant at the .0001 level. This means that the adjusted means of the post-test scores of the groups differed enough to be significant. The table also shows difference scores derived from Dunn's Multiple Comparison Procedure which indicate that the adjusted mean of the
# Table XIX

**Adjusted Mean Scores, Analysis of Covariance Summary, Actual and Significant Difference Scores Between Groups for the Guilford-Zimmerman Temperament Survey (General Activity Scale)**

## Adjusted Means

<table>
<thead>
<tr>
<th>Groups</th>
<th>Mean Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>5.98</td>
</tr>
<tr>
<td>Placebo</td>
<td>5.30</td>
</tr>
<tr>
<td>Control</td>
<td>4.97</td>
</tr>
</tbody>
</table>

## Analysis of Covariance Summary

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within*</td>
<td>62</td>
<td>153.940</td>
<td>2.483</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Among</td>
<td>2</td>
<td>13.470</td>
<td>6.735</td>
<td>2.713</td>
<td>.074</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>167.409</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Difference Scores Between Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Actual Difference</th>
<th>Significant Difference</th>
<th>.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental minus Placebo</td>
<td>0.6796</td>
<td>1.2472</td>
<td>no</td>
</tr>
<tr>
<td>Experimental minus Control</td>
<td>1.0126</td>
<td>1.1094</td>
<td>no</td>
</tr>
</tbody>
</table>

*Adjusted for covariate*
TABLE XX

ADJUSTED MEAN SCORES, ANALYSIS OF COVARIANCE SUMMARY, ACTUAL AND SIGNIFICANT DIFFERENCE SCORES BETWEEN GROUPS FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (ASCENDANCE SCALE)

<table>
<thead>
<tr>
<th>Adjusted Means*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Experimental</strong></td>
</tr>
<tr>
<td>7.00</td>
</tr>
</tbody>
</table>

Analysis of Covariance Summary

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
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<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within*</td>
<td>62</td>
<td>85.794</td>
<td>1.384</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Among</td>
<td>2</td>
<td>64.878</td>
<td>32.439</td>
<td>23.44**</td>
<td>.000</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>150.672</td>
<td>...</td>
<td>...</td>
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Difference Scores Between Groups

<table>
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<tr>
<th>Groups</th>
<th>Actual Difference</th>
<th>Significant Difference</th>
<th>.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental minus Placebo</td>
<td>2.2810</td>
<td>.9310</td>
<td>yes**</td>
</tr>
<tr>
<td>Experimental minus Control</td>
<td>1.7984</td>
<td>.8282</td>
<td>yes**</td>
</tr>
</tbody>
</table>

*Adjusted for covariate
**Significant
post-test scores of the experimental group was significantly greater than that of the placebo or control groups.

On the basis of the data, null hypotheses XVIb and XVIIb were rejected. There was a significant difference between the adjusted post-test means of the experimental and placebo groups, and the experimental and control groups. That is, the number of internally-oriented items marked on the Ascendance scale by the experimental group was significantly greater than the number marked by the placebo or control groups.

Hypotheses XVIc and XVIIc

Null hypotheses XVIc and XVIIc were, From pre-test to post-test, the experimental group will not show significantly greater change than the placebo group (XVI) or the control group (XVII) with respect to the Emotional Stability scale of the Guilford-Zimmerman Temperament Survey.

The analysis of covariance data for the groups on the Guilford-Zimmerman Temperament Survey are presented in Table XXI.

The F-value of 3.984 shown in Table XXI is significant at the .024 level. This means that the adjusted means of the post-test scores of the groups differed enough to be significant. The table also shows difference scores derived from Dunn's Multiple Comparison Procedure which indicate that the adjusted mean of the post-test
TABLE XXI
ADJUSTED MEAN SCORES, ANALYSIS OF COVARIANCE SUMMARY, ACTUAL AND SIGNIFICANT DIFFERENCE SCORES BETWEEN GROUPS FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (EMOTIONAL STABILITY SCALE)

<table>
<thead>
<tr>
<th>Adjusted Means*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
</tr>
<tr>
<td>6.57</td>
</tr>
</tbody>
</table>

Analysis of Covariance Summary

<table>
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<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within*</td>
<td>62</td>
<td>99.113</td>
<td>1.599</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Among</td>
<td>2</td>
<td>12.737</td>
<td>6.368</td>
<td>3.984**</td>
<td>.024</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>111.850</td>
<td>...</td>
<td>...</td>
<td>...</td>
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</table>

Difference Scores Between Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Actual Difference</th>
<th>Significant Difference</th>
<th>.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental minus Placebo</td>
<td>.8940</td>
<td>.8902</td>
<td>yes**</td>
</tr>
<tr>
<td>Experimental minus Control</td>
<td>.9204</td>
<td>1.0000</td>
<td>no</td>
</tr>
</tbody>
</table>

*Adjusted for covariate
**Significant
scores of the experimental group was significantly higher than that of the placebo group. However, the adjusted mean of the post-test scores of the experimental group was not significantly higher than that of the control group.

On the basis of the data, null hypothesis XVIc was rejected. There was a significant difference between the adjusted post-test means of the experimental and placebo groups. That is, the number of internally-oriented items marked on the Emotional Stability scale by the experimental group was significantly higher than the number marked by the placebo group.

Null hypothesis XVIIc was not rejected. There was no significant difference between the adjusted post-test means of the experimental group and the control group. The number of internally-oriented items marked on the Emotional Stability scale by the experimental group was not significantly greater than the number marked by the control group.

Hypotheses XVIId and XVIIId

Null hypotheses XVIId and XVIIId were, From pre-test to post-test, the experimental group will not show significantly greater change than the placebo group (XVI) or the control group (XVII) with respect to the Objectivity scale of the Guilford-Zimmerman Temperament Survey.
The analysis of covariance data for the groups on the Guilford-Zimmerman Temperament Survey are presented in Table XXII.

The F-value of 3.420 shown in Table XXII is significant at .039 level. This means that the adjusted means of the post-test scores of the group differed enough to be significant. The table also shows difference scores derived from Dunn's Multiple Comparison Procedure which indicate that the adjusted mean of the post-test scores of the experimental group was not significantly higher than that of the placebo group, even though the basic analysis of covariance F-value indicated the contrary. However, the adjusted mean of the post-test scores of the experimental group was significantly higher than that of the control group.

On the basis of the data, null hypothesis XVIId was not rejected. There was no significant difference between the adjusted post-test means of the experimental and placebo groups. The number of internally-oriented items marked on the Objectivity scale by the experimental group was not significantly higher than the number marked by the placebo group.

Null hypothesis XVIIId was rejected. There was a significant difference between the adjusted post-test means of the experimental and control groups. The number of internally-oriented marked on the
TABLE XXII

ADJUSTED MEAN SCORES, ANALYSIS OF COVARIANCE SUMMARY, ACTUAL AND SIGNIFICANT DIFFERENCE SCORES BETWEEN GROUPS FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (OBJECTIVITY SCALE)

<table>
<thead>
<tr>
<th>Source</th>
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<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within*</td>
<td>62</td>
<td>76.720</td>
<td>1.237</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Among</td>
<td>2</td>
<td>8.464</td>
<td>4.232</td>
<td>3.420**</td>
<td>.039</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>85.184</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Groups</th>
<th>Actual Difference</th>
<th>Significant Difference</th>
<th>.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental minus Placebo</td>
<td>.5503</td>
<td>.7831</td>
<td>no</td>
</tr>
<tr>
<td>Experimental minus Control</td>
<td>.8979</td>
<td>.3094</td>
<td>yes**</td>
</tr>
</tbody>
</table>

*Adjusted for covariate
**Significant
Objectivity scale by the experimental group was significantly higher than the number marked by the control group.

Hypotheses XVIe and XVIIe

Null hypotheses XVIe and XVIIe were, From pre-test to post-test, the experimental group will not show significantly greater change than the placebo group (XVI) or the control group (XVII) with respect to the Thoughtfulness scale of the Guilford-Zimmerman Temperament Survey.

The analysis of covariance data for the groups on the Guilford-Zimmerman Temperament Survey are presented in Table XXIII.

The F-value of .149 shown in Table XXIII is not significant at the .05 level. This means that the adjusted means of the post-test scores of the groups did not differ enough to be significant. On the basis of the data, null hypotheses XVIe and XVIIe were not rejected.

Hypotheses XVIIf and XVIII

Null hypotheses XVIIf and XVIII were, From pre-test to post-test, the experimental group will not show significantly greater change than the placebo group (XVI) or the control group (XVII) with respect to the Inner Support scale of the Personal Orientation Inventory.
### TABLE XXIII

**ADJUSTED MEAN SCORES, ANALYSIS OF COVARIANCE SUMMARY, ACTUAL AND SIGNIFICANT DIFFERENCE SCORES BETWEEN GROUPS FOR THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY (THOUGHTFULNESS SCALE)**

#### Adjusted Means*

<table>
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<tr>
<th>Source</th>
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<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within*</td>
<td>62</td>
<td>126,919</td>
<td>2.047</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Among</td>
<td>2</td>
<td>.611</td>
<td>.306</td>
<td>.149</td>
<td>.862</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>127,530</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Difference Scores Between Groups

<table>
<thead>
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<th>Groups</th>
<th>Actual Difference</th>
<th>Significant Difference</th>
<th>.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental minus Placebo</td>
<td>.2147</td>
<td>1.0073</td>
<td>no</td>
</tr>
<tr>
<td>Experimental minus Control</td>
<td>.0196</td>
<td>1.1324</td>
<td>no</td>
</tr>
</tbody>
</table>

*Adjusted for covariate
The analysis of covariance data for the groups on the Personal Orientation Inventory are presented in Table XXIV.

The F-value of 21.54 shown in Table XXIV is significant at the .0000 level. This means that the adjusted means of the post-test scores of the groups differed enough to be significant. The table also shows difference scores derived from Dunn's Multiple Comparison Procedure which indicate that the adjusted mean of the post-test scores of the experimental group was significantly greater than that of the placebo or control group.

On the basis of the data, null hypotheses XVIf and XVIIIf were rejected. There was a significant difference between the adjusted post-test means of the experimental and placebo groups, and the experimental and control groups. That is, the number of internally-oriented items marked on the Inner Support scale by the experimental group was significantly greater than the number marked by the placebo or control group.

Hypotheses XVIg and XVIIg

Null hypotheses XVIg and XVIIg were. From pre-test to post-test, the experimental group will not show significantly greater change than the placebo group (XVI) or the control group (XVII) with respect to the convergence of actual-ideal (X,O) self-
**TABLE XXIV**

ADJUSTED MEAN SCORES, ANALYSIS OF COVARIANCE SUMMARY, ACTUAL AND SIGNIFICANT DIFFERENCE SCORES BETWEEN GROUPS FOR THE PERSONAL ORIENTATION INVENTORY (INNER SUPPORT SCALE)

<table>
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</thead>
<tbody>
<tr>
<td><strong>Experimental</strong></td>
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<tr>
<td>57.15</td>
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**Analysis of Covariance Summary**

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<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within*</td>
<td>62</td>
<td>1846.816</td>
<td>29.787</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Among</td>
<td>2</td>
<td>1283.380</td>
<td>641.690</td>
<td>21.54**</td>
<td>.000</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>3130.196</td>
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<td>...</td>
<td>...</td>
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</table>

**Difference Scores Between Groups**

<table>
<thead>
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<th>Groups</th>
<th>Actual Difference</th>
<th>Significant Difference</th>
<th>.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental minus Placebo</td>
<td>10.2884</td>
<td>3.8426</td>
<td>yes**</td>
</tr>
<tr>
<td>Experimental minus Control</td>
<td>7.7310</td>
<td>4.3197</td>
<td>yes**</td>
</tr>
</tbody>
</table>

*Adjusted for covariate  
**Significant
description scores on the Emotional Self-Assessment scale of the

EPI-C Semantic Differential.

The analysis of covariance data for the groups on the EPI-C
Semantic Differential are presented in Table XXV.

The F-value of 5.172 shown in Table XXV is significant at the
.008 level. This means that the adjusted means of the post-test
scores of the groups differed enough to be significant. The table also
shows difference scores derived from Dunn's Multiple Comparison
Procedure which indicate that the adjusted mean of the post-test
scores of the experimental group was significantly greater than that
of the placebo or control group.

On the basis of the data, null hypotheses XVIg and XVIIg
were rejected. There was a significant difference between the
adjusted post-test means of the experimental and placebo groups, and
the experimental and control groups. That is, the number of score
discrepancies between actual and ideal placement on the Emotional
Self-Assessment scale was significantly lower than the number
marked by the placebo or control groups.

Hypotheses XVIh and XVIIh

Null hypotheses XVIh and XVIIIh were. From pre-test to
post-test, the experimental group will not show significantly greater
change than the placebo group (XVI) or the control group (XVII)
TABLE XXV

ADJUSTED MEAN SCORES, ANALYSIS OF COVARIANCE SUMMARY, ACTUAL AND SIGNIFICANT DIFFERENCE SCORES BETWEEN GROUPS FOR THE EPI-C SEMANTIC DIFFERENTIAL (EMOTIONAL SELF-ASSESSMENT)

<table>
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</thead>
<tbody>
<tr>
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<tr>
<td>27.34</td>
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Analysis of Covariance Summary

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<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within*</td>
<td>62</td>
<td>13308.191</td>
<td>214.648</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Among</td>
<td>2</td>
<td>2220.227</td>
<td>1110.113</td>
<td>5.172**</td>
<td>.008</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>15528.418</td>
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Difference Scores Between Groups

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<th>Significant Difference</th>
<th>.05</th>
</tr>
</thead>
<tbody>
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<td>10.3263</td>
<td>10.3150</td>
<td>yes**</td>
</tr>
<tr>
<td>Experimental minus Control</td>
<td>13.4210</td>
<td>10.6571</td>
<td>yes**</td>
</tr>
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</table>

*Adjusted for covariate  
**Significant
with respect to the convergence of actual-ideal \((X, O)\) self-descriptions scores on the Intellective Self-Assessment scale of the **EPI-C Semantic Differential**.

The analysis of covariance data for the groups on the **EPI-C Semantic Differential** are presented in Table XXVI.

The F-value of 2.690 shown in Table XXVI is not significant at the \(.05\) level. This means that the adjusted means of the post-test scores of the groups did not differ enough to be significant. On the basis of the data, null hypotheses XVIg and XVIIg were not rejected.

**Hypotheses XVIi and XVIIIi**

Null hypotheses XVIi and XVIIIi were, From pre-test to post-test, the experimental group will not show significantly greater change than the placebo group (XVI) or the control group (XVII) with respect to the convergence of actual-ideal \((X, O)\) self-descriptions scores on the Physical Self-Assessment scale of the **EPI-C Semantic Differential**.

The analysis of covariance data for the groups on the **EPI-C Semantic Differential** are presented in Table XXVII.

The F-value of 7.929 shown in Table XXVII is significant at the \(.001\) level. This means that the adjusted means of the post-test scores of the groups differed enough to be significant. The table also shows difference scores derived from Dunn's Multiple Comparison
TABLE XXVI

ADJUSTED MEAN SCORES, ANALYSIS OF COVARIANCE SUMMARY, ACTUAL AND SIGNIFICANT DIFFERENCE SCORES BETWEEN GROUPS FOR THE EPI-C SEMANTIC DIFFERENTIAL (INTELLECTIVE SELF-ASSESSMENT)

<table>
<thead>
<tr>
<th>Adjusted Means*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Experimental</td>
</tr>
<tr>
<td>23.33</td>
</tr>
</tbody>
</table>

Analysis of Covariance Summary

<table>
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<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within*</td>
<td>62</td>
<td>6055.680</td>
<td>97.672</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Among</td>
<td>2</td>
<td>525.559</td>
<td>262.779</td>
<td>2.690</td>
<td>.076</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>6581.238</td>
<td>...</td>
<td>...</td>
<td></td>
</tr>
</tbody>
</table>

Difference Scores Between Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Actual Difference</th>
<th>Significant Difference</th>
<th>.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental minus Placebo</td>
<td>5.6095</td>
<td>6.958</td>
<td>no</td>
</tr>
<tr>
<td>Experimental minus Control</td>
<td>5.7051</td>
<td>7.822</td>
<td>no</td>
</tr>
</tbody>
</table>

*Adjusted for covariate
TABLE XXVII
ADJUSTED MEAN SCORES, ANALYSIS OF COVARIANCE SUMMARY, ACTUAL AND SIGNIFICANT DIFFERENCE SCORES BETWEEN GROUPS FOR THE EPI-C SEMANTIC DIFFERENTIAL (PHYSICAL SELF-ASSESSMENT)

<table>
<thead>
<tr>
<th></th>
<th>Experimental</th>
<th>Placebo</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted Means*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.85</td>
<td>24.18</td>
<td>24.70</td>
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</tr>
</tbody>
</table>

Analysis of Covariance Summary

<table>
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<tr>
<th>Source</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within*</td>
<td>62</td>
<td>3980.538</td>
<td>64.202</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Among</td>
<td>2</td>
<td>1018.095</td>
<td>509.048</td>
<td>7.929**</td>
<td>.001</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>4998.663</td>
<td></td>
<td>...</td>
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</table>

Difference Scores Between Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Actual Difference</th>
<th>Significant Difference</th>
<th>.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental minus Placebo</td>
<td>7.8465</td>
<td>5.6416</td>
<td>yes**</td>
</tr>
<tr>
<td>Experimental minus Control</td>
<td>7.9822</td>
<td>6.3418</td>
<td>yes**</td>
</tr>
</tbody>
</table>

*Adjusted for covariate
**Significant
Procedure which indicate that the adjusted mean of the post-test scores of the experimental group was significantly greater than that of the placebo or control groups.

On the basis of the data, null hypotheses XVIIi and XVIIIi were rejected. There was a significant difference between the adjusted post-test means of the experimental and placebo groups, and the experimental and control groups. That is, the number of score discrepancies between actual and ideal placement on the Physical Self-Assessment scale was significantly lower than the number marked by the placebo or control groups.
CHAPTER BIBLIOGRAPHY


CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study involved the use of the EPI-C model as a guide for group leaders in facilitating self-actualization of clients in group counseling.

The Problem

The problem of this study was the evaluation of the effectiveness of the EPI-C model as a guide to group counseling.

The specific purposes investigated were as follows:

1. To determine whether group counseling employing the EPI-C model would result in positive gain in subject self-actualization.

2. To determine whether group counseling using the EPI-C model would be more effective than a topical discussion (placebo) group as a method of increasing subject self-actualization.

3. To determine whether group counseling utilizing the EPI-C model would produce greater positive change in subject self-actualization than no group treatment at all.
4. To provide information that might be beneficial with regard to future research involving the use of the EPI-C model in group counseling.

The Hypotheses

The following hypotheses were tested:

I. From pre-test to post-test there will be a statistically significant improvement in self-actualization for the group under the EPI-C Model as measured by the Guilford-Zimmerman Temperament Survey.

   a. Subject scores on the General Activity scale will tend to move upward on the C-score range to a significant degree following counseling.

   b. Subject scores on the Ascendance scale will tend to move upward on the C-score range to a significant degree following counseling.

   c. Subject scores on the Emotional Stability scale will tend to move upward on the C-score range to a significant degree following counseling.

   d. Subject scores on the Objectivity scale will tend to move upward on the C-score range to a significant degree following counseling.
e. Subject scores on the Thoughtfulness scale will tend to move upward on the C-score range to a significant degree following counseling.

II. There will be no statistically significant improvement in self-actualization of subjects under the topical discussion (placebo) group model as measured by the General Activity, Ascendance, Emotional Stability, Objectivity, and Thoughtfulness scales of the Guilford-Zimmerman Temperament Survey.

III. There will be no statistically significant improvement in self-actualization of subjects who are in the no-treatment (control) group as measured by the General Activity, Ascendance, Emotional Stability, Objectivity, and Thoughtfulness scales of the Guilford-Zimmerman Temperament Survey.

IV. There will be a statistically significant improvement in self-actualization of subjects under the EPI-C model as measured by the Personal Orientation Inventory. Specifically, subject scores on the Inner Support scale will move toward the score of 50 or upward to a significant degree following counseling.

V. There will be no statistically significant improvement in self-actualization of subjects who are in the topical discussion (placebo) group as measured by the Inner Support scale on the Personal Orientation Inventory.
VI. There will be no statistically significant improvement in self-actualization of subjects who are in the no-treatment (control) group as measured by the Inner Support scale of the Personal Orientation Inventory.

VII. There will be statistically significant improvement in self-actualization of subjects under the EPI-C model as measured by the convergence of actual-ideal \((X, O)\) self-descriptions on the EPI-C Semantic Differential of Emotional Self-Assessment.

VIII. There will be statistically significant improvement in self-actualization of subjects under the EPI-C model as measured by the convergence of actual-ideal \((X, O)\) self-descriptions on the EPI-C Semantic Differential of Emotional Self-Assessment.

IX. There will be no statistically significant improvement in self-actualization of subjects who are in the no-treatment (control) group as measured by the convergence of actual-ideal \((X, O)\) self-descriptions on the EPI-C Semantic Differential of Emotional Self-Assessment.

X. There will be statistically significant improvement in self-actualization of subjects under the EPI-C model as measured by the convergence of actual-ideal \((X, O)\) self-descriptions on the EPI-C Semantic Differential of Physical Self-Assessment.
XI. There will be no statistically significant improvement in self-actualization of subjects who are in the topical discussion (placebo) group as measured by the convergence of actual-ideal \((X, O)\) self-descriptions on the **EPI-C Semantic Differential of Physical Self-Assessment**.

XII. There will be no statistically significant improvement in self-actualization of subjects who are in the no-treatment (control) group as measured by the convergence of actual-ideal \((X, O)\) self-descriptions on the **EPI-C Semantic Differential of Physical Self-Assessment**.

XIII. There will be a statistically significant improvement in self-actualization of subjects under the EPI-C model as measured by the convergence of actual-ideal \((X, O)\) self-descriptions on the **EPI-C Semantic Differential of Intellective Self-Assessment**.

XIV. There will be no statistically significant improvement in self-actualization of subjects who are in the topical discussion (placebo) group as measured by the convergence of actual-ideal \((X, O)\) self-descriptions on the **EPI-C Semantic Differential of Intellective Self-Assessment**.

XV. There will be no statistically significant improvement in self-actualization of subjects who are in the no-treatment (control) group as measured by the convergence of actual-ideal \((X, O)\) self-
XVI. The EPI-C model group will show significantly greater change (from pre-test to post-test) than the placebo group with respect to the following variables:


d. Objectivity scale of the Guilford-Zimmerman Temperament Survey.

e. Thoughtfulness scale of the Guilford-Zimmerman Temperament Survey.

f. Inner Support scale of the Personal Orientation Inventory.

g. Emotional Self-Assessment scale of the EPI-C Semantic Differential.

h. Intellective Self-Assessment scale of the EPI-C Semantic Differential.

i. Physical Self-Assessment scale of the EPI-C Semantic Differential.
XVII. The EPI-C model group will show significantly greater change (from pre-test to post-test) than the control group with respect to the following variables:

d. Objectivity scale of the Guilford-Zimmerman Temperament Survey.
e. Thoughtfulness scale of the Guilford-Zimmerman Temperament Survey.
f. Inner Support scale of the Personal Orientation Inventory.
g. Emotional Self-Assessment scale of the EPI-C Semantic Differential.
h. Intellectual Self-Assessment scale of the EPI-C Semantic Differential.
i. Physical Self-Assessment scale of the EPI-C Semantic Differential.
The Method

Subjects for the EPI-C (experimental) groups were thirty-two master's level students enrolled in Education 574 (Group Counseling) at North Texas State University. Four EPI-C groups were formed with eight students in each group. Two doctoral interns, trained in the use of the EPI-C model, facilitated two experimental groups each. The groups met once a week for one and one-half hours for a period of thirteen weeks. Each group leader followed the procedure outlined for leaders in the EPI-C manual: Effective Personal Integration: A Guide for Group Leaders, by Berg and Smallwood (2). All group subjects of the experimental group experienced six exercise units:

a. Perceptual feedback skill building exercise,

b. Self-disclosure/self-exploration skill building exercise,

c. Assessment and understanding of self,

d. Personal contracting for growth,

e. Developing programs for personal growth, and

f. Achieving and assessing personal goals and growth.

Subjects for the topical discussion (placebo) group were fifteen students chosen randomly from the population in a graduate counseling and student personnel class, Education 578 (The American Student in Higher Education) at North Texas State University.
Subjects for the control group were twenty students chosen randomly from an intact graduate lecture class in secondary curriculum studies at North Texas State University.

Subjects in all groups were tested immediately before the initial session and again immediately after the thirteenth session. Each subject completed a packet of testing materials which contained the Guilford-Zimmerman Temperament Survey, the Personal Orientation Inventory, the EPI-C Semantic Differential for Emotional Self-Assessment, the EPI-C Semantic Differential for Intellective Self-Assessment, and the EPI-C Semantic Differential for Physical Self-Assessment.

The experimental design of the study was the pre-test-post-test control group design from Stanley and Campbell (15) with the addition of an attention-discussion placebo group to control for the Hawthorne effect. Means and standard deviations were computed from the experimental, placebo, and control group pre-test and post-test scores on the Personal Orientation Inventory and the Guilford-Zimmerman Temperament Survey. Group mean-change scores were also computed for each of the three groups.

Mean-difference scores (actual-ideal) were computed from experimental, placebo, and control groups' pre-test and post-test
scores on each of the three **EPI-C Semantic Differential** scales.

Standard deviations were computed for all groups.

Hypotheses I through XV were tested using one-tailed \( t \)-tests for related samples. The groups' mean scores on pre-test and post-test measures on all nine scale variables were compared. The null hypothesis that there would be no significant differences between pre-test and post-test means was utilized for the statistical tests. The \( .05 \) level of significance was used.

Hypotheses XVI and XVII were tested using simple analysis of covariance. An \( F \)-ratio was obtained for each comparison of groups on a variable. The \( .05 \) level of significance was used, as computed with the formula of Dunn's Multiple Comparison Procedure (8).

**Results**

The hypothesis which predicted that subjects under the EPI-C model would make significant improvement in self-actualization as measured by an upward movement on the C-scale range of the General Activity scale of the **Guilford-Zimmerman Temperament Survey** was rejected.

The hypothesis which predicted that subjects who participated in the topical discussion (placebo) group would not make significant improvement in self-actualization as measured by an upward movement
on the C-scale range of the General Activity scale of the Guilford-
Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that subjects who participated
in the no-treatment (control) group would not make significant
improvement in self-actualization as measured by an upward movement
on the C-scale range of the General Activity scale of the Guilford-
Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that subjects under the EPI-C
model would make significant improvement in self-actualization as
measured by an upward movement on the C-scale range of the
Ascendance scale of the Guilford-Zimmerman Temperament Survey
was accepted.

The hypothesis which predicted that subjects who participated
in the topical discussion (placebo) group would not make significant
improvement in self-actualization as measured by an upward move-
ment on the C-scale range of the Ascendance scale of the Guilford-
Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that subjects who participated
in the no-treatment (control) group would not make significant
improvement in self-actualization as measured by an upward move-
ment on the C-scale range of the Ascendance scale of the Guilford-
Zimmerman Temperament Survey was accepted.
The hypothesis which predicted that subjects who participated in the topical discussion (placebo) group would not make significant improvement in self-actualization as measured by an upward movement on the C-scale range of the Emotional Stability scale of the Guilford-Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that subjects who participated in the no-treatment (control) group would not make significant improvement in self-actualization as measured by an upward movement on the C-scale range of the Emotional Stability scale of the Guilford-Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that subjects under the EPI-C model would make significant improvement in self-actualization as measured by an upward movement on the C-scale range of the Objectivity scale of the Guilford-Zimmerman Temperament Survey was rejected.

The hypothesis which predicted that subjects who participated in the topical discussion (placebo) group would not make significant improvement in self-actualization as measured by an upward movement on the C-scale range of the Objectivity scale of the Guilford-Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that subjects who participated in the no-treatment (control) group would not make significant
improvement in self-actualization as measured by an upward movement on the C-scale range of the Objectivity scale of the Guilford-Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that subjects under the EPI-C model would make significant improvement in self-actualization as measured by an upward movement on the C-scale range of the Thoughtfulness scale of the Guilford-Zimmerman Temperament Survey was rejected.

The hypothesis that predicted that subjects who participated in the topical discussion (placebo) group would not make significant improvement in self-actualization as measured by an upward movement on the C-scale range of the Thoughtfulness scale of the Guilford-Zimmerman Temperament Survey was accepted.

The hypothesis that predicted that subjects who participated in the no-treatment (control) group would not make significant improvement in self-actualization as measured by an upward movement on the C-scale range of the Thoughtfulness scale of the Guilford-Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that subjects under the EPI-C model would make significant improvement in self-actualization as measured by an upward movement toward the score of 50 or more on
the Inner Support scale of the **Personal Orientation Inventory** was accepted.

The hypothesis which predicted that subjects who participated in the topical discussion (placebo) group would not make significant improvement in self-actualization as measured by an upward movement toward the score of 50 on the **Inner Support scale of the Personal Orientation Inventory** was accepted.

The hypothesis which predicted that subjects who participated in the no-treatment (control) group would not make significant improvement in self-actualization as measured by an upward movement toward the score of 50 or more on the **Inner Support scale of the Personal Orientation Inventory** was accepted.

The hypothesis which predicted that subjects under the EPI-C model would make significant improvement in self-actualization as measured by a convergence of actual-ideal \((X, O)\) scores on the Emotional Self-Assessment scale of the **EPI-C Semantic Differential** was rejected, although the experimental group's improvement did approach significance.

The hypothesis which predicted that subjects who participated in the topical discussion (placebo) group would not make significant improvement in self-actualization as measured by a convergence of
actual-ideal (X, O) scores on the Emotional Self-Assessment scale of the EPI-C Semantic Differential was accepted.

The hypothesis which predicted that subjects who participated in the no-treatment (control) group would not make significant improvement in self-actualization as measured by a convergence of actual-ideal (X, O) scores on the Emotional Self-Assessment scale of the EPI-C Semantic Differential was accepted.

The hypothesis which predicted that subjects under the EPI-C model would make significant improvement in self-actualization as measured by a convergence of the actual-ideal (X, O) scores on the Intellective Self-Assessment scale of the EPI-C Semantic Differential was accepted.

The hypothesis which predicted that subjects who participated in the topical discussion (placebo) group would not make significant improvement in self-actualization as measured by a convergence of the actual-ideal (X, O) scores on the Intellective Self-Assessment scale of the EPI-C Semantic Differential was accepted.

The hypothesis which predicted that subjects who participated in the no-treatment (control) group would not make significant improvement in self-actualization as measured by a convergence of the actual-ideal (X, O) scores on the Intellective Self-Assessment scale of the EPI-C Semantic Differential was accepted.
The hypothesis which predicted that subjects under the EPI-C model would make significant improvement in self-actualization as measured by a convergence of the actual-ideal \((X, O)\) scores on the Physical Self-Assessment scale of the EPI-C Semantic Differential was accepted.

The hypothesis which predicted that subjects who participated in the topical discussion (placebo) group would not make significant improvement in self-actualization as measured by a convergence of the actual-ideal \((X, O)\) scores on the Physical Self-Assessment scale of the EPI-C Semantic Differential was accepted.

The hypothesis which predicted that subjects who participated in the no-treatment (control) group would not make significant improvement in self-actualization as measured by a convergence of the actual-ideal \((X, O)\) scores on the Physical Self-Assessment scale of the EPI-C Semantic Differential was accepted.

The hypothesis which predicted that the experimental group would show significantly greater change than the placebo group with respect to the General Activity scale of the Guilford-Zimmerman Temperament Survey was rejected.

The hypothesis which predicted that the experimental group would show significantly greater change than the placebo group with
respect to the Ascendance scale of the Guilford-Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that the experimental group would show significantly greater change than the placebo group with respect to the Emotional Stability scale of the Guilford-Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that the experimental group would show significantly greater change than the placebo group with respect to the Objectivity scale of the Guilford-Zimmerman Temperament Survey was rejected.

The hypothesis which predicted that the experimental group would show significantly greater change than the placebo group with respect to the Thoughtfulness scale of the Guilford-Zimmerman Temperament Survey was rejected.

The hypothesis which predicted that the experimental group would show significantly greater change than the placebo group with respect to the Inner Support scale of the Personal Orientation Inventory was accepted.

The hypothesis which predicted that the experimental group would show significantly greater change than the placebo group with respect to convergence of actual-ideal (X, O) scores on the Emotional Self-Assessment scale of the EPI-C Semantic Differential was accepted.
The hypothesis which predicted that the experimental group would show significantly greater change than the placebo group with respect to convergence of actual-ideal \((X, O)\) scores on the Intellec-
tive Self-Assessment scale of the EPI-C Semantic Differential was rejected.

The hypothesis which predicted that the experimental group would show significantly greater change than the placebo group with respect to the convergence of actual-ideal \((X, O)\) scores on the Phy-
sical Self-Assessment scale of the EPI-C Semantic Differential was accepted.

The hypothesis which predicted that the experimental group would show significantly greater change than the control group with respect to the General Activity scale of the Guilford-Zimmerman Temperament Survey was rejected.

The hypothesis which predicted that the experimental group would show significantly greater change than the control group with respect to the Ascendance scale of the Guilford-Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that the experimental group would show significantly greater change than the control group with respect to the Emotional Stability scale of the Guilford-Zimmerman Temperament Survey was rejected.
The hypothesis which predicted that the experimental group would show significantly greater change than the control group with respect to the Objectivity scale of the Guilford-Zimmerman Temperament Survey was accepted.

The hypothesis which predicted that the experimental group would show significantly greater change than the control group with respect to the Thoughtfulness scale of the Guilford-Zimmerman Temperament Survey was rejected.

The hypothesis which predicted that the experimental group would show significantly greater change than the control group with respect to the Inner Support scale of the Personal Orientation Inventory was accepted.

The hypothesis which predicted that the experimental group would show significantly greater change than the control group with respect to the convergence of actual-ideal \((X, O)\) scores on the Emotional Self-Assessment scale of the EPI-C Semantic Differential was accepted.

The hypothesis which predicted that the experimental group would show significantly greater change than the control group with respect to the convergence of actual-ideal \((X, O)\) scores on the Intellecitive Self-Assessment scale of the EPI-C Semantic Differential was rejected.
The hypothesis which predicted that the experimental group would show significantly greater change than the control group with respect to the convergence of actual-ideal \((X, O)\) scores on the Physical Self-Assessment scale of the EPI-C Semantic Differential was accepted.

The results of this study supported results found by Foulds (6), Culbert and Clark (5), Reddy (13), and Mase (11). By using group counseling as a supportive vehicle to self-actualization, subjects did increase their scores on the Personal Orientation Inventory, thereby reporting themselves as more self-actualized after treatment.

Reddy (13) also found that group counseling for achievement of greater self-actualization created anxiety in subjects. That anxiety was significant in upward movement of self-actualization of subjects. This study supports that, indeed, the anxiety present in group counseling where there is interpersonal interaction and risk-taking, as well as conflict resolution through contracting, may account for rises in self-actualization levels. The placebo and control groups were exposed to a much lower level of anxiety, by virtue of the nature of the topical discussion and lecture class, which resulted in non-significant levels of change.

The EPI-C model focused upon internalizing behavior which is the criterion for raising internal reinforcement levels. It is
precisely this "inner support" which the **Personal Orientation Inventory** measures. The present study has shown that, at a significant level, the EPI-C model facilitated growth on the inner support dimension.

The attention-placebo group and the control group were not exposed to exercises or interpersonal encounters which would facilitate internalization of behavior, and they did not make significant improvement in scores on the Inner Support scale of the **Personal Orientation Inventory**.

Klingberg (9) found that subjects in both experimental and control groups showed variance in their pre-test and post-test scores on the **Personal Orientation Inventory**. This finding was supported by the present study with respect to all groups.

Munzer (12), Berzon and Solomon (3), Reddy (13), and Hanson, Rothaus, and O'Connell (7) found that structured or specific exercises designed for group counseling facilitated significant levels of change in self-actualization of subjects. The present study, using the six exercise units inherent in the EPI-C model, supported the findings of the above researchers as related to levels of change measured by the **Personal Orientation Inventory**.

The placebo and control groups were not exposed to specific exercise units designed for intrapersonal and interpersonal growth,
and they did not indicate any levels of significant change on the

**Personal Orientation Inventory.**

The present study also tested significant change in self-actualization by means of scores on the General Activity, Ascendance, Emotional Stability, Objectivity, and Thoughtfulness scales of the **Guilford-Zimmerman Temperament Survey.** It was hypothesized that self-actualizing individuals would also report significant change in energy levels (General Activity), social boldness (Ascendance), Emotional Stability, Objectivity, and reflectiveness (Thoughtfulness).

Although the experimental group did achieve significant change in self-actualization as indicated on the **Personal Orientation Inventory,** the group did not show significant change on any of the selected scales of the **Guilford-Zimmerman Temperament Survey,** with the exception of the Ascendance scale. It appeared that either the **Guilford-Zimmerman Temperament Survey** did not measure, in much the same manner, that which the **Personal Orientation Inventory** measured to test for self-actualization, or that subjects who became significantly more self-actualized, according to the **Personal Orientation Inventory,** did not, at the same time, become more energetic, emotionally stable, objective, or reflective.

It could be hypothesized that the rigorous regimen of classes, studies, jobs, and counseling sessions (experimental group only)
prevented a significant change in such temperaments. However, another important finding in this study which affects the failure of any of the groups to achieve significant change on four of the five scales tested on the Guilford-Zimmerman Temperament Survey is that, with one exception of one-tenth of a point, all pre-test group means were already above the normal range of the standardized population. The experimental group showed gains in post-test mean scores on all scales, but, starting with high score levels at the pre-test, the group did not gain enough for statistical significance. It is interesting that, with one exception, the placebo group post-test means decreased on each scale, and the control group, with one exception of one five-hundredth of a point, also decreased post-test means on each scale. Thus, the treatment appeared to facilitate change in the experimental group, although not at a statistically significant level.

The experimental group showed significant change on the Ascendance scale, which is a measure of social boldness. The treatment of this study was structured around social interaction in the counseling session for the group. Therefore, it is understandable that, with thirteen weeks of programmed interaction, the experimental group would attain significance on the social boldness scale.

Finally, although pre-test group mean scores were exceptionally high for the experimental group, post-test mean scores, when
compared among groups by means of analysis of covariance, indicated significant change for the experimental group with regard to the Ascendance, Emotional Stability, and Objectivity scale. This would support the claim that they did make significantly greater change in self-actualization as measured by these scales than did the placebo or control group.

The present study supported the findings of Koile and Draeger (10) that increases in the levels of self-actualization through group counseling also facilitate increases in positive self-descriptions on a semantic differential. The experimental group under the EPI-C model made significant positive change in their self-descriptions on the Emotional Self-Assessment scale of the EPI-C Semantic Differential, which substantiates the findings of significant change in self-actualization levels on the Personal Orientation Inventory. The placebo and control groups showed post-test mean decreases in Emotional Self-Assessment.

Williams and Cole (11) found that clients in group counseling who made positive change in self-actualization also reported themselves higher on self perception instruments. The experimental group of this study also made significant changes in self-perception as reported on the EPI-C Semantic Differential for Intellective Self-Assessment within their group, but failed to gain enough for
significance between groups, although the gain approached significance (.076). The placebo group showed lower levels of self-perceptions at the post-test, and the control group indicated a .85 increase in the post-test.

The present study found that the clients who received group counseling under the EPI-C model and made significant gains in levels of self-actualization also reported statistically significant change in positive physical self-perception as measured by the EPI-C Semantic Differential for Physical Self-Assessment. This agreed with the findings of Wheeler (16), Bauste (1), and Secord and Jourard (14).

Conclusions

The results of this study suggest the following conclusions:

1. The EPI-C model as a guide to group counseling is effective as a means of increasing reliance on inner support as manifested by such behaviors as,

   a. increased autonomy,
   b. greater independence,
   c. more pronounced self-will,
   d. greater inner-directedness,
   e. increased self-regard,
   f. increased self-acceptance,
   g. greater development of the capacity for intimate contact, and
h. increased synergy.

2. The EPI-C model as a guide to group counseling is effective as a means of increasing ascendance levels as manifested by such behaviors, as
   a. increased assertiveness,
   b. greater development of leadership habits,
   c. greater ease in speaking with others,
   d. increased development in skills of persuasion,
   e. decreased shyness or introversion, and
   f. greater ability for concrete expression of self.

3. The EPI-C model as a guide to group counseling increases emotional stability as manifested by such behaviors as,
   a. increased evenness of moods, interests, energy levels, and production,
   b. increased optimism and cheerfulness,
   c. increased flexibility in social and interpersonal encounters,
   d. increased emotional composure,
   e. increased feeling of good health, and
   f. fewer feelings of guilt, loneliness, or worry.

4. The EPI-C model as a guide to group counseling increases objectivity as manifested by such behaviors as,
a. decreased hypersensitivity,
b. greater self-assurance,
c. greater self-regard without self-centeredness,
d. decreased feelings of paranoia,
e. increased willingness to confront conflict situations rationally,
f. increased feelings of independence, and
g. decreased need for external approval or acceptance as a criterion for self-acceptance.

5. The EPI-C model as a guide to group counseling increases assessed congruence of the "emotional self" as manifested by such behaviors as,
   a. greater interpersonal awareness,
   b. heightened self-concept, and
   c. increased awareness of interpersonal skills.

6. The EPI-C model as a guide to group counseling increases assessed congruence of the "intellective self" as manifested by such behaviors as,
   a. more congruent attitudes about his achievement levels, native intellect, school output, creativity, and motivation, and
   b. increased awareness of skills in organization, reading
activities, levels of understanding, listening, and speaking.

7. The EPI-C model as a guide to group counseling increases assessed congruence of the "physical self" as manifested by such behaviors as,

   a. more congruent attitude toward self-body image, including better perceptions regarding attractiveness, style, gracefulness, and confidence.

   b. more congruent acceptance of body shape, posture, weight, and sexual definition, and

   c. more congruent endurance as evidenced by higher energy levels, slower pulse rate, stamina, and reduction of illness episodes.

It would appear from these conclusions that the EPI-C model might facilitate growth of an individual on certain dimensions of self-actualization.

The experimental group subjects were seen as more self-actualizing that the placebo and control groups on the basis of the dimensions of the Inner Support scale of the Personal Orientation Inventory, the Ascendance, Emotional Stability, and Objectivity scales of the Guilford-Zimmerman Temperament Survey, and the Emotional and Physical Self-Assessment scales of the EPI-C Semantic Differential. Combs, Avila, and Purkey (4) have written that one
needs to be fulfilled and self-actualizing himself if he wishes to be an effective counselor. One who is deprived himself cannot afford to give much to others. This implies that one gives to clients to the degree that he gives to himself. If the EPI-C model does, indeed, help with the self-actualization of the members of its groups as suggested by the results of this study, then it might also be suggested that the EPI-C model may be a viable and facilitating guide for helping train more effective counselors.

The population of the placebo group were all majors in student personnel and counseling. They, like the population of the experimental group (all counseling majors), needed to become more self-actualized individuals to effectively interact and help clients. If the group counseling course at the master's level at North Texas State University is one of the two courses (the other being the practicum) in their degree program in which they are exposed to intimate interaction, facilitation, and evaluation, the students should be able to make the most of this learning experience. The EPI-C model as a guide to group counseling seems to be an effective vehicle in stimulating the student to investigate his self-actualization levels and to gain confidence, internal orientation, and interpersonal skills. The results of this study support this idea.
The EPI-C model may have helped the counselors of the experimental group progress further as counselors than those of the placebo group.

**Recommendations**

On the basis of the findings of this investigation, the following recommendations are made:

1. Further research concerning this model should use an instrument other than the Guilford-Zimmerman Temperament Survey to substantiate the level of Inner Support on the Personal Orientation Inventory as an objective measure of self-actualization.

2. Further research into the EPI-C model should try to control for personality and facilitation differences of the group leaders by randomly assigning all subjects after group leaders have been selected.

3. Further research into this model should provide for control of motivational differences by selecting a population of laymen at random. It could be argued that the present study contained an inherent variable of positive motivational characteristics of the subjects of the experimental group, since they were all counseling majors and interested in becoming more facilitating and self-actualizing individuals.

4. Further research into this model should add an alternate treatment group to the experimental design that would be a group
operationally defined as a "traditional" group counseling procedure so that the hypothesis that the EPI-C model facilitates self-actualization to a greater degree than does traditional group counseling procedures might be tested.

5. Further research into this model might be extended to use within departments of counselor education to test the hypothesis that the EPI-C model facilitates self-actualization and the development of better counselors to a significantly greater degree than an operationally-defined "traditional" model.

6. Further research into this model might be extended to use within a residential facility where the extraneous variables inherent in the populations of this study could be better controlled.

7. Further research into this model might reveal the necessity of the addition of other exercises or facilitative procedures to the EPI-C model.


APPENDICES
APPENDIX A

PSYCHOLOGICAL INSTRUMENTS USED
PERSONAL ORIENTATION INVENTORY

1. a. I am bound by the principle of fairness.
   b. I am not absolutely bound by the principle of fairness.

2. a. When a friend does me a favor, I feel that I must return it.
   b. When a friend does me a favor, I do not feel that I must return it.

3. a. I feel I must always tell the truth.
   b. I do not always tell the truth.

4. a. No matter how hard I try, my feelings are often hurt.
   b. If I manage the situation right, I can avoid being hurt.

5. a. I feel that I must strive for perfection in everything that I undertake.
   b. I do not feel that I must strive for perfection in everything that I undertake.

6. a. I often make my decisions spontaneously.
   b. I seldom make my decisions spontaneously.

7. a. I am afraid to be myself.
   b. I am not afraid to be myself.

8. a. I feel obligated when a stranger does me a favor.
   b. I do not feel obligated when a stranger does me a favor.

9. a. I feel that I have a right to expect others to do what I want of them.
   b. I do not feel that I have a right to expect others to do what I want of them.

10. a. I live by values which are in agreement with others.
     b. I live by values which are primarily based on my own feelings.

11. a. I am concerned with self-improvement at all times.
     b. I am not concerned with self-improvement at all times.
12. a. I feel guilty when I am selfish.
   b. I don't feel guilty when I am selfish.

13. a. I have no objection to getting angry.
   b. Anger is something I try to avoid.

14. a. For me, anything is possible if I believe in myself.
   b. I have a lot of natural limitations even though I believe in myself.

15. a. I put others' interests before my own.
   b. I do not put others' interests before my own.

16. a. I sometimes feel embarrassed by compliments.
   b. I am not embarrassed by compliments.

17. a. I believe it is important to accept others as they are.
   b. I believe it is important to understand why others are as they are.

18. a. I can put off until tomorrow what I ought to do today.
   b. I don't put off until tomorrow what I ought to do today.

19. a. I can give without requiring the other person to appreciate what I give.
   b. I have a right to expect the other person to appreciate what I give.

20. a. My moral values are dictated by society.
   b. My moral values are self-determined.

21. a. I do what others expect of me.
   b. I feel free to not do what others expect of me.

22. a. I accept my weaknesses.
   b. I don't accept my weaknesses.

23. a. In order to grow emotionally, it is necessary to know why I act as I do.
   b. In order to grow emotionally, it is not necessary to know why I act as I do.
24. a. Sometimes I am cross when I am not feeling well.
   b. I am hardly ever cross.

25. a. It is necessary that others approve of what I do.
   b. It is not always necessary that others approve of what I do.

26. a. I am afraid of making mistakes.
   b. I am not afraid of making mistakes.

27. a. I trust the decisions I make spontaneously.
   b. I do not trust the decisions I make spontaneously.

   b. My feelings of self-worth do not depend on how much I accomplish.

29. a. I fear failure.
   b. I don't fear failure.

30. a. My moral values are determined, for the most part, by the thoughts, feelings and decisions of others.
   b. My moral values are not determined, for the most part by the thoughts, feelings and decisions of others.

31. a. It is possible to live life in terms of what I want to do.
   b. It is not possible to live life in terms of what I want to do.

32. a. I can cope with the ups and downs of life.
   b. I cannot cope with the ups and downs of life.

33. a. I believe in saying what I feel in dealing with others.
   b. I do not believe in saying what I feel in dealing with others.

34. a. Children should realize that they do not have the same rights and privileges as adults.
   b. It is not important to make an issue of rights and privileges.

35. a. I can "stick my neck out" in my relations with others.
   b. I avoid "sticking my neck out" in my relations with others.

36. a. I believe the pursuit of self-interest is opposed to interest in others.
   b. I believe the pursuit of self-interest is not opposed to interest in others.
37. a. I find that I have rejected many of the moral values I was taught.
b. I have not rejected any of the moral values I was taught.

38. a. I live in terms of my wants, likes, dislikes and values.
b. I do not live in terms of my wants, likes, dislikes and values.

39. a. I trust my ability to size up a situation.
b. I do not trust my ability to size up a situation.

40. a. I believe I have an innate capacity to cope with life.
b. I do not believe I have an innate capacity to cope with life.

41. a. I must justify my actions in the pursuit of my own interests.
b. I need not justify my actions in the pursuit of my own interests.

42. a. I am bothered by fears of being inadequate.
b. I am not bothered by fears of being inadequate.

43. a. I believe that man is essentially good and can be trusted.
b. I believe that man is essentially evil and cannot be trusted.

44. a. I live by the rules and standards of society.
b. I do not always need to live by the rules and standards of society.

45. a. I am bound by my duties and obligations to others.
b. I am not bound by my duties and obligations to others.

46. a. Reasons are needed to justify my feelings.
b. Reasons are not needed to justify my feelings.

47. a. There are times when just being silent is the best way I can express my feelings.
b. I find it difficult to express my feelings by just being silent.

48. a. I often feel it necessary to defend my past actions.
b. I do not feel it necessary to defend my past actions.

49. a. I like everyone I know.
b. I do not like everyone I know.

50. a. Criticism threatens my self-esteem.
b. Criticism does not threaten my self-esteem.
51. a. I believe that knowledge of what is right makes people act right.
   b. I do not believe that knowledge of what is right necessarily makes people act right.

52. a. I am afraid to be angry at those I love.
   b. I feel free to be angry at those I love.

53. a. My basic responsibility is to be aware of my own needs.
   b. My basic responsibility is to be aware of others' needs.

54. a. Impressing others is most important.
   b. Expressing myself is most important.

55. a. To feel right, I need always to please others.
   b. I can feel right without always having to please others.

56. a. I will risk a friendship in order to say or do what I believe is right.
   b. I will not risk a friendship just to say or do what is right.

57. a. I feel bound to keep the promises I make.
   b. I do not always feel bound to keep the promises I make.

58. a. I must avoid sorrow at all costs.
   b. It is not necessary for me to avoid sorrow.

59. a. I strive always to predict what will happen in the future.
   b. I do not feel it necessary always to predict what will happen in the future.

60. a. It is important that others accept my point of view.
   b. It is not necessary for others to accept my point of view.

61. a. I only feel free to express warm feelings to my friends.
   b. I feel free to express both warm and hostile feelings to my friends.

62. a. There are many times when it is more important to express feelings than to carefully evaluate the situation.
   b. There are very few times when it is more important to express feelings than to carefully evaluate the situation.
63. a. I welcome criticism as an opportunity for growth.
   b. I do not welcome criticism as an opportunity for growth.

64. a. Appearances are all-important.
   b. Appearances are not terribly important.

65. a. I hardly ever gossip.
   b. I gossip a little at times.

66. a. I feel free to reveal my weaknesses among friends.
   b. I do not feel free to reveal my weaknesses among friends.

67. a. I should always assume responsibility for other people's feelings.
   b. I need not always assume responsibility for other people's feelings.

68. a. I feel free to be myself and bear the consequences.
   b. I do not feel free to be myself and bear the consequences.

69. a. I already know all I need to know about my feelings.
   b. As life goes on, I continue to know more and more about my feelings.

70. a. I hesitate to show my weaknesses among strangers.
   b. I do not hesitate to show my weaknesses among strangers.

71. a. I will continue to grow only by setting my sights on a high-level, socially approved goal.
   b. I will continue to grow best by being myself.

72. a. I accept inconsistencies within myself.
   b. I cannot accept inconsistencies within myself.

73. a. Man is naturally cooperative.
   b. Man is naturally antagonistic.

74. a. I don't mind laughing at a dirty joke.
   b. I hardly ever laugh at a dirty joke.

75. a. Happiness is a by-product in human relationships.
   b. Happiness is an end in human relationships.
76. a. I only feel free to show friendly feelings to strangers.
    b. I feel free to show both friendly and unfriendly feelings to strangers.

77. a. I try to be sincere but I sometimes fail.
    b. I try to be sincere and I am sincere.

78. a. Self-interest is natural.
    b. Self-interest is unnatural.

79. a. A neutral party can measure a happy relationship by observation.
    b. A neutral party cannot measure a happy relationship by observation.

80. a. For me, work and play are the same.
    b. For me, work and play are opposites.

81. a. Two people will get along best if each concentrates on pleasing the other.
    b. Two people can get along best if each person feels free to express himself.

82. a. I have feelings of resentment about things that are past.
    b. I do not have feelings of resentment about things that are past.

83. a. I like only masculine men and feminine women.
    b. I like men and women who show masculinity as well as femininity.

84. a. I actively attempt to avoid embarrassment whenever I can.
    b. I do not actively attempt to avoid embarrassment.

85. a. I blame my parents for a lot of my troubles.
    b. I do not blame my parents for my troubles.

86. a. I feel that a person should be silly only at the right time and place.
    b. I can be silly when I feel like it.

87. a. People should always repent their wrongdoings.
    b. People need not always repent their wrongdoings.
88. a. I worry about the future.
   b. I do not worry about the future.

89. a. Kindness and ruthlessness must be opposites.
   b. Kindness and ruthlessness need not be opposites.

90. a. I prefer to save good things for future use.
   b. I prefer to use good things now.

91. a. People should always control their anger.
   b. People should express honestly-felt anger.

92. a. The truly spiritual man is sometimes sensual.
   b. The truly spiritual man is never sensual.

93. a. I am able to express my feelings even when they sometimes result in undesirable consequences.
   b. I am unable to express my feelings if they are likely to result in undesirable consequences.

94. a. I am often ashamed of some of the emotions that I feel bubbling up within me.
   b. I do not feel ashamed of my emotions.

95. a. I have had mysterious or ecstatic experiences.
   b. I have never had mysterious or ecstatic experiences.

96. a. I am orthodoxly religious.
   b. I am not orthodoxly religious.

97. a. I am completely free of guilt
   b. I am not free of guilt.

98. a. I have a problem in fusing sex and love.
   b. I have no problem in fusing sex and love.

99. a. I enjoy detachment and privacy.
   b. I do not enjoy detachment and privacy.

100. a. I feel dedicated to my work.
   b. I do not feel dedicated to my work.

101. a. I can express affection regardless of whether it is returned.
   b. I cannot express affection unless I am sure it will be returned.
102. a. Living for the future is as important as living for the moment.
   b. Only living for the moment is important.

103. a. It is better to be yourself.
   b. It is better to be popular.

104. a. Wishing and imagining can be bad.
   b. Wishing and imagining are always good.

105. a. I spend more time preparing to live.
   b. I spend more time actually living.

106. a. I am loved because I give love.
   b. I am loved because I am lovable.

107. a. When I really love myself, everybody will love me.
   b. When I really love myself, there will still be those who won't love me.

108. a. I can let other people control me.
   b. I can let other people control me if I am sure they will not continue to control me.

109. a. As they are, people sometimes annoy me.
   b. As they are, people do not annoy me.

110. a. Living for the future gives my life its primary meaning.
     b. Only when living for the future ties into living for the present does my life have meaning.

111. a. I follow diligently the motto, "Don't waste your time."
     b. I do not feel bound by the motto, "Don't waste your time."

112. a. What I have been in the past dictates the kind of person I will be.
     b. What I have been in the past does not necessarily dictate the kind of person I will be.

113. a. It is important to me how I live in the here and now.
     b. It is of little importance to me how I live in the here and now.
114. a. I have had an experience where life seemed just perfect.
   b. I have never had an experience where life seemed just perfect.

115. a. Evil is the result of frustration in trying to be good.
   b. Evil is an intrinsic part of human nature which fights good.

116. a. A person can completely change his essential nature.
   b. A person can never change his essential nature.

117. a. I am afraid to be tender.
   b. I am not afraid to be tender.

118. a. I am assertive and affirming.
   b. I am not assertive and affirming.

119. a. Women should be trusting and yielding.
   b. Women should not be trusting and yielding.

120. a. I see myself as others see me.
   b. I do not see myself as others see me.

121. a. It is a good idea to think about your greatest potential.
   b. A person who thinks about his greatest potential gets conceited.

122. a. Men should be assertive and affirming.
   b. Men should not be assertive and affirming.

123. a. I am able to risk being myself.
   b. I am not able to risk being myself.

124. a. I feel the need to be doing something significant all of the time.
   b. I do not feel the need to be doing something significant all of the time.

125. a. I suffer from memories.
   b. I do not suffer from memories.

126. a. Men and women must be both yielding and assertive.
   b. Men and women must not be both yielding and assertive.
127. a. I like to participate actively in intense discussions.
b. I do not like to participate actively in intense discussions.

128. a. I am self-sufficient.
b. I am not self-sufficient.

129. a. I like to withdraw from others for extended periods of time.
b. I do not like to withdraw from others for extended periods of time.

130. a. I always play fair.
b. Sometimes I cheat a little.

131. a. Sometimes I feel so angry I want to destroy or hurt others.
b. I never feel so angry that I want to destroy or hurt others.

132. a. I feel certain and secure in my relationships with others.
b. I feel uncertain and insecure in my relationships with others.

133. a. I like to withdraw temporarily from others.
b. I do not like to withdraw temporarily from others.

134. a. I can accept my mistakes.
b. I cannot accept my mistakes.

135. a. I find some people who are stupid and uninteresting.
b. I never find any people who are stupid and uninteresting.

136. a. I regret my past.
b. I do not regret my past.

137. a. Being myself is helpful to others.
b. Just being myself is not helpful to others.

138. a. I have had moments of intense happiness when I felt like I was experiencing a kind of ecstasy or bliss.
b. I have not had moments of intense happiness when I felt like I was experiencing a kind of bliss.

139. a. People have an instinct for evil.
b. People do not have an instinct for evil.

140. a. For me, the future usually seems hopeful.
b. For me, the future often seems hopeless.
141. a. People are both good and evil.
    b. People are not both good and evil.

142. a. My past is a stepping stone for the future.
    b. My past is a handicap to my future.

143. a. "Killing time" is a problem for me.
    b. "Killing time" is not a problem for me.

144. a. For me, past, present and future is in meaningful continuity.
    b. For me, the present is an island, unrelated to the past and future.

145. a. My hope for the future depends on having friends.
    b. My hope for the future does not depend on having friends.

146. a. I can like people without having to approve of them.
    b. I cannot like people unless I also approve of them.

147. a. People are basically good.
    b. People are not basically good.

148. a. Honesty is always the best policy.
    b. There are times when honesty is not the best policy.

149. a. I can feel comfortable with less than a perfect performance.
    b. I feel uncomfortable with anything less than a perfect performance.

150. a. I can overcome any obstacles as long as I believe in myself.
    b. I cannot overcome every obstacle even if I believe in myself.
THE GUILFORD-ZIMMERMAN TEMPERAMENT SURVEY

1. You start to work on a new project with a great deal of enthusiasm.
2. You would rather plan an activity than take part in it.
3. You have more than once taken the lead in organizing a project or a group of some kind.
4. You like to entertain guests.
5. Your interests change quickly from one thing to another.
6. When you eat a meal with others, you are usually one of the last to finish.
7. You believe in the idea that we should "eat, drink, and be merry, for tomorrow we die."
8. When you find that something you have bought is defective, you hesitate to demand an exchange or a refund.
9. You find it easy to make new acquaintances.
10. You are sometimes bubbling over with energy and sometimes very sluggish.
11. You are happiest when you get involved in some project that calls for rapid action.
12. Other people think of you as being very serious minded.
13. In being thrown by chance with a stranger, you wait for him to introduce himself.
14. You like to take part in many social activities.
15. You sometimes feel "just miserable" for no good reason at all.
16. You are often so much "on the go" that sooner or later you may wear yourself out.
17. You like parties you attend to be lively.
18. If you hold an opinion that is radically different from that expressed by a lecturer, you are likely to tell him about it either during or after the lecture.
19. It is difficult for you to chat about things in general with people.
20. You give little thought to your failures after they are past.
21. You often wonder where others get all the excess energy they seem to have.
22. You are inclined to stop to think things over before you act.
23. You avoid arguing over a price with a clerk or salesman.
24. You would dislike very much to work alone in some isolated place.
25. You often find it difficult to go to sleep at night because you keep thinking of what happened during the day.
26. You find yourself hurrying to get places even when there is plenty of time.
27. You like work that requires considerable attention to details.
28. You are satisfied to let someone else take the lead in group activities.
29. You enjoy getting acquainted with people.
30. It takes a lot to get you emotionally stirred up or excited.
31. You work more slowly and deliberately than most people of your sex and age.
32. You are a carefree individual.
33. When a person does not play fair you hesitate to say anything about it to him.
34. It bothers you to have people watch you at your work.
35. You have usually been optimistic about your future.
36. You like to have plenty of time to stop and rest.
37. You take life very seriously.
38. You enjoy applying for a job in person.
39. You would like to be a host or hostess for parties at a club.
40. You often feel grouchy.
41. You are the kind of person who is "on the go" all the time.
42. You often feel energetic.
43. The thought of making a speech frightens you.
44. You find it easy to start conversation with strangers.
45. You often feel guilty without a very good reason for it.
46. People think you are a very energetic person.
47. You sometimes make quick decisions that you later wish you hadn't made.
48. You find it difficult to ask people for money or other donations, even for a cause in which you are interested.
49. You are so naturally friendly that people immediately feel at ease with you.
50. You daydream a great deal.
51. You are quick in your actions.
52. You have a habit of starting things and then losing interest in them.
53. When you were a child, many of your playmates naturally expected you to be the leader.
54. You sometimes avoid social contacts for fear of doing or saying the wrong thing.
55. You have frequent ups and downs in mood, sometimes with and sometimes without apparent cause.
56. You always seem to have plenty of vigor and vitality.
57. It is difficult for you to understand people who get very concerned about things.
58. When a clerk in a store waits on others who should come after you, you call his attention to the fact.
59. You would be very unhappy if you were prevented from making numerous social contacts.
60. There are times when your future looks very dark.
61. You sometimes wish that people would slow down a bit and give you a chance to catch up.
62. Many of your friends think you take your work too seriously.
63. You hesitate to walk into a meeting when you know that everyone's eyes will be upon you.
64. You limit your friendships mostly to members of your own sex.
65. You almost always feel well and strong.
66. You seem to lack the drive necessary to get as much done as other people do.
67. You make decisions on the spur of the moment.
68. You are rather good at bluffing when you find yourself in difficulty.
69. After being introduced to someone, you just cannot think of things to say to make good conversation.
70. You feel lonesome even when with other people.
71. You are able to work for unusually long hours without feeling tired.
72. You often act on the first thought that comes into your head.
73. At the scene of an accident, you take an active part in helping out.
74. You have difficulty in making new friends.
75. Your mood often changes from happiness to sadness, or vice versa, without your knowing why.
76. You talk more slowly than most people.
77. You like to play practical jokes upon others.
78. You take the lead in putting life into a dull party.
79. You would like to belong to as many clubs and social organizations as possible.
80. There are times when your mind seems to work very slowly and other times when it works very rapidly.
81. You like to do things slowly and deliberately.
82. You are a happy-go-lucky individual.
83. When you are served stale or inferior food in a restaurant, you say nothing about it.
84. You would rather apply for a job by writing a letter than by going through with a personal interview.
85. You are often in low spirits.
86. You are inclined to rush from one activity to another without pausing enough for rest.
87. You are so concerned about the future that you do not get as much fun out of the present as you might.
88. When you are attracted to a person whom you have not met, you make an active attempt to get acquainted even thought it may be quite difficult.
89. You are inclined to limit your acquaintances to a select few.
90. You seldom give your past mistakes a second thought.
91. You are less energetic than many people you know.
92. You often stop to analyze your thoughts and feelings.
93. You speak out in meetings to oppose those you feel sure are wrong.
94. You are so shy it bothers you.
95. You are sometimes bothered by having a useless thought come into your mind over and over.
96. You get things done in a hurry.
97. It is difficult for you to understand how some people can be so unconcerned about the future.
98. You like to sell things (that is, to act as a salesman).
99. You are often the "life of the party."
100. You find daydreaming very enjoyable.
101. At work or at play other people find it hard to keep up with the pace you set.
102. You can listen to a lecture without feeling restless.
103. You would rather work for a good boss than for yourself.
104. You can express yourself more easily in speech than in writing.
105. You keep in fairly uniform spirits.
106. You dislike to be hurried in your work.
107. You sometimes find yourself "crossing bridges before you come to them."
108. You find it somewhat difficult to say "no" to a salesman who tries to sell you something you do not really want.
109. There are only a few friends with whom you can relax and have a good time.
110. You usually keep cheerful in spite of trouble.
111. People sometimes tell you to "slow down" or "take it easy."
112. You are one of those who drink or smoke more than they know they should.
113. When you think you recognize someone you see in a public place, you ask him whether you have met him before.
114. You prefer to work alone.
115. Disappointments affect you so little that you seldom think about them twice.
116. You are slow and deliberate in movement.
117. You like wild enthusiasm, sometimes to a point bordering on rowdyism, at a football or baseball game.
118. You feel self-conscious in the presence of important people.
119. People think of you as being a very social type of person.
120. You have often lost sleep over your worries.
121. You can turn out a large amount of work in a short time.
122. You keep at a task until it is done, even after nearly everyone else has given up.
123. You can think of a good excuse when you need one.
124. Other people say that it is difficult to get to know you well.
125. Your daydreams are often about things that can never come true.
126. You often run upstairs taking two steps at a time.
127. You seldom let your responsibilities interfere with your having a good time.
128. You would like to take on important responsibilities such as organizing a new business.
129. You have hesitated to make or to accept "dates" because of shyness.
130. Your mood is very easily influenced by people around you.
131. Others are often amazed by the amount of work you turn out.
132. You generally feel as though you haven't a care in the world.
133. You find it difficult to get rid of a salesman to whom you do not care to listen or give your time.
134. You are a listener rather than a talker in social conversations.
135. You almost always feel that life is very much worth living.
136. It irritates you to have to wait at a crossing for a long freight train to pass.
137. You usually say what you feel like saying at the moment.
138. You like to speak in public.
139. You like to be with people.
140. You generally keep cool and think clearly in exciting situations.
141. Other people regard you as a lively individual.
142. When you get angry, if you let yourself go you feel better.
143. You seek to avoid all trouble with other people.
144. People seem to enjoy being with you.
145. You sometimes feel listless and tired for no good reason.
146. It is hard to understand why many people are so slow and get so little done.
147. You are fond of betting on horse races and games, whether you can afford it or not.
148. If someone you know has been spreading untrue and bad stories about you, you see him as soon as possible and have a talk about it.

149. Shyness keeps you from being as popular as you should be.

150. You are generally free from worry about possible misfortunes.

151. You nearly always receive all the credit that is coming to you for things you do.

152. You would like to tell certain people a thing or two.

153. You would rather spend an evening reading at home than to attend a large party.

154. You would change a lot of things about human nature if you could have your way about it.

155. You would like to go hunting with a rifle for wild game.

156. In group activities you get your full share of everything.

157. In most cases it is important to get what you want even if you have to fight to get it.

158. You often try to analyze the motives of others.

159. Most public office holders generally put public interests ahead of their own.

160. The sight of blood frightens you.

161. People talk about you behind your back.

162. Money is important mostly because it gives its owner power.

163. It is easy for you to act naturally wherever you are.

164. Most people are stupid.

165. You feel deeply sorry for a bird with a broken wing.

166. Other people often blame you for things you didn't do.

167. You hate to lose in a contest.

168. You like a job that requires attention to many details.

169. Most people fulfill their duties even when not being watched.

170. You can look at snakes without shuddering.

171. You often become bored when the subject of conversation shifts away from your own experience, hobbies, or interests.

172. You hate to lose an argument even when the issue is not very important.

173. You are usually too busy to spend time in reflective thought.

174. Most people know what to do without being told.

175. When a parent, teacher, or boss scolds you, you feel like weeping.

176. You are touchy about some things.

177. You know someone whom you would particularly like to see "put in his (or her) place."

178. You are most interested in athletics than in intellectual things.

179. Most people are paid as well as they should be for what they contribute to society.
180. The idea of finding a bug or a worm crawling on you makes you shudder.

181. You often feel that one of the main characters in a movie or a play is like you.

182. You hesitate to tell people to mind their own business.

183. You make it a policy to evaluate your past actions carefully.

184. In most places the traffic laws are in great need of improvement.

185. You would rather study mathematics and science than literature and music.

186. You get into scrapes which you did not seek to stir up.

187. You resent having friends or members of your family give you orders.

188. You are philosophically inclined, that is, inclined to philosophize about things.

189. Most people keep to the "straight and narrow path" only because of the fear of being caught.

190. You especially dislike to get your hands dirty or greasy.

191. You are inclined to think about yourself much of the time.

192. You have frequently felt like telling "nosey" people to mind their own business.

193. You are frequently "lost in thought."

194. Far too many people try to take as much as they can and give as little as possible back to society.

195. You like to read true stories about love and romance.

196. You get over a humiliating experience very quickly.

197. In group undertakings you almost always feel that your own plans are best.

198. You like to discuss the more serious questions of life with your friends.

199. Most people today try to do an honest day's work for a day's pay.

200. You pay little attention to styles in clothing.

201. Almost everything that happens seems to have some relationship to you.

202. When people become bossy or domineering, you want to do the opposite of everything they tell you to do.

203. You often would like to know the underlying reasons behind the actions of other people.

204. There are far too many useless laws which hamper an individual's personal freedom.

205. You would rather be a forest ranger than a dress designer.

206. Certain people deliberately say or do things to annoy you.

207. Some people become so rude that you feel the urge to "sit on them" or to "tell them off."
208. You sometimes have a peculiar feeling that you are not your old self.

209. Most people who get ahead today do so because they have "pull."

210. The sound of foul language disgusts you.

211. There are many kinds of work that you would not think of doing because they are not good enough for you.

212. You get into fights or arguments in defense of your friends or members of your family.

213. You enjoy thinking out complicated problems.

214. Most people learn quickly to avoid making the same mistake twice.

215. You are only mildly disturbed when you see or hear of animals being treated cruelly.

216. People offend you without knowing it because you hide your feelings from them.

217. You get a lot of satisfaction from making other people do as you want them to.

218. You often take time out just to meditate about things.

219. You have received about all the rewards in life that you deserve.

220. You would rather be an interior decorator than an architectural engineer.

221. You have felt that certain persons are secretly trying to get the better of you.

222. You are likely to talk back to a policeman or other person in authority over you if you feel like it.

223. You find it very interesting to watch people to see what they will do.

224. The number of "two-faced" individuals you have known is actually very small.

225. You feel very badly if someone does not approve of what you are wearing.

226. You very often seek the advice of other people.

227. When someone is not playing fair, you like to see him beaten at his own game.

228. You are constantly alert to ways of improving yourself.

229. Most groups of people behave like a bunch of sheep, that is, they blindly follow a leader.

230. You would rather go to an athletic event than to a dance.

231. It is difficult to hurt your feelings.

232. Anyone trying to take away any of your lawful rights will have a real fight on his hands with you personally.

233. You are inclined to steer clear of complicated problems that call for thinking.
234. In general, people higher up tend to assume their share of the dirty work, not leaving it for others to do.
235. The sight of ragged or soiled fingernails is repulsive to you.
236. There have been times when you have been bothered by the idea that someone is reading your thoughts.
237. It pays to "turn the other cheek" rather than to start a fight.
238. You try to sense what people are thinking about as they talk to you.
239. You have had your share of good luck.
240. You feel deeply sorry for a mistreated horse.
241. You have been seriously slighted more than once.
242. When you resent the actions of anyone, you promptly tell him so.
243. After a critical moment is over, you usually think of something you should have done but didn’t do.
244. If you want a thing done right, you must do it yourself.
245. You can handle a loaded gun without feeling at all jittery.
246. Other people too often take the credit for things you yourself have done.
247. You know or have known someone personally whom you would like to see behind prison bars.
248. You are much concerned over the morals of your generation.
249. Large business corporations are a good thing.
250. You cry rather easily.
251. When things go wrong, it upsets you very little.
252. You see to it that people do not take advantage of you.
253. You are inclined to ponder over your past.
254. Some people pay more attention to your comings and goings than they should.
255. The sight of large bugs and spiders gives you a "creepy" feeling.
256. You often feel that a speaker is talking about you personally.
257. You are unhappy unless things in an organization go pretty much as you want them to.
258. You enjoy analyzing your own thoughts and feelings.
259. Most people use politeness to cover up what is really "cutthroat" competition.
260. You would rather be a building contractor than a nurse.
261. You have days in which it seems that everything goes wrong.
262. You feel the urge to stir up some excitement when things become dull.
263. You would rather put plans into action than to spend time working them out.
264. The educational system in this country is all right in most ways.
265. You feel sorry for a fish that is caught on a hook.
266. You often unburden your troubles to others.
267. You would like to have enough money or power in order to impress people who think they are better than you are.
268. You frequently find yourself in a meditative state.
269. People today have just about as many chances for success as in your parents' day.
270. You feel strongly against kissing a friend of your own sex and age.
271. You are too sensitive for your own good.
272. You have often found it necessary to fight for what you believe to be right.
273. You often watch others to see what effects your words or actions have upon them.
274. Most people are out to get more than they give.
275. You are willing to take a chance alone in a situation where the outcome is doubtful.
276. People have criticized you unjustly to others.
277. The opinions of most people are worthless.
278. You are inclined to be introspective, that is, to analyze yourself.
279. Almost anyone, even though poor, can get a square deal in courts of law.
280. You would rather be a miner than a florist.
281. It is difficult for you to become interested in the problems of others when you have so many of your own.
282. It bothers you to have other people tell you what you should do.
283. You often wonder about why human life exists and what its future is.
284. Some people deliberately make things hard for you.
285. Odors of perspiration disgust you.
286. Criticism disturbs you very little.
287. It bothers you to see someone else bungling a job that you know perfectly well how to manage.
288. You are inclined to live in the present, leaving the past and the future out of your thoughts.
289. Most people will tell a lie now and then in order to get ahead.
290. The sight of an unshaven man disgusts you.
291. When you lose something you often begin to suspect someone of either having taken it or having misplaced it.
292. There are some people whose actions seem continually to irritate you.
293. You like to have time to be alone with your thoughts.
294. There are entirely too many employees who deserve higher pay than their bosses.
295. You like love scenes in a movie or play.
296. There are times when it seems that everyone is against you.
297. If anyone steps ahead of you in line, he is likely to hear from you about it.
298. You often wonder why people behave as they do.
299. Nearly all people try to do the right thing when given a chance.
300. When you become emotional you come to the point of tears.
EPI-C MODEL: INTELLECTIVE SELF-ASSESSMENT SCALE

This instrument is designed to help determine how you see yourself in relation to the words and concepts below. It will be used to work with you in developing programs of self-growth in the areas you choose to emphasize.

DIRECTIONS:

1. Place a mark (x) on each scale item at the point that you feel most accurately shows where you are NOW.
2. Place a circle (o) on each scale item at the point where you would LIKE TO BE.
3. In the margin to the left of the items, rank in priority (1, 2, 3) the three items in each category that you would like to work on at this point.

ATTITUDES

___ over achiever
___ dull
___ leader
___ passive
___ liberal
___ hard working
___ accept ideas
___ curious
___ traditional
___ high motivation

___ under achiever
___ bright
___ follower
___ assertive
___ conservative
___ lazy
___ challenge ideas
___ satisfied
___ creative
___ low motivation

SKILLS

___ disorganized
___ good vocabulary
___ read slowly
___ understand
___ write well
___ poor researcher
___ listen well
___ verbal

___ well organized
___ poor vocabulary
___ read fast
___ don't understand
___ write poorly
___ good researcher
___ listen poorly
___ nonverbal
**EPI-C Model:** PHYSICAL SELF-ASSESSMENT SCALE

### BODY IMAGE

| attractive | unattractive |
| sloopy    | neat         |
| out-of-style | in-style   |
| clumsy    | graceful     |
| walk confidently | walk hesitantly |
| unique style | ordinary style |

### BODY SHAPE

| thin | fat          |
| out-of-shape | in-shape |
| feminine | masculine |
| poor figure | good figure |
| good posture | poor posture |
| neutral | sexy         |

### ENDURANCE

| high energy | low energy |
| slow pulse | fast pulse |
| tired | stamina |
| nonsmoker | smoker |
| drinker | nondrinker |
| rarely sick | often sick |
# EPI-C Model: Emotional Self-Assessment Scale

## Intra-Personal Awareness

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## Self-Concept

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<td>Talk Infrequently</td>
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<td>Past/Future</td>
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APPENDIX B

RAW DATA
### TABLE XXVIII

**RAW DATA FOR EXPERIMENTAL GROUP**

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+ Hypothesis stated "will show" significance.
- Hypothesis stated "will not show" significance.
* Approached significance.
### TABLE XXI (cont'd)

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