THE EFFECT OF GROUP DISCUSSION UPON SELECTED PERSONALITY VARIABLES OF STUDENT NURSES

DISSertation

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By

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This study has been undertaken to investigate the impact of group discussion upon sociometric status, self-actualization, and number of stated problems with respect to student nurses.

The purposes of this study were (1) to determine whether group discussion will enhance sociometric status of student nurses, (2) to determine whether group discussion will positively affect self-actualization of student nurses, (3) to determine whether group discussion will lessen the number of stated problems of student nurses, and (4) to examine the group process and interaction of the group discussion sessions.

A review of literature on this subject indicates that some group experiences have produced significant effects in terms of the variables investigated, whereas other research efforts have produced nonsignificant results.

This study dealt with ninety-three female students in their third year of nursing in a large metropolitan hospital. The subjects were ranked from the lowest to the highest on a sociometric index. The total group was then divided into
three major groupings of thirty-one highs, thirty-one middle, and thirty-one low subjects sociometrically. Each of these three groups was then randomly divided into experimental and control subjects. The experimental subjects were further randomly divided into three subgroups to facilitate maximum group discussion and interaction.

Each experimental subgroup met once a week for two hours for a period of six weeks to discuss their relationships and interaction with patients they were assigned to on the psychiatric ward of the hospital. The control subjects met for an equivalent period of time each week in a study hall session.

The Bonney-Fessenden Sociograph, the Personal Orientation Inventory, and the Mooney Problem Check List were administered to all the subjects one week preceding the first group discussion and study hall sessions, and readministered one week following the last group and study hall sessions. The Group Discussion Evaluation Scale was scored by the investigator, who met with the group leader in each of the discussion sessions, immediately following each of the group sessions.

The Fisher's t Test and the Duncan's Multiple Range Test were used for both pretest and posttest data. The .05 level of significance was chosen as the level at which the research hypotheses would either be rejected or retained.
Based on the statistical results of the study, it was concluded that group discussion does not result in a significant change in sociometric status. Also, sociometrically low subjects not participating in group discussion, when compared with group discussion participants, as a whole, show no significant difference in sociometric status and self-actualization. However, group discussion does bring about a significant change in self-actualization and a reduction in the number of stated problems of sociometrically low subjects who participated in group discussion as compared to sociometrically middle and high discussion participants.

The descriptive analysis of the group process indicates that all three subgroups functioned in a manner conducive to effective group discussion, showing steady improvement in communication and interaction with each additional session.

It is recommended that (1) group discussion be used in the training of student nurses, (2) that group sessions be extended in length, (3) that additional research be conducted utilizing different instrument for evaluation, (4) that such research be extended to other academic and technical fields, and (5) that further research in this area include descriptive process data along with statistical data.
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CHAPTER I

INTRODUCTION

In the social sciences and educational fields involving continual interpersonal relationships, it is not enough that the student be intellectually equipped and sophisticated. Members of service occupations exercise considerable influence over those whom they serve, both directly and indirectly. In order that their influence might be most favorable and positive, they could profit from experiences that would aid them in acquiring sensitivity and self-confidence in individual and group relations, in addition to the more traditional academic class work experience. They also could gain from experiences that would enable them to adjust effectively to the differing attitudes of many persons with whom they associate as well as develop effective methods of communication with individuals and groups (26, 20).

Nursing is one such profession in which intense interpersonal relations are recurrent. To make effective use of the self in a therapeutic way, knowledge of self and skills in communication are essential. In addition, one's success and happiness in the nursing profession are dependent to a considerable degree upon one's ability to relate well
interpersonally with others (6). Thus, the success the nurse experiences in her chosen field as she seeks to help other people will depend significantly upon her ability to interact with others in a positive way. It will depend to a large degree upon the interpersonal relationships she experiences and upon how she uses herself in these relationships. Studies have indicated that persons who are most successful in interpersonal relations are generally more well-liked by others, are more self-actualizing and experience fewer major personal problems (11, 16, 10).

A persistent concern of educators in the field of nursing has been how to help most effectively those students who may be having difficulties in personal and interpersonal relations so that their educational and social experiences might enhance their general growth as persons and as professionals. Too, if the student is knowledgeable concerning herself and her unique complexity of motivations, prejudices and needs, her position to help others is enhanced (17, 24, 15).

It has been suggested by educators that group experiences which provide training in interpersonal competence have an appropriate place in a formal academic curriculum, and that such education can be a major asset in graduate education (2, 12). Auerbach (1, pp. 28-29) has recently stated that the group discussion method is one such group
method appropriate in the academic setting for bringing about needed experiences in interpersonal relations and personal growth.

Statement of the Problem

The problem of this study was to examine the impact of group discussion upon selected personality variables of student nurses.

Purpose of the Study

The purposes of the study are outlined as follows:

(1) To determine whether group discussion will affect sociometric status with regard to student nurses.

(2) To determine whether group discussion will affect self-actualization with regard to student nurses.

(3) To determine whether group discussion will affect the number of stated personal problems with regard to student nurses.

Hypotheses

To carry out the purpose of this study, the following hypotheses were formulated:

1. Group discussion participants will show a significantly greater mean gain between pretest and posttest scores on the Bonney-Fessenden Sociograph (B-FS) than will the control group participants.
2. Group discussion participants will show a significantly greater mean gain between pretest and posttest scores on the **Personal Orientation Inventory (POI)** than will the control group participants.

3. Control group participants will show a significantly greater mean gain between pretest and posttest scores on the **Mooney Problem Check List (MPCL)** than will discussion group participants with respect to the following areas:
   a. Health and Physical Development
   b. Social and Recreational Activities
   c. Social-Psychological Relations
   d. Personal-Psychological Relations

4. Experimental Group 3 (EG3) will show a significantly greater mean gain between pretest and posttest scores than will Experimental Group 1 (EG1) and Experimental Group 2 (EG2) in
   a. Social status as measured by the **B-FS**.
   b. Self-actualization as measured by the **POI**.

5. EG1 and EG2 will show a significantly greater mean gain between pretest and posttest scores than will EG3 in
   a. Health and Physical Development
   b. Social and Recreational Activities
   c. Social-Psychological Relations
   d. Personal-Psychological Relations
6. Control Group 3 (CG3) will show the least significant mean gain between pretest and posttest scores of all the participants in the study in
   a. Social status as measured by the B-FS.
   b. Self-actualization as measured by the POI.

7. CG3 will show the highest significant mean gain between pretest and posttest scores of all the participants in the number of personal problems listed on the MPCL with respect to the following areas:
   a. Health and Physical Development
   b. Social and Recreational Activities
   c. Social-Psychological Relations
   d. Personal-Psychological Relations

Background and Significance of the Study

Both group discussion and formal academic teaching have as their purpose to enlarge the experiences and understanding of those they reach. Some of the differences between group discussion and academic teaching are obvious; others are more subtle and overlapping and are in need of additional formulation and sensitive test performance.

Although formal academic teaching has been and is constantly being modified in its procedures, it is usually based on a curriculum determined in advance by the instructor, covering materials and issues he thinks are important. Group
discussion differs in that it follows no set curriculum but proceeds from the interests and concerns of the members as they emerge in their daily experiences (1, p. 29).

Academic teaching is made dynamic and meaningful by a gifted teacher who presents knowledge and interpretations that are clearly related to the participant's thinking and living. Yet, if even a gifted teacher follows a formal teaching structure and plans too rigidly, the learning often becomes too general and intellectual. Where lectures are followed by a discussion or question period, participants have some chance to test the meaning of the presentation for their own situation. Usually, however, this part of the session is short, so that only a few persons can be heard. In contrast, group discussion starts on a different plane—the living, feeling experiences of the group members—and thus introduces the immediate essence of interpersonal behavior and interplay.

According to the social psychologist Mann (13), taking part in a discussion group adds a special dimension to learning. Because of the stimulation of different personalities, with a variety of experiences and ideas about many forms of behavior and their responses to them, the substance from which students can draw for their learning is rich and varied, dynamic and real. In the group they learn from one another. The group
also offers students the chance to grow through the group interplay and to find their own place as persons.

Bovard (4) suggested that students need increasing opportunities for discussion and aid in the areas of social development. Ideally, small classes would enhance the possibilities of such discussion, but this alternative is difficult to adhere to because of the ever increasing numbers of students. The inherent limitations for meaningful discussion posed by large classes require other forms of involvement among students for meaningful interaction to occur.

For more than two decades psychologists and educators have been making a case for the effectiveness of group methods in learning and teaching.

Trow (22) insisted that the school class be considered a group and, as such, be subject to the same principles of effective communication as any other group. He studied the motivation, application of concepts, and individual insight relative to the effectiveness of group techniques in the classroom. More effective social behavior, as well as a ready response to ideas, was observed among those taught by group methods. Cartwright (7) agreed that group dynamics were far more influential in determining behavioral change in the classroom than lectures and exhortations delivered by the instructor. Cogan (8) compared the teacher-autocrat to the democratic leader who included the group in setting
goals and evaluating performance. Cogan noted that the students with the democratic leader reported greater personal satisfaction with the class. In addition, Bullis (5) contended that group teaching methods aided in developing personality and mental health as students were encouraged to become involved and share emotional experiences with others. This experience is severely limited in a class dominated by lecture or teacher-centered methods.

Just as there has been an increasing interest over the past twenty years in the effectiveness of group methods in the general field of education, there has been a growing interest in the use of group methods and experiences in the field of nursing.

In an attempt to help student nurses better handle the anxiety frequently accompanying their initial experience in a psychiatric setting, Wolk (25) developed what he terms sensitization seminars. In these seminars students freely discuss patient, peer, and personal problems encountered in their experiences in a psychiatric setting. This experience aids the student in looking beyond the content of verbalizations and gestures and more toward the underlying and implicit messages being communicated in interpersonal interactions. Garner and Lowe (9) have used group experiences for several years to help student nurses explore their habitual ways of relating with people. In an effort to
produce a greater number of well-adjusted women who would be able to function successfully as professional nurses, Rosenberg and Fuller (19) conducted regular small group seminars.

Nahm (14) points out the significance of the positive correlation between the degree of satisfaction within a professional group and the quality of service that the group can render to society. Faculty members in schools of nursing have frequently noted that some students who seemed highly motivated and enthusiastic at the time of admission gradually changed their attitude and became disillusioned with the nursing profession. In Nahm's study, student nurses, according to their conception of nursing, associated job satisfaction with a feeling of adequacy and competence.

Porter (18) states that the basic cause of friction among personnel in nursing is poor interpersonal relationships. Professional nurses complain that they feel inadequate in management skills involving human relations.

As Porter (18) explains, even though hospitals are aware that poor interpersonal relationships exist, very little research has been done to investigate the dynamics of the relationship among nursing personnel.

In the recent book, Changing Human Behavior, Mann (13, p. 91) states, "While rational grounds exist for supposing
group discussion to be an effective agent in producing behavior change, the evidence to support this fact is surprisingly scarce."

Most studies concerning the effects of group discussion evaluate the effects of this method by comparing course grades or the amount of immediate mastery of factual information. And the influence of group discussion on the student's personality usually relies on questionnaires and the student's own opinions (23, p. 481). This, quite naturally, leaves a gap in the evaluation of discussion methods because, in spite of the fact that students may not be able to recognize changes in their own behavior and personality, such changes could occur. This study sought to evaluate objectively the effects of group discussion upon selected personality variables of students in a nursing education program.

Definition of Terms

Self-actualizing—those factors which contribute to the full use and exploitation of talents, capacities, and potentialities. For this research it was operationally defined as scores on the Personal Orientation Inventory, a measure of self-actualization.

Group Discussion—the application of group processes to focus on participants personal concerns and interpersonal
relations. Individuals use each other and the leader in the
group process to effect personal growth and social adjustment.

Sociometric Status—a measure of person-to-person re-
sponsiveness in which individual group members render a
judgement in regard to desirability of certain other members
for a specific purpose, activity, or relationship (21, p. 174).

Experimental Group I (EG1)—one half of the top students
in the class sociometrically.

Experimental Group 2 (EG2)—one half of the middle
students in the class sociometrically.

Experimental Group 3 (EG3)—one half of the low students
in the class sociometrically.

Control Group 1 (CG1)—one half of the top students in
the class sociometrically.

Control Group 2 (CG2)—one half of the middle students
in the class sociometrically.

Control Group 3 (CG3)—one half of the low students in
the class sociometrically.

Group Discussion Evaluation Scale—a rating scale
developed by the investigator to analyze and describe the
group process of the discussion groups.

Limitation of the Study

Since the class consisted of female students only, the
study was limited to female subjects who had completed two
years of college education and who were in their third year
of a baccalaureate program in nursing in a large private general hospital.

Basic Assumptions

1. It was assumed that all uncontrollable effects were operating similarly on both experimental and control groups so that any difference or change resulted from the conditions imposed on the members of the experimental group.

2. It was assumed that the time of day the groups met had no significant effect upon the groups.

Procedures for the Collection of Data

Subjects

From a population of ninety-three students in their third year of academic training in nursing, forty-six subjects were assigned to an experimental group and forty-seven subjects were assigned to a control group, using a table of random numbers. Each subject had completed the freshman and sophomore years in college and was engaged in the first year of a two-year nursing major.

Procedures

All of the ninety-three students in the junior class were given a sociometric choice instrument. The students were then ranked from the student who received the highest sociometric status score to the student who obtained the
lowest sociometric score. The Bonney-Fessenden Sociograph (3), a sociometric index, was used to rank the subjects from the highest score to the lowest score.

Based on the sociometric ratings, the students were divided into three groups of thirty-one high, thirty-one middle, and thirty-one low subjects. Each of these three groups was then randomly divided into experimental and control groups. Thus, the top one-third subjects sociometrically were randomly divided and designated Experimental Group 1 (EG1) and Control Group 1 (CG1); the middle one-third sociometrically was randomly divided and designated Experimental Group 2 (EG2) and Control Group 2 (CG2); and the bottom one-third was randomly divided and designated Experimental Group 3 (EG3) and Control Group 3 (CG3). Once these designations were made, EG1, EG2, and EG3 were randomly divided into three groups of approximately equal number of high, middle, and low students sociometrically. These subgroups (Subgroup 1, Subgroup 2 and Subgroup 3) were established in order to provide an atmosphere conducive to small group discussion and interaction.

The students in the subgroups met one time each week for six weeks of group discussion. Each session lasted approximately two hours. The students in the control group met one time each week for a two-hour study hall.
One week following the group discussion sessions and the study hall sessions, post-treatment evaluation of the groups was made with the post-treatment instruments and conducted in the same manner as was the pre-testing.

In addition to the group leader, the investigator met as an observer in each of the discussion sessions to examine the group process. This data was evaluated with the Group Discussion Evaluation Scale immediately following the conclusion of each session.

Treatment of the Data

Data obtained from the tests of the experiment were treated statistically using the t-test for differences between means of the experimental and control groups and the Duncan's Multiple Range Test for the comparison of multiple means.

The significance level of .05 was required for acceptance of the hypotheses for all computations.

Graphic and descriptive analyses of the information obtained from the observations of the groups in action and the Group Discussion Evaluation Scale were presented.

Summary

This study was based on a need to improve personal and interpersonal relationships among student nurses. There is
evidence in the literature in the field of nursing to indicate that the successful nurse is one who is able to interact with others in a positive manner, feels positively toward herself and is burdened with relatively few personal problems.

The purposes of this study were to determine whether or not group discussion can bring about change in self-actualization, decrease in number of stated personal problems, and improve sociometric status with respect to nursing students.

This study utilized randomly-chosen intact groups of student nurses in a large private hospital. There were forty-six subjects in the experimental group and forty-seven subjects in the control group. The experimental group, which was divided into three subgroups to facilitate group interaction, met once each week for a period of six weeks in two-hour sessions to discuss individually assigned patients in a group discussion setting. The control group met in a two-hour study hall once each week for the six weeks of the study.

Four instruments were used in the study. These were the Bonney-Fessenden Sociograph, the Personal Orientation Inventory, the Mooney Problem Check List, and the Group Discussion Evaluation Scale. These instruments, except for
the **Group Discussion Evaluation Scale** which was used in conjunction with each group session, were administered to all subjects one week preceding the first group discussion session and were readministered one week following the last group discussion session. The subject's pre-test and post-test responses were hand scored by the investigator, and then the data were processed at the North Texas Computer Center.

The tenability of the hypotheses was determined by the *t*-test technique and the Duncan's Multiple Range Test. All hypotheses were tested at the .05 level of confidence.

The results of the rating scale were graphed and evaluated by the investigator.
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CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The problem of the class as a group and its relationship to teaching and learning is no small issue in higher education today. The pressures of rising enrollments, acknowledged defects in our educational system, and the demands currently being made on the schools and colleges to produce more learned and sensitive persons make it more important than ever that any and every kind of possibility be explored that has the potential of making higher education better than it is (6).

In discussing the college classroom as a group, Jenkins (31) has indicated that a primary issue is that of interdependence in the areas of both emotional and intellectual learning needs of the participants involved. One avenue of investigation that seems worth taking is that of more extensive use of group dynamics and sociometric studies in the classroom. Educators in the field of nursing education have voiced similar interests in the possibilities of group dynamics and sociometric studies in the classroom setting.
Research, thus far, indicates that the use of groups and sociometrics enhances student involvement in the process of learning and promotes social development of the student (11, 48). Specifically, the group discussion method promises to be one of the best teaching approaches for involving students in the learning process and promoting an atmosphere for social development.

Lecture and Discussion Methods

Research investigations of the discussion and lecture methods in the field of education can be classified under five categories: mastery of factual information, retention of information, problem-solving, process studies, and attitude change and interpersonal relations.

Mastery of Factual Information

Most of the studies concerned with the immediate mastery of factual information have concentrated on comparing the discussion method with the lecture method. They have sought to examine which method most facilitates the remembering of what one is taught.

In a now classic study by Asch (1) three sections, from freshman psychology classes, of thirty-five students were taught by instructor-centered methods, while one section of twenty-three students was taught by a student-centered method. One of the primary aims of the study was to evaluate the
extent of students' intellectual growth when taught by these two teaching approaches. On the final examination in the course, the students in the instructor-centered sections made slightly greater intellectual gains based on test scores on both objective and essay portions of the examination. It is interesting to note that while Asch's student-centered class scored significantly lower on the subject matter tests, they nevertheless rated the student-centered class higher than the instructor-centered in helping them to learn the subject matter of the course.

Bane (3), after carefully examining the experiments of others with the lecture and class discussion methods in the 1920's, conducted his own study with five hundred ten students in undergraduate courses in education and psychology. In the lecture classes the instructor did all of the talking; in the class-discussion, both the teacher and students participated, discussion being initiated by questions from the teacher. Comparative group scores on objective subject matter tests were used as criterion of the relative effectiveness of the two teaching methods. Bane found that the lecture method was slightly more effective for the immediate recall of subject matter.

In a study designed to determine whether students taught by a traditional lecture-discussion method would differ significantly from students taught by the student-centered method,
Bills (4) concluded that there was no significant difference in knowledge gained by the two groups. Both learned an equivalent amount of textbook material from the two methods.

Another study comparing the discussion method of teaching with a lecture method with adult students included a third method, a combination of lecture-discussion class, and compared it with the two other methods. In this study, Bloom (5) compared five criterion areas, overall achievement, building a student fund of information, developing the ability to apply information, developing skill with quantitative materials, and developing student interest for further study. Consistent findings of no difference between the two methods were obtained in all five criterion areas for the six weeks course. In addition, no significant differences were found to favor the combination method over the straight lecture or discussion methods.

An investigation seeking to compare two group discussion methods in the amount of material learned in a freshman psychology course was conducted by Deignan (16). One hundred thirty students were divided into ten sections. Five sections were designated as student-centered in which the students were given the responsibility for initiation of the change of discussion topics. The students were encouraged by the instructor to assume the responsibility of maintaining the class discussion. On the other hand, the control group
discussion leader conducted the instructor-centered classes according to the methods more usually used in college teaching. He chose the topics for discussion, asked questions of the class, corrected inaccurate or incomplete statements made by the students and maintained complete control of the discussion of the class. The results indicated that there was so significant difference between the two groups regarding the amount of material learned by the end of the semester.

Likewise, Eglash (18) found no difference between a group discussion class and a traditional class in scores on the final examination or in scores on an achievement test administered several weeks after the course had ended. It is interesting to note that while the discussion class felt that they had learned little, the lecture class felt that they had learned a great deal, while the examination showed that both groups learned an equal amount.

Even when students were permitted to choose between a discussion class and a lecture class, Haigh and Schmidt (26) found no significant difference in learning of subject matter as measured by objective examinations.

Husband (3) compared objective examination grades of large lecture classes averaging two hundred students with smaller recitation classes averaging fifty students. When the examination grades were compared, the lecture sections showed a slight improvement over the smaller classes in
grade point average, suggesting little advantage of smaller classes over large classes in basically lecture type classes.

In a study by Johnson and Smith (33) in which they sought to test the hypothesis that classes under democratic leadership would be more effective than lecture classes in improvement in ordinary academic achievement, they concluded that while the democratic classes made greater achievement gains than their matched lecture classes, the differences were not statistically significant.

Lifson et al. (36) compared the grades of students in lecture classes with those in discussion classes. When midterm and final examination scores of the two groups were compared, they showed to be almost identical.

Maloney (37) met with two groups of students for twelve consecutive days. One was an experimental group and the other was a control group. The experimental group engaged in ten discussion periods. The control group engaged in one discussion period. The results of two achievement tests given to the two groups following the experiment indicated that while learning was not facilitated more in the experimental group, neither was it impeded. Slomowitz (53), comparing content achievement gains of a non-directive group and a problem-oriented group, found no significant difference between the groups with regard to a case-study test.
In a study reported by Wispe (58) it was found that a majority of students preferred traditional teaching when examinations were emphasized. The students felt they got more course-relevant information. The students in the discussion type classes enjoyed them more but did not consider them as valuable. However, in the final analysis, the teaching method made no significant difference on the final examinations for the brighter students, but there was a significant difference for the poor students in that they did better in the traditional situations.

Zeleny (6), studying the effectiveness of group discussion conducted in a college class in sociology, concluded that slightly more knowledge of sociology was acquired by use of the group discussion method than by the class lecture method. The difference between the two groups, however, was not statistically significant.

The majority of the studies comparing the lecture method with the group discussion method in regard to the immediate mastery of factual information indicate that one method is no more effective than the other. A few studies, however, suggest that the lecture method is superior to the discussion method.

Burke (10), for example, conducted a twenty-week course designed to help college students adjust to college living
and to augment educational-vocational planning. Students were divided into control and experimental groups. In the control group the instructor assumed a central position and handled directly plans for course coverage and classroom procedures. In the experimental group immediate course goals were set and carried out by the students. The results suggested that the instructor-centered approach produced better results where recognition and recall of factual information were desired.

An experimental comparison of three teaching methods in college teaching, recitation, discussion and tutorial, was conducted by Guetzkow (24). No differences between the three teaching methods from the point of view of educational outcome were found. However, the few statistical differences obtained, in general, favored the recitation method. A similar finding was made by Ruja (50) when comparing the lecture and discussion approaches in college teaching. The lecture was superior to discussion as measured by a test of subject matter mastery in a general psychology course. Spence (55) compared two large lecture classes. With one he lectured the whole period, and with the other a case was used as the springboard for group discussion. Objective test results showed the students in the lecture class to be superior in knowledge gained to the discussion class.
One study, however, has been reported favoring the discussion approach over the lecture approach for the immediate mastery of factual information. That study was reported by Faw. Faw (19) conducted a class of 102 students who met two hours a week in discussion groups of thirty-four students each. One discussion group was taught by a group-discussion method, one by a lecture method, and one group alternated between the two methods. Faw's major measure of attainment of objectives was in the intellectual area. Scores on the objective course examination based on the textbook showed small but significant differences favoring the group discussion method.

The Retention of Information

As we have seen, a large number of studies have been conducted around the immediate mastery of factual information. Yet, the more important question of how much material is retained following initial mastery has been seldom investigated.

Bane (3) in his investigations suggested that the lecture method was superior for the immediate recall of subject matter, but he went on to explain that the class discussion method proved to be superior for the retention of subject matter. Eglash (18), on the other hand, found no difference between group discussion classes and traditional
classes with scores on an achievement test administered several weeks after the course had ended.

A study by Ward (57) sought to determine whether subject matter in physical science would be learned as well under a group method of instruction as under a lecture-demonstration method in a general education college course. Based on intelligence and psychological test scores the students were divided into three groups of high, medium and low. His results indicated that the high students could gain equally as much from either method for the recall-recognition type of learning. With the other two groups the lecture-demonstration method proved to be more effective in helping the student retain the material taught.

**Problem-Solving**

Another area of investigation in which group and lecture methods of teaching have been compared is in the area of effectiveness to aid in problem-solving.

Smith (54) compared a "team" class in general psychology consisting of forty-eight students divided into five subgroups with a lecture class taught by the same instructor for one semester. He found practically no difference in the over-all satisfaction of the two classes regarding class participation. However, the "team" class made greater achievement gains than the lecture class. In addition, the study
failed to bear out the common beliefs about the kind of students that fit best into a group situation: those high in participation, high in initial achievement, and low in anxiety did not profit more than their opposites.

In an investigation to examine the effects of student acceptance of responsibility and motivation on course behavior, Patton (45) divided several introductory psychology classes into two groups—an experimental group subjected to a "student-responsibility method" in which the students worked in small groups, and a control group—subjected to a "teacher-responsibility method" which was conducted primarily by the lecture approach. At the end of the semester the participants in the experimental group expressed more satisfaction with the course, higher interest in psychology and showed superiority in applying psychological knowledge to a concrete problem, compared to the members of the control group.

Bovard (9) sought to contrast the effects of discussion-centered teaching, where student-to-student verbal interaction was fostered, and lecture-centered, where student-to-student conversation was significantly limited and instead channeled between teacher and individual student. It was concluded that while student-to-student verbal interaction in a classroom has no statistically discriminable effect on
learning of objective content, that it does have a decided
effect on such non-content variables such as liking for
other students and spontaneity of behavior.

In an article reviewing the research in discussion-
centered versus instructor-centered teaching, McKeachie (39)
stated that there is little evidence in the research of
these two methods that there are significant variables that
make a difference in which method one uses to impart knowledge
of subject matter. McKeachie does suggest, however, that
courses using a group approach may surpass the lecture courses
in producing skill in problem-solving.

**Process Studies**

A fourth way in which educational groups have been
studied is in terms of the actual ongoing process of a
lecture or discussion. However, such studies in publication
are few in number.

One such study was conducted by Bloom (5). He sought
to answer the questions: What do students think about during
lecture classes as compared with discussion classes? Are
the differences in thought-processes related to more easily
observed overt differences between these two methods of
teaching? Can one method of teaching be regarded as more
effective than the other when the thinking of the students
in the class is considered?
The method used to seek answers to these questions was to investigate the conscious thoughts of the students in the classroom situation by a method of reviving memories after the class in order to determine the thoughts which occurred during the class. Bloom found that the lecture was successful in securing the attention of students to what was being said but that it evoked primarily thoughts which were appropriate to following and comprehending of information. On the other hand, the discussion was more successful in evoking complex problem-solving types of thought.

A study by Edmiston and Braddock (17) sought to evaluate the degree of attention secondary level students paid to a variety of teaching methods. The methods considered were laboratory, demonstration, lecture, reports, general discussion, teacher-dominated general discussion, pupil-dominated general discussion, rapid-fire question-answer, and workbook.

Observers sat in classes out of the natural line of the student's vision and recorded minute by minute the physical attitude, the expression of the eyes and student activity for each pupil. The experimenters concluded that the best attributes for maintaining pupil attention were having subject matter relevant to the immediate subject under study, considerable student participation, definite
and clear assignments and the combination of visual and auditory learning.

**Attitude Change and Interpersonal Relations**

In the beginning of this chapter it was pointed out that to meet the needs of the whole person in education is to meet not only his intellectual needs but his personal and interpersonal needs as well. A surprisingly few number of studies have concerned themselves with the personal and interpersonal changes brought about in the student by discussion and lecture procedures in the classroom in general education.

In Asch's study of college students subjected to lecture classes and discussion classes, it was found that the students in the lecture classes scored significantly higher than members of the discussion class on both the essay and objective portions of the test. However, the students rated the discussion class higher than the lecture class, feeling it was more helpful for learning the subject matter. Asch maintained that while the students in the discussion class scored lower on the objective tests, the discussion class effected improvement in the attitudes that students hold toward themselves and the attitudes they hold toward other people.
Although Faw (19) found little difference between the student-centered and instructor-centered groups in the intellectual area, in the area of emotional growth the students indicated that they felt that they received greater social and emotional value from the student-centered discussion groups than from an instructor-centered group.

A study by Levine and Butler (35) compared group decision with formal lecture as a method of producing changes in socially undesirable behavior. Both methods were then compared with one in which no attempt was made to bring about any change.

Subjects consisted of twenty-nine supervisors in a large manufacturing plant. The problem was designed to determine the most effective method of getting the supervisors to change the basis for rating subordinates so that a more equitable rating system would prevail. The results of the study clearly showed group decision to be more effective in reducing the prejudiced ratings of the factory supervisors than the formal lecture. The investigators concluded that group decision was more effective than the formal lecture in overcoming resistance to change in behavior.

A final study by Radke and Klisurich (47) was concerned with a comparison of three methods of inducing the changing of behavior in mothers feeding infants and mothers who
determined the milk consumption of their families. It sought to investigate, specifically, the techniques of group decision and to compare its effectiveness with that of the lecture and individual instruction methods. The subjects were mothers and housewives of low socio-economic status who tended to underfeed their children. Results of the study showed the group decision method to be significantly more effective in leading mothers and housewives to use more milk with their infants and families than were either individual instruction or lectures.

Group Studies in Nursing

Few fields have been observed to be in flux as much as the health professions. Among them, nursing has been engaged in a serious process of self-examination, of exploring its optimal scope and place, and of experimenting with various modes of educating the nurse (38). One such mode of educating the nurse which has been gaining in experimentation is the group approach to learning, especially as it is related to personal and interpersonal growth of the nurse (40, 43, 46).

Deck, Hurley and Crumpton (15) conducted a study with student nurses to test the effectiveness of group psychotherapy in a teaching rather than therapeutic setting. Each semester for four semesters they had an experimental group
who received group psychotherapy and a control group who did not. At the beginning and end of the semester, the subjects were administered a battery of psychological tests. The researchers discovered that the students in the psychotherapy groups became less rigid in their attitudes. They became more realistic in their conceptions of themselves and of patients. The group experience also enhanced their learning experience on the hospital ward.

Thompson, Lakin, and Johnson (56) conducted a ten-session sensitivity training program of one and one-half hours daily for eleven randomly selected fourth-year nursing students. Ten other students served as a control group. Information based on daily diaries, quantitative results and interviews with the participants several weeks following the experiment revealed that the experience impelled students to look at their behavior and to consider areas of needed study and attention. The students tended to alter their concepts of themselves as a result of the group experience. In addition, the students voiced general agreement that the experience was beneficial to them personally and professionally.

An eight-month didactic training group was conducted by Sata and Shennin (51) to determine the effectiveness of a small group experience among professional nurses, as a way of dealing with the high turnover rates among professional nurses.
in a psychiatric setting. The group, meeting for an hour and a half weekly, reportedly caused greater cohesiveness among group members and increased the level of their morale.

In an attempt to help student nurses better handle the anxiety frequently accompanying their initial experience in a psychiatric setting, Wolk (59) developed what he termed sensitization seminars. In these seminars students were allowed to discuss freely patient, peer, and personal problems encountered in their experiences in a psychiatric setting. Based on student critiques and the author's personal observations, he concluded that the student nurses who participated in the group experience became more sensitive to and more aware of patient-nurse and nurse-nurse communication. Too, the students began to look beyond the content of the verbalizations and gestures and more toward the underlying or implicit messages being communicated in interpersonal interactions.

Garner and Lowe (20) for several years have been studying the effects of group experiences in the nursing curriculum at the Boston University School of Nursing. The purpose of the groups are twofold: to enable the students to learn something about group functioning and to help the students explore their habitual ways of relating with people. In the present study the group met once a week for two hours for a semester. The
authors reported that the students participating in the group experience were more conscious of their feelings of rivalry towards their colleagues and of difficulties in the way of smooth cooperation with them. There was a recognition of growth and maturation which permitted them to become less dependent on and more equal to their superiors. Too, it helped the nurses to admit to themselves, and to express, hostile and negative tendencies in their interpersonal dealings.

In an effort to produce a greater number of well-adjusted women who would be able to function successfully as professional nurses, Rosenberg and Fuller (49) conducted small group seminars. The groups met four times a week for one and one-half hours for twelve weeks. The researchers reported that the group experience aided in a more rapid and more comfortable development of friendship patterns among the students.

Cleland and Carnes (12) conducted eight group counseling sessions with four groups of student nurses to investigate differing effects of emotional and ideational emphasis on personal adjustment and learning. The writers concluded that considerable differences in the outcome of group counseling can be produced by different combinations of high and low confiding subjects with emotional or ideational emphasis.
Johnson and Leonard (34), in an effort to determine the effectiveness of group counseling with student nurses, took seventy-six students enrolled in their first professional nursing course and randomly placed them in a counseling group and a control group. Those in the counseling group met seven weeks for one hour each week. The control group met with their nursing instructor for one additional hour each week. The group counseling sessions were designed primarily to help students be more sensitive, or more aware of feelings and attitudes. It was concluded that group counseling aided the students in the performance of their hospital field work assignments.

Geitgey (21), in a study to examine the effects of sensitivity training on the performance of students in associate degree programs of nursing education, conducted sensitivity training sessions in three schools of nursing in California. The sessions were thirty hours extending over a weekend. The researcher concluded that sensitivity training improved the performance of students in nursing in relation to some of the major problems in nursing education and practice.

Sociometry

The early work of Moreno (41) advanced the theory that sociometry could be used to modify the structure of groups.
Numerous studies have attempted to test this theory in a variety of situations. Sociometric devices and techniques have been used at all age levels and with all types of groups.

The potential contributions of sociometry were first demonstrated in a New York correctional institution for girls. Sociometric techniques were used by Jennings (32) and by Moreno and Jennings (42) to improve total group relations. The self-concept and the status of socially isolated girls were also improved in the process.

Gronlund (23) reports that the persistence with which socially neglected and socially isolated students appear in the classroom, at all grade levels, indicates their need for help in improving their social relations. These social relations develop in groups and can best be helped in group discussion type teaching. Sociometric results, according to Gronlund, at various grade levels indicated that between eleven and twenty-two per cent of the students were neglected or ignored by their peers.

Silverman (52) recommended that psychology instructors use their students' own experiences in group discussion classes as source material for their courses in psychology. This, he felt, would give the students a deeper understanding of psychology as well as a deeper insight into themselves, their peer group, and others.
One study at the college level reflects the possible effects of sociometric grouping in modifying group structure. Zeleny (61) compared three different methods of improving students' social acceptance in college classes. In one class the students worked on problems in arbitrarily assigned groups, in another class the work groups were arranged on the basis of sociometric choices, and in a third class the author interviewed the students and gave them suggestions for improving their behavior. Changes in the sociometric results over a four-week period indicated that students gained most in social acceptance where sociometric work groups were used. The least effective was that of working in arbitrarily assigned groups.

Studies such as those made by Bonney (7, 8), Northway (44), and others have established that generally speaking, differences in personality characteristics are found between the highs and lows in sociometric status and that the more positive or desirable characteristics are found in those possessing high sociometric status.

Group Process

A discussion group brings people into a limited specific relationship with one another. While the discussion focuses on various topics, inevitably, the social interaction set up by discussion calls into action all of the personal needs and
personality patterns of the several participants. The thoughtful observer of any discussion group must necessarily be impressed by the extent to which the behavior of various members is related not simply to the topics which the group may have set for itself, but more profoundly to the whole of the problem faced by each member of the group as he searches for ways of relating himself as a person to the various people with whom he is brought into interaction.

Gulley (25, p. 273) makes the point that it is unwise to attempt to form generalizations applicable to every discussion situation involving every type of person, but he explains that there are three important interactions or processes which occur in every group while a discussion is in progress. These are leadership involvement, interrelationships of group members, and group productivity. While there are other dimensions of group interaction, these three have a key influence on outcomes.

I. Leadership

Leadership is a rare combination of attitude, personal qualities, and the use of various group tools and methods. The effective leader approaches his job with a broad understanding of the total group and the people in it and of the principles of group interaction and human relations. Gibb (22), after a survey of various writers’ listings of group leader's tasks and
functions, suggested five broad categories of leadership functions. These are:

- **Initiating**, getting the group going
- **Regulating**, influencing the direction and tempo of the group's work
- **Informing**, bringing in information and commenting at appropriate times
- **Supporting**, being responsive to group members individually and as a group
- **Interpreting**, commenting on interaction and evaluating the group process as it evolves.

Paralleling Gibbs, the following five areas are considered by most group researchers to be essential in group leadership.

A. Getting the Discussion Started

The leader must be perfectly clear about what the group is assembled to accomplish. He cannot proceed effectively until the nature and purpose of the meeting are clear to all.

In getting started with the first few sentences, the leader should usually try to think of the persons involved. If they are tense, he may seek to begin casually and informally. If the problem is so controversial that participants are highly emotional, he may try to add a light touch in the beginning. On
a solemn occasion he will set quite a different tone in his opening remarks (29).

B. Regulating the Discussion

While participants are discussing a point, the leader must have the mental agility to engage in two thinking processes almost at once. He must follow closely and in detail what is being said and think ahead of the group, anticipating what questions he must next ask or comment on in order for the discussion to move forward. Thus, he needs the ability to think quickly, to clarify confusing contributions or tangled involvements, to restate immediately what others have said; or, to summarize, the leader must be capable of rapid and alert thinking (25, p. 184).

C. Communicating Information Clearly

Obviously, the discussion leader must be a skillful communicator. He must use language accurately and expressively. His voice should be such that he is heard and understood easily, and his manner and meaning should match. The most important skill for him, however, is the ability to express complex ideas clearly, fairly, objectively and swiftly. When a comment is unclear, he should be able to restate it clearly without offending the person who made it initially (25, p. 184).
D. Being Supportive

The good discussion leader will have genuine respect for other people, for their ideas and for them as human beings. In discussion, all the members' ideas are not equally meritorious, but every member is equally worthy of respect. If the leader respects the group members he will protect them and their feelings; he will have confidence in their statements; he will trust their judgments. For the leader to be respectful and responsive means that his reactions to them and to their contributions will be gentle rather than harsh, pleasant rather than strident, objective rather than critical (25, p. 185).

E. Knowledge of Group Process

The more the leader understands about discussion groups and the discussion process itself, the better able he should be to help a group attain its aims. He should know in particular about interaction—the influences of communication structure, power relationships, interpersonal relations, cooperative attitudes and his own duties in taking these factors into account. In addition to interpreting and evaluating the interaction to the participants clearly, his summaries should represent fairly the collective ideas being reviewed (22, p. 271).
II. Interrelationship of Participants

Every participant in a small group discussion is in direct and dynamic relationship with everyone else in the room. He communicates unilaterally with each person in the group and with the leader; yet every participant is a listener and reacts in some way to every communication which appears to be between just two persons. A very complex and changing relationship thus develops and expands in every direction in a network of exchanges. Gully lists four operations one should look for in good group interrelationship: group cohesiveness, group permissiveness, communication interaction, and interpersonal relationships (25, p. 225).

Following is a discussion of each of these four areas.

A. Group Cohesiveness

Cohesiveness refers to the attractiveness of the group for the members. A particular group may grow in solidarity, or interpersonal relationships may deteriorate during discussion. Members who are attracted to each other communicate more and do so less aggressively and defensively. They are also more likely to emerge from the discussion with more harmonious group feelings and to perceive others as doing well on the task performance. Naturally, groups
are more attractive if members feel secure in them, attain prestige from membership, and enjoy social approval during interaction (25, p. 270).

B. Group Permissiveness

There is evidence that group interaction is increased when an atmosphere has been created in which all members feel permitted to speak freely, fully, and frankly. Permissiveness implies a willingness on the part of the leader to have every individual in the group express any fact, feeling, or opinion he may wish to. It implies also, however, freedom for the individual to remain silent, to be, whenever he wishes, a nonparticipant. When the group climate is characterized by permissiveness, then there is a feeling of freedom on the part of each individual to involve himself as little or as much as he wishes in the activities of the group (28, p. 38).

C. Communicative Interaction

Communication is one kind of interaction, probably the most important and frequently encountered kind between people. It occurs in discussion when members initiate messages consisting of words, gestures, facial expressions, etc., intended to elicit meanings and responses in the others.
Communication is important to discussion in many ways. It is the medium through which members affect the views of others. Without talk, there would be virtually no modification. Communication allows the group to move toward greater uniformity of opinion through the use of information and reasoning, and the application of judgment and experience.

Obviously, some individuals are personally more talkative than others or less inhibited by the presence of others. More communication tends to be initiated when the subject for discussion is important to the group members. And more communications are initiated when the group is highly cohesive. A study by Back varied the attractiveness of groups in various ways. The results suggested that the more cohesive groups engaged in more intensive rates of communication (2, p. 18).

D. Interpersonal Relationships

Interpersonal relationships are those aspects of interaction that affect the way each individual reacts to each other individual in the group as a person.

Our reactions to other persons are extremely complex and involve all the attributes of whatever
it means to be human and to interact within a group which is part of a society that has developed particular cultural patterns. It is impossible to consider all the complex relationships. But it is feasible to examine the dimensions of personal reaction that seem especially important to group discussion and attempt to explain some of their effects on interaction.

Interpersonal attraction is related to the way each individual estimates his own and others' attitudes, status, and power as these are affected by interaction in the discussion situation. Persons who are pleasant, help the group, or have power to reward others are more attractive. In turn, these attractive individuals respond by liking those who obviously like them. Thus, interpersonal relationships have a reciprocal, circular quality leading toward friendliness and harmony or toward increasing hostility or at least caution in interaction (25, p. 286).

III. Group Outcome

Whether the purpose is to arrive at very specific decisions and courses of action, to pass on information, or simply to talk things over, it is valuable to know how well a group succeeded and whether, in retrospect, the
group experience was valuable. Four questions of importance for the outcome of group discussion are topics considered, group productivity, quality of contributions, and group's ability to analyze issues (25, p. 262).

A. Appropriateness of Topic

Unless the group is really interested in a particular subject, the chances of satisfaction are negligible. The topics must be ones which the participants consider vital and worth their time.

B. Group Productivity

Group productivity is related to the nature and demands of the assignment. Whatever the nature of the task a discussion group has, the effective participant will seek to do what he can to foster the productivity.

There is much evidence that members feel highly satisfied when the discussion is thorough, when there is a good interchange of ideas and opinions, when much is accomplished, and when the leader keeps the discussion in focus. When participants can contribute to efficient achievement of the group's concerns, they will increase member satisfaction and thus be viewed as helpful to the group (13, p. 57).
C. Quality of Contributions

Time is limited in a discussion, and most group members want to accomplish as much as they can in the time available. It is apparent that groups become impatient when participants spend five minutes communicating information that could be presented in two. Each member should be capable of efficient communication.

Efficiency is also a matter of language usage and speech skills. Words must be chosen that will be clear the first time around; tiresome, time-consuming explanation and repetition may result from unwise and awkward initial language choices.

In general, contributions made should be brief. There should be lively direct interchange. Members should not be involved in lengthy, involved speeches (25, p. 272).

D. Analyzing Issues

In group discussion each participant is responsible for understanding and analyzing the issues under discussion. This is done by asking for clarification or definition at times, supplying relevant responses and helping the group stay with the issue until it is discussed fully and directly. Failure to follow consistently this advice leads to
misunderstanding, chaos and skipping around from one thing to another. If many subjects are evaded or half-answered, the whole group loses interest (29, p. 158).

Rating Scales

Discussion researchers today, explains Harnack (27), find themselves frustrated by lack of reliable and practical means of describing the process of discussion. How much and what kind of information should be evaluated is still an open question. The possibilities for categories are almost limitless. For example, Bales uses twelve scales, set up to reveal the problem-solution framework. Steinzor uses eighteen categories, and Harnack constructed a rating scale using fourteen categories to measure group process interaction.

The five most common techniques or devices used in evaluating and analyzing group performance are the Leader's Checklist, End-of-the-Meeting Evaluation Form, Group Observer, Interaction Chart, and Tabulation of Functional Roles (14, p. 81).

The Leader's Checklist is a procedure to aid the leader in evaluating his role and function within the group. It frequently consists of a series of questions or statements that serves as an outline for personal evaluation within the group.
The End-of-the-Meeting Evaluation Form is an outline usually in the form of various questions relative to the preceding group meeting. The group members register their opinions and comments about group discussion as they experienced and observed it.

The Group Observer is a person designated to make notes on the way in which the group operates. He is in the group, but he does not take part in its deliberations. His task is to keep a record of how people discuss and interact with one another.

An Interaction Chart is a device for recording sources of data on the interaction between group members. It consists of a series of diagrams or interaction charts that show who spoke to whom. In a group of no more than six to eight persons an interaction chart is relatively easy to plot, but in fairly large groups the interaction is often more rapid and complex and thus more difficult to keep up with.

The Tabulation of the Functional Roles of each member is another type of information that may be collected by tabulation of various functions each individual performs as he participates. This device is most helpful to the group when one plans to share the results with the group members (14).

Many investigators of discussion groups recommend that the researcher design the type of evaluation form he wishes
to have in order to achieve the purposes he sets out for himself (2, 13, 14). Gully (25, p. 299) insists that each researcher "must decide for himself what elements should be evaluated in a particular situation and to design rating scales that will produce satisfactory information."

Crowell (14), after investigating the use of rating scales in forty college courses in discussion, concluded that rating scales are effective instruments for diagnosing group discussion. Along with suggesting that a five-point scale be developed for the evaluation of the various categories under investigation, she insists that it is highly important that the number of items upon which judgment is to be rendered be kept small.

Summary

The demand upon higher education to improve meeting the needs of students is a continual one. Group methods and procedures appear to hold promise for aiding in the growth and development of students, especially as they are related to personal and interpersonal growth.

Research investigations of the discussion approach in general education have focused on five areas: mastery of factual information, information retention, problem-solving, process studies, attitude change and interpersonal relations.
The health professions are currently experiencing a state of considerable flux. The nursing field, in particular, has been involved in serious self-examination of its various modes of educating nurses. One area of concentration in the last few years has been that of group methods. Two methods which appear to hold particular promise for nursing education are the group discussion method and sociometric grouping.

Along with empirical examination of the effects of group discussion, the examination of group process can provide valuable information regarding the value of this educational method. The most common tool for examining group process to date is with some type of rating scale. When rating scales are specifically designed to focus on particular aspects of the group, they can provide much valuable information.
CHAPTER BIBLIOGRAPHY


CHAPTER III

METHODS AND PROCEDURES

The purpose of this chapter is to present a detailed description of the subjects and the measurement instruments, explain the procedure used for collection of data, and to describe the methods employed to analyze the data, and the statistical treatment of the data.

Description of the Subjects

Subjects for this study were students in the junior year of college in a baccalaureate program in nursing. The parent institution was a private church-related university in Central Texas.

Students in the nursing program complete sixty-nine semester hours of college credit in the arts and sciences prior to beginning the study of nursing in a summer term between the close of the sophomore spring semester and the fall semester of the junior year. Although the predominant number of students entering the nursing major each summer have attended the freshman and sophomore years on the main campus of the parent institution, there are usually a number of students who transfer to the Medical Center directly from other accredited colleges and universities (3).
The junior class of nursing students was made up of ninety-three women. During the year students were together each day in large-group classroom activities and seminars or conferences. Most of the students lived in the campus dormitory for women which provided additional opportunities for socialization.

The study was conducted near the end of the students' junior academic year; thus, the students knew one another quite well. All of the ninety-three students were given a sociometric choice instrument. Each student was asked to list those persons with whom she would like to work in a clinical laboratory experience. In addition, each student was asked to give written responses on the Mooney Problem Check List and the Personal Orientation Inventory. The subjects were then ranked in order from the highest to the lowest. The total group was then divided into three groups of thirty-one students per group, ranging from highest to lowest on the sociometric index. The top one-third subjects were designated as Group 1, the middle one-third subjects were designated as Group 2, and the bottom one-third subjects were designated as Group 3.

The subjects were then randomly divided into two large groups, an experimental group and a control group. All of the control subjects remained in one group. The control
group consisted of forty-seven subjects. The experimental group was again randomly divided into three subgroups composed of fifteen members in two subgroups and sixteen members in the third subgroup. The rationale for the subgroup arrangement was to create an atmosphere conducive to maximum group interaction and expression.

Meeting Arrangements

Each of the three experimental subgroups met with the discussion leader and observer one time a week for six weeks. The group sessions were held on Mondays and Tuesdays for approximately two hours during regularly scheduled school hours. One group met from 9:00-11:00 A.M. on Monday mornings, another met from 1:00-3:00 P.M. on Monday afternoons, the third group met from 9:00-11:00 A.M. on Tuesday mornings, and the control group met in study hall from 1:00-3:00 P.M. Monday afternoons.

All of the testing and discussion groups were held in a classroom in the educational building at the hospital. For the group discussion sessions chairs were arranged in a circle to encourage individual participation.

Control Group

The function of the control group was to provide a basis for comparison of the gain in the variables to be measured when the subjects received no discussion experience. Their
random selection from the total group of nurses was for the purpose of insuring an equivalent distribution demographically to the experimental group. They worked under ordinary circumstances and heard none of the comments nor received any special treatment except to participate in a scheduled study hall once a week.

Nature of the Group Sessions

Session one.--The content of this session centered on the following points:

1. The purpose of the group discussion--sharing common experiences of the students in a psychiatric setting.

2. The guidelines for the group discussion--reporting at each meeting by three students on their assigned patient and insights from their interaction with the patient.

3. The role of the group discussion leader.
   a. Serving as a coordinator to the group
   b. Participating as a group member while the students report on and discuss patients
   c. Acting as liaison between the faculty and the group

4. The time and location for each group session.
Sessions two through six.--Three students in each of the subsequent sessions reported to the group on the patient they had been assigned. The student reports included

1. Case history of the patient
2. Diagnosis of the patient
3. Prognosis of the patient
4. Present level of functioning of the patient in interpersonal relations
5. The student's experience with the patient.

The discussion leader facilitated the reporting students to relate to the group with various questions and statements.

1. Feelings toward the patient
2. Experiences with individuals the students had known with similar problems
3. Relating the problems of the patient to similar problems the student experienced.

In each session, the group discussion leader encouraged participation from the group members and participated in the discussions himself.

The Observer

The investigator served as an observer during each of the sessions in the following manner.

1. Sat in the circle where he could see everyone and where he could take notes comfortably.
2. Observed what went on but did not take part in the discussion.
3. Observed the extend of student participation.
4. Observed individual and group interest level.
5. Noted behavior that forwarded discussion and behavior that interfered with discussion.
6. Observed the role and participation of group leader.

Immediately following each discussion session the observer completed the Group Discussion Evaluation Scale (Appendix A).

Procedures for Analysis of Data

One week following the group discussion sessions and study hall sessions, post-treatment evaluation of the groups made with the post-treatment instruments and conducted in the same manner as was the pre-testing.

The data were subjected by computer to analyze the t values of each of the hypotheses, except for hypotheses six and seven, which were analyzed with the Duncan's Multiple Range Test. The statistical analyses were computed by the Computer Center, North Texas State University, Denton, Texas. Each hypothesis was tested at the .05 level of significance.

In addition, a descriptive report of the group process was made, based on the results of the Group Discussion Evaluation Scale.
Instruments

Four instruments were used in this study. These were the Bonney-Fessenden Sociograph, the Mooney Problem Check List, the Personal Orientation Inventory, and the Group Discussion Evaluation Scale.

Bonney-Fessenden Sociograph

This is a sociometric index for the purpose of tabulating data related to choices, mutual choices and rejections for each student. Each student was required to list those persons in the class with whom she preferred to work. The responses were tabulated on the Bonney-Fessenden Sociograph and each subject's choice status was determined. The students were required to respond to the instruction: "From the list of names of persons in your class, list those persons with whom you prefer to work. You may list as many as you wish."

Mooney Problem Check List

The Mooney Problem Check List is not a test; it simply measures the scope or range of student problems in such a way as to provide an appraisal of the major concerns of a group of students. The Mooney Problem Check List is designed to reflect the problems which a student senses and is willing to express at a given time.
The Mooney Problem Check List was designed to help students express their personal problems. The procedure is simple in that the students read through the instrument and underline the problems which concern them, circle the ones of most concern, and write a summary in their own words. When the student finishes checking the items, the summarizing process results in a count of checks made in the following problem areas.

1. Health and Physical Development
2. Finances, Living Conditions and Employment
3. Social and Recreational Activities
4. Social-Psychological Relations
5. Personal-Psychological Relations
6. Courtship, Sex and Marriage
7. Home and Family
8. Morals and Religion
9. Adjustment to College Work
10. The Future: Vocational and Educational
11. Curriculum and Teaching Procedures

There are thirty items in each area, for a total of 330 items, and a space to indicate the individual's willingness to consult a counselor concerning his problems.

Concerning reliability, studies (2, p. 146; 4, p. 9) indicated that the Mooney Problem Check List did show sufficient stability with regard to pooled results for groups.
The use of the data to survey changes in group responses has shown a correlation of .93 when administered to the same group on two separate occasions (5), leading to the conclusion that the Mooney Problem Check List did exhibit sufficient stability. The validity of the instrument has been demonstrated far more by its popularity and pragmatic usefulness than by the application of scientific verification methods (4, p. 29). The instrument has a variety of uses which makes it applicable in a wide range of situations, warranting its acceptance as a valid instrument (4, 5).

**Personal Orientation Inventory**

The Personal Orientation Inventory, developed in 1963 by Everett Shostrom, provides comprehensive measurement of the values and behavior seen to be important in the self-actualizing person. It consists of 150 two-choice comparative value judgments and requires brief administration time. Scores from the test were derived primarily from Reisman's system of inner- and other-directedness, Maslow's concept of self-actualization, and May's and Perl's concept of time orientation. Test items arise, also, from the writings of Angel, Ellenberger, Fromm, Horney, Rogers, Watts, and Ellis (7).
**Group Discussion Evaluation Scale**

The **Group Discussion Evaluation Scale** (Appendix A) is an instrument developed by the investigator. It is not a test, but a device to analyze and evaluate the experimental subgroups process and interaction. The **Group Discussion Evaluation Scale** was designed to obtain information on three major processes which occur in every group and which have a significant influence upon the effectiveness of the group experience as a whole. The key areas are Leadership Involvement, Interrelationship of Participants, and Group Outcome. Five categories are used to measure leadership involvement. Four categories comprise the measures for each of the other key areas of interrelationship of participants and group outcome. Each of the thirteen categories consists of a five-point rating scale.

**Summary**

This study was conducted in a large metropolitan hospital. A total of ninety-three subjects participated in the study. Subjects were selected and placed in experimental and control groups through a random sampling procedure. There were forty-six subjects in the experimental group which was divided into three smaller subgroups to facilitate participation interaction. There were forty-seven participants in the control group.
There were six group discussion sessions for each of the experimental subgroups. These three groups met once a week for six weeks for approximately two hours per session. The control group met once a week for six weeks for approximately two hours in a study hall.

The group leader functioned as the group facilitator and moderator. The investigator met in each of the sessions in the role of observer to observe and record the group process.

The Bonney-Fessenden Sociograph, the Mooney Problem Check List, the Personal Orientation Inventory and the Group Discussion Evaluation Scale were used as instruments to measure change in the following variables: sociometric status, self-actualization, perceived number of personal problems, and group process with respect to nursing students. The subjects' responses to the first three of these instruments were hand scored by the investigator and then processed at the North Texas State University Computer Center. The Group Discussion Evaluation Scale was scored by the investigator who later used it to provide a descriptive report of the group process of the experimental subgroups.

The statistical procedures that were used to test the hypotheses were the Fisher's t and the Duncan's Multiple Range Test. The .05 level of significance was used.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The purpose of this chapter is to present and analyze the results obtained from the data collected. The statistical computations necessary to test the tenability of the hypotheses stated in this study were performed at the North Texas State University Computer Center. The data analyzed were mean gains between the control and experimental groups as measured by the Bonney-Fessenden Sociograph, Mooney Problem Check List, and the Personal Orientation Inventory. The statistical method employed to analyze the results was the Fisher's $t$ (2), except for hypotheses six and seven. Hypotheses six and seven were analyzed by the use of Duncan's Multiple Range Test (1).

For statistical treatment, the research hypotheses were stated in a predicted direction. The .05 level of significance was chosen as the level at which these hypotheses would either be retained or rejected.

In addition to the statistical treatment of test data used in the study, a descriptive analysis of the three experimental subgroups' group process, based on the Group Discussion Evaluation Scale, is presented.
Hypothesis 1

Hypothesis 1 stated that group discussion participants would show a significantly greater mean gain between pretest and posttest scores on the Bonney-Fessenden Sociograph than would those in the control group.

The results of the statistical treatment computed to test this hypothesis are shown in Table I.

**TABLE I**

<table>
<thead>
<tr>
<th>Source</th>
<th>Number</th>
<th>Mean Difference</th>
<th>Standard Deviation</th>
<th>t Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Experimental</td>
<td>46</td>
<td>-.5435</td>
<td>1.6561</td>
<td>-.9597</td>
<td>NDS</td>
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<td>Total Control</td>
<td>47</td>
<td>-.1702</td>
<td>2.0675</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the comparison of pre-to-posttest mean gains for experimental and control groups, a t value of -1.66 was required for significance, using 91 degrees of freedom. The t value of -.9597 obtained was below the level required for significance. Thus, hypothesis 1 was rejected.
Hypothesis 2

Hypothesis 2 stated that group discussion participants would show a significantly greater mean gain between pre-test and posttest scores on the Personal Orientation Inventory than would those in the control group.

The results of the statistical treatment computed to test this hypothesis are shown in Table II.

TABLE II

<table>
<thead>
<tr>
<th>Source</th>
<th>Number</th>
<th>Mean Difference</th>
<th>Standard Deviation</th>
<th>t Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Experimental</td>
<td>46</td>
<td>.0218</td>
<td>2.8165</td>
<td>.4060</td>
<td>NSD</td>
</tr>
<tr>
<td>Total Control</td>
<td>47</td>
<td>-.2340</td>
<td>3.2384</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the comparison of pre- to posttest mean gains for the experimental and control groups, a t value of -1.66 was required for significance, using 91 degrees of freedom. The t value of .4060 obtained was below the level required for significance. Thus, hypothesis 2 is rejected.
Hypothesis 3

Hypothesis 3 stated that the control group would show a significantly greater mean gain between pretest and posttest scores on the Mooney Problem Check List than would those in the discussion group with respect to the following areas:

a. Health and Physical Development (H.P.D.)
b. Social and Recreational Activities (S.R.A.)
c. Social-Psychological Relations (S.P.R.)
d. Personal-Psychological Relations (P.P.R.)

The results of the statistical treatment computed to test this hypothesis are shown in Table III.

**TABLE III**

$t$ VALUE DERIVED ON PRE- TO POSTTEST MEAN GAINS FOR GROUPS ON THE MOONEY PROBLEM CHECK LIST

<table>
<thead>
<tr>
<th>Area</th>
<th>Source</th>
<th>Number</th>
<th>Mean Difference</th>
<th>Standard Deviation</th>
<th>t Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.P.D.</td>
<td>Experimental</td>
<td>46</td>
<td>.2174</td>
<td>3.5144</td>
<td>-.6973</td>
<td>NSD</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>47</td>
<td>.6595</td>
<td>2.5305</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.R.A.</td>
<td>Experimental</td>
<td>46</td>
<td>.9783</td>
<td>3.7446</td>
<td>-.3299</td>
<td>NSD</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>47</td>
<td>1.2979</td>
<td>5.4250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.P.R.</td>
<td>Experimental</td>
<td>46</td>
<td>.3696</td>
<td>4.6683</td>
<td>-.1224</td>
<td>NSD</td>
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<tr>
<td></td>
<td>Control</td>
<td>47</td>
<td>.4893</td>
<td>4.7588</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P.P.R.</td>
<td>Experimental</td>
<td>46</td>
<td>.9348</td>
<td>3.9939</td>
<td>-.0523</td>
<td>NSD</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>47</td>
<td>1.4043</td>
<td>3.9324</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In the comparison of pre- to posttest mean gains for the experimental and control groups, a \( t \) value of -1.66 was required for significance, using 91 degrees of freedom. The \( t \) values of -0.6973, -3.299, -1.224, and -0.0523 were below the level required for significance. Thus, hypothesis 3 is rejected.

**Hypothesis 4**

Hypothesis 4 stated that EG3 would show a significantly greater mean gain between pretest and posttest scores than would EG1 and EG2 with respect to

a. Social status as measured by the Bonney-Fessenden Sociograph

b. Self-actualization as measured by the Personal Orientation Inventory.

The results of the statistical treatment computed to test these hypotheses are shown in Table IV.

**TABLE IV**

<table>
<thead>
<tr>
<th>Area</th>
<th>Source</th>
<th>Number</th>
<th>Mean Difference</th>
<th>Standard Deviation</th>
<th>( t ) Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Status</td>
<td>EG3</td>
<td>14</td>
<td>-.2143</td>
<td>.9750</td>
<td>1.5811</td>
<td>NSD</td>
</tr>
<tr>
<td></td>
<td>EG1</td>
<td>16</td>
<td>-1.0625</td>
<td>2.3796</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EG3</td>
<td>14</td>
<td>-.2143</td>
<td>.9750</td>
<td>.2518</td>
<td>NSD</td>
</tr>
<tr>
<td></td>
<td>EG2</td>
<td>16</td>
<td>-.3125</td>
<td>1.1383</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Actualization</td>
<td>EG3</td>
<td>14</td>
<td>-1.2142</td>
<td>2.6941</td>
<td>1.3538</td>
<td>NSD</td>
</tr>
<tr>
<td></td>
<td>EG1</td>
<td>16</td>
<td>-0.0625</td>
<td>1.9483</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EG3</td>
<td>14</td>
<td>-1.2142</td>
<td>2.6941</td>
<td>-2.1670</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>EG2</td>
<td>16</td>
<td>1.1875</td>
<td>3.2908</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In the comparison of pre- to posttest mean gains of EG3 with EGI and EG2 with respect to social status, a t value of -1.70 was required for significance, using 28 degrees of freedom. The t values of 1.5811 and .2518 were below the level required for significance. Thus, the hypothesis that EG3 would improve significantly in social status over EGI and EG2 is rejected.

In comparison of pre-to posttest mean gains of EG3 with EGI with respect to self-actualization, a t value of -1.70 was required for significance, using 28 degrees of freedom. The t value of 1.3538 was below the level required for significance. Thus, the hypothesis that EG3 would improve significantly in self-actualization over EGI is rejected.

In the comparison of pre- to posttest mean gains of EG3 with EG2 with respect to self-actualization, a t value of -1.70 was required for significance, using 28 degrees of freedom. The t value of -2.1670 was above the level required for significance. Thus, the hypothesis that EG3 would improve significantly in self-actualization over EG2 was accepted.

Hypothesis 5

Hypothesis 5 stated that EGI and EG2 would show a significantly greater mean gain between pretest and posttest
scores on the **Mooney Problem Check List** than would EG3 with respect to

a. Health and Physical Development (H.P.D.)
b. Social and Recreational Activities (S.R.A.)
c. Social-Psychological Relations (P.P.R.)
d. Personal-Psychological Relations (P.P.R.)

The results of the statistical treatment computed to test this hypothesis are shown in Table V.

In the comparison of pre- to posttest mean gains for EG3 with EG1 and EG2, a $t$ value of -1.70 was required for significance, using 28 degrees of freedom. The $t$ values of -0.6905, -1.0938, 0.4350, -0.3740, -0.3029 and -0.8486 were below the level required for significance. Thus, the hypothesis that EG3 would improve significantly in the areas of Health and Physical Development, Social and Recreational Activities and Personal-Psychological Relations over EG1 and EG2 was rejected.

In the comparison of pre- to posttest mean gains for EG3 with EG1 and EG2 with respect to Social-Psychological Relations, the $t$ values of -1.7869 and -2.6633 obtained were above the level required for significance. Thus, the hypothesis that EG3 would improve significantly in Social-Psychological Relations over EG1 and EG2 was accepted.
Hypothesis 6

Hypothesis 6 stated that EG3 would show the least significant mean gain between pre- and posttest scores on all of the participants in the study with respect to

a. Social status as measured by the Bonney-Fessenden Sociograph

b. Self-actualization as measured by the Personal Orientation Inventory

The results of the statistical treatment computed to test these hypotheses are shown in Table VI.
**TABLE VI**

**DUNCAN'S MULTIPLE COMPARISONS ON PRE- TO POSTTEST MEAN GAINS FOR ALL THE EXPERIMENTAL AND CONTROL GROUPS ON THE BONNEY-FESSENDEN SOCIOGRAPH AND THE PERSONAL ORIENTATION INVENTORY**

**a. Bonney-Fessenden Sociograph**

<table>
<thead>
<tr>
<th>Source</th>
<th>EG1</th>
<th>CG1</th>
<th>EG2</th>
<th>CG2</th>
<th>EG3</th>
<th>CG3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number</strong></td>
<td>16</td>
<td>16</td>
<td>14</td>
<td>16</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td><strong>Mean Difference</strong></td>
<td>-1.0625</td>
<td>-.4375</td>
<td>-.3125</td>
<td>-.2500</td>
<td>-.2143</td>
<td>.2000</td>
</tr>
<tr>
<td><strong>Number of Means Compared</strong></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Coefficient of Duncan's Multiple</strong></td>
<td>2.8097</td>
<td>2.9597</td>
<td>3.0597</td>
<td>3.1265</td>
<td>3.1865</td>
<td></td>
</tr>
<tr>
<td><strong>Coefficient x Difference Scores</strong></td>
<td>5.33</td>
<td>5.61</td>
<td>5.80</td>
<td>5.93</td>
<td>6.04</td>
<td></td>
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</tbody>
</table>

**b. Personal Orientation Inventory**

<table>
<thead>
<tr>
<th>Source</th>
<th>EG1</th>
<th>CG1</th>
<th>EG2</th>
<th>CG2</th>
<th>EG3</th>
<th>CG3</th>
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<td>16</td>
<td>14</td>
<td>16</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td><strong>Mean Difference</strong></td>
<td>-1.3125</td>
<td>-1.2142</td>
<td>-.8250</td>
<td>-.0625</td>
<td>1.1875</td>
<td>2.6000</td>
</tr>
<tr>
<td><strong>Number of Means Compared</strong></td>
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<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Coefficient of Duncan's Multiple</strong></td>
<td>2.8097</td>
<td>2.8093</td>
<td>3.0597</td>
<td>3.1265</td>
<td>3.1865</td>
<td></td>
</tr>
<tr>
<td><strong>Coefficient x Difference Scores</strong></td>
<td>8.36</td>
<td>8.46</td>
<td>8.74</td>
<td>8.93</td>
<td>9.02</td>
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</tr>
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</table>
In the multiple comparisons of pre- to posttest mean gains for all the experimental and control groups on the Bonney-Fessenden Sociograph a difference of 6.04 was needed between EGI mean and CG3 mean to show a significant difference among the means.

On the Personal Orientation Inventory a difference of 9.02 was required between EGI mean and CG3 mean to show a significant difference among the means. Since all values were below the level required for significance, hypothesis 6 was rejected.

Hypothesis 7

Hypothesis 7 stated that CG3 would show the highest significant mean gain between pre- and posttest scores of all the participants on the Mooney Problem Check List with respect to

a. Health and Physical Development (H.P.D.)

b. Social and Recreational Activities (S.R.A.)

c. Social-Psychological Relations (S.P.R.)

d. Personal-Psychological Relations (P.P.R.)

The results of the statistical treatment computed to test this hypothesis are shown in Table VII.

In the multiple comparisons of pre- to posttest mean gains for all the experimental and control groups on the Mooney Problem Check List with respect to Health and
<table>
<thead>
<tr>
<th>Source</th>
<th>EG3</th>
<th>CG3</th>
<th>EG1</th>
<th>CG1</th>
<th>EG3</th>
<th>CG3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
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<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>15</td>
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<td>Mean Difference</td>
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<td>.9333</td>
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<td>Number of Means Compared</td>
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<td>4</td>
<td>5</td>
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<td></td>
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<tr>
<td>Coefficient of Duncan's Multiple</td>
<td>2.8097</td>
<td>2.9597</td>
<td>3.0597</td>
<td>3.1265</td>
<td>3.1865</td>
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<tr>
<td>Coefficient x Difference Scores</td>
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<td>9.14</td>
<td>9.45</td>
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</table>

b. Social and Recreational Activities

<table>
<thead>
<tr>
<th>Source</th>
<th>CG2</th>
<th>EG1</th>
<th>EG3</th>
<th>CG1</th>
<th>EG2</th>
<th>CG3</th>
</tr>
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<tbody>
<tr>
<td>Number</td>
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<td>16</td>
<td>14</td>
<td>16</td>
<td>16</td>
<td>15</td>
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<tr>
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<td>.6429</td>
<td>2.000</td>
<td>2.1875</td>
<td>2.9300</td>
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<td>Number of Means Compared</td>
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<td>3</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Coefficient of Duncan's Multiple</td>
<td>2.8097</td>
<td>2.9597</td>
<td>3.0597</td>
<td>3.1265</td>
<td>3.1865</td>
<td></td>
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</table>
TABLE VII--Continued

b. Social and Recreational Activities

<table>
<thead>
<tr>
<th>Source</th>
<th>EG3</th>
<th>CG2</th>
<th>CG1</th>
<th>EG1</th>
<th>EG2</th>
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<td>16</td>
<td>16</td>
<td>16</td>
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</tr>
<tr>
<td>Mean Difference</td>
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<td>2.3751</td>
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<tr>
<td>Coefficient of Duncan's Multiple</td>
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<td>2.9597</td>
<td>3.0597</td>
<td>3.1265</td>
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</table>


d. Personal-Psychological Relations

<table>
<thead>
<tr>
<th>Source</th>
<th>EG3</th>
<th>CG1</th>
<th>CG2</th>
<th>EG1</th>
<th>EG2</th>
<th>CG3</th>
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</thead>
<tbody>
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Physical Development a difference of 9.84 was needed between EG3 mean and CG3 mean to show a significant difference among the means.

With respect to Social and Recreational Activities a difference of 14.57 is needed between CG2 mean and CG3 mean to show a significant difference among the means.

With respect to Social-Psychological Relations a difference of 14.38 is needed between EG3 mean and CG3 mean to show a significant difference among the means.

With respect to Personal-Psychological Relations a difference of 12.96 is needed between EG3 mean and CG3 mean to show a significant difference among the means.

Since all values were below the level required for significance, hypothesis 7 was rejected.

Summary of Statistical Data

Hypothesis 1 stated that the total experimental group would show significantly greater increase in sociometric status than would the total control group. The t value derived from the t-test for the experimental group and the control group did not support hypothesis 1; therefore, the hypothesis was rejected.

Hypothesis 2 stated that the total experimental group would show significantly greater increase in self-actualization than would the total control group. The t value derived from
the $t$-test for the experimental and control groups did not support hypothesis 2, therefore, the hypothesis was rejected.

Hypothesis 3 stated that the total control group would show a significantly greater increase in the number of stated problems than would the total experimental group. The $t$ value derived from the $t$-test for the control group and the experimental group did not support hypothesis 3, therefore, the hypothesis was rejected.

Hypothesis 4 stated that EG3 would show significantly greater increase in sociometric status and self-actualization than would EG1 and EG2.

Hypothesis 4 was partially supported by the data. A significant $t$ value was obtained for the comparison of EG3 and EG2 on the variable of self-actualization. The subjects in EG3, as compared to EG2, tended to view themselves more affirmatively and openly at the end of the experimental treatment.

The $t$ values related to hypothesis 4 for EG1, EG2, and EG3 on the variable of sociometric status were not great enough to support this portion of hypothesis 4, therefore, it was rejected.

The $t$ value related to hypothesis 4 for EG3 and EG1 on the variable of self-actualization was not great enough
to support the hypothesis, therefore, the hypothesis was rejected.

Hypothesis 5 stated that EG1 and EG2 would show a significantly greater increase in the number of stated problems than would EG3 with respect to the variables Health and Physical Development, Social and Recreational Activities, Social-Psychological Relations, and Personal-Psychological Relations.

Hypothesis 5 was partially supported by the data. For EG3, as compared to EG1, tended to express fewer problems related to Social-Psychological issues as measured by the Mooney Problem Check List.

Also, a significant $t$ value was found for EG3 on the variable Social-Psychological Relations, as compared to EG2. The subjects in EG3, when compared to EG2, tended to express fewer problems related to Social-Psychological issues as measured by the Mooney Problem Check List.

Hypothesis 6 stated that CG3 would show the least significant gain in sociometric status and self-actualization of all the groups in the study. The values derived from the Multiple Range Comparisons Test for all the groups did not support hypothesis 6, therefore, the hypothesis was rejected.

Hypothesis 7 stated that CG3 would show a significantly greater increase in the number of stated problems of all the
groups in the study. The values derived from the Multiple Range Comparisons Test for all the groups did not support hypothesis 6, therefore, the hypothesis was rejected.

Graphic and Descriptive Analysis of Group Process of the Three Subgroups in the Study

The following is a graphic and descriptive analyses of the group process of the three subgroups, each of which participated in six, two-hour, group discussion sessions. Three areas are examined concerning the groups--Leadership Involvement, Membership Participation and Group Outcome. This analysis is based on a group discussion rating scale developed specifically for use in this study along with the personal observations of the investigator who participated in each of the three subgroups as an observer.
Subgroup 1
Subgroup 2
Subgroup 3

Excellent 5
Above Average 4
Average 3
Below Average 2
Poor 1

Sessions

Fig. 1--Beginning the discussion

Figure 1 shows an increase from average to above average rating for Subgroups 2 and 3 and an excellent rating for Subgroup 1 by the fifth session. Subgroups 1 and 2 concluded the final session with an above average rating, and Subgroup 3 concluded with an average rating on beginning the discussions by the group leader.
Subgroup 1  
Subgroup 2  
Subgroup 3  

Figure 2 shows a gradual increase from below average rating for Subgroups 1 and 3 to above average rating for all three Subgroups in the final session regarding the group leader's effectiveness in regulating the discussion in the sessions.
Figure 3 shows a gradual increase from an average rating for all three Subgroups in the first couple of sessions to an above average rating for Subgroups 2 and 3, and an excellent rating for Subgroup 1, by the final session regarding the group leader's effectiveness in communicating with participants in the sessions.
Figure 4 shows a rapid increase from an average rating for Subgroups 2 and 3, and a below average rating for Subgroup 1 initially, to an above average rating for Subgroup 2 and an excellent rating for Subgroups 1 and 3 by the final session regarding the group leader's demonstration of supportiveness toward group participants.
Figure 5 shows an average rating for all three Subgroups in the initial session increasing to an above average rating for Subgroups 1 and 3, and an excellent rating for Subgroup 2, by the final session regarding group leader's understanding of the group process in the Subgroups.
Discussion of Leadership Involvement

I. Beginning the Discussion

The initial sessions for all three subgroups were conducted similarly by the discussion leader. Programmic procedures were used by the leader in the initial sessions to get the groups started, to clarify group goals and process, and to test the participants' understanding of the group's purpose. His comments were explicit and concise. He was relaxed and informal in manner, encouraging similar behavior from group participants. As conversation moved from a social level to significant concerns of group members, the discussion leader became actively involved in the discussion.

II. Regulating the Discussion

In an attempt to encourage participants to discuss openly and freely, the discussion leader initially sat in the background. As the leader became acquainted with the individual group members, he became increasingly active in guiding and directing the discussion. For example, he would advise the group when it veered from the appropriate topic. He would draw in reticent members in such a manner as to maximize participation
and provide opportunities for various points of view to be voiced.

III. Communicating with Group

The group leader's own feelings, as well as his verbal participation and nonverbal gestures, had a catalytic effect on the group. He was not detached or remote from the group. He was emotionally as well as intellectually present. From time to time he would respond with warmth and support. In addition, he was able to engage in confrontation and encounter as he challenged members to reconsider, examine and explore aspects of behavior and ideas presented. He demonstrated ability to clarify and summarize issues in which the participants from time to time became embroiled.

IV. Supportiveness Toward Group

The discussion leader demonstrated an average degree of supportiveness toward the participants initially, with the exception of Subgroup 1, in which few supportive comments were expressed. However, a noticeable change occurred in the direction of supportiveness as the leader came to know the group
members. While he was emotionally present in the group, he did not over-identify and participate emotionally at the same depth and intensity of the group participants. He tended to maintain a distance and objectivity that facilitated his meeting the needs of the group.

V. Understanding of Group Process

The discussion leader evidenced knowledge and ability in group process. Initially he stayed in the background encouraging the group members to become acquainted and comfortable with one another, gradually increasing his participation in the role of facilitator. He showed respect for the members, trusted them, and exhibited confidence in their ability to achieve their goals.
Figure 6 shows little group cohesiveness initially, but by the final session all three Subgroups demonstrated a high level of cohesiveness, as indicated by the above average rating for all three Subgroups.
Figure 7 shows an average degree of group permissiveness for Subgroups 2 and 3 and a below average rating for Subgroup 1 initially. All three Subgroups progressed in this area with Subgroups 2 and 3 receiving an excellent rating by the final session and Subgroup 1 receiving an above average rating.
Figure 8 shows an average rating on communicative interaction for the first two sessions for all three Subgroups. Subgroups 1 and 2 show an improvement in this area, while Subgroup 3 maintained an average rating until the final two sessions when it received an above average rating along with Subgroup 2. Subgroup 1 received an excellent rating by the final session.
Figure 9 on the interpersonal relations scale shows Subgroup 2 beginning with an average rating and progressing to an excellent rating by the final session. Subgroup 1 and 2 began with a below average rating and gradually moved to an above average rating by the final group session.
Discussion of Relationship of Participants

I. Group Cohesiveness

As might be expected in an initial session, there was little group solidarity among all three subgroups. However, since the group members were not strangers to one another, a cohesiveness developed rather quickly. Cohesiveness was demonstrated by the willingness of members to share the responsibility for initiating and continuing discussion. They helped to draw one another into the discussion, as well as to assist each other in expressing themselves. In addition, rather than sitting back and depending upon the leader, the participants helped handle conflicts and problem situations that developed. Subgroups 1 and 2 developed a slightly higher level of cohesiveness than did Subgroup 3. The failure of Subgroup 3 to develop greater solidarity seemed related to the fact that two members in the group became involved in competing for personal attention in the first three sessions. Once the group leader directly intervened in this situation, group cohesiveness noticeably increased.

II. Group Permissiveness

In all three subgroups there was a gradual but continual increase in the amount of group freedom to express
one's thoughts and feelings openly and honestly. Some participants, naturally, were more verbally expressive than others, but in none of the groups was it evident that anyone felt excessively embarrassed or uneasy about sharing with the rest of the group. The fact that participants felt comfortable to express themselves was evidenced by their readiness to offer ideas and opinions and quickly ask for clarification when there was some lack of understanding. Too, there was an uninhibited willingness to express disagreement with ideas among the group members.

III. Communicative Interaction

By the final group session all three subgroups were functioning at a high level of communication. Participants were attentive to individual contributions. Rather than leaving comments dangling in embarrassing silence, there was lively dialogue and exchange. As Figure 8 indicates, Subgroup 3 remained on a slightly lower level of communication than did Subgroups 1 and 2 for the first four sessions. As was previously mentioned, Subgroup 3 showed somewhat less cohesiveness than did Subgroups 1 and 2. Since
group cohesiveness is a major facilitator of effective communication, this may account for the communication level of Subgroup 3 not being higher.

IV. Interpersonal Relations

Except for the first few sessions, all three subgroups interacted at an effective level. The participants in Subgroup 2 quickly became attracted to one another as evidenced by their slightly higher overall rating. Subgroups 1 and 3, nevertheless, interacted in a friendly, warm manner, especially near the end of the group experience. Meaningful interpersonal relations were evidenced by the lack of "talking down" to or treating of members in a condescending manner. Too, respect was shown for a person's feelings, however unusual or different they might be.
Figure 10--Appropriateness of Topics

Figure 10 shows all three Subgroups receiving a below average rating in the initial session. They all, however, improved as the sessions progressed, all three reaching an above average rating by the final session.
Figure 11 shows little group productivity for all three subgroups initially, all three initially receiving a below average rating. While group productivity improved for all three subgroups, only subgroup 2 increased to an above average rating on this scale.
Figure 12 shows that for all three Subgroups ratings of below average to average were received for the first three sessions. For the final three sessions ratings of average to above average were received by all three Subgroups.
Figure 13 shows a gradual progression from an initial below average rating to an above average rating for Subgroups 1 and 2 and an average rating throughout for Subgroup 3, with the exception of the first session rating of below average.
Discussion of Group Outcome

I. Appropriateness of Topics

All three subgroups received a below average rating initially on topic appropriateness. A considerable portion of the first session was spent by the group leader explaining the process and procedures of the sessions and receiving clarification feedback from the group participants. Subsequent sessions, however, dealt directly and specifically with topics relative to the study. The topics focused on understandings, skills, and feelings the group members were experiencing with peers and patients. Questions were introduced by the discussion leader in such a manner as to encourage personal expression and sharing. Since the participants shared many common concerns, fruitful questions and comments emerged from their concerns.

II. Group Productivity

Of the three subgroups, Subgroup 2 showed the highest degree of group productivity. As might be expected initially, general group productivity was low for all three groups since too little time together had elapsed for group development to occur. However, even later, Subgroups 1 and 3 never evidenced a high degree of productivity,
although an adequate level was achieved. While the participants shared some common objectives and concerns and thus began with the advantage of common interests, the amount of time available for each group member to make his presentation, to receive feedback and to participate in dialogue with the rest of the group was quite limited. This limitation, in turn, tended to interrupt the flow of discussion and detract from total group productiveness.

III. Quality of Contributions

All three subgroups ranged from below average to average in quality of contributions in the first few sessions and gradually improved during the latter meetings. The contributions were generally appropriate in that they challenged the group members and motivated them to reflect on the subject. Too, as students presented case material on patients they were working with, they did so in clear, direct fashion in most cases. Overall, the contributions made were relevant and pertinent to group objectives, but they were not unusually stimulating or challenging.

IV. Ability to Analyze Issues

Subgroup 1 showed a slightly better performance over-all in analyzing issues than did Subgroups 2 and 3.
While the ratings were generally lower for this scale than for most of the others, the participants did evidence a strong desire to understand and analyze information by frequently asking for clarification and definition. In addition, participants were not afraid to challenge questionable statements or to examine them critically. Again, a factor that seemed to have adversely affected this item was the limited time any one participant had to present his concerns and then have them dealt with by the group in sufficient detail.

Summary of Group Process Data

The discussion leader's overall rating was average in the initial sessions to above average performance in the latter sessions regarding all five areas of: beginning the discussion, regulating the discussion, communicating with group, supportiveness toward group and understanding of group process.

Initially, he limited his introductory remarks, but made them clear and interesting. He communicated, both by what he said and by what he did, that the responsibility for decision-making resided with the group.

The discussion leader came to the sessions well prepared. It was apparent he had a plan or direction for the group to
take. His plan consisted mainly of problem-solving questions dealing with goals, information, and procedures relative to the nursing students' interaction with peers and patients. He was not, however, a slave to his plan. He was able to adapt, change directions, and be alert to questions of concern raised by the group participants.

The discussion leader opened the sessions, initially, by stressing that everyone's comments were not only invited but were essential if thorough collective consideration was to be achieved. He communicated through careful and thoughtful listening that all members were really permitted to speak up. And when presenting a transitional statement or final summary, he sought to take the various views expressed into account.

Regarding group process, the group leader was alert to spending excessive time on minor or tangential issues. When sufficient information or discussion of a topic had been made or when participants began to repeat information, he sought to move the discussion on to more productive issues. He was perceptive in detecting differences among members in terms of their power and personal influence on the total group. When conflict arose, rather than discourage it, he sought to use it to help participants see that conflict need not destroy or deter communication.

Initially, group cohesiveness was low, but it gradually increased and was quite strong by the final session for all
three subgroups. As the sessions progressed, the individual members' interest and involvement in the group became apparent. Members came to know and appreciate their peers better in terms of individual needs, attitudes and feelings, as evidenced by their comments.

Following the initial sessions group members began speaking out frequently and freely. The relaxed atmosphere was particularly evidenced by the participants' frequent ability to tell of mistakes and foibles they made with patients they were working with. While some participants were more vocal than others, there was a sense of freedom about the groups that permitted individuals to involve themselves as much or as little as they desired.

Overall, in all three subgroups, the participants contributed to positive interaction among group members by identifying with the group's goals, working to make the group experience meaningful, and in most cases exhibiting a sense of humor and friendliness.

Initially, since the group members were involved in adjusting to and becoming acquainted with the group experience itself, topics of significance were not very apparent. As the sessions progressed, however, the subject-matter discussed was appropriate and relative to group concerns.

Group productivity, while judged adequate, was not high. The fact that each participant was allotted a limited period
of time to present material and then engage in discussion of the material before moving on to another individual in the group tended to leave issues unsettled and at times disjointed. Consequently, productivity in terms of the group being able to complete or fully examine issues did not always occur.

In the main, all participants contributed to the discussion process. As the result of varying backgrounds and experiences the group members were able to aid in the development of new understanding and insights for one another, taking advantage of their combined experience and information.
CHAPTER BIBLIOGRAPHY


CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study was an investigation of the impact of group discussion upon the sociometric status, self-actualization and stated personal problems of student nurses as these are measured by the Bonney-Fessenden Sociograph, the Personal Orientation Inventory, and the Mooney Problem Check List. In addition, group process was examined and rated with the Group Discussion Evaluation Scale. This chapter contains a summary of the background and purposes of the study, a summary of the methods and procedures used to obtain the data, a review of the findings, the conclusions of the study, and recommendations.

Summary of the Background and Purpose

This study was based on the need to improve sensitivity and self-confidence in interpersonal relations among nursing personnel during their academic training.

Research indicates that nurses who function most effectively in intense interpersonal relations and make effective use of self in a therapeutic manner tend to relate well with others, are knowledgeable and comfortable with themselves and
experience fewer major personal problems than those experiencing dissatisfaction and poor interpersonal relationships.

A persistent concern of educators in the field of nursing has been how to aid most effectively those students, who may be having difficulties in personal and interpersonal relations, in such a way as to enhance their growth as persons and as professionals.

It has been suggested by a number of educators that group experiences, such as group discussion, can significantly help to enhance interpersonal competence and personal development, and, furthermore, that such a program has an appropriate place within a formal academic training program.

The purposes of this study were:

1. To determine whether group discussion will affect sociometric status with regard to student nurses
2. To determine whether group discussion will affect self-actualization with regard to student nurses
3. To determine whether group discussion will affect the number of stated personal problems with regard to student nurses.

Summary of Methods and Procedures

This study was conducted at a large metropolitan hospital. The subjects in this study consisted of students in their junior year of college in a baccalaureate program in nursing.
The ninety-three women who made up the junior class all participated in this research.

A sociometric choice instrument, the Bonney-Fessenden Sociograph, the Mooney Problem Check List and the Personal Orientation Inventory were used as instruments to measure changes on sociometric status, self-actualization and number of stated personal problems with respect to student nurses.

The subjects were ranked from the student who received the highest sociometric score to the student who received the lowest sociometric status score. The total group was then divided into three major groupings of thirty-one per group, ranging from highest to lowest on the sociometric index. Each of these three major groups was then randomly divided into experimental and control subjects. Thus, the top one-third subjects sociometrically, were randomly divided and designated Experimental Group 1 (EG1) and Control Group 1 (CG1); the middle one-third subjects sociometrically were randomly divided and designated Experimental Group 2 (EG2) and Control Group 2 (CG2), and the bottom one-third subjects sociometrically were randomly divided and designated Experimental Group 3 (EG3) and Control Group 3 (CG3). Once the sociometric and group designations were made, CG1, CG2, and CG3 remained together in one large group, and EG1, EG2, and EG3 were randomly divided into three subgroups of approximately equal numbers of high, middle, and low students.
sociometrically. These three subgroups (Subgroup 1, Subgroup 2, Subgroup 3) were established to provide small groups conducive to maximum group discussion and interaction.

The three subgroups met once each week for six weeks with the discussion leader for two hours each session. The large control group met for two hours each week in a study hall setting for the same six consecutive weeks.

Seven hypotheses were formulated to predict where significant changes would appear between the experimental subjects and the control subjects.

To test hypotheses 1, 2, 3, 4, and 5 the Fisher's $t$ was used. For hypotheses 6 and 7 Duncan's Multiple Range Test was used. Both tests were computed for both pretest and posttest data and checked at the .05 level of significance.

In addition to the statistical analysis of the data presented, a graphic and descriptive analysis of the three subgroups' group process were presented, based on the ratings of the Group Discussion Evaluation Scale and investigator observations.

Statistical Findings

The Fisher's $t$ was used for hypotheses 1 through 5. The Duncan's Multiple Range Test was used for hypotheses 6 and 7.
The .05 level of significance was required for acceptance of each hypothesis. Findings are summarized in the following hypotheses which were tested:

1. Group discussion participants will show a significantly greater mean gain between pretest and posttest scores on the *Bonney-Fessenden Sociograph* (B-FS) than will the control group participants. Since the .05 level of significance was not reached, hypothesis 1 was rejected.

2. Group discussion participants will show a significantly greater mean gain between pretest and posttest scores on the *Personal Orientation Inventory* (POI) than will the control group participants. Since the .05 level of significance was not reached, hypothesis 2 was rejected.

3. Control group participants will show a significantly greater mean gain between pretest and posttest scores on the *Mooney Problem Check List* (MPCL) than will discussion group participants with respect to the following areas:
   a. Health and Physical Development
   b. Social and Recreational Activities
   c. Social-Psychological Relations
   d. Personal-Psychological Relations

   Since the .05 level of significance was not reached, hypothesis 3 was rejected.

4. Experimental Group 3 (EG3) will show a significantly greater mean gain between pretest and posttest scores than
Hypothesis 4 was partially supported by the data. A significant t value was obtained for the comparison of EG3 and EG2 on the variable of self-actualization. The subjects in EG3, as compared to EG2, expressed greater self-regard and self-acceptance at the conclusion of the group experience.

The t values related to hypothesis 4 for EGl, EG2, and EG3 on the variable of sociometric status were insufficient to support this portion of hypothesis 4, therefore, it was rejected.

The t value related to hypothesis 4 for EG3 and EG1 on the variable of self-actualization was insufficient to support this portion of hypothesis 4, therefore, it was rejected.

5. EGl and EG2 will show a significantly greater mean gain between pretest and posttest scores than will EG3 in

a. Health and Physical Development
b. Social and Recreational Activities
c. Social-Psychological Relations
d. Personal-Psychological Relations

Hypothesis 5 was partially supported by the data. For EG3, as compared to EGl, expressed significantly fewer problems
related to Social-Psychological issues as measured by the Mooney Problem Check List. Also, a significant t value of .05 was found for EG3 on the variable Social-Psychological Relations as compared to EG2. The subjects in EG3 expressed significantly fewer problems related to Social-Psychological issues.

6. Control Group 3 (CG3) will show the least significant mean gain between pretest and posttest scores of all the participants in the study in
   a. Social status as measured by the B-FS
   b. Self-actualization as measured by the POI

   The .05 level of significance was not reached for any of the group comparisons on the Multiple Range Comparison Test, thus, hypothesis 6 was rejected.

7. CG3 will show the highest significant mean gain between pretest and posttest scores of all the participants in the number of personal problems listed on the MPCL with respect to the following areas:
   a. Health and Physical Development
   b. Social and Recreational Activities
   c. Social-Psychological Relations
   d. Personal-Psychological Relations

   The .05 level of significance was not reached for any of the group comparisons on the Multiple Range Comparison Test, thus, hypothesis 7 was rejected.
Review of Descriptive Findings

The results of the group experience, based on the Group Discussion Evaluation Scale and investigator observations, suggest that all three subgroups functioned in a manner and at a level conducive to effective group discussion. There was a progression of improvement over the six group sessions in all three areas of leadership involvement, participant interaction and group outcome.

The general results of leadership involvement showed below average to average ratings for the initial sessions to an above average to excellent ratings by the final session for all five scales of Beginning the Discussion, Regulating the Discussion, Communicating With Group, Supportiveness Toward Group, and Understanding of Group Process.

Initially, the discussion leader, as observed by the observer, stayed in the background, but became active in later sessions. He came to the opening session prepared, explaining the purpose and procedures of the group sessions in explicit, concise terms. He answered questions of clarification and encouraged verbalization of anxieties and uncertainties relative to the group experience. He saw to it that everyone who desired to express himself had an opportunity to do so and that no one monopolized the meetings, except in Subgroup 3 where he might have intervened sooner between two group members vying for personal attention.
The group leader identified with member concerns and frustrations and verbalized these with them. He became emotionally involved in the sessions, but not to excess. He exhibited respect for the group members, trusted them and demonstrated, through words and actions, his confidence in their ability to work and function as a group.

The group process data in the area of Participant Relationships included ratings on Group Cohesiveness, Group Permissiveness, Communicative Interaction and Interpersonal Relations. Initially, there was little group cohesiveness or solidarity in the groups. However, since the group members were well acquainted with one another, group cohesiveness developed rather quickly. The participants were able to share personal concerns and problems with relative ease. Each of the groups had lively, animated discussions, except for Subgroup 3, until a power struggle between two of the members was resolved. While interaction became intense and heated at times as group members disagreed with and questioned one another frequently, there was nevertheless, much warmth and support expressed among the group members.

Group Outcome data consisted of ratings in four areas: Appropriateness of Topics, Group Productivity, Quality of Contributions, and Ability to Analyze Issues. In general, the ratings received in this area were slightly lower initially than were those in the areas of Leadership
Involvement and Participant Relationship. While the ratings in this area of Group Outcome improved as the sessions progressed, they were never particularly high. The investigator felt that the structure of the sessions may have interfered with outcome ratings reaching a higher overall value.

Each participant had an allotted amount of time in which to present case material on a patient she was working with on a continuing basis and to receive feedback from the rest of the group through the group discussion which followed her presentation. Frequently, just as the discussion began to move productively, it had to be concluded in order that another group member might have her turn.

Conclusions

1. Group discussion is effective in reducing the number of stated problems of sociometrically low subjects in the area of social-psychological relations as measured by the Mooney Problem Check List.

2. Group discussion is effective in bringing about a significant improvement in self-actualization for sociometrically low subjects as measured by the Personal Orientation Inventory.

3. Group discussion is ineffective in bringing about a significant change in sociometric status as measured by the Bonney-Fessenden Sociograph.
4. Sociometrically low subjects not participating in group discussion, when compared to the combined high, middle, and low discussion group subjects, show no significant difference in sociometric status and self-actualization as measured by the Bonney-Fessenden Sociograph and the Personal Orientation Inventory.

5. Descriptive group process data adds valuable information to the investigation and evaluation of group discussion studies of a statistical nature.

Recommendations

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

1. That instructors involved in training nurses consider utilizing group discussion methods for increasing self-actualization and social-psychological relations of student nurses.

2. That further research in this area extend the length of the group sessions to determine whether extended experience in group discussion would result in greater gains in the variables under investigation.

3. That further research in this area be conducted utilizing different measures of individual change than those used in this study to determine whether different instruments might be better than others in this area.
4. That further research in this area be extended to other academic and technical fields to determine whether group discussion experiences in other settings might result in greater gains in the dimensions under consideration.

5. That further research in this area involve process analysis in addition to statistical analysis of the test data to provide a more comprehensive view of the group discussion experience.
APPENDIX

GROUP DISCUSSION EVALUATION SCALE

I. Leadership Involvement

**Beginning the Discussion**

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**Regulating the Discussion**

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**Communicating With Group**

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**Degree of Supportiveness Toward Group**

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**Understanding of Group Process**

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II. Interrelationship of Participants

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**Group Permissiveness**

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**Communicative Interaction**

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**Interpersonal Relationships**

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III. Group Outcome

**Appropriateness of Topics**

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**Group Productivity**

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### Quality of Contributions

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### Ability to Analyze Issues

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