THE EFFECT OF GROUP COUNSELING UPON STUDENTS' ACHIEVEMENT IN A BACCALAUREATE PROGRAM IN NURSING

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ABSTRACT

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The problem of concern of this investigation is the effect of group counseling upon the achievement of students enrolled in a baccalaureate program in nursing. Subject of study was junior level students enrolled in a private, church-related university.

The purpose of the study was to utilize group counseling as an attempt to assist an experimental group of students to identify and overcome difficulties which might serve as deterrents to the successful completion of the educational program. The assumption was made that efforts to assist students to have successful experiences would alleviate the high attrition rates of students from nursing education programs.

Sociometric techniques involving students' choices of peers with whom they would want to be grouped for laboratory experiences in nursing were used to formulate matched groups. One group of students served as the experimental subjects. These students participated in group counseling sessions on a weekly basis for one semester. The alternate group served as controls who had the same experiences in nursing school as did the experimental group except for the group counseling.
Three measures were used to ascertain if there were significant differences in the achievement of the counseled and non-counseled groups. These were sociometric scores, grade point averages, and performance in nursing laboratory as assessed through use of a Student Performance Evaluation Form. An additional purpose was to determine if there was a significant positive correlation between the sociometric rank and the semester course grade for the combined experimental and control groups.

Data analyzed were pre-experiment and post-experiment scores on the criterion measures using the analysis of covariance technique, with the .05 as the chosen level of significance to be attained. The Pearson product-moment correlation coefficient was used to test the relationship between sociometric rank and course grade.

No significant differences were found between the experimental and control groups in change in sociometric index and grade point average. There was a significant difference in the student performance evaluation, favoring the experimental group. Correlation between sociometric index and course grade did not reach the chosen level of significance.

Conclusion were (1) that group counseling is of questionable benefit to students in terms of effect upon achievement as measured by grade point average, (2) group
counseling will assist students in the acquisition of skills essential to successful achievement in the clinical practice of nursing, and that (3) the possibility of a positive relationship between group counseling and change in sociometric index should be further explored. Although slight, there were indications that group counseling may be a useful tool in the reduction of overall attrition of students from schools of nursing.

Further study of the use of sociometric techniques and group counseling as means of promoting achievement of students in schools of nursing is recommended.
THE EFFECT OF GROUP COUNSELING UPON STUDENTS' ACHIEVEMENT IN A BACCALAUREATE PROGRAM IN NURSING

DISSERTATION

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

For the Degree of

DOCTOR OF EDUCATION

By

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CHAPTER I
INTRODUCTION

The shortage of nurses that has existed for many years has spurred nursing educators to redouble their efforts to recruit eligible persons into the nursing profession. New schools of nursing have been established. Schools already in operation have increased their enrollments; yet the rapid population growth, coupled with insistent demands for more and better health services, has compounded the problem.

Throughout the years, administrative heads of schools of nursing have been concerned with the attrition rate of students from nursing education programs. Schools have experienced the circumstance of recruiting and admitting students to their programs, only to have, in some instances, as many as thirty percent fail to complete their studies (18, p. 12). Institutions whose admission standards are extremely liberal have experienced higher drop-out rates than those with less liberal policies.

Many schools have tried to find ways to lessen attrition rates. These have primarily been focused upon trying to admit the most promising candidates into their programs, rather than seeking to remedy situations within the training program itself which may contribute to the high attrition. Colleges
maintaining admission standards which require that an applicant achieve an acceptable composite score on entrance examinations, along with sufficiently high rank in high school achievement, have experienced better results in terms of retention of students. In such instances, it becomes evident that students who fail to complete the program likely do so for reasons other than inability to achieve at an acceptable academic level.

Statement of the Problem

The problem of this study was the effect of group counseling upon the achievement of students in a baccalaureate program in nursing.

Purpose of the Study

The purpose of the present study was to utilize group counseling as an attempt to assist an experimental group of students to identify and overcome difficulties which might serve as deterrents to the successful completion of the educational program.

To accomplish this purpose, this study was designed to select an experimental and control group of students by using sociometric techniques. Those students who made up the experimental group received group counseling on a weekly basis for one semester.
Hypotheses

The following hypotheses were advanced:

1. Students who participate in group counseling will show significantly greater increase in overall sociometric scores than will students in the control group between pre-testing and post-testing.

2. Students who have participated in group counseling will manifest a significantly greater gain in grade point average between the beginning of the semester during which the experiment was conducted and the end of the semester than will students in the control group.

3. Students who have received group counseling will demonstrate a significantly higher level of performance between the first and third evaluation in the clinical laboratory than will those students in the control group.

4. There will be a significant positive correlation between sociometric index and course grade of both groups of students.

Significance of the Study

In 1963, the report of the Surgeon General's Consultant Group on Nursing, Toward Quality in Nursing, predicted a shortage of thousands of nurses by 1970 (18, p. 18). The severe shortage of nurses at that time was both quantitative
and qualitative. Quantitatively, the shortage makes it impossible to staff hospitals and other health agencies with sufficient numbers of adequately prepared nurses. Qualitatively, it impairs the effectiveness of nursing care. This expert group recommended an investigation of nursing and nursing education.

Subsequently, a joint committee was established by the American Nurses' Association and the National League for Nursing to study ways to conduct and finance a national inquiry into nursing. This committee decided that there was a need to examine not only educational patterns and changing practices in nursing today but also the forecasted requirements in professional nursing over the next decades.

Various approaches to the study of specific problems in nursing practice and nursing education have been utilized as individuals or teams of investigators have studied isolated situations. There are those who have looked at the reasons why students select a nursing program. Ongkingoo (11) found that age was not an important factor, nor were students influenced in their choice by others. The educational and occupational status of the parents were approximately the same for both the students who elected to enroll in diploma programs and those who chose baccalaureate education. Reasons for choosing the baccalaureate program were the broader background it provided and the better jobs it made possible. Diploma
students made their choice in order to more quickly become able to help their parents and to give direct patient care.

The Oxford Area Nurse Training Committee (12) conducted a study of why nursing students chose nursing and why they remain in nursing. Three-fourths of the students surveyed completed their training. Withdrawal was voluntary and did not seem to be related to educational attainment. No significant conclusions were stated since no relationship could be established between educational achievement within the program and the students' eventual completion of or withdrawal from the program.

R. W. Revans (15) reported students' responses to seven questions intended to explore the bases for decisions to continue or abandon training. This study was carried out in three British hospitals. In general, students did not complain about the unpleasantness or difficulty of the ward tasks. Their principal dissatisfaction was the uncertainty of their off-duty time and the lack of relationship between classroom instruction and clinical practice. The author suggests that not enough attention has been given to the need to receive and answer the question of concern to beginning students.

In a study designed to test the theory that group participation is related to the difference between rewards and contributions, Katzell (8) hypothesized that the greater the number
of stresses over expected stresses, and unrealized satisfactions over realized satisfactions the greater the possibility of a student withdrawing rather than continuing in nursing. A questionnaire was constructed and administered to 1,852 students at the beginning of the first year in forty-three schools to measure expected satisfactions and stresses. The same questionnaire was administered after eight months, or earlier if a student withdrew, to measure experienced satisfactions and stresses. Responses of survivors were compared to responses of the total withdrawal group as well as academic and nonacademic withdrawals. Withdrawals had a fewer number of their expectations confirmed and they experienced fewer unexpected satisfactions than survivors. A relationship was not found between experienced stresses and withdrawal.

Kramer, et. al. (9) studied the effects of three variables on student achievement. It was concluded that there were no differences in achievement as measured by the test scores when students had contiguous experiences and when they did not or when students were taught by expert instructors in the particular clinical area and when they were not. Continuity of instruction did not significantly affect student achievement of course objectives. Although students perceived certain of the clinical settings as ideal and certain as
non-ideal, there was no significant difference in achievement scores related to these perceptions.

Other studies concerned with student success in nursing education programs have covered such topics as the relationship between anxiety and achievement (7), between Minnesota Multiphasic Personality Inventory scores, personality and achievement levels (21), personality structure in beginning nursing students (17), teacher perceptiveness of student attitudes (13), professional socialization (16), and the effect of experimental teaching strategy (4). Most studies have implications for education or nursing practice, and serve to stimulate further investigation. Implementation of the recommendations of the recently published national commission study (22) will doubtless give rise to renewed attack upon the various unanswered questions. The study reported herein is an effort to contribute to solution of the problem of attrition in schools of nursing.

Definitions

For the purpose of this study, the following definitions were formulated:

Upper Division—the junior and senior years in a four-year baccalaureate program in nursing.

Diploma Program—the traditional three-year hospital sponsored program in nursing.
Baccalaureate Program—a senior college program consisting of four, or sometimes five, years of study.

Summary

The problem, purposes, and hypotheses for this study were stated in this chapter. The significance of the study was described in terms of (1) the impairment of the effectiveness of nursing care which may be attributed to the shortage of adequately prepared nurses, (2) approaches to the study of specific problems in nursing practice and nursing education which have contributed to creation and prolongation of the shortage, and (3) why students withdraw from educational programs in nursing.
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CHAPTER II

REVIEW OF RELATED LITERATURE

The stated purpose of this investigation was to provide group counseling to an experimental portion of a junior class of nursing students enrolled in a baccalaureate program in nursing, with the intent to assist the students' adjustment and overcome possible difficulties which might result in failure to achieve satisfactorily in nursing. The purpose of this chapter was to synthesize the findings of previous investigations related to the study.

Studies reviewed in this chapter will be divided into the following categories.

1. Studies having to do with reasons why students withdraw from educational programs in nursing.

2. Studies designed to measure accuracy of assessment and prediction within academic settings.

3. Studies which have been concerned with identification of personality characteristics of successful students.

4. Studies designed to measure the efficacy of counseling in the promotion of adjustment of students in schools of nursing and in other college situations.

Cornelius (18) estimated the national deficit of nurses to be about 125,000 in 1969. Flint and Spensley (23),
reviewing several hundred nursing manpower studies, concluded that since the nursing shortage is so apparent, it is time to stop studying the size of the shortage and to start doing more about it.

Withdrawal from Nursing Programs

One possible remedy for the shortage of nurse manpower might be an effort to increase the total number of graduates from schools of nursing. This simple suggestion fails, however, to take into account the many problems inherent in trying to increase enrollments.

In 1961, Tate (52) reported that the average attrition rate of students from baccalaureate programs was 44 percent and from diploma programs, 30.5 percent. Ostlund (45) has stated that at least a third of entering nursing students eventually drop out of nursing school. To simply increase enrollment does not face the problem of attrition due to academic failure.

Because attrition implies a waste of time, money, and human resources, nursing schools have focused attention on two procedures intended to reduce drop out rate: better screening and selection of students, and remediation of academic difficulties once students are enrolled. The prediction of academic success is a tool implicit in both of these procedures. There is an urgent need to improve the prediction of
academic achievement in nursing education. Increased predictive efficiency is needed to improve screening and selection procedures for admission and to identify as early as possible those students who should receive remedial instruction.

Recently a study (37) was done to determine how much research concerning recruitment to and dropout from nursing training in the United Kingdom had been conducted since 1940. The purpose was to prepare a bibliography and an abstract of each report, and to suggest further research. A total of 68 reports were reviewed and summarized. Some of the findings showed that: (1) women in the older ranges have more favorable attitudes toward nursing than do girls in the age range from which nursing has customarily recruited; (2) students who have successfully completed a pre-nursing course appear to have some advantage over other types of entrant; (3) tests of intellectual capacity correlate highly with ratings of work performance or with the capacity to complete the course; (4) the school makes a more significant contribution to success than do personal characteristics of entrants; and (5) the overall pattern of recruitment and withdrawal appears related to whether the learner in the hospital is a student or nurse.

A three-year study done by the National League for Nursing (55) indicates that during the first year of study failure in
classwork, dislike for nursing, and disappointment in the nursing course accounted for 46 percent of the withdrawals. Other withdrawals were primarily for matrimony, personal reasons, and health, although in some cases the instructors felt the students were not suitable for the profession of nursing.

Davis and Olesen (19) comment that "The fostering of high degrees of vocational commitment in our society is associated typically with such attributes as maleness, a middle class achievement orientation and potential professional status." They were concerned with what happens when aspirants to a profession lack one or more of these commitment-generating attitudes. It was found that nursing students experience considerable identity stress because of the difficulty they have in psychologically integrating the student nurse role with a concurrently emerging identity of adult womanhood.

Assessment and Prediction

Accuracy of assessment and prediction within academic settings has received considerable attention over the past few decades. Despite the promise of technological and methodological advances in measurement, statistical analyses, and computer utilization, prediction of academic success has not fulfilled its potential. A 1957 review of 15 studies,
according to Bloom and Peters (8), showed a median simple correlation of .41 between high school grades (as predictors) and college grades. With the recent recognition of the utility of multivariate techniques, accuracy of prediction has been somewhat increased. Primarily, this is because multivariate techniques permit the combination of variables in predicting a criterion, and also allow the elimination of those variables which do not aid in prediction. Lavin (34) suggested that the usefulness of most cognitive predictors may have peaked and that we may profitably embark on a search for non-academic predictors of school achievement, considering variables such as creativity, motivation, biographical data, and personality traits for investigation for their contributions to the prediction of academic success.

Owen and Feldhusen (51) compared the effectiveness of three models of academic prediction, believing that increased predictive accuracy would lead to more appropriate remedial instruction which should, in turn, ameliorate the nursing school attrition rate. Model I involved the development of a multiple regression equation in predicting the first semester grade average, and the use of that same equation to predict the remaining three semesters of the program. In Model II, multiple regression equations were developed for each semester index independently. Model III was identical to Model II, except that each previous semester average was included in the
set of variables used to predict subsequent semester averages. Results indicated that predictions with Models I and II are statistically equivalent, but the Model I systematically underpredicted the GPA. A test of differences between Models II and III showed highly significant improvements in predictive efficiency in favor of Model III.

Recent studies dealing with nursing schools are in agreement about the usefulness of ability and achievement measures in predicting several performance criteria, including grades in particular courses (47, 41); semester or cumulative grade averages (52); and state board examination scores (46, 43, 10).

Baird (4) writes that "past achievement is the best predictor of current achievement." The relevant potential and competency scales are usually the next best predictors. The next level of consistent predictors includes the relevant life goals and self-ratings. That is, students who later achieve in a given area in college perceive themselves as having ability in that area and state that achievement in that area is one of their most important goals in life. Baird further suggests that psychologists should concentrate on the development of more accurate and reliable measures of past activities, goals, and self-description rather than attempting to develop new scales to describe some universal creative mind.
Holland and Nichols' (28) findings support the Baird study recommendations and also suggest the potential usefulness of a more active and explicit effort to secure a more reliable and valid record of a student's past achievement and involvement.

Bragg (9) found no statistically significant relationship between age and continuation in college, however, those in the withdrawn group have a higher mean age and a wider range than the continued group. She believes that the implication may be that older students may need more individual attention than the younger group.

Results of research indicate that aptitude tests, achievement tests, and previous school records when combined to serve to eliminate some students who could not complete the program. Kibrick (31) feels that there is probably no way a school can control the number who withdraw for personal reasons, but there may be a means of reducing those withdrawals due to dislike for nursing, disappointment in nursing, or personalities not suited to nursing. It is not unlikely that many dropouts attributed to academic failure are due to such factors as well as the reality experience of the first few months. It is generally accepted that students enter nursing with a very narrow stereotype of what nursing is. Often they are not prepared to accept the reality of the necessity for acquisition of theory upon which to base nursing action.
Preoccupation with concern for the mastery of manual skills causes them to become impatient and dissatisfied that they do not concentrate totally upon the technical aspects of nursing until such time as they may feel comfortably proficient.

Michael, Haney and Brown (39) concluded that reading and mathematics tests as well as high school achievement almost always have offered considerable promise in prediction of the academic phases of the program in nursing training in a hospital school of nursing.

Holland and Richards (29) studied 7,262 freshmen attending twenty-four colleges and universities for the purpose of determining correlations between academic achievement tests, extracurricular achievement, and the average school grades. The correlations, they report, were generally negligible, which suggests that academic and non-academic accomplishment are relatively independent dimensions of talent.

Personality Characteristics

Kroll (33) investigated the hypothesis that an integrated self-concept and a healthy concept of role is a prerequisite for adequate functioning in nursing school, and found some support for the notion that an inadequate self-concept is related to emotional difficulties that lead to underachievement.
Johnson and Leonard (30) studied seventy-five baccalaureate students beginning the first clinical course in a university school of nursing. Subjects completed a standard psychological battery of tests, the **College Qualification Tests, Form B**; the **Sixteen Personality Factor Questionnaire, Form A**; and the **Strong Vocational Interest Blank for Women**. Personality test scores indicated that the nursing students were more intelligent, assertive, and experimenting than female college students in general. Their likes and dislikes were most similar to those of women employed as physical therapists and occupational therapists. Students with a good background in mathematics, high abstract reasoning ability, high academic motivation, and low sales interests were most likely to obtain high theory grades. Test scores were of little value in predicting practice grades.

The relationship of personality characteristics and effectiveness in nursing has been considered by a number of investigators. Educators and others have been convinced that the successful nurse should have certain personality characteristics. Adams and Klein (2) reported review of some dozen or so studies of personality characteristics of students and graduates, using the **Edwards Personal Preference Schedule (EPPS)**. Striking inconsistencies were found more often than consistencies, they state.
Bailey and Claus (3) found that four classes of students at the University of California School of Nursing, San Francisco, were comparable by the general mean scores on the EPPS. When compared with the general sample of college women, nursing students were markedly different on 11 of the 15 variables.

Levitt, Lubin, and Zuckerman (36) administered the EPPS at the beginning of the sophomore year to the entire class of nursing students at Indiana University in 1958, 1959, and 1960. The consistency of the student nurse means from year to year, and the clear differences between them and the general college women, suggest that the student nurse has a characteristic personality pattern of needs. Within this pattern, the hard outgoing, masculine kind of need as epitomized by autonomy, dominance, and aggressiveness, are de-emphasized. The less assertive, more feminine needs, like succorance, nurturance, and abasement, are predominant. The constellation appears to be generally in accord with the general social perception of the female as less assertive and more nurturant, and further suggests the identification of the profession of nursing with high femininity by the adolescent female.

Kibrick (31) investigated the effect of selected variables on dropouts from schools of nursing. Certain personality characteristics were found to be significantly related to continuing in nursing while others militated against continuation.
She found that the dropouts tended to belittle and blame others, resented authority, were aggressive, and displayed a desire for independence. Those who continued in nursing, on the other hand, were friendly, responsive, nurturant, and appeared to possess strong ego control.

Comparison of students with graduate nurses suggests that the need system of the student has undergone considerable transformation by the time she has been in practice for a number of years. What seems to happen is that the student's goals have shifted from need to serve suffering humanity to attention to technical skills, routine, and ritual, and to supervisors and doctors as the major source of approval.

Counseling and Adjustment

Sink (58) studied 670 persons who had completed a consecutive three or four year program in twenty basic professional schools of nursing to determine use of pre-entrance tests by personnel who functioned as counselors. Findings of this study lead to the following conclusions: (1) data from pre-entrance examinations could be better utilized for students and counselors, (2) many counselors were inadequately prepared in counseling and guidance, (3) schools that had the services of college counselors made considerably more use of the pre-entrance test results, (4) fewer students dropped out where well-prepared counselors used the pre-entrance test results.
The problem of adjustment of students in schools of nursing has been of concern to educators in countries other than the United States. Research conducted at the University of New Delhi by Gulabani (25) led to the conclusion that a guidance and counseling program is of benefit to a school of nursing in helping students with adjustment problems. In Calgary, Alberta, Canada, Ogston and Ogston experimented with a counseling program for nursing students at the General Hospital. They subsequently recommended that preventive activities, such as group counseling should be of benefit to all students, not just those headed for problems.

Abramovitz and Burnham (1) conducted a study to find ways to sensitize the nursing student to herself as a person and to other people since this is recognized as being basic to her success as a professional nurse. The study was conducted in two diploma schools of nursing in Wisconsin. Two consultants held informal two-hour discussions, twice a month, with students from their freshman year until graduation. Appraisals of the outcomes were made by group leaders. Anonymous evaluations by students revealed satisfactions, dissatisfactions and ambivalences, with satisfactions predominating.

Yap (62) states that, "Counseling should be an integral part of the total educational program of any school of nursing
in order to produce a group of well-prepared, personally adjusted and professionally competent nurses." It is, she feels, a necessity—not a luxury.

Coleman and Glofka (17) used the Tennessee Self-Concept Scale to measure growth in self-concept of an experimental group of nursing students who received group counseling one hour and fifteen minutes over a ten week period. The post-test showed significant growth in self-concept as measured by the scale.

Finney and Van Dolsem (22) employed group counseling with sixty-nine academically gifted but underachieving sophomore high school students for four semesters of weekly meetings. When compared with a control group, there were no differences in improvement in grade point averages. The counseled students were rated by their teachers as being less resistive and more cooperative in the classroom. On the California Psychological Inventory differences favored the counseled group on Capacity for Status, Sociability, Social Presence, Tolerance, Achievement via Conformance, Achievement via Independence, and Psychological-Mindedness Scales; also on the factor scores "Social Poise" and "Capacity for Independent Thought and Action."

Brodel, et. al. (11), working with a gifted underachieving group of high school freshmen, compared a counseled
and control group, with a total of 34. The counseled group was given group counseling twice a week for eight weeks, and then the control group was counseled, serving as its own control. Projective measures indicated an improvement of self-acceptance and affective expression, and ratings of parents and counselors showed an improvement toward sounder personality development. But the counseling seemed, if anything, to lower rather than raise grades.

Goodstein and Critz (24) evaluated the effects of vocational-educational counseling on the academic achievement of a group of probationary, low-ability college freshmen. There was no evidence that vocational-educational counseling, as it usually is conducted, leads to greater academic achievement by low ability college students.

Summary

Studies have established that at least a third of entering nursing students eventually drop out of nursing school. Because attrition implies a waste of time, money, and human resources, nursing schools have focused attention on two procedures intended to reduce drop out rate: better screening and selection of students, and remediation of academic and other difficulties once students are enrolled.

With the recent recognition of the utility of multivariate techniques, accuracy of prediction of success has been
somewhat increased. The literature indicates that aptitude tests, achievement tests, and previous school records when combined do serve to eliminate students who could not complete the program.

The relationship of personality characteristics and effectiveness in nursing has been considered by a number of investigators. Educators and others have been convinced that the successful nurse should have certain personality characteristics.

A paucity of reports of the use of individual or group counseling has limited any generalization as to the effectiveness of this means of attempting to cope with adjustment and achievement problems among nursing students. Those who have utilized counseling (58, 25, 1, 49, 62, 17) have attested to the benefits which have resulted. There is considerable supportive data relative to the efficacy of group counseling among college students in general.
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CHAPTER III

PROCEDURES FOR GATHERING AND TREATING THE DATA

The purpose of this chapter is to describe the sample and the measurement instruments, explain the method of data collection, and to describe the treatment of the data.

Description of the Sample

Subjects for this study were students in the junior year of college in a baccalaureate program in nursing. The parent institution is a private church-related university situated in the Central part of Texas. The baccalaureate program in nursing was established in 1950 as a replacement for a three-year hospital sponsored diploma program which had been in operation in the University Medical Center for forty-one years.

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.

The junior class of nursing students was made up of seventy-one women and four men. Forty-seven of the total number had been enrolled on the main campus of the university for the freshman and sophomore years. Twenty-eight students had attended other colleges and universities for the liberal arts courses which preceed and lay the foundation for the nursing major. Since all of the students did not know each other, it was necessary to allow for a time for all to become acquainted in order to utilize a sociometric choice instrument in selecting students for the experiment.

During the summer term students are together each day in large-group classroom activities and/or small group clinical assignments, seminars, or conferences. Most of the students live in the campus dormitory for women, which provides additional opportunity for getting to know each other in a variety of settings.

After completion of the six weeks summer term during which time the students completed the initial course in clinical nursing, each class member was given a sociometric choice instrument. Each student was asked to record choices of those peers with whom he would like best to be grouped for
clinical laboratory experiences in nursing during the semester to follow.

The upper 17 percent of the total group (the sociometric stars) were eliminated from the experiment, leaving sixty-two students for the project. Rationale for elimination of the stars was that those students who are outstanding sociometrically are subjects who are less likely than normal to have problems with adjustment and achievement. Bonney (1) has found this to be consistently evident in his studies of college students. The subjects for study were divided into two matched groups according to sociometric index. One-half, or thirty-one students, were designated as a control group, and the other one-half became the experimental group. The two groups were checked to determine that there were no significant differences in the overall grade point averages.

**Instruments**

The instrument used to obtain an index of the status of each student within the peer group was a Sociometric Choice Scale. The variable measured was the degree to which individuals are accepted in group, interpersonal relationships that exist among individuals, and the structure of the group.

The sociometric technique consists of asking each individual in a group to state with whom among the members of the large group he would prefer to associate for specific
activities or in particular situations. Criteria (selected areas that should include different aspects of possible association: work, play, visiting) may range in number from one to ten or more; and choices, from one to as many as desired by the researcher.

The Bonney-Fessenden Sociograph (3) was used to record the choices made by each student. Tabulation of data related to number of choices, mutual choices with other students, and number of rejections received resulted in a sociometric index for each participant.

Sociometry is used in many parts of the world, according to Northway (8, p. vii), including Germany, Norway, Japan, the Philippines, and Thailand. It has been applied to many types of social groupings: industry, the services, communities, parishes, mental hospitals, and college residences. This is not surprising, for all human beings live in some form of social organization and, as sociometry is a "culture free" instrument which can adapt its criteria for association to situations that really exist in any social structure, it has universal appropriateness. Northway states that, "Sociometry reveals dramatically and factually that human individuals live and move and have their fullest being only in their associations with one another" (8, p. ix).

Bjerstedt (1), in discussing the uses of preferential sociometry, considers the topics of reliability and validity.
He states that, "Individuals working with sociopreferential data are apt to be irritated, if, without further discussion, low coefficients of stability, are immediately interpreted as disclosing unreliability of sociometric tests in general." He believes that differences between different preference aspects, preference methods, and groups of subjects are so important, that no general statements can be made, even if the variable measured is specified.

The Student Performance Evaluation Form (SPEF) was used to measure student achievement in the nursing laboratory situation. The SPEF is an instrument developed by cooperating students and faculty at the University of Massachusetts School of Nursing. It was designed to increase understanding of expectations of student competency in nursing at various performance levels.

The students with whom the tool was tested were juniors in a baccalaureate program. Faculty members have reported (7) that over several grading periods, comparison of the numerical equivalents with ratings and correlated grades showed considerable increase in agreement among faculty members; however, the hidden bias of manipulated ratings in accord with subjective impressions makes comment pertaining to "reliability" of little value. Although letter grades would be difficult to justify on the basis of their experiences, the profiles of
the satisfactory and the unsatisfactory practitioner become readily identifiable.

The decision to use the SPEF in the study was based upon the realization of the importance of the student's performance in the nursing laboratory. It is here that the ability to translate nursing theory into practice is demonstrated. The student who is unable to make this application obviously fails to measure up to that which is acceptable in terms of overall achievement.

Method of Data Collection

At the end of the summer term immediately preceding the beginning of the fall semester of the junior year, students were asked to complete a sociometric choice instrument. The class members were told that their choices were to be those persons with whom they would like to be grouped for their nursing laboratory experiences. Each person could select as many of his peers as he desired up to ten choices. This limitation was made because as a rule there are not more than ten students assigned to one lab group. Instructions also included the privilege to cross out the names of any persons with whom one would definitely not wish to be grouped.

After completion of the choices, the data were obtained by tabulation of the choices and mutual choices using the **Bonney-Fessenden Sociograph**.
A sociometric index was derived for each student. This was done by allowing a score of 1 for each choice received, a score of 2 for each mutual choice, and a score of -3 for each rejection. Tabulation of these data resulted in an index.

Grade point averages for each student are kept current in the students' academic records in the school of nursing. Averages for each student were obtained at the beginning of the semester, and again after the close of the fall semester. These data made possible the determination of differences which may have occurred for each student in both the experimental and the control groups.

Throughout the semester, students spend a part of each week in nursing laboratory. Students are evaluated by faculty members three times during the semester, using the student performance evaluation form. Comparison of progress in the various categories was made possible through use of the first and third evaluations.

Pre-experimental data assembled for each student included the overall grade point average, the sociometric index and the student performance evaluation. Experimental and control groups during the semester attended the same classes and participated in the same kinds of laboratory experiences in nursing. Instruction in nursing was provided by team
teaching. Evaluation of student performance was a composite of the combined judgment of several faculty members. In order to assure as nearly as possible that there would not be bias on the part of faculty members, the details of the study were not shared with them.

Students who comprised the experimental group were called together by the person who designed the research study. They were told that a study had been planned to test the efficacy of group counseling in assisting a group of students with adjustment and achievement in nursing school. In the past there had been no counseling service available for students other than that provided by the faculty in the school of nursing. Students voiced approval of the plan to provide counseling by a professionally prepared person, since some in the group expressed the opinion that some students would be reluctant to discuss personal or adjustment problems with faculty for fear that self-revelation might possibly have a negative effect upon student-faculty relationships.

After consent to participate had been obtained from the proposed experimental group, they were randomly divided into four small groups. After conferring with the counselor, initial meetings for each of the four groups were scheduled. The counselor, who was employed on a part-time basis, was told that he and each small group would be free to select what would be a mutually satisfactory time for the group
counseling sessions. These sessions were to be held on a weekly basis for one hour for one semester. The same counselor worked with each of the groups of students. He was not told what the criteria to be used for assessment were, nor was he aware of the status of the students in terms of grade point average, sociometric index and performance evaluation.

The control group of students followed the same schedule of planned learning activities as did the experimental group. The control and experimental groups were together for large group classroom activities. Small group activities such as conference, discussion, and seminar, as well as lab groups, were conducted with participants from both control and experimental groups of students participating. The sole planned activity which included only the experimental group was the one time per week group counseling sessions.

At the end of the experimental period, the sociometric instrument which was used at the beginning of the semester was given a second time. Comparison was then made between the changes in sociometric index of the control and experimental groups. Further comparison of the control and experimental groups was made in positive change in grade point average from the beginning of the experimental period and the end of the semester.

Level of achievement in nursing as measured by performance evaluation by the faculty was compared between the control and
experimental groups. The SPEF was used for this purpose. The criteria upon which the student evaluation was based included: (1) achievement in communications, (2) interpersonal relationships, (3) ability to plan for nursing intervention, (4) skill in implementation of a nursing care plan, and (5) ability to evaluate one's own performance. Students were evaluated as either $S$ (satisfactory), or $U$ (unsatisfactory) on the various items by faculty members. In order to quantify the scale, each satisfactory was scored as 1. Each unsatisfactory was scored as 0.

Treatment of the Data

Previous course grades, achievement test scores, and other such measures are often used as pretest measures in educational research. Roscoe (10, p. 255) states that, "Whenever two measures are correlated, one can be used to predict scores on the other; to the extent that performance on the posttest can be predicted from the performance on the pretest, this performance cannot be attributed to the experimental activities." The analysis of covariance consists essentially of determining that a proportion of the variance of the criterion existed prior to the experiment, and this proportion is eliminated from the final analysis. Because of the fact that control of any variable that may influence the criterion variable may be possible with use of the analysis of
covariance technique, the decision was made to use this method of treating the data obtained from the pre- and post-experimental sociometric scores, grade point averages, and student performance evaluation.

A Pearson product-moment correlation coefficient was calculated for the relationship between sociometric rank and academic achievement as measured by course grade.

Summary

The subjects used in this study, the measuring instruments, the methods for collecting the data, and the statistical procedures employed were explained in this chapter. The subjects for the study were junior nursing students in a baccalaureate program. The measuring instruments were described as a sociometric choice instrument and the Student Performance Evaluation Form. Additional data were obtained from use of the grade point averages and course grades of students.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

PRESENTATION, ANALYSIS, AND
DISCUSSION OF RESULTS

The purpose of this chapter was to present the analysis of the collected data in order to determine if there was a significant difference between the performance of an experimental group of baccalaureate nursing students who had participated in group counseling sessions and a matched control group who did not receive counseling. An additional purpose was to determine if there was a significant positive correlation between the sociometric rank and the semester grade and between the beginning semester grade point average and the course grade for the combined experimental and control groups.

Data analyzed were pre-experiment and post-experiment scores on the criterion measures using the analysis of covariance technique except for hypotheses four and five. Hypotheses four and five related to correlation between sociometric index and course grade, and grade point average and course grade. These were statistically treated by use of the Pearson product-moment correlation coefficient. The research hypotheses were converted to the null hypotheses for statistical treatment. A significance level of .05 was
required for rejection of the null hypothesis for all computations.

Null Hypothesis 1

There will be no significant increase in overall sociometric scores of the experimental group of students as opposed to the control group between pre-testing and post-testing.

TABLE I

SUMMARY OF COVARIANCE DERIVED FROM DATA ON SOCIOMETRIC SCORES

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>61.</td>
<td>16176.7461</td>
<td>. .</td>
<td>. .</td>
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<tr>
<td>Within</td>
<td>60.</td>
<td>15921.1875</td>
<td>265.3530</td>
<td>0.9631</td>
</tr>
<tr>
<td>Difference</td>
<td>1.</td>
<td>255.5586</td>
<td>255.586</td>
<td>. .</td>
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</table>

In the comparison of adjusted means for the Experimental Group and Control Group, an F-ratio of 4.00 was required for significance, using 60 degrees of freedom within groups and one degree of freedom between groups. The F-ratio of 0.9631 obtained was below the level required for significance. Since the derived F-ratio was not significant, the null hypothesis of no significant difference was retained.
Null Hypothesis 2

Students who have participated in group counseling will not manifest a significantly greater gain in grade point average between the beginning of the semester during which the experiment was conducted and the end of the semester than will students in the control group.

The results of the analysis of covariance used to test this hypothesis are shown in Table II.

**TABLE II**

**SUMMARY OF COVARIANCE DERIVED FROM DATA ON GRADE POINT AVERAGES**

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>61.</td>
<td>3.1597</td>
<td>. . .</td>
<td>. . .</td>
</tr>
<tr>
<td>Within</td>
<td>60.</td>
<td>3.1597</td>
<td>0.0527</td>
<td>. . .</td>
</tr>
<tr>
<td>Difference</td>
<td>1.</td>
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<td>0.000</td>
<td>. . .</td>
</tr>
</tbody>
</table>

Since the derived F-ratio was not significant the null hypothesis of no significant difference in the grade point average gain of the experimental and control groups was retained.

Null Hypothesis 3

Students who have received group counseling will not demonstrate a significantly higher level of performance
between the first and third evaluation in the clinical laboratory than will those students in the control group.

The results of the analysis of covariance used to test this hypothesis are shown in Table III

<table>
<thead>
<tr>
<th>TABLE III</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUMMARY OF COVARIANCE DERIVED FROM DATA ON STUDENT PERFORMANCE EVALUATION FORM SCORES</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
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<td>. . .</td>
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<tr>
<td>Within</td>
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</tr>
<tr>
<td>Difference</td>
<td>1.</td>
<td>8.3366</td>
<td>8.3366</td>
<td>6.1897*</td>
</tr>
</tbody>
</table>

*Significant at the .05 level or above.

The F-ratio of 6.1897 obtained was greater than the level required for significance, therefore, the null hypothesis was rejected in favor of the Experimental Group.

Null Hypothesis 4

There will not be a significant positive correlation between sociometric index and course grade of all students included in the study.

Results of the correlation of coefficients of all possible combination of variables are shown in Table IV.
TABLE IV

COEFFICIENTS COMPUTED FOR ALL POSSIBLE COMBINATIONS OF VARIABLES

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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</thead>
<tbody>
<tr>
<td>1</td>
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<td>.071</td>
<td>.138</td>
<td>.704*</td>
<td>.031</td>
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<td>.091</td>
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<td>1.000</td>
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<td>.056</td>
<td>.906*</td>
<td>.099</td>
<td>.664*</td>
<td>.221</td>
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<tr>
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<td>.002</td>
<td>.102</td>
<td>.282</td>
<td>.664*</td>
<td>.094</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1.000</td>
<td>.034</td>
<td>.242</td>
<td>.833*</td>
<td>.094</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td>1.000</td>
<td>.183</td>
<td>.195</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
</tr>
</tbody>
</table>

Means 10.063 2.609 18.031 1.571 2.535 20.381 3.512
SD     15.152 .506 2.389 22.752 .534 1.249 .633

*Significant at the .05 level or above.

Legend: 1 = Pre-experimental Sociometric Score
         2 = Pre-experimental Grade Point Average
         3 = Number 1 Student Performance Evaluation
         4 = Post-experimental Sociometric Score
         5 = Post-experimental Grade Point Average
         6 = Number 3 Student Performance Evaluation
         7 = Course Grade

Since the level of correlation between the pre-testing sociometric score and the course grade and between the post-testing sociometric index and the course grade did not reach the level of significance designated, the null hypothesis of no significant positive correlation between sociometric index and course grade was retained.
Analysis and Discussion

Previous studies of nursing (17) and other students (11, 22) who have received group counseling have demonstrated significant growth in self-concept, improvement in self-acceptance and affective expression, social poise and capacity for independent thought and action. The student whose level of self-acceptance and capacity for independent thought and action is enhanced by having participated in group counseling likely will experience a higher level of adjustment to the academic environment. Such adjustment and the concomitant ability to cope with associated stress may be expected to facilitate achievement. Findings of this study in the area of sociometric standing of the counseled and non-counseled students may be related to those of previous studies. Since the sociometric index was derived from computation of number of choices and number of mutual choices received, minus the number of rejections received, a total score would be expected to reflect the individual student's status as assessed by his peers. Counseled students whose growth in the aforementioned areas may have been accomplished might be expected to be chosen more frequently as desired group members than would less poised students. Although the change in sociometric status of the counseled group as opposed to the control group
did not reach the .05 level of significance, the change was in the direction of prediction.

The supposition that adjustment to nursing school bears a relationship to achievement as measured by several criteria lead to the hypothesis that counseled students would demonstrate greater gain in grade point average than would non-counseled students. Achievement in the cognitive area has a greater likelihood of being reflected in change in grade point average of junior students than will that of the performance realm because of weighting toward acquisition of nursing theory at this level. Failure of results to support this hypothesis would seem to indicate that ability of students to master theory in this situation was not significantly affected by group counseling.

Nursing care involves personal contact between the person giving care and the person or persons receiving care. Nursing students learn the theoretical base for nursing action and then must become able to apply the principles in the clinical laboratory setting. This means that a very vital part of his learning involves performance in the patient-care milieu. Not the least of skills required of the student are those centered upon interpersonal relationships. This involves attitudes, acceptance of others, ability to assess situations, and the gamut of the complexities of verbal and non-verbal communication on the part of both patient and nurse.
Behavioral traits and personality attributes which are subject to consideration in group counseling might be expected to become refined and enhanced with opportunity for protected experimentation and availability of feedback from peers. Transposition of learned skills from the counseling situation into that of the laboratory assignment in nursing would hopefully become reflected in the achievement levels in clinical aspects of nursing. A significant difference in achievement was exhibited by counseled students as opposed to the control group which did not receive counseling. This evidence supports the concept that ability to understand, accept, and relate to others involved in the nursing care circumstance is of prime importance in fulfilling successfully the role of the professional nurse.

Had the absence of a significant level of correlation between adjustment and achievement in the cognitive aspects of nursing been known previous to formulation of the hypothesis related to relationship between sociometric rank and course grade, the results might have been forecast. Nursing students were evaluated as satisfactory or unsatisfactory in their laboratory performance. Although a satisfactory rating is essential for progression in the nursing curriculum, it does not influence the letter grade other than that an unsatisfactory rating could result in a failing grade despite the existence of a passing grade in theory. The
course grade is determined by computation of weighted values on all tests, papers, and class assignments, along with a satisfactory rating in lab. Since sociometric rank seems to be more closely related to personality traits and interpersonal relationship skills, it is possible that one with a low sociometric score could very well be a high achiever in terms of cognitive skills.

Summary

The purpose of this chapter was to present and describe the data obtained from this experimental study. The null hypotheses were stated, and the .05 level of significance was required for rejection.

No significant differences were found between the experimental and control groups in change in sociometric index; hence Null Hypothesis 1 was accepted.

No significant differences were evident between the experimental and control groups in change in grade point average. Null Hypothesis 2 was accepted.

Significant difference in student performance evaluation, favoring the experimental group, was found, therefore, Null Hypothesis 3 was rejected.

There was no significant correlation between sociometric index and course grade for the total group, consequently, Null Hypothesis 4 was accepted.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This study was designed with the intention of determining if group counseling would promote the achievement and adjustment of junior students in a baccalaureate program in nursing education. Three criterion were used to measure achievement. These were: sociometric index, grade point average, and performance in the clinical laboratory situations in nursing practice. Sociometric rank was measured by using a sociometric choice instrument. Student's academic achievement was measured by use of the overall grade point average. Achievement in the nursing laboratory was measured by using the Student Performance Evaluation Form.

The possibility of the existence of a significant relationship between sociometric rank of all students and the course grade earned during the semester in which the study was conducted was of interest. Another purpose was to determine if there was a significant relationship between grade point average at the beginning of the semester and the course grade earned.

The subjects participating in this investigation consisted of sixty-one junior students enrolled in a baccalaureate
program in a school of nursing. The participants were third year students in a four-year curriculum leading to the bache-
lor of science degree and eligibility to write the state board examinations for licensure as registered nurses. The students
had completed the non-nursing courses in the arts and sciences and had finished the introductory course in the nursing se-
queness of five courses. The study was conducted during the fall semester due to the fact that some of the students had taken liberal arts courses in other colleges and universities and had transferred into the school of nursing during the preceeding summer. With the advent of the fall semester, students had become sufficiently well acquainted to be able to respond to the sociometric test.

Cumulative grade point averages were obtained from the students' transcripts. During the semester, students were enrolled for fifteen semester hours of upper division course requirements. Twelve of the fifteen hours were in nursing. Grades earned during the semester were added to the beginning of the semester grade point average. Quality points were calculated on a four-point scale: four points for one hour of the grade "A", three for a grade of "B", two for a "C" grade, and one point for a grade of "D". End of semester grade point averages were compared with that of the beginning of the semester for the experimental and control groups of students.
The sociometric test was administered at the end of the six weeks summer session. Students were given an alphabetically arranged list of all the members in the class. They were asked to select not more than ten class members with whom they would like to be grouped for laboratory assignments in their nursing course for the fall semester. Each student was allowed the prerogative of designating which students, if any, with whom he would choose not to be grouped. Tabulation of data was facilitated by the use of the Bonney-Fessenden Sociograph. Number of choices received, number of mutual choices, and number of rejections received, when tabulated, resulted in a sociometric index for each student.

The Student Performance Evaluation was used to evaluate the nursing laboratory achievement. Each student was evaluated three times during the semester, using the criteria contained in the SPE. In order to measure the student achievement, a comparison was drawn between the first and third ratings of each student.

The Hypotheses

1. Students who participate in group counseling will show significantly greater increase in overall sociometric scores than will students in the control group between pre-testing and post-testing.
2. Students who have participated in group counseling will manifest a significantly greater gain in grade point average between the beginning of the semester during which the experiment was conducted and the end of the semester than will students in the control group.

3. Students who have received group counseling will demonstrate a significantly higher level of clinical performance between the first and third evaluation in the laboratory setting than will those students in the control group.

4. There will be a significant positive correlation between sociometric index and course grade of both groups of students.

The Method

Seventy-five junior students in nursing were given a sociometric choice instrument at the end of the summer session in which the first nursing course in the major was completed. The top 17 percent of the class which included the outstandingly high ranking students, or sociometric stars, according to sociometric index, were excluded from the study. The sixty-two remaining students were arranged into matched groups according to sociometric index. One group became the experimental group, and the other was designated as control.

At the end of the fifteen week period, both control and experimental students were again given the sociometric choice
instrument, were evaluated by faculty for their laboratory performance rating, and received the course grade in nursing.

The research hypotheses were converted to the null hypotheses for statistical treatment. Data obtained from pre-experiment and post-experiment on each of the measures were treated statistically at the Data Processing Center, using the analysis of covariance technique and the Pearson product-moment coefficient of correlation. The .05 level of significance was required for rejection of the null hypothesis for each of the computations.

Findings

An analysis of data bearing on the hypothesis revealed the following:

1. Students who participated in group counseling did not show significantly greater increase in overall sociometric scores than did students in the control group.

2. Students who participated in group counseling failed to manifest a significantly greater gain in grade point average between the beginning and the end of the semester during which the experiment was conducted than did students in the control group.

3. Students who received group counseling demonstrated a significantly greater gain in level of performance in the clinical laboratory than did students in the control group.
The difference between the two groups was significant at the .05 level.

4. There was no significant positive correlation between sociometric index and course grade of either the experimental group or the control group of students.

Conclusions

On the basis of the analysis of the results of this study, the following conclusions are offered with reference to the population studied:

1. Group counseling provides opportunity for the participants to experience the relatively safe situation of a small aggregate of persons who, with help from the counselor, are able to establish an atmosphere of mutual trust. Given such a setting, anticipated outcomes of group counseling may include sharpened skills in group dynamics, ability to identify non-verbal behaviors of group members, and increased skill in oral communication. One may not only learn to express his own thoughts and feelings in an effective manner; he may also become adept in eliciting contributions of other members to the group process. Another expected positive result is the feedback which becomes instantly available from one's associates as he interacts with them in the group sessions.

Clinical laboratory experiences in nursing are planned to provide opportunity for the student to apply theoretical
knowledge in the patient care situation. Giving nursing care involves the use of interpersonal skills with patients, families, and colleagues. Following each period of nursing practice, students meet together with their instructor to discuss their experiences. These clinical conferences not only provide time for vicarious learning from each other, but also become a continued laboratory for practice in communications skills such as reporting, interpreting, and purposeful listening. Students' ratings on the SPEF include assessment of skills in the use of interpersonal techniques in establishing a therapeutic relationship with patients, in working with colleagues and personnel, and in oral communications.

The experimental group of students who received group counseling demonstrated a significantly greater gain in level of performance in clinical achievement than did those who did not receive group counseling. Since the skills enhanced by group counseling are commonly utilized in the clinical practice part of nursing, the conclusion that group counseling will assist students to acquire these performance abilities seems justified.

2. Group counseling is of questionable benefit to students in terms of effect upon achievement in nursing school as measured by grade point average.
3. Use of sociometric techniques in selecting students for the study of the effects of group counseling was based upon the assumption that a relationship between sociometric status and achievement in nursing school exists. Of particular interest was the criteria upon which choices were to be based; that of selection of those with whom one would wish to be grouped for laboratory assignments. One would expect such a selection to be somewhat different than the selection of peers with whom one would wish to associate socially. In other words, one would not necessarily "like" the persons with whom he chooses to be grouped, but would probably consider those who would be motivated toward achievement to technical and interpersonal expertise, and with whom he felt he could easily relate in the work situation. Although the findings did not support the hypothesis of counseled students showing a more significant gain in sociometric index, the gain was in the anticipated direction. It is, therefore, concluded that the possibility of a positive relationship between group counseling and change in sociometric index is worthy of further exploration.

4. The underlying concern of the reported study was the high rate of attrition of students from professional nursing programs. Previous studies related to this problem have focused upon identification of reasons for withdrawal, screening
of potential applicants, and measurement of accuracy of assessment and prediction within academic settings. Others have been directed toward identification of personality characteristics of successful and non-successful students. The paucity of reported research involving the use of counseling for nursing students led to the decision to study the effect of group counseling upon student achievement. The fact that the student population in the program of concern is select, in terms of admissions to the university, eliminates academic failure as a major reason for attrition from the program. It was felt that experimentation with group counseling as a means to facilitate adjustment and achievement in those aspects of nursing other than cognitive was warranted. Kibrick (31) has encouraged exploration of ways to reduce withdrawal of students due to reasons other than academic failures.

Findings of the study have supported the supposition that achievement in performance in the clinical laboratory situation would be enhanced by group counseling. Whether or not there will be differences in the number of counseled students who complete the program as opposed to the non-counseled students will have to be determined at a later date. Although slight, indications are present that group counseling may be a useful tool for use in the reduction of overall attrition of students.
Recommendations

Results of the present study indicate further research in several related areas is needed. Recommendations for further research:

1. That students who have participated as subjects in this study be followed longitudinally from the standpoint of subsequent achievement in the clinical and cognitive aspects of nursing, and subsequently in terms of national achievement tests in nursing, scores on licensing examination, and performance as employees following licensure.

2. That longitudinal studies of nursing students be designed with the purpose of identifying relationships between various personality attributes, cognitive abilities, and performance in the nursing care situation during and following the experience in nursing school.

3. That further research in the use of sociometric techniques be done, with particular focus upon the degree of success achieved by the sociometric stars and the isolated. This study should also be extended beyond the time of completion of the educational program.

4. That further study of students who are sociometric isolates, or who have low sociometric scores, be designed which would provide for special attention of faculty members.
This would be done to determine if remedial work might improve sociometric status.

5. That further experimentation with group counseling for nursing students be conducted both within the program in which the current study was done, and on a broader basis, e.g.: using other private schools along with this one and using both large and small programs in state-supported institutions.

6. That studies be conducted to determine if group counseling might be beneficial for all freshmen and sophomore students in nursing before they have begun the courses in the nursing major.
APPENDIX A

Your Number __________

To All Junior Students:

In the fall semester there will be frequent occasions when it will be necessary to group your class for various activities. By this time you have doubtless gotten to know each other reasonably well. It is our intent to as nearly as possible arrange groups according to your own choices of peers with whom you would like to work. If each of you will fill out this form as follows, this will facilitate arrangement of the groups.

1. Write the number opposite your name in the space marked "Your Number" in the right-hand corner.

2. Place a number 1 opposite the name of the person who would be your first choice to be grouped with, then pick numbers 2, 3, 4, etc. You may select as few as you wish; but not more than ten as a maximum, please.

3. If there are any persons with whom you definitely would not want to be grouped, draw a line through that name.

____ 1. __________
____ 2. __________
____ 3. __________
____ 4. __________
____ 5. __________
____ 6. __________
____ 7. __________
____ 8. __________
____ 9. __________
____10. __________
____11. __________
____12. __________
____13. __________
____14. __________
____15. __________
____16. __________
____17. __________
____18. __________
____19. __________
____20. __________
____21. __________
____22. __________
APPENDIX B

Your Number _____

To: All Junior Students

In order to facilitate grouping of students for laboratory experiences in the spring semester, we are again requesting that each of you choose those persons with whom you would want to be grouped. As nearly as possible, groups will be formulated to accommodate your choices. Please fill out the form as follows:

1. Write the number opposite your name in the space marked "Your Number" in the upper right-hand corner of this page.

2. Place a number 1 opposite the name of the person who would be your first choice to be grouped with, then pick numbers 2, 3, 4, etc. You may select as few as you wish; but not more than a maximum of ten, please.

3. If there are any persons with whom you definitely would not want to be grouped, draw a line through that name.

____ 1.  ____12.
____ 2.  ____13.
____ 3.  ____14.
____ 4.  ____15.
____ 5.  ____16.
____ 6.  ____17.
____ 7.  ____18.
____ 8.  ____19.
____ 9.  ____20.
____10.  ____21.
____11.  ____22.
APPENDIX C

BAYLOR UNIVERSITY SCHOOL OF NURSING
STUDENT PERFORMANCE EVALUATION FORM*
(To be used with descriptive guide)

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Clinical Area</th>
<th>Dates</th>
</tr>
</thead>
</table>

**Planning**

Uses process of problem solving in planning care
Plans care with consideration of patient's pathophysiology
Plans care with consideration of patient's physical needs
Plans health teaching for patients with selected long-term care problems

**Implementation**

Implements a plan of care to meet patient's psychosocial needs
Implements a plan of care to meet patient's psychosocial needs as influenced by his long-term pathophysiology
Performs selected technical nursing measures with effectiveness
Implements a plan for health teaching
Controls the environment to provide for patient safety

**Interpersonal Relationships**

Identifies specific nonverbal nurse behaviors
Identifies specific nonverbal patient behaviors
Uses appropriate interpersonal techniques in establishing a therapeutic relationship with patients
Uses appropriate interpersonal techniques in working with colleagues and personnel
<table>
<thead>
<tr>
<th>BEHAVIOR</th>
<th>STUDENT</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicates orally with effectiveness</td>
<td></td>
<td></td>
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<tr>
<td>Communicates effectively in writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluates, with guidance, the nursing care plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluates, with guidance, the administration of nursing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluates, with guidance, the teaching process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluates, with guidance, the interpersonal relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluates, with guidance, communication skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionalism</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Instructor's Summary:

Student Comment:

Student ____________________ Instructor ____________ Date ______

*Adapted from Moritz and Sexton's research done at the University of Massachusetts School of Nursing, with reprinting from The Journal of Nursing Education, Vol. 9, No. 1, January, 1970 (McGraw-Hill Book Company).
DESCRIPTIVE GUIDE FOR EVALUATION OF STUDENT PERFORMANCE*

Planning:

Uses the process of problem solving in planning care.

*Collects patient data in a systematic manner.
*Includes description of patient's usual prehospital routines.
*Identifies patient problem areas.
*Uses appropriate references to collect data.
*Identifies possible causes for patient problems.
*States nursing diagnosis.
*Suggests hypotheses for nursing intervention based on nursing diagnosis.
*Suggests immediate and long-term goals.
*States rationale for selection of goals.
*Estimates the patient's potential based on nursing and medical prognoses.
*Suggests resource persons and agencies to contact in accomplishment of goals.

Plans care with consideration of patient's pathophysiology.

*Explains patient's pathophysiology in correct terminology.
*Explains relationship between specific pathophysiology and generalized effects of chronic illness.
*Relates clinical findings to patient's diagnosis and symptoms.
*Investigates unfamiliar medications, treatments, and the use of equipment.
*Suggests a prognosis on the basis of nursing and medical diagnosis.
*Plans for nursing actions that are implied by nursing diagnosis, nursing prognosis, and clinical findings.
*Includes provision for meeting normal physiologic needs.

Plans care with consideration of patient's psychosocial needs.

*Anticipates patient differences on the basis of cultural background, age, developmental stage, nature of illness.
*Describes patient's developmental stage.

*Adapted from Moritz and Sexton's research done at the University of Massachusetts School of Nursing, with reprinting from The Journal of Nursing Education, Vol. 9, No. 1, January, 1970 (McGraw-Hill Book Company).
*Describes patient's apparent coping mechanisms.
*Describes patient's response to chronic or long-term illness.
*Anticipates changes in patient behavior in relation to progress.
*Anticipates the need to support the patient and family encountering death.
*Describes patient's response to hospital phenomena.
*Provides for collaboration with family and/or other members of the health team.
*Provides for patient's need for socialization.
*Provides for patient's need for diversion.

Plans health teaching for patients with selected long-term care problems.

*Includes appropriate family members and health team in plan for health teaching.
*Identifies patient needs for health teaching.
*Identifies the principles of teaching as they apply to specific planning nursing activities.
*Develops a teaching outline that is realistic.
*Develops a teaching outline that is in logical sequence.
*Considers patient's cultural and economic background in teaching plan.
*Refers health teaching that she cannot do to appropriate personnel.
*Identifies when a family member must be included.

Implementing:

Implements a plan of care to meet patient's psychosocial needs.

*Uses approach appropriate to cultural background and developmental stage.
*Varies approach according to patient's response to progress.
*Provides for privacy when administering nursing care.
*Provides for constructive and for diversional activities. (Individuals with sensory deprivation.)
*Refers nursing needs that she cannot meet to appropriate health team members.
*Participates in the preparation and support of the patient and family encountering death.

Implements a plan of care to meet patient's physiologic needs as influenced by his long-term pathophysiology.

*Assists the patient to understand his health needs and their implied nursing care.
*Collaborates with patient in arriving at short-term and long-term goals.
*Discusses goals with family and health team members.
*Proceeds with nursing care based on the plan.
*Employs nursing measures implied by the patient's chronic illness.
*Refers nursing needs that she cannot meet to appropriate health team members.
*Refers nonnursing needs that she cannot meet to appropriate paramedical personnel and/or agency.
*Provides for limitation of time.
*Performs the nursing aspects of activities initiated by other health team members.

Performs selected technical nursing measures with effectiveness.

*Explains in her own words scientific principles underlying nursing treatments
*Applies scientific principles when performing nursing procedures.
*Arranges equipment in an expedient manner.
*Increases skill with performance.
*Demonstrates those technical skills which the patient must acquire.

Implements a plan for health teaching.

*Consults the physician about the modification implied by the patient's diagnosis.
*Provides appropriate literature, resource material and/or equipment.
*Proceeds from the familiar aspects of teaching to the unfamiliar.
*Encourages active involvement of the patient and family.
*Provides for a return demonstration of the health teaching.
*Uses language appropriate to the level of the learner.

Controls the environment to provide for patient safety.

*Protects the patient from environmental hazards.
*Protects the patient from dangers to which he might be exposed.
*Administers treatments with safety.
*Prepares and administers medications with safety.
*Investigates medications or treatments that are contraindicated by the patient's reaction or underlying pathology.
Interpersonal Relations:

Identifies specific nonverbal nurse behaviors.
* Describes her own attitudes and feelings with regard to selected situations.
* Describes behavior accompanying her own response to selected situations.
* Identifies nurse behaviors that affect patient response.

Identifies specific nonverbal patient behaviors.
* Describes behaviors which may indicate patient attitudes or feelings.
* Identifies coping mechanisms used by individual patients.
* Suggests possible basis for specific patient behaviors.

Uses appropriate interpersonal techniques in establishing a therapeutic relationship with patients.
* Can reflect feeling tones inherent in the patient's statement.
* Can reflect apparent concerns implied by patient's statement.
* Uses words or phrases to invite patient's exploration of own concerns.
* Replies to patient comments in nonjudgmental manner.
* Offers verbal support in periods of apparent stress.

Uses appropriate interpersonal techniques in working with colleagues and personnel.
* Uses appropriate resources prior to consulting personnel.
* Considers responsibilities, pressures of personnel.
* Allows opportunity for discussion and differing opinions.

Communications:

Communicates orally with effectiveness.
* Directs the conversation to elicit information.
* Selects language that is appropriate to the listener.
* Explains various medical, surgical, and nursing regimens in a way that is understandable to the patient.
* Reports apparently effective nursing action for health team follow-through.
* Reports are concise, pertinent, organized, accurate, and articulate.
* Describes meaning of data as they relate to the patient condition.
Communicates effectively in writing.

*Statements are concise, pertinent, organized, accurate, and legible.
*Uses appropriate terminology.
*Writes objectives of patient care in Kardex.
*States nursing actions pertinent to objectives in Kardex.
*Describes the physical appearance of the patient.
*Describes meaningful patient behavior in objective terms.
*Completes referral form with information appropriate to the agency.

**Evaluation:**

Evaluates, with guidance, the nursing care plan.

*States whether the care plan has been effective or not.
*Identifies the factors that influence the effectiveness of the care plan.
*Restates nursing diagnosis when indicated.
*Modifies short-term and long-term goals according to patient's progress.
*Adjusts her schedule according to unanticipated events.
*Modifies procedures according to individual patient response.

Evaluates, with guidance, the administration of nursing care.

*States whether nursing actions have been effective or not.
*Identifies the factors that facilitate the effectiveness of nursing actions.
*Modifies nursing actions on the basis of the patient's progress.
*Adjusts her schedule according to unanticipated events.
*Modifies procedures according to individual patient response.

Evaluates, with guidance, the teaching process.

*Includes additional principles of teaching when indicated.
*Modifies teaching outline on the basis of learner's response.
*Adjusts teaching plan on the basis of current health needs of the patient and/or family members.
*Selects resource materials with regard for learner's cultural background and developmental stage.
*Adjusts teaching process on basis of learner's response.
*Speculates as to reason for health teaching's effectiveness.
Evaluates, with guidance, interpersonal relationships

*Speculates as to the basis of patient's behavior.
*Speculates as to why patient's coping mechanisms have been effective or not.
*Speculates as to the basis for her own behavior.
*Explains whether interpersonal technique employed was effective or not.
*Identifies behaviors which indicate effectiveness of interpersonal technique.
*Suggests alternative interpersonal techniques according to patient/personnel response.
*Modifies her behavior on the basis of patient or personnel response.

Evaluates, with guidance, own communication skills.

Oral
*Modifies interview on the basis of patient response.
*Adjusts explanations according to patient response.
*Modifies language on the basis of patient reaction.
*Explains why discussion did or did not achieve its purpose.
*Identifies factors that influence the effectiveness of discussion.
*Identifies strengths and weaknesses in own oral reports.
*Identifies appropriate methods for the enhancement of strengths and improvement of weaknesses.

Written
*Modifies statement of patient objectives according to patient progress.
*Alters statements of nursing actions when indicated.
*Explains the factors that influence the effectiveness of written reports.
*Identifies strengths and weaknesses in own written reports.
*Identifies appropriate methods for the enhancement of strengths and improvement of weaknesses.

Professionalism

*Reports to lab experience on time.
*Is self-directing, takes initiative and goes ahead on own.
*Stays with assigned patients or knows where and how they are.
*Consistently seeks out learning experiences and is enthusiastic about learning.
*Recognizes when and how to utilize instructor.
*Verbalizes educational needs.
*Shows good judgment in her choice of learning experiences.
*Takes responsibility for her decisions and actions regardless of consequences.
*Participates productively in clinical conferences.
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