

AN ANALYSIS OF THE EXPRESSED ATTITUDES OF
STUDENT NURSES TOWARD A TUBERCULOSIS
NURSING EXPERIENCE

by

Barbara Gibbs Hiatt, B. S.

A THESIS

Presented to the Department of Nursing Education
and the Graduate Division of the
University of Oregon Medical School
in partial fulfillment
of the requirements for the degree of
Master of Science

June 1957

APPROVED:

[Redacted Signature]

Assoc. (Professor in Charge of Thesis)

[Redacted Signature]

(Chairman, Graduate Council)

ACKNOWLEDGEMENT

I offer my most sincere appreciation to Miss Lucile Gregerson, the professor in charge of this research and thesis, for her patient and considerate instruction.

B. H.

TABLE OF CONTENTS

CHAPTER		PAGE
I	INTRODUCTION	1
	The Problem.	6
	Justification and Limitations.	7
	Selection of the Test Period and Test Group.	10
	Sources of Data.	11
	Validity and Reliability of the Test Instrument.	14
	Analysis of Data	15
	Related Studies.	16
II	INVESTIGATION OF RELATED LITERATURE.	18
	Definitions.	19
	Psychology and Attitudes	20
	Attitudes in Education and Nursing	26
	The Worth of Student Opinion	35
III	PROCEDURE AND FINDINGS	37
	Procedures Employed.	37
	Findings of the Study.	44
	Part I of the Questionnaire.	46
	Part II of the Questionnaire	56
	Part III of the Questionnaire.	82
IV	SUMMARY, CONCLUSIONS, IMPLEMENTATION OF FINDINGS AND RECOMMENDATIONS FOR FURTHER STUDY	94
	Summary.	94
	Conclusions and Their Curricular Implications.	96
	Suggestions for Further Study.	98
	BIBLIOGRAPHY	101
	APPENDIX	
A	QUESTIONNAIRE.	104
B	SUBJECT MATTER TAUGHT DURING THE TUBERCULOSIS ROTATION EVALUATED.	111

LIST OF TABLES

TABLE		PAGE
I	Distribution of Students of Representative Schools of Nursing During the Test Period and the Preceding Two Years. . . .	38
II	Relationship of Students of the Test Group to Previous Enrollment by Type of Nursing Program	39
III	Relationship of Number Participating in Study to Total Enrollment During Test Period.	42
IV	Chronological Age of Students at Beginning Tuberculosis Experience	45
V	Contact With Tuberculous Person (Other Than a Patient) Prior to Rotation--By Relationship.	47
VI	Measures Prescribed for Tuberculosis Patients Cared for by Respondents to Tuberculosis Experience.	52
VII	Provision for Diagnosis and Care of Tuberculosis at Home Hospitals.	54
VIII	Time of First Assignment to Tuberculosis and/or Communicable Disease Ward.	55
IX	Classroom Instruction Previously Received and Needs Expressed by Respondents Regarding These Subjects Taught During the Tuberculosis Rotation	58
X	Ward Experiences and Observations Previously Received and Needs Expressed by Respondents Regarding These Subjects Taught During the Tuberculosis Rotation .	64

TABLE OF CONTENTS (CONTINUED)

APPENDIX

C	WARD EXPERIENCES AND OBSERVATIONS DURING THE TUBERCULOSIS ROTATION PERIOD EVALUATED ACCORDING TO FELT NEEDS AND PREVIOUS INSTRUCTION.	113
D	TABLE C OF THE QUESTIONNAIRE: OTHER ASPECTS OF THIS ROTATION.	114

CHAPTER I
INTRODUCTION

Care of the tuberculosis patient is a field of nursing that is presently undergoing considerable change. Newer methods of medical treatment within the past decade have created corresponding changes in nursing care. Education of nurses for this type of patient care becomes a two-fold challenge. First, the curriculum for basic professional student nurses in tuberculosis nursing faces a re-organization to include various factors in nursing care. And, second, the time available for teaching this course cannot in wisdom be increased in the already crowded schedule of the student.

In January 1955 a resolution was approved by the Steering Committee of the Division of Nursing Education of the National League for Nursing and reconfirmed by the NLN Board of Directors:

WHEREAS: All registered nurses are expected to be competent to meet needs for tuberculosis nursing services which require knowledge and skill to promote prevention of disease, and rehabilitation of patients through expert nursing care

BE IT RESOLVED: To urge groups interested in nursing education to encourage the inclusion of adequate instruction in tuberculosis nursing in the basic curriculum for all nurse students. This implies a carefully planned sequence of theory and coordinated

learning experience in tuberculosis nursing in which preventative and social aspects are stressed. (27)

Subsequent to this, the Oregon State Board for the Examination and Registration of Graduate Nurses recommended that tuberculosis nursing become a requirement for all student nurses in Oregon by 1960. (20)

The Tuberculosis Nursing Advisory Committee which is jointly sponsored by the National League for Nursing and the National Tuberculosis Association and comprises authorities in the fields of nursing education, tuberculosis nursing and tuberculosis, has adopted a Philosophy of Education for Tuberculosis Nursing. At its meeting January 3, 1957, this committee approved the following philosophy which is quoted in part:

According to the best medical authorities tuberculosis is and will continue to be one of our major public health and long-term illness problems. Modern treatment including antimicrobial drugs and more definitive surgery has shortened the period of hospitalization for many patients. However, nursing, social, economic, vocational, and other needs of these patients and their families before, during and following hospital care are being intensified.

The philosophy of education for tuberculosis nursing underlying the activities of the TNAS is directed toward meeting the nursing needs of tuberculous patients and families wherever they may be--in homes, hospitals, clinics, places of work, and in schools. It is the belief of the TNAS that basic curriculums to prepare nurses for the future should encompass theory and experience in tuberculosis nursing. Such an educational experience introduces the students to a long-term communicable disease

and helps them to understand the emotional, social and economic impact of tuberculosis upon the lives of the patients and their families. Moreover, it provides the opportunity for students to learn how to help the patients and their families to cope with their many and varied problems and in the process, relate their nursing service to other services that are needed by patients and their families in attaining their maximum rehabilitation goals.

A well-planned, broadly conceived program of nursing education that includes teaching students to give expert nursing care to tuberculosis patients and families will broaden and deepen the students' understanding of the nursing care needs of all patients with long-term illness--diabetes, alcoholism, senility, cardiovascular disease and many others complicate the lives of tuberculous patients and their families.

For the most part nurse students naturally tend to think of nursing in terms of acute illness or short-term illness. This is particularly true as they may see only those patients with chronic illness who are in a general hospital because of an acute phase of their illness. TNAS therefore believes that an educational experience for students in a setting where patients with tuberculosis are the major concern of the service will provide the opportunity to prepare our future nurses to give better care to these patients than is true at present. Equally important nurses so prepared will be better able to meet the nursing care needs of the ever increasing number of patients with chronic illness which is alarming our society today.... (18)

The philosophy is one ascribed to by many nurse educators and for purposes of this study will be held as the philosophy of the educational program under consideration.

Evaluation of the present curriculum in tuberculosis nursing and recommendations for change must be made in the light of new developments and philosophies both in tuberculosis nursing and nursing education. But, "because of the correlative nature of teaching and learning, evaluation to

be complete, should be carried out by student as well as the teacher."(14)

The acceptance of students in the role of evaluator has not been universal. Teaching of nursing is a field which has grown up over a relatively short span of years. It has been described as "disciplined, didactic and imitative, with much of the teaching being little more than a formalized presentation of facts and detailed demonstrations of procedures which had to be followed rigidly and without modification."(14) Such learning environment has not given room for acceptance of student opinion as a criterion for change. However, and happily, the situation is changing. Principles and methods of both teaching and learning which have been developed and tested by means of experimentation and research in the field of general education are being applied by the nurse-teacher as she constructs and implements her curriculum.

Wherever students gather there will be evaluations made and opinions expressed regarding their teaching and their learning. Student judgment can be utilized by the instructor to improve her teaching and by nursing education directors to a lesser degree as an indication of the work carried out by instructors. The student is not encouraged, often not even permitted, to express her reactions in a positive or fruitful manner. In order to create a favorable environment the students' interpretations of the teaching-

learning situation deserve our consideration. (14)

It is the assumption of this study that

- (1) student nurses have different attitudes toward their tuberculosis nursing experience,
- (2) these students will verbalize these attitudes in opinion statements about tuberculosis nursing and the educative experience obtained while assigned to the care of tuberculosis patients, and
- (3) the expressed attitudes have validity and yield implications which can be utilized in strengthening a tuberculosis nursing curriculum.

It is further assumed for the purposes of this study that

- (1) tuberculosis nursing is viewed by many students as being an elementary repetitive experience lacking in interest, challenge, and satisfaction,
- (2) these views are reflected in attitudes which upon positive-negative analysis will indicate particular areas creating problems in the achievement of a satisfying educational experience,
- (3) the tuberculosis nursing experience has an important educative function in the curriculum of a school of nursing, and
- (4) curricular changes to increase challenge and satisfaction for the learner can be made by nurse educators to their mutual advantage.

The Problem

Data are lacking regarding the attitudes of student nurses who now receive tuberculosis nursing experience and their views regarding its values as an educational experience. Opinions of these students should be valuable in establishing the merits and deficiencies of such a course as viewed by its products.

Heidgerken views student evaluation to be of great importance and substantiates the need for such inquiry when she states "The way a student looks at the teaching-learning situation and the significance it holds for her enter into the motivation process and forms the basis for the student's learning." (14)

It is the purpose of this study to:

- (1) ascertain attitudes of a number of basic student nurses toward tuberculosis nursing and the educational program experienced at the University State Tuberculosis Hospital,
- (2) identify those factors which have contributed toward a satisfying or dissatisfying experience and to determine their frequency, and
- (3) formulate a plan which may be helpful in reorganization of the present curriculum in tuberculosis nursing offered to basic professional student nurses.

Justification and Limitations

Health education, long active in the fields of lay and general education, is beginning to have its impact on the young adult group. The stigma of tuberculosis is slowly giving way to a more positive attitude toward the disease and those persons afflicted with it. In dealing with tuberculosis, attitudes play an important part.

Student nurses have these same attitudes as the non-medical or non-nursing group in addition to other acquired information about the disease and its nursing care. Arriving at that portion of their curriculum when they receive the tuberculosis nursing experience, these young women come face-to-face with their own attitudes and those of other persons about tuberculosis and tuberculosis nursing.

The general trends in these attitudes have been observed by the research worker during several years contact with student nurses as they receive their experience in tuberculosis nursing. These attitudes have not been specifically queried or systematically tabulated at any time.

Analysis of these attitudes about tuberculosis is desirable. The fields of nursing education and tuberculosis nursing are rapidly changing. Curriculum changes are currently being made in several Oregon schools of nursing. Further changes are under consideration which may make the tuberculosis nursing experience mandatory in the near future.

What is good about the present course of tuberculosis nursing as taught at the University State Tuberculosis Hospital? What areas of content and experience need revision and/or change in emphasis to meet students' needs better? What is the effect of various environmental factors present upon the student and the learning situation? Such information may be provided by the present study.

Such a study and analysis as proposed is necessary to yield information by which future change may be guided. Results of this study may be utilized by schools of nursing regarding the teaching of medical and surgical nursing prior to the tuberculosis nursing experience. Nurse educators in the field of tuberculosis nursing may use the findings of such a study in developing new programs of instruction; such as will be necessary here in Oregon in order to accommodate any future increase in the enrollment of students for experience in tuberculosis nursing, or in changing of existing programs to meet the demands of newer concepts in nursing and in education. The results of this study may be useful to the Oregon State Board for the Examination and Registration of Graduate Nurses as it revises its minimum requirements. Directors of nursing service in tuberculosis hospitals may find in the expressed attitudes of these students some key to their problems of recruiting and maintaining an adequate graduate nurse staff.

A specific and immediate problem, solution of which may be aided by this study, is that of the length of assignment to the tuberculosis nursing experience. The present assignment in this program is six or seven weeks, but a four week period for tuberculosis nursing experience has been advocated by some nurse educators.(1,6) In some schools of nursing the curriculum has been changed to incorporate tuberculosis nursing into a longer, larger and more comprehensive course such as Nursing Care in Chronic Illness and Rehabilitation.(9) In other schools, the student experience has been broadened to include observation and field experience in public health aspects of tuberculosis care.(1)

The above-mentioned methods have been utilized to reduce the amount of time given to experience for the student in the hospital nursing care of the tuberculosis patient per se. It can be readily recognized how broader concepts of tuberculosis nursing can be developed and increased transfer of learning take place under carefully selected circumstances in the relatively short period of four weeks. It remains to be discovered how this same excellence of learning situation and economy of time can be accomplished to the benefit of student nurses in Oregon. This study will not attempt to answer a problem of the scope and magnitude indicated above.

The field of inquiry of this study will be limited to

the expressed attitudes of eighty-two student nurses who, at the time of this inquiry, were completing a period of tuberculosis nursing experience at the University State Tuberculosis Hospital, Portland, Oregon. The period of time covered by this study was from June 18, 1956 through January 30, 1957. Attitudes of the student nurses expressed by the depth questionnaire will cover the three periods as follows:

- I. Previous to this rotation
- II. During this rotation
- III. At the end of this rotation

Factual information as well as attitudes will be elicited regarding the respondents' past nursing instruction and contact with tuberculosis.

Questionnaire data obtained will be tabulated and analyzed for implications upon the tuberculosis nursing curriculum offered at the University State Tuberculosis Hospital to students enrolled in basic professional schools of nursing.

Selection of the Test Period and Test Group

Nurses from six schools of nursing received tuberculosis nursing experience through assignment at the University State Tuberculosis Hospital from June 18, 1956 through January 30, 1957. All schools of nursing in Oregon which

offer tuberculosis nursing experience to their students obtain such experience through this affiliation; all six schools were represented during the test period selected.

All students queried during this study were young women. Not all students receiving tuberculosis nursing experience are young women, but only one man student has matriculated in this subject between June 21, 1954 and the beginning of the test period, June 18, 1956. This represents 0.03% of the total number enrolled during the same period. All data presented in this study have come from women students and in phraseology students will be referred to as young women although it should be recognized that men students as well do, upon occasion, receive this type of student experience.

Sources of Data

In securing data for this study the depth questionnaire or opinionnaire was deemed the method of choice. Individual responses were desired from students and interviews were not feasible for reasons of time involved. Frankness in the replies was felt to be encouraged by anonymity of the questionnaire. Other circumstances described in the test situation are felt to strengthen the questionnaire and lend further reliability to the results.(10)

Questionnaire

The questionnaire was compiled to include opinions in three areas. Students were questioned as to fact and opinion in areas as follows:

- I. Previous to this rotation
- II. During this rotation
- III. At the end of this rotation

It was felt by the research worker that questioning in this chronology would be more logical and more inducive to analytical expression of opinion.

Compilation of the questionnaire. The questionnaire was compiled to sample students' attitudes about tuberculosis and the tuberculosis nursing experience and to obtain information regarding past experience with the disease and its nursing care. (See appendix)

Trial of the questionnaire. The first draft of the questionnaire was administered to a group of twelve student nurses on July 27, 1956. This test run was for the purpose of detecting ambiguities in wording and the students were requested to discuss with the research worker problems encountered in interpretation of test items as they responded to the questions. There were no particular problems encountered and these students of the trial group stated that their opinions were capable of expression with the framework of the questionnaire.

These twelve questionnaires were discussed with other graduate nurse students, two clinical instructors in tuberculosis nursing and the thesis adviser. Several suggestions regarding wording were received and were incorporated into the second draft. Inasmuch as no item was completely changed and the wording changes minor, it was decided that the original twelve questionnaires of the test run could be incorporated into the study and the test period thus shortened.

The students to whom the first draft was administered were not the total group assigned to the tuberculosis experience at that time. Only those readily available to administration of the questionnaire on a particular day were thus sampled. This procedure of scheduling students for the questionnaire was changed during subsequent groups.

Administration of the questionnaire. The questionnaire was administered to eighty-two out of ninety-four students receiving tuberculosis nursing experience at the University State Tuberculosis Hospital between the dates of June 18, 1956 and January 30, 1957. This represented an 88.2% sampling of the total possible number. Twelve students were unable to participate for various reasons, but no student refused to reply to the questionnaire. Nine of the twelve students not participating in the study were from the group which took the questionnaire on July 27, 1956, the first

group of the study in which not all students were asked to participate.

Administration of the questionnaire was done by the research worker and provided opportunity to:

- (1) introduce the questionnaire and explain the problem to be solved,
- (2) observe student reaction to the questionnaire, and
- (3) answer directly any questions arising in connection with the testing instrument.

Validity and Reliability of the Test Instrument

The questionnaires were administered during the last week of the student's tuberculosis nursing experience--which is either a six or a seven week period. The length of time for this experience depends upon whether the student is in the course during the first or second half of the thirteen week quarter. The questionnaire was in no instance administered earlier than five and one-half weeks, after the beginning of the rotation period. It is hoped that this fact will enhance the degree of validity and reliability of the answers. The students had been present in the educational environment sufficient time to form opinions which would be more valid than had the sampling been taken at an earlier time. The reliability of the answers is felt to be

increased by the fact that the information was not identifiable and retributive action stemming from unflattering opinions expressed was remote. In addition to this the questionnaire was administered by the research worker who is removed to some degree from the student connotation of "instructor". It should be mentioned also that confidentiality was maintained throughout the study even though various persons--both staff and students--inquired repeatedly as to trends being shown.

Questionnaires were collected by the research worker upon their completion by the students. Completed questionnaires were usually received within one hour of the time of distribution.

Analysis of Data

Data from the eighty-two questionnaires has been analyzed in several ways. Items concerning fact and statement regarding previous experiences with tuberculosis and/or tuberculosis nursing have been tabulated according to frequency in order to arrive at a median of experience for all student nurses. Expressed opinions regarding the course content and the environment of the educational experience have been analyzed numerically according to the placement on the check list or attitude scale which yields information regarding positivity or negativity of opinion expressed.

The free remarks entered by the students have been tabulated as to area of comment. A high degree of consistency appears in the types of free comments made as the same points were emphasized repeatedly. There has not been found any great degree of correlation between the opinion marked on the check list and the type of free comment made. As an example of this, it was not unusual to have a student mark "average" or even "good" on the check list and then give a very negative comment under "remarks".

Analysis of data regarding the students' expressed opinions at the end of the rotation period, Part III of the questionnaire, has been made as to areas about which they have most suggestions for change and where the learnings are felt by them to have been negative. Attempt has been made to relate these to the actual suggestions for change offered by the respondents.

Related Studies

There are many articles in the literature relating to the problem under study which are helpful in understanding how nurses develop attitudes regarding tuberculosis nursing. The attitudes of student nurses about various phases of their environment and curriculum, however, are not reported to any extent. (19,25,30,31) Studies have been made by several investigators regarding specific areas of student

opinion in the field of general education, but only one reference has been found in which the student of nursing was asked to evaluate her course of study.(15)

One study of attitudes regarding tuberculosis nursing has been made among graduate nurses and deals largely with attitudes inherent in job satisfaction.(28)

A recent study, sponsored by the Division of Nursing Education of the National League for Nursing, has been found which deals in some degree with the attitudes of student nurses toward tuberculosis nursing. In this experiment senior student nurses who had recently completed their assignment to tuberculosis nursing were questioned by the faculty of the Cornell University--New York Hospital School of Nursing. The main purpose was to obtain an answer to this question: "Did the attitudes [of these students] stem from fear of contracting disease or from a feeling of inadequacy in caring for tuberculosis patients? That is, were they [the attitudes] connected with tuberculosis nursing per se, or were they reflections of attitudes toward the nursing care of all patients with long-term illness?"(9)

No studies have been found which duplicate the research areas of this study although correlative works are numerous and parallel works are found in other areas of education.

CHAPTER II
INVESTIGATION OF RELATED LITERATURE

Attitudes and ideals have a great deal to do with the way people behave from day to day. Some attitudes may be of great importance to the person concerned, but otherwise of little significance. Most are of broader import; they may be general like attitudes of hostility or friendliness or anxiety or curiosity regarding a variety of situations. As the personality becomes integrated, attitudes tend to become more consistent in patterns. (24)

Attitudes become particularly important in dealings with others, because a person's reactions to others are determined in large part by acceptance or rejection of that person and his ideals. Knowledge of "what" these attitudes are, improves understanding of "why" they have come to be, and leads to acceptance of "how" they may be best utilized to affect the learning situation.

Everyone whose job it is to inform or to influence is vitally interested in the modification of attitudes. Teachers are most interested in those changes of attitude that are the primary responsibility of the profession. They are interested in education rather than propaganda as a means of influencing attitudinal change.

Definitions

Attitudes

Attitudes are "acquired dispositions toward groups of persons and toward social, religious, or political beliefs and institutions"(24) and represent the "activating or determining force of the course of behavior. . .an indicator of a future act."(4) They "incline an individual to make verbal statements denoting varieties of belief such as acceptance, doubt or disbelief."(3)

Opinion

Opinion has been defined as a "statement of belief in regard to some matter, a belief not so strong as a conviction, but stronger than an impression. Psychologically, an opinion, is a verbalized attitude. It may have any degree of strength."(26) "We use the word to describe our position on a specific issue."(24)

Although opinions are greatly influenced by underlying attitudes, they are not so directly affected by the emotions as are the attitudes upon which they are based.(24) This may be because that in verbalizing an attitude into an opinion--it undergoes a rational process which may counteract a part of the emotional element of the original attitude.

Attitude Scales

Attitude scales are devices which sample opinions; they

tap favorable and unfavorable estimations, or liking and disliking, or accepting and rejecting. Attitude scales aim to "tap the opinions of a wide range of endorsers and, as far as possible they seek to offer each endorser an opportunity to reveal the fundamental trend of his inclination toward an issue." (3) A prerequisite of an acceptable attitude scale is that it "should reflect as exactly as possible the existing points of view prevailing towards an issue or institution." (3)

Stereotype

A stereotype may be described as an "attitude based on insufficient knowledge and little subject to change. . . built on flimsiest evidence and tenacity with which held. . . in inverse ratio to amount of knowledge that would be necessary for intelligent and informed opinion." (26)

Prejudice

Prejudice in differentiation from a stereotype is an attitude "lacking in sufficient reasonable basis and maintained with some degree of emotion. . . may be positive, but usually implied a strong negative attitude and is most often applied to persons and groups." (26)

Psychology and Attitudes

Development of Attitudes

Allport has distinguished four common conditions

involved in the making of attitude:

- "1. The integration of many specific responses of a similar type.

√Example: Enjoyment and satisfaction in nursing of the acutely ill yielding positive attitudes toward nursing care of the postoperative thoracic surgical patient.√

2. The individuation of a definite mental set from a more primitive approaching or avoiding response.

√Example: Mind set of the student about the "role of a teacher" yielding an attitude response toward her reaction to patient teaching.√

3. The effects of some trauma or fixation resulting from a startling and dramatic experience.

√Example: Discovery of active tuberculosis in a classmate yielding an attitude regarding exposure of herself to a similar infection and sequellae.√

4. Ready made adoption through imitation of a majority group or of experts possessing prestige."⁽²⁾

√Example: Exposure of the student to recent literature about reduced mortality rates of tuberculosis yields attitudes as to her beliefs regarding the importance of the disease and its nursing care.√

The factors influencing the development of both attitudes and ideals must be very diversified to produce such a variety of results as are observed in attitudes. These consist of a great tangled complex of influences from home, community, social and economic circumstances and the total culture in which these influences operate.⁽²¹⁾

Although ideals are also closely related to attitudes, the use of the term indicates a more direct reference to personal standards. It is found that persons often use the term "attitude" to refer to their opinion concerning such points of reference for personal behavior standards. (24) There is, however, a considerable interdependence between attitudes and ideals. "In our relationships with persons who belong to groups toward which we have a favorable attitude, we are likely to hold to our highest standards of behavior." (24) This factor may account for the strength and frequency of the negative opinions of this study that are directed toward other nurses or nursing groups. It is further stated that "the person's attitude towards himself is the result of the real, or that which he assumes to be real, attitude of others towards him." (5)

Reference Groups

The use of the term "reference groups" indicates the source of attitudes and their change. Bonner states,

We become self-involved in these groups so that we identify ourselves with its members and develop loyalties to its ideals. The attitudes of others are our attitudes and we defend them with the greatest tenacity. The persistence of these attitudes and the lengths to which we go to preserve them can be explained only on the basis of the strong anchorage in reference groups. (4)

It is further noted that "Each reference group is a part of another reference group and. . . a larger frame of reference.

When the norms of these reference groups diverge and conflict the individual strives to reconcile them by various means, such as deceptions and rationalization. . ."(4)

The search continues for the answer to how and where attitudes are acquired. It must be remembered that the same laws of learning and motivation apply to all types of learned behavior. Most readily developed are those attitudes that bring security, self-esteem and the esteem of others; for it is these influences which energize the development of learned behavior.

Prejudices developing from negative attitudes develop also from the psychological need of the individual, intolerance resulting from seeking of security within a group. To have an identifiable "in-group" there must be a corresponding "out-group" made up of persons who differ in some way either real or imagined.

"If the members of the 'in-group' suffer extreme frustration from any source or cause, they are likely to vent their pent-up frustration in an aggressive action toward an 'out-group'."(24) This process is known as "scapegoating" and has certain characteristics of operation bearing on attitudes and on this study. The scapegoat must be (1) accessible to the "in-group" and unable to retaliate and they usually are, (2) established in the role of scapegoat-- that is, they have had the same role before for the same or

a different group and for the same or a different reason.(24) This characteristic use of attitudes is observed in operation frequently among student nurse groups.

The background of attitudes laid in early childhood is in conformity to that of the parents, in adolescence there is seeking to conform with the peer group and details and subtleties of attitude from that point on are added at a rapid rate.

In a recent study it has been determined that the attitudes of parents affect very markedly the attitudes of their children. A correlation of .80 to .87 has been found between the attitudes of parents and those of their high-school-age children.(29)

By adulthood the individual needs no longer debate how he will react to important problems--the individual response being determined largely by the quality of whatever philosophy and attitude is possessed as foundation material. Such a consistent set of attitudes gives meaning to life.(24)

Attitudes as Frames of Reference

Attitudes and ideals can be understood only when the emotional as well as the educational, socio-economic and cultural origins are adequately considered. The emotional background is what gives attitudes their vigor and is what is usually most difficult to analyze.(9) Because attitudes are generally emotionally toned, they are more intimately

identified with the personality than are most of the results of the learning process. An attitude "partakes of the nature of a generalized habit and may conveniently be thought of as any 'latent value reaction'."(23)

Ethnological evidence supports the beliefs that "attitudes will vary with the values, groups and cultures in which the person has his being."(4) But a person does not experience the whole of his culture and is not influenced by it as by something separate and apart from himself. The culture in the final analysis is

. . .interiorized in a specific manner by a particular individual in a particular group. An individual sees the world through a pattern of functionally related perceptions which encompass past and present experiences; he responds to new stimuli or situations in terms of these psychological frames of reference. . .(4)
We select some and are indifferent to others.(4)

Pressey and Robinson state this belief in another way. "Most important and most subtle of the determinants of attitudes is culture--the total complex of beliefs and values and accepted points of view of a nation, class or community."(21) Rarely, as has been stated, do persons "incorporate the whole of our society or culture in our attitudes and behavior; rather we participate in, or interact with members of, smaller groups. It is from these smaller groups that most of our effective attitudes spring."(4)

A direct source of the attitudes of student nurses, then, is the hospital community with which she identifies herself most closely. "The attitudes, ideals, and actions of the individual nurse will be determined by the concept she has of nursing."(16)

Attitudes in Education and Nursing

Sometimes the attitudes and philosophies of the primary groups, such as the family, are in harmony with those of the larger groups such as the community, the state and the nation. The task of the school is then fairly easy. Sometimes, however, the attitudes and philosophies conflict and this is the field upon which the educational program meets its real challenge.

It is recognized that students can and should be taught desirable attitudes and standards of behavior, but the teaching of desirable attitudes is a process encompassing a long period of time if the attitudes are to acquire sufficient intensity to be utilized as worthwhile determinants of a life philosophy.(24)

Attitudes not only "grow themselves out of the give-and-take between the learner and his surroundings, but when established they also affect markedly the nature of the future development."(23) Or, as has been stated

. . . schools can try to understand the emotional dynamics in back of attitudes and ideals and act accordingly. . . . All through the school years, attitudes and ideals are thus forming and changing as the result of many influences, some of them in the school. The school can be a very constructive influence in such ways. . . if it has understanding and will make an effort. And if it can work cooperatively with the home and /hospital/ community, then it can accomplish a great deal. (20)

An educational program can do more than influence attitudes directly and by verbal means in the classroom. It can artfully bring about situations which will operate for attitudinal change, not only superficially influencing attitudes of the individual student, but also it may affect group attitudes and eventually the group culture pattern. "Experience is very important in the formation of attitude." (21)

Curriculum may be interpreted to mean "the schematic arrangement of not only the materials of instruction but also the sum total of all the experiences of a clearly differentiated group of students for a certain period of time." (13) In this interpretation it includes the

. . . experiences of the student; essential facts, information, concepts, meaning and principles; procedures that are necessary for the development of skills, habits, attitudes, ideals appreciations; methods as are useful in teaching, supervision, guiding and evaluating results. In fact, such a concept of curriculum includes everything which may make changes within the student as a learner. (13)

Another concept of curriculum is that it consists of all of the learning activities in which the student

participates under the auspices of the school.⁽¹¹⁾ In this definition of curriculum we find dormitory living and physical factors as being an important influence on curriculum. This ties in to the picture of attitudes and nursing education when, as Bonner states, "attitudes always involve the relationship of the individual to specific situations in the environment."⁽⁴⁾ The test instrument utilized in this study attempts to measure the relationship of the student nurses to specific situations in the tuberculosis nursing environment.

Studies of efforts that have been made to change attitudes of students leads us to two conclusions. First, regular classroom instruction does not produce significant changes. Second, instruction that is aimed directly at creating change is very effective.⁽²⁴⁾

The teacher must know how to build a learning situation that will direct a student's behavior toward the objective of improved attitudinal climate that is socially desirable and personally satisfying. Heidgerken states the case for attitude instruction as follows:

All teachers recognize the fact that objectives of teaching include specific knowledge and skills. And this they plan for purposively. But many teachers are not even aware of the fact that it is also one of their responsibilities to help develop the emotional side of a student's learning, and therefore they completely neglect this third and equally important phase of teaching. Emotional type learning, that is, attitudes, appreciations, and ideals, should be as carefully and thoroughly taught as are skills and understandings.

Emotional type learning (mental states which are characterized by feeling and emotion) is termed the "affective state". Since the affective state colors all thinking and doing, it is the teacher's responsibility to guide and direct it in such a manner as will stimulate the intellect and motivate the will. Otherwise, if the affective state is neglected the student may develop attitudes against the school, against the teacher, against the subjects, against learning and education in general. . . . Thus it can be seen that, whereas the teacher cannot assign attitudes, appreciations, and ideals nevertheless it is her duty properly to direct and guide them to the fullest possible extent. The affective enters into and influences all other behavior to a greater or lesser extent. (13)

Modification of Attitudes

Since attitudes are usually defined as more or less enduring states of readiness to respond to objects of situations, it may be inferred that they are wholly static modes of adjustment. "Attitudes are by no means fixed and unchanging predispositions. Attitudes do change under normal conditions and in controlled situations the changes may be striking." (4)

Since learning of one kind produced these attitudes, it is clear that learning of another sort will change them. "In general, it seems that attitudes are retained only as long as they yield satisfactions." (23)

An example of this is cited by Hastdorf and Knutson who discovered that in some situations during the war when white and colored soldiers were united for the common purpose of winning, racial differences seemed relatively unimportant. When the common purpose was achieved, however, prejudices

quickly returned. In other words, the attitude changes observed seemed to be specific to the purposeful action situation, and did not endure beyond that situation. (12)

Numerous experimental studies in recent years testify to the possibility of modifying even the most resistant attitudes by the application of appropriate stimuli. (9,17,29)

It is difficult to evaluate satisfactorily the numerous studies dealing with attitude change. There are inconsistencies and contradictions in results of the various investigators. The chief defect in efforts to change attitudes has been the segmental type of approach. Most research workers during the past twenty years point to the need for an approach to the task as a whole--that is, changing attitudes not in a piecemeal fashion, but by proper manipulations of the entire culture. Piecemeal efforts can and will produce changes, but the persistence of changed attitudes is highly problematical. If more or less permanent changes are to be effected, changes in the culture are a prime requisite.

One study reported by the Division of Nursing Education of the National League for Nursing, which particularly queried the attitudes of student nurses about tuberculosis nursing, presents some interesting information.

When in answer to certain questions these students
/52 senior student nurses/ compared their own
performance with that of beginning practitioners
with whom they had been working they were of the

opinion that their competence was slightly better than average. In other words, the results of this questionnaire indicated that feelings of inadequacy were not a major cause for the dislike of tuberculosis nursing.

The questionnaire would reveal, however, that students found tuberculosis nursing to be the least challenging and least interesting of the curriculum experiences in the school program. Also, in replies to one of the questions which asked the students to check selected nursing situations that they had found to be traumatic, the most frequently checked situation was "caring for patients who cannot be cured and who become debilitated over a long period of weeks or months".

In general the patients selected for admission to the tuberculosis service of the test hospital had advanced disease and presented the problem of not responding to medical treatment. Thus they were not typical of those who would receive care in most tuberculosis hospitals. (9)

In many of these studies is found the assumption that imparting of facts or information per se does something beneficial to the associated attitude. While this can happen in fortunate and controlled situations, the psychological relationship is still complex--more complex is it still in the uncontrolled "human" situation found in nursing education. Such a change "usually implies that the larger or more inclusive mental reality is the emotionalized attitude that dominates the smaller and less dynamic sphere of limited fact--perception." (21)

Why facts or information (as such) fail to be effective in changing attitudes has been explained by Skinner in listing of five barriers:

1. A hard core of "know nothings" exists--hard to reach on any subject.
2. People who are already interested acquire the most information.
3. People seek information congenial to existing attitudes.
4. People tend to interpret the same information differently.
5. Information does not necessarily change attitudes--that is, merely "increasing the flow" of information is not enough. (21)

Attitudes and Motivation

Those who assume that rules and regulations do not apply to them, who have antagonistic attitudes toward teachers, indifferent attitudes toward lessons, and rebellious attitudes toward authority are seriously handicapped in nursing as in any other profession. But good attitudes can be acquired which will substitute for the bad--or the reverse may be equally true.

If she /the student/ recognizes nursing as an opportunity for creative work, she will be imbued with the desire for perfection, and seek knowledge through which will come understanding that insight through knowledge lays the foundation, through which practice may be most effective. (16)

Trow has diagrammed prospective and retrospective emotion in a manner that helps to interpret the attitude of the learner as a motivating force. The following diagrammatic representation is duplicated in part: (26)

<u>PROSPECTIVE EMOTION</u>	<u>RETROSPECTIVE EMOTION</u>
Success anticipated or assumed--	Success assumed or experienced--
Enthusiasm	Elation
Anticipation	Delight
Confidence	Joy
Hope	Satisfaction
(Curiosity)	(Relief)
===== Neutral =====	
(Timidity)	(Daze)
Worry	Disappointment
Anxiety	Regret
Dread	Sorrow
Despair	Grief
Failure anticipated or assumed--	Anguish
	Failure assumed or experienced--

Parentheses in the above suggest neutral or intermediate states. Distance above or below the line roughly indicates the degree of attitudinal intensity.

We are cautioned by Smith who reminds us that "although the direction of attitudes is reasonably easy to measure, their intensity is much more difficult to appraise." (24) Caution must be placed on our interpretation of attitudes; opinion sampling ordinarily measures only a person's verbal reaction toward certain things.

Exact prediction of behavior from attitudes is also impossible. This fact makes "subjectivism" in the present stage of knowledge inescapable.

An attitude is a subjective state whereas a conscious act is the realization of an attitude--action. The act is what the attitude means; the attitude means what the act does. This would be true under ideal conditions and completely objective knowledge of attitudes would then be

possible. But no such one-to-one correspondence between the attitude and behavior exists, as witnessed by such forms of behavior as insincerity and hypocrisy. (4)

The attitude of students toward the matter of transfer of learning at the time of a possible transfer experience has been shown to be highly significant in increasing the amount of possible transfer. It is admitted that other factors affecting the degree of transfer are probably present as well, but Skinner maintains that the attitude of learning readiness set up by any instructions given is of considerable significance. (23)

A good attitude toward study motivates the learner.

It means the learner has a proper mental set, the inclination, the desire to learn. Many an individual of mediocre ability achieves success superior to individuals of exceptional ability primarily because of a positive attitude. The difference between ability and effective ability can be attributed chiefly to such a positive attitude. (13)

Providing the task is suited to her ability, a student's learning will be much more effective with a positive or active attitude than with a negative or passive attitude. Attitudes of student nurses toward tuberculosis and tuberculosis nursing can, if properly nurtured, provide the proper mental set, the inclination, and the desire to learn. Attitudes of these same students toward learning can also increase the degree of transfer of learning in the educational setting and problems of this nature as pointed out by this study may thereby be minimized.

The Worth of Student Opinion

If it is accepted that attitudes of students influence to a large extent their motivation, then what the student thinks and how she reacts are important factors in the teaching-learning situation. "The students are the consumers of teaching, and they know what they can and cannot consume even if they are foggy about the reasons." (7) Other authors concur in the opinion that the evaluation by students of learning experiences is both valid and reliable in proper use. (15,19)

Heidgerken states the "pros" and "cons" of students' rating as follows: (14)

Pro

1. Basically--use of a major principle of learning which stresses the learner's attitude toward learning and teaching.
2. In essence a democratic practice--utilizes cooperative effort toward improvement.

Con

1. Not valid for many reasons
 - (a) students are incompetent to judge
 - (b) opinions immature and biased
2. Validity and reliability affected by too many factors
 - (a) individual interest
 - (b) "halo" effect
 - (c) lack of seriousness
3. Morale of teacher suffers if results used as an administrative tool.
4. Students feel they are the sole judges of the worth of the teacher and of course content.

Students admittedly cannot analyze teaching into its various elements, nor do they possess clear understanding of what constitutes the standards of good teaching. They do not need to have either to provide a valid attitude sampling. They can "answer specific questions about their own reactions, and that is all any [attitude] scale asks them to do. The interpretation of the results is not their business."(14)

Russell supports student evaluation as a democratic process by stating that the student is "a person with rights and privileges equal to the teacher."(22) It is felt by this author that teachers and administrators need to examine their own procedures to test them against a fundamental principle of democracy which he states to be "Whatsoever ye would that men should do unto you, do ye even so to them."(22)

CHAPTER III
PROCEDURE AND FINDINGS

Procedures Employed

Choice of the Test Group

The choice of the test group was influenced by its similarity in composition to the total enrollment picture. All six schools of nursing which offer tuberculosis nursing experience to their students through the facilities of the University State Tuberculosis Hospital were represented in the test period, June 18, 1956 through January 30, 1957. For a period of two years immediately preceding the test period, from June 21, 1954 to June 18, 1956, a total of 299 students received such tuberculosis nursing experience. Distribution of students among schools of nursing for the preceding two year period and for the seven and one-half month test period is indicated in Table I.

TABLE I
 DISTRIBUTION OF STUDENTS OF REPRESENTATIVE SCHOOLS
 OF NURSING DURING THE TEST PERIOD AND THE PRECEDING TWO YEARS

	June 21, 1954 to June 18, 1956		June 18, 1956 to January 30, 1957	
	Number	Per Cent	Number	Per Cent
School of Nursing--University of Oregon Medical School	75	25.5	24	25.5
University of Portland-- College of Nursing	49	16.5	15	17.0
Lewis and Clark College-- Department of Nursing	26	8.8	5	5.3
Walla Walla College-- Hospital Division ^a	39	13.0	21	22.3
Good Samaritan Hospital School of Nursing	65	21.9	19	20.2
Sacred Heart General Hospital School of Nursing	35	11.8	10	10.6
Emanuel Hospital School of Nursing ^b	10	3.4	none	none
TOTALS	299	100.0	94	100.0

Schools of both diploma and degree type programs in nursing use this affiliation. From June 21, 1954 to June 18, 1956, a period of two years prior to this study, 299 student nurses received this experience. One hundred ten, or

^aWalla Walla College students began having this experience in January 1955.

^bEmanuel Hospital students were discontinued from this experience area in November 1954.

36.8% were from diploma schools of nursing and 189, or 63.2%, were from degree programs. The eighty-two students included in the study include thirty, or 36.6%, diploma students and fifty-two, or 63.4%, degree students.

TABLE II
RELATIONSHIP OF STUDENTS OF THE TEST GROUP TO PREVIOUS ENROLLMENT
BY TYPE OF NURSING PROGRAM

Enrollment	June 21, 1954 to June 18, 1956		June 18, 1956 to January 30, 1957	
	Number	Per Cent	Number	Per Cent
Diploma students	110	36.8	30	36.6
Degree students	189	63.2	52	63.4
TOTALS	299	100.0	82	100.0

Choice and Compilation of the Test Instrument

Choice and compilation of the test instrument was influenced by the type of response desired and time limitations. For reasons of the necessity for individual response and the desire to maintain anonymity of replies, as well as lack of time for individual interviews, a depth questionnaire was the chosen instrument.

The questionnaire was compiled to sample attitudes of students about tuberculosis and tuberculosis nursing and to obtain information regarding past experience with the disease and its nursing care.

Administration of the Questionnaire

The trial draft of the questionnaire was administered to twelve student nurses on July 27, 1956. This number was only 57.1% of the total enrollment for that particular rotation period. Nine other students, representing 42.86%, were not on duty or for reasons of their inability to leave a specific assignment were not included.

There were no particular problems detected at that juncture. Suggestions regarding wording were incorporated into a second draft. Inasmuch as no item was completely changed and the wording changes were minor, it was decided that the original twelve questionnaires of the test run could be incorporated into the study.

Subsequent administration of the questionnaire to the remainder of the test group to a total of eighty-two was done by the research worker. The questionnaires were administered to the remaining seventy of the test group during a regularly scheduled class period. Except in instances of illness or absence previously excused by the clinical instructors, all students between July 30, 1956 and January 30, 1957 responded to the questionnaire.

The total number of students enrolled in tuberculosis nursing during the test period was ninety-four. Twelve students, or 11.8%, did not participate in the study, nine of which were among the first or trial group. A total of

eighty-two questionnaires were administered during the seven and one-half month period, yielding 88.12% sampling of the total test group.

In all instances the administration of the questionnaire was preceded by introductory comments or explanation to the test group. During the administration of the questionnaire any and all questions were answered regarding the test instrument. A permissive atmosphere was encouraged. Cooperative spirit among the test group appeared to be exceptionally high and the respondents appeared to enjoy a chance to have their opinions heard on several areas of question. In observing reaction of the students to the test instrument it was also noted that they frequently needed to confer with a fellow classmate as to what subjects or clinical experience they had had before. On these matters of information discussion was encouraged and, it is believed, increased the accuracy of the reports. The students were cautioned that as far as opinion and evaluation was concerned, however, that their individual thinking was what was desired.

It may be further stated that all questionnaires appeared to be honestly and frankly answered. No instance was found where attempts at comedy appeared to destroy reliability of the answers. Good humor, heavy underlining, irony or exclamation points were frequently found in the "remarks" column.

TABLE III
RELATIONSHIP OF NUMBER PARTICIPATING IN STUDY TO
TOTAL ENROLLMENT DURING TEST PERIOD

ROTATION PERIOD and Date of Questionnaire	TOTAL ENROLLMENT	PARTICIPATING Number	Per Cent	NOT PARTICIPATING Number	Per Cent
June 18, 1956 through July 29, 1956 Date: July 27	21	12	57.14	9 ^a	42.86 ^a
July 30, 1956 through September 16, 1956 Date: September 13	16	16	100.00	0	none
September 17, 1956 through October 28, 1956 Date: October 23	19	17	89.14	2 ^b	10.53 ^b
October 29, 1956 through December 16, 1956 Date: December 12	18	17	94.44	1 ^c	5.56 ^c
December 17, 1956 through January 30, 1957 Date: January 16	20	20	100.00	0	none
TOTALS	94	82	88.12	12	11.88

Tabulation of Data

The data collected from the administration of the questionnaire to the eighty-two student nurses have been tabulated numerically and in many instances percentage

^aNot all students were requested to participate for the trial run.

^bOne student was ill and one student had been excused because of a previous dental appointment at the time of administration of the questionnaire.

^cOne student was ill at the time of administration of the questionnaire.

analysis has been applied to establish more accurately the predominance of certain opinions. Consistency of opinion of the test group has been substantiated in several instances by the type of response entered in the "remark" column by a large number of respondents.

Inconsistencies are encountered in individual analyses of the questionnaires. There is no degree of correlation demonstrated between the opinion marked on the check list and the comments made in the "remarks" column. This is to be expected since attitudes are derived from a wide variety of sources during the formative years. Such inconsistencies are constantly encountered in the field of factual knowledge, so it cannot be wondered at in the field of attitudes where emotion frequently prevails over intellect, that attitudes are found to be even less consistent within the individual respondent. It has been noted in this study, however, that there is a typical pattern of attitudes or tendencies toward or away from the various aspects of the tuberculosis nursing experience and environmental factors studied.

In no instance was a unanimous answer received to any item of the questionnaire. It was discovered in the majority of instances that not only did certain negative or positive opinions predominate in the group as a whole, but that also when a high-low scale was checked by the respondents that if one area of the continuum did not receive a plurality choice,

the next most popular point indicated in the tabulations was always adjacent, either one point above or below on the same scale.

Findings of the Study

Three questions were asked at the beginning of the test instrument that were neither related to tuberculosis, tuberculosis nursing nor to past experience in regard to the disease. From these questions it was to be established

- (1) what was the mean chronological age of the respondent group,
- (2) what was the nursing experience level of the student as determined by months of clinical nursing experience completed and,
- (3) what was the degree of correlation between the above items, the type of nursing program in which the student was enrolled, and the attitudes reflected in the remaining questions of the test instrument.

From the above questions it was discovered that the student of a degree program in nursing averaged 22.2 years of age at the time of beginning her tuberculosis nursing experience. The range of age for the degree student was determined to be from twenty years seven months to twenty-eight years seven months, while the student of a diploma was

on an average .7 year younger and the range was nineteen years five months to twenty-seven years ten months.

TABLE IV
CHRONOLOGICAL AGE OF STUDENTS AT BEGINNING TUBERCULOSIS EXPERIENCE

	Diploma Students	Degree Students
Number of Students	30	51 ^a
Range--beginning ending	19 yr. 5 mo. 27 yr. 10 mo.	20 yr. 7 mo. 28 yr. 7 mo.
Average age of Students	21.53 yr.	22.20 yr.

Upon tabulating the data regarding the length of time the student had been in the school of nursing, if a diploma student, or in the clinical portion of her program if a degree student, a difference of only 0.98 months was discovered. The student from a degree-granting school of nursing had, on an average, 24.02 months of nursing experience before her tuberculosis nursing experience began; whereas the student from a diploma granting school of nursing had 23.04 months experience.

^aOne student failed to reply regarding date of birth.

Part I of the Questionnaire

Questions #1 and #2

It was discovered upon tabulation that of the eighty-two students surveyed by the questionnaire, thirty-eight had known at least one person who had or had had pulmonary tuberculosis and four students had known more than one person so diseased. Of the thirty-eight answering affirmatively to previous association of a non-nursing nature, the larger percentage of this number was found among those designated as "friends". This group accounted for twenty-six, or 61.9%, of the total. Those students having had "relatives" with the disease followed with twelve, or 28.6%, while those listed under "other" were only four, or 9.5%, of the total.

Of those persons specified under the classification of "other" two were indicated as being neighbors, one was a friend of a cousin and the fourth had attended the same church as the student reporting.

Forty-four of the students polled had had no contact with a tuberculous person, other than that of a nursing nature, prior to beginning this rotation.

TABLE V
 CONTACT WITH TUBERCULOUS PERSON (OTHER THAN A PATIENT)
 PRIOR TO ROTATION--BY RELATIONSHIP

	YES		NO	
	Number	Per Cent	Number	Per Cent
Relative	12	31.6	--	----
Friend	26	65.0	--	----
Other	4	3.4	--	----
None	--	----	44	100.0
TOTALS	42 ^a	100.0	44	100.0

Question #3

This represents the first attitude question asked in the testing instrument. The student was requested to state her feeling about tuberculosis nursing before coming to this rotation. The question was inserted at this point because it was desired to obtain a statement of attitude before the student had associated the question with any specific referent or before the course of the subsequent questioning indicated a referent. Stated feelings of the respondents were tabulated according to the natural groupings into which the statements fell.

^aFour students listed both a relative and a friend.

Fear of Contracting the Disease

Largest of the groups was the number of comments centered around fear of contracting the disease which totalled thirty. These attitudes were expressed in all strengths from the statement "I was sure I would leave here with TB" down to the expression of having some "misgivings" about this rotation. Two students specifically mentioned parental apprehension for their safety which had troubled them as they thought about this phase of their education.

Anticipation

The next largest group of statements centered around anticipation as to the type of nursing care involved in this clinical experience. The total of attitude statements for this category was twenty-one. Of these twenty-one, fourteen made some comment about the required observance of isolation technique as a part of the experience. Some students expressed interest in learning more about such technique as a self-protection measure; others viewed it as a necessary evil. The remaining seven expressions of feeling were anticipatory of nursing skills; two of the latter specifically mentioned use of psychiatric nursing skills with the tuberculosis patient.

Curiosity

The next larger group, composed of sixteen expressions, centered around curiosity, interest in learning about care of

these patients. Three stated a specific anticipation toward learning nursing care of patients with long-term illness.

Lack of Interest or Specific Disinterest

The next two groups were closely allied in attitudinal climate but, because of specific expressions used by the respondents, were tabulated separately. However, it should be noted that, if considered together, this composite group of statements, which reflects a general or specific disinterest in the subject of tuberculosis nursing, would outnumber the interested group.

Thirteen expressed impressions of unchallenging field of nursing, such as "routine type of care", "boring", and the feeling stated by a few as "I thought TB was being wiped out" or "was not too serious". The next half of the disinterested group includes those respondents who stated a lack of special feeling or interest or, as one student expressed it, "I had not thought much about it". This group numbers eleven.

Aversion

Closely following the above group in numerical importance, and totalling eleven also, there is a group of comments stating a variety of opinions but all homogeneous in that they are not a definite fear, but imply an aversion of a separate type. One student was frank enough to state that she (speaking about tuberculous patients) "did not want

to associate with them or take care of them by choice". Also mentioned were the connotations of tuberculosis as a terminal disease, depressing to care for, disease of the poor, debilitating symptoms and possessing of social stigma.

Educational Values

The next most important group, numerically speaking, are those students who expressed opinions in the line of educational values to be anticipated, achieved or tolerated. These varied from the pliable student who stated it was "just another rotation required by my school", to the young lady who said "I had to come, so I would try to like it", to the one who stated it was a "challenge to be met, a different type of work and I am grateful for the opportunity to learn about TB". This group totalled seven responses.

Miscellaneous

Four students specifically stated that they had no fear of the disease before the rotation and another five stated that they would enjoy the patient contact. Many students mentioned more than one of the above categories of attitude and two students failed to reply to the question. Frequently ambivalent attitudes were expressed such as "I felt it a challenge, but one in which I must carry out my isolation technique thoroughly so as not to contact the disease". And another encountered was "I did not know what to expect, but I was looking forward to this rotation. All the previous

students mentioned how nice the patients were, but that the work was quite routine and boring."

Questions #4 through #9

This series of questions dealt with previous contact with tuberculosis in the hospital situation in the period prior to the tuberculosis rotation. Fifty-one respondents stated that they had given nursing care to active pulmonary tuberculosis patients; thirty-one had not. Of the fifty-one who answered affirmatively, forty-nine indicated that they had cared for no more than five different patients, while two stated the patients in their experiences numbered between five and ten.

The types of nursing care required by these various patients was next indicated by the respondents and was discovered to be predominantly medical in nature. Measures most universally indicated were "individual isolation technique" and "bedrest regimen". Most students had experience in several of the prescribed measures listed. Usually, if only one item was checked, it was found to be "no isolation technique" which may indicate that during the time care was assigned to the student the patient was being treated for something else, or was undiagnosed. Such an answer is misleading in that while the student has cared for a patient who ultimately was determined to be tuberculous, if he was not being treated or had not been diagnosed at the time of her

care she did not learn to give nursing care for tuberculosis but for some other condition. Such a patient does not usually remain in the general hospital very long beyond diagnosis and only negative learning, at best, has taken place for the student. If the patient has had communicable tuberculosis to which the student has been unwittingly exposed, there may not only be negative learning, but "anti-learning" as attitudes are created which block further learning processes.

TABLE VI

MEASURES PRESCRIBED FOR TUBERCULOSIS PATIENTS CARED FOR BY
RESPONDENTS PRIOR TO TUBERCULOSIS EXPERIENCE

Measures	Number
Individual Isolation Technique	34
Group Isolation Technique	1
No Isolation Technique	25
Rest Regimen	34
Streptomycin or Dihydrostreptomycin	22
Para-aminosalicylic Acid	6
Isoniazid	12
Pneumotherapy	1
Minor Thoracic Surgery	2
Major Thoracic Surgery	11
Other: "draining wound"	1

Further inquiry was made into facilities for care of the tuberculous patient afforded by the general hospitals in which these students received the majority of their

experience. It may be supposed from the application of psychological principles previously stated that those hospitals which emphasize and provide prompt and specific facilities for diagnosis and care of the disease also foster more positive attitudes about tuberculosis among their student nurses. Such a premise, however, cannot be substantiated from the findings of questions six, seven and eight. The proportions are almost equally divided between "yes" and "no" answers and no conclusions can be drawn. X-rays are made on all hospital admissions according to 51.2% of the respondents and are not done according to 46.4%. A separate nursing unit for the care and treatment of tuberculosis and/or communicable disease is equally divided at 48.8% for both "yes" and "no". Both question six and seven had a very small percentage of "do not know" answers.

It is interesting to note further that in those hospitals which have separate units for care of tuberculosis and/or communicable disease, all do not assign student nurses for experience on these wards. Only nineteen of the eighty-two students, or 23.2% of those queried, had received nursing experience assignment on such a ward while such experience was available to 48.8% of the total number.

Of the nineteen students who had received experience on this type of segregated service the majority, or 89.5%, had received this experience during the last half of their first

TABLE VII
PROVISION FOR DIAGNOSIS AND CARE OF TUBERCULOSIS AT HOME HOSPITALS

	YES		NO		DO NOT KNOW	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Question No. 6 X-rays for All Home Hospital Admissions	43	51.2	37	46.4	2	2.4
Question No. 7 Separate Unit for Tuberculosis and/or Communicable Disease	40	48.8	40	48.8	2	2.4
Question No. 8 ^a Experience in Separate Unit for Tuberculosis and/or Communicable Disease	19	23.2	21	25.6	--	----

^aNote--Replies total 40 which is sum of "Yes" replies in Question No. 7

year or the first half of their second year in the school of nursing. Questions regarding assignment during the third year were found to be not applicable.

The first assignment to this segregated service varied from six months to twenty-four months after the student entered the school of nursing. The average student received her tuberculosis nursing experience at the University State Tuberculosis Hospital from twenty-three to twenty-four months after beginning in the school of nursing. In this, as in many other practices, wide divergence is found in the background of the student.

TABLE VIII
TIME OF FIRST ASSIGNMENT TO TUBERCULOSIS
AND/OR COMMUNICABLE DISEASE WARD

	Number	Per Cent
FIRST YEAR:		
First six months	0	0
Second six months	9	47.4
SECOND YEAR:		
First six months	8	42.1
Second six months	2	10.5
THIRD YEAR:		
First six months	0	0
Second six months	0	0
TOTAL	19	100.0

Part II of the Questionnaire

Part II of the questionnaire dealt with student reactions to three different areas of the curriculum as follows:

- (1) Subjects of classroom instruction
- (2) Specific areas of ward experience and observation
- (3) Other aspects of the rotation--largely environmental in nature

The first sections called for information of fact regarding previous instruction in the two areas (Column I of Tables A and B on the questionnaire) and opinions of students regarding their felt needs for instruction during the six week tuberculosis rotation (Column II of Tables A and B on the questionnaire).

The third section requested an evaluation of various aspects of the teaching-learning situation including relationships and facilities experienced by the students during the tuberculosis nursing rotation (Table C on the questionnaire).

Table A

Data collected from Table A of the questionnaire regarding classroom instruction have been tabulated according to rank order of replies of respondents on three specific areas. This tabulation yields information regarding three specific areas of inquiry:

- (1) Number of respondents having had no previous instruction on the listed subjects of classroom instruction,
- (2) Number of respondents feeling that more emphasis on the listed classroom subject was needed during the tuberculosis rotation, and
- (3) Number of respondents feeling that less emphasis on the listed classroom subject was needed during the tuberculosis rotation.

The students' background may be judged to be fairly comparable where the rank order of the classroom subjects of a related nature taught prior to this rotation are numerically approximate. It is interesting to note that the best correlation as demonstrated in the first column of Table IX includes ten classroom subjects. Rank orders from Table IX are indicated in parentheses to the right.

- | | | |
|----|---|------|
| A. | Community Action Against Tuberculosis | (9) |
| | Public Health Programs for Tuberculosis | |
| | Control | (10) |
| | Role of Agencies Serving Patient in Community | (11) |
| | Work of the Public Health Nurse | (12) |
| B. | Surgical Nursing Care of Tuberculosis | (4) |
| | Surgical Treatment for Tuberculosis | (5) |
| C. | Diagnostic Means in Tuberculosis | (17) |
| | Tuberculin Testing | (16) |

TABLE IX
 CLASSROOM INSTRUCTION PREVIOUSLY RECEIVED AND NEEDS EXPRESSED
 BY RESPONDENTS REGARDING THESE SUBJECTS TAUGHT
 DURING THE TUBERCULOSIS ROTATION^a

		I	II	III		
		No previous Instruction	More Emphasis	Less Emphasis		
Psychological Aspects of Tuberculosis.	(1)	58	(2) 37			0
TB and Co-existent Conditions (pregnancy, diabetes, etc.) . . .	(2)	54	(9) 21	(4)		2
Extrapulmonary TB Conditions as Related to Pulmonary TB. . . .	(3)	52	(6) 24			0
Surgical Nursing Care of Tuberculosis.	(4)	50	(10) 21			0
Surgical Treatment of Tuberculosis.	(5)	48	(11) 18	(4)		2
Pathological Processes in Tuberculosis.	(6)	47	(4) 30	(2)		4
Differential Diagnoses.	(7)	43	(14) 12	(2)		4
Medical Nursing Care in Tuberculosis.	(8)	41	(15) 11	(4)		2
Community Action Against TB The Voluntary Organizations . . .	(9)	39	(3) 33	(5)		1
Public Health Programs for Tuberculosis Control.	(10)	36	(12) 17	(4)		2
Psychology of Young Adults with Chronic Disease	(11)	36	(1) 48	(5)		1
Role of Agencies Serving the TB Patient in the Community. . . .	(12)	35	(5) 28	(5)		1
Work of the Public Health Nurse . .	(13)	33	(8) 22	(5)		1
Drug Therapy for Tuberculosis . . .	(14)	31	(19) 7	(4)		2
Role of Other Hospital Workers (dietitian, OT, Social Worker). .	(15)	31	(16) 8	(1)		5
Diagnostic Means in Tuberculosis. .	(16)	29	(17) 8	(3)		3
Tuberculin Testing.	(17)	23	(13) 15			0
Communicable Disease Aspects (including bacteriology).	(18)	7	(18) 8	(5)		1
Respiratory Anatomy and physiology	(19)	19	(7) 24	(5)		1

^aFigures appearing in parentheses to the left indicate the rank order of the subject as expressed by popularity of opinion by respondents. Numbers appearing to the right indicate the number of students choosing this response on the questionnaire.

- D. Tuberculosis and Co-existent Conditions (2)
Extrapulmonary Tuberculous Conditions (3)

While subject matter of teaching Area D above is not closely related in itself, there are several comparable components that warrant its consideration as a group. Student nurses have all had three months of general medical and surgical nursing before beginning this rotation⁽²²⁾ and many have had much more than that within the twenty-three to twenty-four month average length of nursing experience discovered in this query. Many have had obstetrical nursing as well. It may be assumed that these students have studied such disease conditions as diabetes and have had some urology and orthopedics. It would appear that various disease entities (i.e., Pott's disease or diabetes) when taught in medical and surgical nursing are taught in segments and are not related to other medical and surgical disease entities (i.e., tuberculosis).

The students' backgrounds may be judged to be dissimilar when the rank order of subjects of a related nature taught previously to this rotation are numerically distant in rank. Or, as should also be noted, certain transfers of learning from one area to another may not be readily discernable to the respondent. Applications of learning from the general problem to the specific subject have evidently not been made by many students. Examples of this poor correlation are

demonstrated in the following areas of teaching. Rank orders are indicated in parentheses.

- | | | |
|----|---|------|
| A. | Psychological Aspects of Tuberculosis | (1) |
| | Psychology of Young Adults with Chronic | |
| | Disease | (11) |
| B. | Diagnostic Means in Tuberculosis | (17) |
| | Differential Diagnoses | (7) |
| C. | Public Health Programs for Tuberculosis | |
| | Control | (10) |
| | Tuberculin Testing | (16) |
| D. | Medical Nursing Care for Tuberculosis | (8) |
| | Drug Therapy for Tuberculosis | (14) |

Analysis of the data from column two of Table IX shows a good degree of correlation of student opinion about what areas of instruction they feel need more emphasis in teaching on the tuberculosis rotation. Related subjects are again listed in areas of related teaching and rank orders are indicated in parentheses. Areas A and B show a high degree of correlation in that rank orders are numerically adjacent. Area C has a one number break in rank order. Areas D and E follow with a moderate degree of correlation shows by two intervening numbers of rank order and areas F and G show correlation of a lesser degree than any of the other five areas.

A.	Psychology of Young Adults with Chronic Disease	(1)
	Psychological Aspects of Tuberculosis	(2)
B.	Surgical Nursing Care for Tuberculosis	(10)
	Surgical Treatment for Tuberculosis	(11)
C.	Community Action Against Tuberculosis	(3)
	Role of Agencies Serving the Tuberculosis Patient	(5)
D.	Co-existent Conditions	(9)
	Extrapulmonary Tuberculosis	(6)
E.	Diagnostic Means	(17)
	Differential Diagnoses	(14)
F.	Public Health Programs for Tuberculosis Control	(12)
	Work of the Public Health Nurse	(8)
G.	Medical Nursing Care for Tuberculosis	(15)
	Drug Therapy for Tuberculosis	(9)

The subjects of Table IX indicated in the third column by students as those needing less emphasis includes three within the first and second rank orders. First of these is The Role of Other Hospital Workers and in second place are two subjects--Pathological Processes in Tuberculosis and Differential Diagnoses. The latter two hold a fairly high rank order (six and seven) among those subjects not taught previously to the tuberculosis rotation, but the Pathological

Processes also hold a rank order of four among those subjects felt by certain students to need more rather than less emphasis. No definite conclusions can be established from the rank orders assigned by students to subjects in Column III.

Numerical tabulation of all answers to Table A of the questionnaire, including the three specifically analyzed in Table IX will be found in Appendix B.

Table B

Data collected from Table B of the questionnaire provided information regarding ward experiences and observations. This information has been tabulated in Table X. The same information as carried by Columns I, II, and III respectively of the preceding Table IX has been used in Table X.

The best correlation demonstrated in Column I of Table X is found in three areas of instruction. Clinical experience backgrounds appear to be fairly comparable in the following areas:

- | | | |
|----|---|------|
| A. | Anti-tuberculosis Drugs and Their Effect | (7) |
| | Chronic Pulmonary Disease Care | (6) |
| B. | Chronic Pulmonary Disease Care | (6) |
| | Nursing Care of Young Adults with Chronic Disease | (8) |
| C. | Responsibility for "Specialling" | (10) |

Post-operative Care of Major Thoracic Surgery (11)

However, it should be noted under Area C above, that, while subjects received rank orders which were numerically adjacent and similarities of some degree are indicated, the number of students noting no experience in "specialling" of patients is actually twice the number having previous post-operative care of thoracic surgical patients. Students are evidently receiving experience in "specialling" of patients prior to this rotation, but not in the field of thoracic surgery.

Further comparison of figures from Table VI with Table X shows that while eleven patients in Table VI had had nursing care for major thoracic surgery that student nurses of this test group had not given the post-operative nursing care for five of those patients.

Analysis of the data from column 2 of Table X shows a high degree of correlation of student opinion about what areas of experience they feel need more emphasis during the tuberculosis rotation. Three related areas of experience including seven subjects display this correlation:

- | | | |
|----|--|-------|
| A. | Psychological Problems of the Tuberculosis Patient | (1) |
| | Nursing Care of Young Adults with Chronic Disease | (3) |
| B. | Responsibility for "specialling" | (5) |

	Post-operative Care of Major Thoracic Surgery	(4)
C.	Anti-tuberculosis Drugs and Their Effect	(9)
	Chronic Pulmonary Disease Care	(10)

TABLE X

WARD EXPERIENCES AND OBSERVATIONS PREVIOUSLY RECEIVED AND NEEDS
EXPRESSED BY RESPONDENTS REGARDING THESE SUBJECTS TAUGHT
DURING THE TUBERCULOSIS ROTATION

	I No Previous Instruction	II More Emphasis	III Less Emphasis
Pneumotherapy	(1) 68	(10) 10	(1) 4
Staff Conference Attendance	(2) 57	(7) 18	(2) 3
Psychological Problems of the Tuberculosis Patient	(3) 52	(1) 43	0
Observation of Fluoroscopy	(4) 47	(8) 16	(3) 2
Out-patient Clinic Follow-up	(5) 44	(6) 21	(1) 4
Chronic Pulmonary Disease Care	(6) 38	(11) 10	0
Anti-tuberculosis Drugs and Their Effect	(7) 37	(9) 11	0
Nursing of Young Adults with Chronic Disease	(8) 32	(3) 39	(4) 1
Patient Teaching	(9) 22	(2) 40	(4) 1
Responsibility for "specialling"	(10) 12	(5) 29	(2) 3
Post-operative Nursing Care of Major Thoracic Surgery	(11) 6	(4) 31	(2) 3

The subjects of Table X indicated in Column III by students as needing less emphasis include in the first rank order two of the observations, namely, "pneumotherapy" and "out-patient clinic follow-up". These observations are, in the present course of study, given one-half hour and two hours observation time respectively.

Of these, pneumotherapy is also listed in the first rank order of those experiences in which the student had no previous experience. It would appear that the student feels little need for this observation either before or during the tuberculosis rotation. The same appears to be true to a lesser degree of out-patient clinic follow-up.

Those subjects assigned a rank order of two by the respondents include "staff conference attendance", responsibility for "specialling" and "post-operative nursing of major thoracic surgery". The latter two hold a rank order of five and four respectively among those other respondents who felt that these subjects should receive more rather than less teaching emphasis.

Numerical tabulation of all answers to Table B of the questionnaire, including the three specifically analyzed in Table X, will be found in Appendix C.

Table C

In order to assist with the tabulation process of Table C of the questionnaire, scores were assigned to the

high-low check list or attitude scale statements as follows:

Excellent.	5 points
Good	4 points
Average.	3 points
Poor	2 points
Definitely lacking	1 point

No score was assigned wherever a student failed to respond to an item.

The maximum number of points for eighty-two questionnaires if all respondents evaluated the factor as "Excellent" would thus be 410 and the minimum points for unanimous agreement of "Definitely Lacking" would be eighty-two. Two hundred forty-six would be the "Average".

Range of answers by the respondent according to the evaluating word checked will be found analyzed as to frequency as well as point score in the master tabulation sheet for this section, Appendix C.

Scores on all aspects of the questionnaire Table C follow with contributions made by respondents in the "remarks" column being indicated:

I. NURSES HOME

a. Sleeping Rooms 275 points

Remarks received	32
Positive.	8
Negative.	24

Most consistent remarks:

1. Closets too small 10
2. Too crowded 7

b. Recreational facilities 256 points

Remarks received 18
 Positive. 5
 Negative. 13

Most consistent remarks:

1. Social contacts lacking,
poor facilities 7
2. Very meager especially
in winter months. 3

c. Residence Supervision 286 points

Remarks received 13
 Positive. 5
 Negative. 8

Most consistent remarks:

1. No one around during the
day; housemother not
present when needed 6
2. Housemothers very nice,
command respect 4

d. Late Leaves 278 points

Remarks received 30
 Positive. 6
 Negative. 24

Most consistent remarks:

1. Should have more. 17
2. Should be later 3
3. Hate to request more. . . . 3

Relative scores show recreational facilities evaluated as least desirable of factors queried in this category although the students verbalize their feelings most freely

on the question of late leaves and adequacy of sleeping rooms.

II. FOOD

a. Quality 285 points

Remarks received 20
 Positive. 4
 Negative. 16

Most consistent remarks:

1. Should have more of some item (meat, fruit, salad, or vegetables). 8
2. Too many casseroles, monotonous, or appearance not appealing 4

b. Quantity 333 points

Remarks received 12
 Positive. 6
 Negative. 6

Most consistent remark:

1. Too large servings. 4

c. Variety 275 points

Remarks received 12
 Positive. 1
 Negative. 11

Most consistent remark:

1. Too many casseroles and meat substitutes. 6

d. Meal Hours 333 points

Remarks received 1
 Positive. 0
 Negative. 1

Remark:

1. Should begin earlier in the morning 1

Several respondents entered remarks regarding food "variety" under the question regarding "quality". The sum of these remarks regarding use of casserole dishes and meat substitutes or monotony total fourteen. This appears to be the point of most negative comment.

III. LAUNDRY 227 points

Remarks received 8
 Positive. 2
 Negative. 6

Most consistent remarks:

1. Poor starching or dissatisfaction with laundry of school caps 3

The low point score on this item is a result of twenty-three students failing to reply to this item of the questionnaire. The failure of response in so large a number cannot be explained by the research worker, but such a result invalidates this question on a point comparison with other items.

IV. ASSIGNMENTS

a. On Duty Hours 273 points

Remarks received 36
 Positive. 7
 Negative. 29

Most consistent remarks:

1. Split shifts. 18
2. Work different hours each

	day, irregular and inconvenient hours. . . .	6
3.	Granting of special requests for time off . . .	4
b.	<u>Size of Assignment</u>	313 points
	Remarks received	18
	Positive.	10
	Negative.	8
	Most consistent remarks:	
1.	Not too much to do, help when needed, time to talk with patients	10
2.	Disproportionate between staff nurses and students	2
3.	Too large	2
c.	<u>Assistance When Requested</u>	356 points
	Remarks received	11
	Positive.	9
	Negative.	2
	Most consistent remark:	
1.	Cooperative, willing assistance, good teamwork, teaching-minded	9
d.	<u>Variety of Assignment</u>	289 points
	Remarks received	12
	Positive.	3
	Negative.	9
	Most consistent remark:	
1.	Routine duties, same patients too often. . . .	7
e.	<u>Length of Rotation</u>	289 points
	Remarks received	32
	Positive.	4
	Negative.	28
	Most consistent remark:	

1. Should be four weeks
(reason not stated) . . . 17
2. Do not need as long a
period (length of time
not specifically stated). 7

Highest score and fewest negative comments were received by the "Assistance When Requested" category. Highest number of all remarks were found in areas of "On Duty Hours" and "Length of Rotation". Remarks made regarding length of rotation were much more specific than about any other single item in the questionnaire. At the time of the administration of the questionnaire much discussion was occurring between educational directors in Oregon schools of nursing regarding this factor. Remarks entered by the students may be evidence of attitudes established by the procedure of adoption.

V. INTERPERSONAL RELATIONSHIPS

a. Students:instructors 351 points

Remarks received 18
 Positive. 12
 Negative. 6

Most consistent remarks:

1. Pleasant, interested, helpful,
understanding, teaching-
minded. 12
2. Seldom seen on patient
floors. 3

b. Students:Head Nurses 321 points

Remarks received 23
 Positive. 11
 Negative. 12

Most consistent remarks:

1. Active comparison of one individual or service with another, or a specific person named. 19
 2. Interested, take time, anxious to help 3
- c. Students:Doctors 313 points
- Remarks received 15
 Positive. 6
 Negative. 9
- Most consistent remarks:
1. See too seldom. 8
 2. Willing to teach, nice, helpful even if difficult "to catch" 6
- d. Students:Nurse Aides 346 points
- Remarks received 5
 Positive. 4
 Negative. 1
- Most consistent remarks:
1. Cheerful, willing, helpful, do not try to "boss". . . 4
 2. Do not help you finish your assignment 1
- e. Students:Patients 378 points
- Remarks received 5
 Positive. 5
 Negative. 0
- Most consistent remarks:
1. Patients are friendly, pleasant and appreciative 4
 2. Learned a lot from talking with them 1
- f. Students:Students 379 points
- Remarks received 6
 Positive. 5
 Negative. 1

Most consistent remarks:

1. Enjoyed meeting girls from other schools. . . . 2
2. Friendly, cooperative, congenial 3
3. Some tension noted. . . . 1

a¹. Nurse:Patient 349 points

Remarks received 13
 Positive. 2
 Negative. 11

Most consistent remarks:

1. Active comparison of one individual or service against another, or a specific individual named 5
2. Not enough time spent or impatience 6

b¹. Nurse:Doctor 324 points

Remarks received none

c¹. Patient:Doctor 291 points

Remarks received 15
 Positive. 0
 Negative. 15

Most consistent remarks:

1. Doctors do not take time to talk with patients, explain progress, answer their questions 12
2. Inconsistency among doctors 1
3. Patients complain, mass visits. 2

Respondents feel that best interpersonal relationships occur within their peer group--which relationship received the highest score and the lowest number of negative remarks.

Closely following in points scored is the "student:patient" relationship with no negative remarks. Psychologically, these reactions may be explained by a feeling of partisanship or direct responsibility of the student for relationships in these two areas. Next ranking score is accorded relations with clinical instructors followed by the "nurse:patient" relationship and "students:nurse aides".

It is interesting to observe in remarks made about the nurse and patient relationship that the comments made were largely negative and no evidence was observed of identification by the students as nurses themselves. There is a tendency in those remarks of the student and head nurse relationship, toward "scape-goating" of one service or individual.

Respondents feel that the relationship of nurses to doctors scores only slightly higher than that of students to doctors, or 324 points to 313. Of the former relationship they made no remarks and of the latter fifteen comments were made.

Poorest of all interpersonal relationships was accorded that between doctor and patient. All comments received in this category were general and no "scape-goating" was encountered, but all remarks were negative. This fact, combined with the lowest point score of the nine categories of interpersonal relationships, gives a doubly negative aspect to this factor.

VI. GENERAL WORK ATMOSPHERE 292 points

Remarks received 16
 Positive. 15
 Negative. 1

Most consistent remarks:

1. Good morale, pleasant,
friendly, relaxed
atmosphere. 14
2. Students are trusted. 1
3. Rushed when short
of staff. 1

The point score of this aspect, while only only point above the immediately preceding factor of patient:doctor relationship, is treated by the respondents very much differently under "remarks".. Whereas the previous category of patient and doctor relationship received fifteen negative comments, that of the general work atmosphere received fifteen positive and one negative remark. Fourteen students failed to respond to this question, but if only half of these fourteen had answered with the majority, this question would rank among the top five factors in point scores.

VII. INTERDEPARTMENTAL RELATIONSHIPS

a. Nursing:Dietary 315 points

Remarks received 5
 Positive. 3
 Negative. 2

Most consistent remarks:

1. Helpful, willing,
cooperative 3
2. Not enough patient
teaching. 1

3. Patients complain of
monotony in diet. 1^a
- b. Nursing:Occupational Therapy 320 points
- Remarks received 10
 Positive. 3
 Negative. 7
- Most consistent remarks:
1. None observed, absence
of worker 7^b
 2. Frequent visits, good
cooperation 3
- c. Nursing:Social Service 295 points
- Remarks received 8
 Positive. 1
 Negative. 7
- Most consistent remark:
1. Functioning not observed,
no contact, did not see
worker. 7

Best relationships were felt by respondents to be between the nursing and occupational therapy departments and the nursing and dietary departments. However, a range of only twenty-five points is found over the three categories. Negative remarks, where occurring, all had to do with a felt lack of services to patients or lack of observation by students of the service of these departments. Comments made

^aComment was made under this category and although it does not appear to be a problem of nursing and dietary inter-departmental relationships it is tabulated here.

^bOccupational therapist absent because of illness beginning December 17, 1956. All negative remarks received were on questionnaires administered January 27, 1957.

by respondents were not felt to evaluate relationships as much as services.

VIII. HEALTH PROGRAM

a. Student Health Service 325 points

Remarks received 9
 Positive. 4
 Negative. 5

Most consistent remarks:

1. It is a long way to walk to health clinic when you are ill 4
2. Complete, interested in students. 2
3. Sounds good--have had no personal contact 2

b. Infirmary Care 226 points

Remarks received 16^a
 Positive. 1
 Negative. 1

Most consistent remarks:

1. No acquaintance with this service. 14
2. Too far from Gaines Hall. 1
3. Good care 1

c. Tuberculosis Detection 370 points

Remarks received 3
 Positive. 3
 Negative. 0

Most consistent remarks:

1. Complete; good follow-up. 2
2. You feel safer. 1

^aFourteen remarks, neither positive nor negative, stated "no knowledge about this facility".

d. Personal Health Education 337 points

Remarks received	2
Positive.	0
Negative.	2

Most consistent remarks:

1. Needs more emphasis . . . 1
2. Lacking as far as
 hygiene 1

The area of the Health Program, inclusive of all aspects, ranks high on a point score. The lowest score, accorded to "Infirmery Care", is due in large measure to twenty-three students who failed to reply. Failure to reply is felt to be due largely to the fact that infirmery facilities were used by only one of the eighty-two respondents in the seven and one-half months. University of Oregon nursing students are more familiar with this service than affiliating students, of course, but there are only twenty-five students (including University of Oregon students) who are known to have had personal contact on which to base an opinion. Fourteen students under "remarks" stated their inability to voice an opinion because of lack of information. It appears that the forty-three remaining, who most likely had no personal contact, nonetheless had and expressed opinions about the infirmery care.

The highest point score under Health Program was accorded the "Tuberculosis Detection Program". Among aspects evaluated, exclusive of those mentioned under Interpersonal

Relationships in which students were evaluating themselves, the tuberculosis detection program received the highest score of any aspect of Table C of the questionnaire.

IX. PROTECTION FROM TUBERCULOSIS

a. Workable Technique 343 points

Remarks received 5
 Positive. 2
 Negative. 3

Most consistent remarks:

1. Breaks in technique, patients do not recognize technique 2^a
2. Good when not too warm. 2
3. Gown room too crowded 1

b. Adequate Equipment 342 points

Remarks received 4
 Positive. 3
 Negative. 1

Most consistent remarks:

1. Inadequate handwashing facilities. 1
2. Adequate sterile supplies, equipment is somewhat old 2
3. Appears good--no basis for comparison. 1

c. Adequate Supplies 347 points

Remarks received 2
 Positive. 2
 Negative. 0

Most consistent remarks:

^aComment was made under this category and although it does not appear to belong here it is so tabulated.

1.	Appears good--no basis for comparison.	1
2.	Good instruction.	1 ^a
d.	<u>Consistency</u>	311 points
	Remarks received	4
	Positive.	0
	Negative.	4
	Most consistent remarks:	
1.	All persons not equally conscientious in observance of isolation technique.	3 ^a
2.	Negative comment about a specific individual	1
e.	<u>Patient Education</u>	325 points
	Remarks received	5
	Positive.	1
	Negative.	4
	Most consistent remarks:	
1.	Active comparison of one nurse or service against another	2
2.	Depends on patient--some cannot learn.	2
3.	Very good	1
f.	<u>Other Personnel</u>	308 points
	Remarks received	6
	Positive.	0
	Negative.	6
	Most consistent remarks:	
1.	Some janitors do not understand.	2
2.	Some of staff appear lacking (work classifica- tion not stated).	3
3.	Visitors need instruction	1

^aComment was made under this category and although it does not appear to belong here it is so tabulated.

In comparison to other aspects evaluated, "Protection from Tuberculosis" received a rating slightly higher than average. Highest scores were awarded in the first three areas or those having to do with principles and the means by which they may be executed. Next highest point rating was "Patient Education" with "Consistency" and "Other Personnel", or the human factors, receiving the lowest scores. Highest number of negative remarks made were also regarding persons rather than principles.

X. LIBRARIES

a. Ward Libraries 273 points

Remarks received 7
 Positive. 0
 Negative. 7

Most consistent remarks:

1. Books outdated. 6
 2. Number of books not
 adequate. 1

b. TB Hospital--Instructors' Office 295 points

Remarks received 14
 Positive. 2
 Negative. 12

Most consistent remarks:

1. Available, good considering lack of space 2
 2. Inadequate for needs, too small 5
 3. Outdated, no current text in TB nursing. . . . 7^a

^aLast textbook in tuberculosis nursing published in 1950, but is now outdated.

c. Medical School Library 365 points

Remarks received 5
 Positive. 1
 Negative. 4

Most consistent remarks:

1. Did not use frequently,
 "too far for my needs". 2
2. Good hours. 1
3. "Excellent--but not on
 tuberculosis" 1
4. Books outdated. 1

Library facilities other than the Medical School Library are evaluated by respondents to score lower than average of all other factors evaluated in Table C of the questionnaire. Largest single area of remark regarding libraries is the lack of availability of an up-to-date reference or textbook in tuberculosis nursing.

Part III of the Questionnaire

The third part of the questionnaire dealt with the feelings of the student at the close of the tuberculosis rotation and included seven questions. From the stated opinions of the respondents definite attitudes and values are indicated. Statements of feelings of the student about tuberculosis nursing, and favorable and unfavorable impressions were elicited. The respondents were asked to indicate possible employment they could make of favorable impressions received in this experience and suggestions for correction of those that were unfavorable to them. It was the goal of this

series of the first five questions not only to obtain attitude statements, but also to promote analytical thinking regarding these attitudes.

Questions six and seven of this part of the questionnaire were requested for the purpose of ascertaining respondents' opinions as to what was tuberculosis nursing. By requesting their statements of relative importance of what they felt to be the three most important duties or functions of the tuberculosis nurse, better insight may be gained into students' attitudes regarding needed knowledges, skills, abilities and appreciations for this field of nursing. The last question dealt with which of the personal characteristics or previous learnings brought by the respondent to this experience were felt by them to be most important or helpful in this learning situation.

Question #1

Eighty-one of the eighty-two students responded to this question regarding a change in their feelings about tuberculosis at the end of the rotation. Eighteen indicated that they had had no change in feeling. Additional comment was not requested for a "no" response, but ten students of the eighteen elaborated on their negative reply as follows:

Felt that the experience was as they had anticipated it to be as a learning situation or possible field of interest 4

Felt a continuing fear of contracting the disease 2

Made comments specific to isolation technique feeling it to be either necessary, adequate, or of a routine nature. 4

Of the sixty-three who responded affirmatively regarding attitudinal change, fifty-seven expressed this change in a positive statement and six with statements of a negative nature. Some students made statements in more than one area of the tabulation. Expressed changes are as follows:

Positive

Lost fear of contracting the disease, less dangerous than previously thought 17

Feel work more interesting than anticipated, not routine, not boring 11

Learned much about isolation technique, feel more secure in patient care because of this . . . 10

Feel patients not depressing, but enjoyable; atmosphere pleasant, expressed need to break down stigma in others 10

Feel this type of nursing a definite challenge, real patient care problems discovered, important phase of nursing. 9

Realize patient needs for help with emotional problems or long-term illness problems and need for nurses' help with these. 8

Increased knowledge of disease changed opinion--(not further elaborated) 5

Would like to work in tuberculosis hospital now--(reason not stated). 1

Negative

Retain fear of undiagnosed tuberculosis, dread return to this type of case in general hospital. 3

Work is very routine, no challenge. 3

Still afraid of tuberculosis.	1
TOTAL	72

Question #2

A total of twenty-eight factors were listed by respondents as favorable impressions. The rank order of these factors is listed as follows:

Rank Order		Number of Replies
1	Acceptance and consideration given to students, independence allowed	22
2	Staff-patient rapport (all categories of personnel except medical included in tabulation).	21
3	Patients' acceptance of illness, morale, cheerful, friendly attitude.	20
4	Cooperation and friendliness between staff members and hospital departments	19
5	Understanding "humanness" of instructors and supervisors.	18
6	Isolation technique, importance placed on and consistency of, workability of	15
7	Good patient care both medical and nursing.	14
8	Instruction program for students, continuity, simplicity, and completeness of	12
9	Concern of staff for individual patient welfare, emotional support, social and psychological.	10
10	Low work pressure, more time to spend with patients, knowledge you can complete an assignment	10
11	Patient teaching program, well-informed	

	personnel, all staff teaching patients . . .	10
12	Tension-free atmosphere, homey, cheerful, relaxed.	9
13	Good organization of ward work	9
14	Occupational therapy offered	7
15	Tuberculosis detection program for students and employees	6
16	Interest of patients in helping each other.	6
17	Close student-patient relationship, a chance to really get to help them.	5
18	Follow-up care of patients after discharge.	4
19	Good food.	4
20	Complete cooperation of students from so many schools of nursing.	4
21	Positive treatment methods used in tuberculosis	3
22	Working with younger patients.	3
23	Cooperation of so many organizations against tuberculosis	2
24	Emphasis given to bedrest treatment.	2
25	Patient-doctor relationship.	2
26	Equal treatment of patient whether pay or non-pay	1
27	Plenty of supplies	1
28	Physical set-up--patient rooms and facilities	1
	TOTAL.	240

Question #3

Of the eighty-two respondents, thirteen failed to reply to this question as to how these learnings could be utilized by them in future years and work. The remaining sixty-nine replied in a variety of ways. Some answered in a personal vein whereas other student nurses replied in broad concept statements. These comments have been broken down into four large areas of application with tabulation as follows:

Application of a Nursing Nature

Knowledge of isolation technique can be used to improve nursing care in general hospital situation	9
Improved ward organization ideas obtained . . .	4
More learned about good bedside nursing care. . .	4

Application of a Personal Nature

Patient attitudes an inspiration.	1
Learned "how to be a good patient if I ever become one"	1
Regained enthusiasm for nursing	1

Application of a Psychological Nature

Importance of applied psychology--general . . .	7
How to work with patients.	6
How to work with people.	2
How "to treat student nurses when I become a graduate"	4
Importance of good working atmosphere	3
Importance of good rapport between co-workers .	6
Concept of individuality of the patient	3

Applications of Sociological Nature

Importance of tuberculosis, need for better case-finding.	6
Education of patients and the public a nurse's duty.	5
Importance of complete nursing care as a positive rehabilitation factor.	8
TOTAL	70

Question #4

In reply to inquiry about factors producing least favorable impressions, seventy-nine respondents indicated a total of fifty factors. There is great diversity among the types of factors producing unfavorable impression as well as in the number of respondents evaluating the factor as unfavorable. Four students failed to reply to this question.

Rank Order		Number of Replies
1	Too much time spent in routine nursing duties	18
2	Poor attitude of graduate nurses to students	17
3	Poor food.	16
4	Lack of day-room facilities for patients, have no entertainment, smoke in bathrooms, etc.	15
5	Poor hours assigned students, split-shifts	14
6	Poor isolation technique practiced by some	12
7	Patients not adhering to up-time schedules or cough technique	11

8	Not sufficient work to do during "rest hour".	9
9	Poor objectivity of some staff in dealings with patients	8
10	Examinations over material not well covered in classroom	7
11	Doctors spend too little time with patients	5
12	Long coffee breaks and lunch hours taken by some personnel.	4
13	No textbook for course, hard to follow . .	4
14	Classroom temperature too warm	3
15	Poor housing, dissatisfaction with dormitory.	3
16	Lack of opportunity to observe procedures done	3
17	Limitations on patients' space for belongings, telephone service, radios, etc.	2
18	Lack of concern for rehabilitation and physical therapy needs of patients	2
19	Length of rotation	2
20	Rushing of patients at meal times.	2
21	Carelessness of visitors about technique .	2
22	Poor nurse-patient relationship in out-patient clinic	2
23	Inconsistency where several doctors are taking care of one patient	2
	TOTAL.	153

In addition to the above remarks there were twenty-seven factors which were indicated as unfavorable by only one respondent. These have not been tabulated.

Question #5

A variety of methods were suggested by the respondents to overcome factors which impressed them unfavorably. Means of solution which were offered by the respondents are tabulated according to authority for initiation of such action. Numbers following each solution refer to the rank order of factors providing unfavorable impressions as listed on the preceding pages. Example: "Change of Employee" was suggested by respondents as the means of solving problem factors--number 2 or poor attitude of graduate nurses toward students, and number 22 or poor nurse-patient relationships in the out-patient department.

Administrative Action

Change of employee involved--2-22

Make a definite ruling--12-20

Stress importance to doctors--7-23

Disciplinary action--6-7

In-service education--2-6-9

Purchase or repair of equipment, remodel
facilities--4-6-14-15

Employ more non-professional workers--1-5-14

Administrative inquiry--3-18

Increase patient privileges--1-4-17

Provide more occupational therapy, movies, etc.--4

Supervisory Nursing Action

Reapportionment of work duties--1

Counseling or conference with employees--2-3-6-9-11-12

Better planning to avoid problem--1-3-5-8-15-16

Better supervision of workers--1-2-6-7-9-21-22

Better nursing care standards--7-9

Better patient teaching--7

Better family teaching--21

Educational Program Improvement

Increase observations and learning activities of student, broader educational objectives--1-8

More attention to problem by instructors--10

Obtain (or write!) a textbook--10-13

Shorten the rotation--1-19

Better class organization or planning--1-8-10

More ward classes--8

Change class hours--8-10

Project for students to do--4

Miscellaneous

Petition for a change--4

Make a survey--3

Need more time--3-7-11-16

Need more money--3

Need more student nurses--5

Need less student nurses--14

No excuse for this to happen--3-5

No solution suggested by respondents--1-3-5-7-8-9-17-23

Question #6

The most important functions or duties of a tuberculosis nurse in order of importance are felt by the respondents to be as follows:

	Total
1. Psychological support, real interest in patient, ability to work smoothly with patients and staff	58
Rated as first.18
Rated as second21
Rated as third.19
2. Patient teaching	57
Rated as first.24
Rated as second21
Rated as third.12
3. Good physical care, medications and treatments carried out	43
Rated as first.12
Rated as second18
Rated as third.13
4. Improve patient adjustment and morale.	28
Rated as first.	4
Rated as second	9
Rated as third.	15
5. Isolation technique for self-protection and prevention of disease spread	23
Rated as first.	4
Rated as second	9
Rated as third.	10
6. Knowledge of disease, assurance with work and understanding of factual material.	11
Rated as first.	4
Rated as second	4
Rated as third.	3

7.	Carry out doctors' orders, a medium between the doctor and the patient	10
	Rated as first.	5
	Rated as second	2
	Rated as third.	3
8.	Observing and reporting.	3
	Rated as first.	1
	Rated as second	1
	Rated as third.	1
9.	Maintenance of an orderly and well-run ward as good patient environment	3
	Rated as first.	0
	Rated as second	1
	Rated as third.	2

Question #8

Views of students regarding the most important abilities brought to this rotation either personal or professional have been tabulated in six major categories as follow:

<u>Personality factors</u> --cheerfulness, sense of humor, interest, self-confidence.	24
<u>Nursing skills previously learned</u>	16
<u>Communication type skills</u> --understanding patients' problems, teaching ability, ability to listen	15
<u>Interpersonal relationship factors</u> --ability to get along with people, liking for people.	12
<u>Intellectual capacity</u> --ability to adjust, interest in learning, open mind	10
<u>Physical factors</u> --"strong back", endurance.	3
TOTAL	80

Several respondents to question number eight listed more than one category of abilities and seven failed to respond.

CHAPTER IV

SUMMARY, CONCLUSIONS, IMPLEMENTATION OF FINDINGS AND RECOMMENDATIONS FOR FURTHER STUDY

Environment for learning includes all of the teacher's activities relative to the creation and maintenance of both physical and social factors of environment which are conducive to effective learning situations and maximum learning activities. In the fulfillment of the duty, the teacher must set up favorable environmental learning situations as well as eliminate unfavorable ones. She can so improve and control the environment only by being aware of and thoroughly understanding desirable kinds of environmental learning situations. She must also know how to diagnose unfavorable environmental learning situations in order to substitute for them. (21)

Summary

Between June 18, 1956 and January 30, 1957 eighty-two depth questionnaires were administered by the research worker to student nurses who were at the time of administration of the test instrument receiving basic nursing experience in the field of tuberculosis. Students queried were from six schools of nursing and were representative of both diploma and degree types of schools of nursing in Oregon. Participants included 88.12% of the total student nurse enrollment at the University State Tuberculosis Hospital, Portland, Oregon during the test period, and included students from five rotation groups.

The questionnaire was compiled to sample students' attitudes about tuberculosis and the tuberculosis nursing experience and to obtain information regarding their past experience with the disease and its nursing care. Query of students was undertaken regarding fact and opinion in the three following areas:

- I. Previous to this rotation
- II. During this rotation
- III. At the end of this rotation

Data compiled from questionnaire responses were tabulated numerically. Opinions expressed by students regarding course content and the environment of the educational experience were tabulated according to placement on a check list to yield information regarding positivity or negativity of opinions expressed. Free remarks entered by the students regarding the educational environment were tabulated according to area of comment. No degree of correlation was demonstrated between the opinion marked on the check list and the type of free comments made, although types of comments made were highly consistent within each rotation group and to a lesser extent consistent for all respondents as a whole. Analysis was made of data provided from the expressed opinions in Part III of the questionnaire relative to areas in which most suggestions for improvement or indications of satisfaction were indicated by the respondents.

Conclusions and Their Curricular Implications

There is no degree of homogeneity indicated in the backgrounds of student nurses as they enter the tuberculosis nursing portion of their curriculum. It would appear that unless students can be divided into homogeneous groupings, the divergence in background of the students will create a very severe problem to the faculty as curriculum changes are implemented. It does not appear that division of students into groupings of diploma and degree students will answer the problem of diversity of background indicated by this study.

There are demonstrated typical patterns of attitudes regarding various aspects of student nurses' experiences in tuberculosis nursing and the environmental factors studied. Expressed attitudes on the check list tend to rate individual factors as average or above. Free comments made in the remarks column are predominantly negative in nature. Student nurses appear eager to have offered an "ear" for their negative feelings about many environmental factors related to nursing situations.

Nursing care of tuberculosis patients was experienced prior to this rotation by nearly two-thirds of the test group. This experience in 96% of those answering affirmatively was limited to five or fewer patients. Feelings of students as they approach the tuberculosis nursing experience are predominantly negative.

The majority of students felt that in all subjects of classroom instruction except one, the emphasis was adequate for their needs. The majority of students felt that in all subjects of ward experience but one, the emphasis was adequate also. The subject of classroom instruction and ward experience in which more teaching emphasis was desired by students in both instances dealt with the psychological aspects of nursing care.

Students expect subject matter to be taught in a specific application to disease entities. Transfers of learning from the general subject to the specific field of application are not perceived by many students. Science content of the curriculum basic to clinical nursing is felt by students to need review at this point in the course of study.

Analysis of expressed opinions regarding course content favors an increase rather than a decrease in subject matter in both the classroom and clinical practice areas. At the same time, opinion is expressed favoring a shorter rotation period. These two factors are creative of conflict in reference to curriculum planning and may also be indicative of ambivalence in the respondents.

If both areas of student opinion in the above-mentioned conclusion were to be acted upon, evaluation of the entire curriculum would appear to be indicated if greatly increased subject matter is to be included while the rotation time is correspondingly decreased.

Suggestions for Further Study

Further inquiry into student backgrounds of experience may well be made. A more thorough analysis of previous learning experiences, both in the classroom and the clinical practice areas, may yield evidence on which can be based a rational division of students into homogeneous groups. For groups possessing comparable backgrounds, teaching of tuberculosis nursing can progress on a more uniform level. Individual differences of students' backgrounds presently occupies a large amount of instruction time that could be better utilized.

Experiments would appear to be desirable wherein various methods of teaching could be employed in nursing education in an effort to economize on teaching-learning time. These could well be accompanied by the development of evaluation devices to assist in deciding when the optimum of learning has been reached.

It appears that in nursing education, as in other areas of schooling, the development of attitudes, ideals and appreciations receives little consideration in the planning of teaching-learning situations. Inquiry into what is being taught and how it is being taught in this area of intangibles would appear to be a highly profitable, if somewhat difficult, area of investigation.

Studies have been made in the field of general education

regarding students' attitudinal change following a specifically defined and carefully controlled learning situation. Such studies would appear to be profitable in the field of nursing education as guide-posts for instructors who wish to improve the development of attitudes related to their own particular and unique type of instruction.

Regarding the background of student nurses prior to the tuberculosis nursing experience, two further studies may prove enlightening. The first of these suggested is an inquiry into the content and methods utilized by the faculty of the home school in their orientation program provided students regarding the tuberculosis nursing experience. Students come to this portion of their curriculum with seemingly little or varied concepts as to what they are to learn in this area and its place in the total curriculum pattern.

Since the attitudes of instructors in the schools of nursing undoubtedly have some effect on the attitudes of the students whom they teach, a second study in the home schools is suggested. Inquiry into the attitudes possessed by faculty members in the various Oregon schools of nursing about tuberculosis nursing and long-term illness should be both interesting and rewarding.

As curriculum changes are constantly being considered in various schools of nursing, it would appear advantageous if the curriculum committee of the School of Nursing of the

University of Oregon Medical School would undertake a study of elements of tuberculosis nursing as they affect the total curriculum of the student. In both the area of basic science subjects and in beginning nursing experiences, there appear to be problems which influence the acceptance of students of this portion of their curriculum. Study of these problems from a curriculum standpoint by a committee composed of faculty in many areas of nursing instruction may well give information valuable for consideration in changes of a curricular nature.

BIBLIOGRAPHY

1. Adams, Betty Jean and Crenshaw, Virginia P. Tuberculosis Nursing for Students, The American Journal of Nursing, 52:1503-06, 1952.
2. Allport, Gordon W. Attitudes, Handbook of Social Psychology, Clark University Press, Worcester, Mass., 1935, as quoted in Skinner, Charles E., Educational Psychology, Prentice-Hall, Inc., New York, 1952.
3. Bird, Charles. Social Psychology, D. Appleton-Century Company, New York, 1940.
4. Bonner, Herbert. Social Psychology, An Interdisciplinary Approach, American Book Company, New York, 1953.
5. Brown, Francis J. Educational Sociology, Prentice-Hall, Inc., New York, 1947.
6. Cady, Louise and Douglas, Marion. Tuberculosis Nursing Affiliation, The American Journal of Nursing, 50:250-53, 1950.
7. Cole, Luella. The Background for College Teaching, Farrar and Rinehart, New York, 1940.
8. Contract for Affiliation used at the University State Tuberculosis Hospital.
9. Division of Nursing Education, National League for Nursing, Toward Better Nursing Care of Patients with Long-Term Illness, National League for Nursing, New York, 1956.
10. Good, Carter V. and Scates, Douglas E. Methods of Research, Appleton-Century-Crofts, Inc., New York, 1954.
11. Gregerson, Lucile. Lecture in the course Curriculum in Schools of Nursing, Portland, Oregon, April 1, 1953.
12. Hastdorf, A. H. and Knutson, A. L. Notivation, Perception and Attitude Change, Psychological Review, 56:88-94, 1949.

13. Heidgerken, Loretta E. The Nursing Student Evaluates Her Teachers, J. B. Lippincott Company, New York, 1952.
14. Jones, Margaret. How Effective is My Teaching?, The American Journal of Nursing, 51:135, 1951.
15. Kempf, Florence C. The Person as a Nurse, The Macmillan Company, New York, 1950.
16. Lagey, J. Social Factors Related to Attitude Change in Students, Sociology and Social Research, 39:401-03, 1955.
17. Minutes of the Tuberculosis Nursing Advisory Service, New York City, January 3, 1957.
18. Nichols, Grace W. Evaluation of Clinical Experience, The American Journal of Nursing, 42:566-68, 1942.
19. Oregon State Board for the Examination and Registration of Graduate Nurses, Minimum Curriculum Requirements for Professional Schools of Nursing, adopted November 3, 1955.
20. Pressey, Sidney L. and Robinson, Francis P. Psychology and the New Education, Revised Edition, Harper and Brothers Publishers, New York, 1944.
21. Russel, John Dale. Making Democratic Ideals Effective, The American Journal of Nursing, 42:934-41, 1942.
22. Skinner, Charles E., Ed. Educational Psychology, Prentice-Hall, Inc., New York, 1952.
23. Smith, Henry P. Psychology and Teaching, Prentice-Hall, Inc., New York, 1954.
24. Triggs, Frances O. and Bigelow, Ellen B. What Student Nurses Think About Counseling, The American Journal of Nursing, 43:669-72, 1943.
25. Trow, William Clark. Educational Psychology, Second Edition, Houghton Mifflin Company, New York, 1950.
26. Tuberculosis Nursing Advisory Service, National League for Nursing. Facts About Tuberculosis Nursing in Hospitals, Basic Schools of Nursing and Public Health Nursing Services--United States, National League for Nursing, New York, 1954.

27. Wago, Helen. An Analysis of the Expressed Attitudes of Graduate Nurses Towards Tuberculosis Nursing and the Implication of These Attitudes, Nursing Research, 3:113-22, 1955.
28. Weltman, Naomi, and Remmers, H. H. Pupils', Parents' and Teachers' Attitudes--Similarities and Differences, Studies in Higher Education, Series IX, No. 56, Purdue University, 1946, as quoted in Smith, Henry P., Psychology and Teaching, Revised Edition, Harper and Brothers Publishers, New York, 1944.
29. White, Sarah G. Methods and Devices for Securing Student Participation in the Learning Process, The American Journal of Nursing, 767-71, 1927.
30. Wood, Estelle. My Evaluation of Psychiatric Nursing Experience, The American Journal of Nursing, 45:310, 1945.

APPENDIX A
QUESTIONNAIRE

Birth Date _____ Date _____
 Year Month

Date you entered your school of nursing: (If degree student, give date of beginning clinical nursing:

_____ If degree student, check here ___
 Year Month

PART I: PREVIOUS TO THIS ROTATION

1. Before this rotation had you ever known anyone (other than a patient of yours') who had pulmonary tuberculosis in the past or at that time? Yes No
2. If answer to question #1 is "yes" -- was this person a
relative?
friend?
other? Specify _____
3. In a sentence or two state your feeling about tuberculosis nursing before you came here on rotation.
4. Before this rotation had you ever given nursing care to active pulmonary tuberculosis patients? Yes No
5. If answer to question #4 is "yes" -- please answer the following:
 - A. Number of different patients with active pulmonary tuberculosis to whom you had given nursing care (check one):
 1-5 5-10 10-15 over 15

B. Treatment which these pulmonary TB patients were receiving at the time of your nursing care. (Please indicate by a check in the appropriate square to the right, the number of patients receiving the various measures listed:

PRESCRIBED MEASURES	1-5	5-10	10-15	over 15
Individual isolation technique...				
Group isolation technique.....				
No isolation technique.....				

NOTE: Total of above should not exceed figure chosen in Question 5-A.

Rest regimen.....				
Streptomycin or Dihydrostreptomycin				
Para-aminosalicylic acid.....				
Isoniazid.....				
Pneumotherapy.....				
Minor thoracic surgery.....				
Major thoracic surgery.....				
Other (please specify).....				

6. Does your home hospital x-ray all patients on admission to the hospital? Yes No Do not know
7. Does your home hospital have a unit or ward set aside for tuberculosis and/or other communicable disease? Yes No Do not know
8. If answer to question #7 was "yes" — Did you rotate through this ward? Yes No
9. If answer to question #8 was "yes" — At what time in your experience were you first assigned to the TB and/or communicable disease ward? (Check once where applicable)

FIRST YEAR:	_____	1st six months	_____	2nd six months
SECOND YEAR:	_____	1st six months	_____	2nd six months
THIRD YEAR:	_____	1st six months	_____	2nd six months

Continue as instructed in the previous question. Your answers should apply now to your clinical experience assignments before and during this rotation. Check the appropriate item in Column I and again in Column II. You should make two checks for each subject.

B. WARD EXPERIENCES AND OBSERVATIONS	<u>COLUMN I</u>			<u>COLUMN II</u>			
	Before Rotation			During This Rotation			
	Had previous instruction	No previous instruction	Do not remember	Not needed	Needs less experience	Adequate for needs	Need more experience
1. Anti-tuberculosis Drugs and Their Effect.....							
2. Chronic Pulmonary Disease Care.....							
3. Patient Teaching.....							
4. Post-operative Nursing of Major Thoracic Surgery.....							
5. Responsibility for "Specialling".....							
6. Pneumotherapy.....							
7. Out-Patient Clinic Follow-up							
8. Staff Conference Attendance							
9. Observation of Fluoroscopy.							
10. Psychological Problems of the Tuberculosis Patient.....							
11. Nursing of Young Adults with Chronic Disease.....							
12. Other _____ _____ _____ _____							

How, in your opinion, does this TB nursing experience rate on the following points? Place a check mark in the column which best describes your evaluation of the following items. Your remarks will be appreciated.

C.

OTHER ASPECTS OF THIS ROTATION	Excellent	Good	Average	Poor	Definitely Lacking	REMARKS
I NURSES HOME: a. Sleeping rooms b. Recreational facilities c. Residence supervision d. Late leave allowance						
II FOOD: a. Quality b. Quantity c. Variety d. Meal Hours						
III LAUNDRY:						
IV ASSIGNMENTS: a. On duty hours b. Size of assignment c. Assistance when requested d. Variety of assignment e. Length of rotation						
V INTERPERSONAL RELATIONSHIPS: a. Students:instructors b. Students:head nurses c. Students:doctors d. Students:nurse aides e. Students:patients f. Students:students						
a. ¹ Nurse:patient b. ² Nurse:doctor c. ³ Patient:doctor						
VI GENERAL WORK ATMOSPHERE:						

C.

OTHER ASPECTS OF THIS ROTATION (continued)	Excellent	Good	Average	Poor	Definitely Lacking	REMARKS
VII INTERDEPARTMENTAL RELATIONS: a. Nursing:dietary b. Nursing:O.T. c. Nursing:Social Service						
VIII HEALTH PROGRAM: a. Student health service b. Infirmary care c. TB detection d. Personal health education						
IX PROTECTION FROM TB: a. Workable technique b. Adequate equipment c. Adequate supplies d. Consistency e. Patient education f. Other personnel						
X LIBRARY: a. Ward libraries b. TB hospital - instructors' office c. Medical School library facilities						

PART III: AT THE CLOSE OF THIS ROTATION

1. Has your feeling (previously stated) about tuberculosis nursing changed during this rotation? Yes No

If so, how?

2. List three things that have impressed you most favorably on this rotation.
 - (1)
 - (2)
 - (3)

3. Of the three impressions in question #3 above, choose one and indicate what use you can make of this in your future life.

4. List three things that have impressed you least favorably on this rotation.
 - (1)
 - (2)
 - (3)

5. Of the three impression in question #4 above, what would you do to correct each?
 - (1)
 - (2)
 - (3)

6. What are the most important functions (or duties) of the TB nurse? Name three in order of their importance.
 - (1)
 - (2)
 - (3)

7. What was the most important ability that you feel you brought to this rotation?
 - (1)

APPENDIX B

SUBJECT MATTER TAUGHT DURING THE TUBERCULOSIS ROTATION EVALUATED
 ACCORDING TO FELT NEEDS AND PREVIOUS INSTRUCTION

Subjects of Classroom Instruction	Before This Rotation						During This Rotation						TOTAL
	Had previous instruction	No previous instruction	Do not remember	Failed to reply	TOTAL		Not needed	Needs less emphasis	Adequate for needs	Needs more emphasis	Failed to reply	TOTAL	
1. Communicable Disease Aspects (including bacteriology)	78	4	0	0	82	1	1	71	8	1	82		
2. Respiratory Anatomy and Physiology	82	0	0	0	82	0	1	56	24	1	82		
3. Pathological Processes in TB	20	47	15	0	82	0	4	48	30	0	82		
4. Diagnostic Means in Tuberculosis	49	29	3	1	82	0	3	69	8	2	82		
5. Drug Therapy for Tuberculosis	46	31	4	1	82	0	2	71	7	2	82		
6. Medical Nursing Care of Tuberculosis	38	41	3	0	82	0	2	68	11	1	82		
7. Surgical Treatment of Tuberculosis	31	48	3	0	82	1	0	63	18	0	82		
8. Surgical Nursing Care of Tuberculosis	24	50	6	2	82	1	0	58	21	2	82		
9. Differential Diagnoses	27	43	8	4	82	0	4	62	12	4	82		
10. TB and Co-existent Conditions (pregnancy, diabetes, etc.)	20	54	5	3	82	1	2	54	21	4	82		

APPENDIX B (CONTINUED)

Subjects of Classroom Instruction	Before This Rotation						During This Rotation					
	Had previous instruction	No previous instruction	Do not remember	Failed to reply	TOTAL		Not needed	Needs Less emphasis	Adequate for needs	Needs more emphasis	Failed to reply	TOTAL
11. Tuberculin Testing	56	23	1	2	82		1	0	63	15	3	82
12. Work of the Public Health Nurse	45	33	3	1	82		0	1	58	22	1	82
13. Psychological Aspects of Tuberculosis	17	58	5	2	82		0	0	43	37	2	82
14. Psychology of Young Adults with Chronic Disease	41	36	4	1	82		1	1	31	48	1	82
15. Role of Other Hospital Workers (dietitian, OT, Social Worker)	47	31	3	1	82		4	5	62	8	3	82
16. Role of Agencies Serving the TB Patient in the Community	43	35	4	0	82		1	1	50	28	2	82
17. Public Health Programs for Tuberculosis Control	40	36	5	1	82		1	2	59	17	3	82
18. Community Action Against TB -- The Voluntary Organizations	34	39	9	0	82		0	1	47	33	1	82
19. Extrapulmonary TB Conditions as Related to Pulmonary Tuberculosis	20	52	8	2	82		0	0	56	24	2	82

APPENDIX C

WARD EXPERIENCES AND OBSERVATIONS DURING THE TUBERCULOSIS ROTATION PERIOD EVALUATED
 ACCORDING TO FELT NEEDS AND PREVIOUS INSTRUCTION

Ward Experiences and Observations	Before This Rotation						During This Rotation						TOTAL
	Had previous instruction	No previous instruction	Do not remember	Failed to reply	TOTAL		Not needed	Needs less emphasis	Adequate for needs	Needs more emphasis	Failed to reply	TOTAL	
1. Anti-tuberculosis Drugs and Their Effect	40	37	5	0	82		0	0	71	11	0	82	
2. Chronic Pulmonary Disease Care	36	38	7	1	82		0	0	72	10	0	82	
3. Patient Teaching	59	22	0	1	82		0	1	42	40	0	82	
4. Post-operative Nursing Care of Major Thoracic Surgery	74	6	2	0	82		0	3	48	31	0	82	
5. Responsibility for "Specialling"	66	12	1	1	82		0	1	51	29	1	82	
6. Pneumotherapy	12	68	2	0	82		0	4	68	10	0	82	
7. Out-Patient Clinic Follow-up	36	44	2	0	82		1	4	56	21	0	82	
8. Staff Conference Attendance	24	57	0	1	82		2	3	55	18	2	80 ^a	
9. Observation of Fluoroscopy	33	47	1	1	82		1	2	63	16	0	82	
10. Psychological Problems of the Tuberculosis Patient	27	52	2	1	82		0	0	39	43	0	82	
11. Nursing of Young Adults with Chronic Disease	47	32	2	1	82		1	1	40	39	1	82	

^aTwo respondents stated they had not attended staff conference and could not evaluate it.

APPENDIX D

TABLE C OF THE QUESTIONNAIRE: OTHER ASPECTS OF THIS ROTATION

	Points:					Average	Poor	Definitely Lacking	Failed to reply	Live at Home	Points Scored
	Excellent	Good	Average	Poor	Definitely Lacking						
I NURSES HOME:	5	4	3	2	1						
a. Sleeping Rooms	17	27	20	9	4			1	4	275	
b. Recreational facilities	9	27	28	10	4			0	4	256	
c. Residence supervision	21	25	22	7	1			2	4	286	
d. Late leave allowance	26	14	24	8	4			2	4	278	
II FOOD:											
a. Quality	10	30	34	6	1			1		285	
b. Quantity	26	37	18	0	1			0		333	
c. Variety	11	27	28	13	2			1		275	
d. Meal hours	27	40	12	1	0			2		333	
III LAUNDRY:	16	23	17	1	2			23		227	
IV ASSIGNMENTS:											
a. On duty hours	8	32	23	18	0			1		273	
b. Size of assignment	13	46	20	2	0			1		313	
c. Assistance when requested	44	27	8	2	0			1		356	
d. Variety of assignment	13	33	25	8	1			2		289	
e. Length of rotation	12	38	16	13	3			0		289	
V INTERPERSONAL RELATIONSHIPS:											
a. Students:instructors	37	35	8	1	0			1		351	
b. Students:head nurses	17	45	16	4	0			0		321	
c. Students:doctors	22	30	24	5	1			0		313	
d. Students:nurse aides	32	38	11	1	0			0		346	
e. Students:patients	52	28	2	0	0			0		378	
f. Students:students	56	21	5	0	0			0		379	

APPENDIX D (CONTINUED)

	Points:				Average	Poor	Definitely Lacking	Failed to reply	Points Scored
	Excellent	Good	3	2					
a. 1 Nurse:patient	31	41	10	0	0	0	0	0	349
b. 2 Nurse:doctor	18	45	18	0	0	0	1	1	324
c. 3 Patient:doctor	13	36	21	9	1	1	2	2	291
VI GENERAL WORK ATMOSPHERE:	23	42	3	0	0	0	14	14	292
VII INTERDEPARTMENTAL RELATIONS:									
a. Nursing:dietary	18	38	21	5	0	0	0	0	315
b. Nursing:O.T.	25	37	13	2	4	4	1	1	320
c. Nursing:Social Service	14	39	19	4	2	2	4	4	295
VIII HEALTH PROGRAM:									
a. Student health service	28	33	16	2	1	1	2	2	325
b. Infirmary care	13	27	16	2	1	1	23	23	226
c. TB detection	49	29	3	0	0	0	1	1	370
d. Personal health education	33	30	17	0	1	1	1	1	337
IX PROTECTION FROM TB:									
a. Workable technique	31	39	10	1	0	0	1	1	343
b. Adequate equipment	26	44	12	0	0	0	0	0	342
c. Adequate supplies	30	41	11	0	0	0	0	0	347
d. Consistency	16	41	17	8	0	0	0	0	311
e. Patient education	18	44	19	1	0	0	0	0	325
f. Other personnel	18	34	25	3	1	1	1	1	308
X LIBRARY:									
a. Ward libraries	11	29	27	9	3	3	1	1	273
b. TB hospital - instructors' office	11	29	23	6	3	3	0	0	295
c. Medical School library facilities	50	28	1	0	0	0	3	3	365