AN IDENTIFICATION OF TUBERCULOSIS NURSING CONCEPTS IN FIVE SELECTED NURSING TEXTBOOKS FOR PROFESSIONAL NURSES

by

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PREFACE

Although tuberculosis nursing is recognised as an important part of a professional nurse's education, there is evidence that it is not always given its rightful place in the curriculum nor adequately taught when included. This study was written with the intent of helping to find a cue as to how tuberculosis nursing instruction can be strengthened in the professional nursing curriculum.

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CHAPTER I

INTRODUCTION

There is general awareness that far reaching changes are rapidly taking place in the tuberculosis problem today; changes offering opportunities on one hand but challenges on the other. Advances in treatment and prevention of tuberculosis have greatly reduced the mortality rate without a corresponding reduction in the morbidity rate. Tuberculosis and closely related chest conditions remain the most prevalent of all serious infectious diseases. Since man is now the most important reservoir of tubercle bacilli, the reservoir of infection is actually increasing, because more patients are kept alive but not entirely cured by drug therapy; and the trend toward longer life among our citizenry is increasing the chance for reactivation of infections acquired in youth. Drug therapy has shortened the average hospital stay for many patients, and they are being discharged to continue treatment at home. Sufficient beds for the tuberculosis patient in modern, well-located hospitals is a goal almost reached. Older, outmoded sanatoria in isolated areas with inadequate facilities for present day treatment have been discontinued. The National Tuberculosis Association estimates that between 1954 and 1956 about sixty such hospitals had closed.(16)

Amid these changes the Tuberculosis Nursing Advisory Service has conducted surveys to help indicate the nursing needs of

tuberculosis patients and their families today. Some of the findings of these surveys indicated that: "in 475 tuberculosis hospitals there were only 7,500 professional nurses to provide administrative, teaching, and clinical nursing services for 75,000 patients. Twice that number is needed if standards of hospital care for tuberculosis patients are to be raised to an essential minimum."(17)

Regarding the need for public health nurses it was revealed that:

> Hospitalised patients are discharged earlier than in former years for continued drug treatment at home, and many patients begin this treatment at home prior to, or in lieu of hospital care. During the trying, uncertain period of home care, the needs of patients and families for the help of public health nurses is paramount. Yet a nation-wide survey of non-hospitalised tuberculosis patients showed that while 69 per cent had been visited by public health nurses in a six-month period, one-third of these patients had received only one visit. In rural areas 10 per cent of the population had no public health nursing service whatever. In areas where nursing services were available, three-fourths of the population were served by one nurse to more than 10,000 population, whereas the maximum recommended population per public health nurse is 5,000 persons. To bring public health nursing services up to recommended standards would require more than doubling the present nursing staffs.
>
> In the face of these needs there is less preparation for the care of tuberculosis patients being given students in basic schools of nursing today than there is in any other clinical nursing field.(17)

In addition to a communicable aspect, tuberculosis has chronic, long-term characteristics which are common to other diseases in this category and which require a core of complex nursing knowledge, skill, and ability on the part of the nurse who cares for long term patients wherever they may be—in the hospital, the home, or the community.

Recognizing the responsibility devolving upon the nurse and

nursing education in this area, the Steering Committee of the Division of Nursing Education of the National League for Nursing approved a resolution in January, 1955, which was 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 of all nurse students. This implies a carefully planned sequence of theory and coordinated learning experience in tuberculosis nursing in which preventive and social aspects are stressed.(20)

It is inherent in this resolution that adequate instruction in tuberculosis nursing be offered to all students in the basic nursing curriculum. In this task the Tuberculosis Nursing Advisory Service, sponsored jointly by the National League for Nursing and the National Tuberculosis Association, offers outstanding leadership. This Service is directed by authorities in the fields of tuberculosis, tuberculosis nursing and nursing education, who constantly study and evaluate the tuberculosis nursing problem as a basis for providing sound guidance to nurse educators everywhere seeking to implement the above National League for Nursing resolution.

From the overall perspective of the Tuberculosis Nursing Advisory Service the four following noteworthy trends in tuberculosis nursing emerge:

1. The number of tuberculosis patients being treated in general hospitals is increasing, and according to many authorities, it will continue to increase.

2. A large number of patients are being treated or are continuing treatment outside the hospitals, a phenomenon of the last five years.

3. Many tuberculosis patients are in the older age group, and they and many of their family members have other chronic illnesses.

4. Concepts and attitudes that are learned in caring for tuberculosis patients and families can be applied in caring for patients with other long-term illness.(25)

The significance of these trends for nursing education prompted the TNAS to develop A Philosophy of Education for Tuberculosis Nursing in 1957, quoted here in part:

According to the best medical authorities tuberculosis 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 tuberculosis 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 overcome the inherent fears that many nurses have of tuberculosis. It 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 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, which complicate the lives of tuberculosis 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 education 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.(26)

This philosophy attuned to today's needs supplies a framework of beliefs from which to help the student develop new concepts of tuberculosis nursing, and a means by which to evaluate existing concepts. It implies also a need for sounder instruction in both the theory and practice of tuberculosis nursing.

From other sources too, come indications that the present nursing curriculum is falling short somewhere along the line in giving students the help they need to develop attitudes, interpersonal skills, and professional satisfactions so necessary in giving high quality care to tuberculosis and other patients with long-term or chronic illness. Typical of these indications are the following from Elisabeth C. Phillips, a prominent public health nurse supervisor and member of the Board of Directors of the National League for Nursing.

> I have become accustomed to student nurses saying during their affiliation with us, 'Why do I have to care for these old chronics? I would like to have some interesting cases for a change.'

> Until comparatively recently we probably have had too little to teach such students under these circumstances, but that most certainly is not true today. There is a body of knowledge, attitudes, and skills that we master and then pass on to our younger generation. Something must be done so that the outgrowth of our educational system in nursing does not foster these derogatory or belittling attitudes toward the chronically ill.(18)

In a recent nation-wide survey conducted by Wago, the expressed attitudes of over 2,000 graduate nurses toward tuberculosis nursing were studied. The author concluded that there was a "need for emphasis upon a philosophy that stresses the positive aspects of tuberculosis nursing education in order to stimulate more interest in this field among nurses".(28)

Hiatt, in a study of the attitudes of eighty-two students completing tuberculosis nursing experience at the University State Tuberculosis Hospital, Portland, Oregon, found that one of the frequent negative comments of students about their learning experience was that they felt their textbook was outdated and inadequate.(10)

Fritz investigated the attitudes of fifty-two senior nurses at Cornell University - New York Hospital School of Nursing, and revealed that "students found tuberculosis nursing to be the least challenging and least interesting of the curriculum experiences in the school's program".(6) This investigator also found that graduate nurses seldom wanted to accept assignment to the hospital's tuberculosis unit and that when they did accept such assignment they did so for short periods only, thus making it difficult to provide continuity of care for the patients in the unit.

Careful consideration of data such as the above strongly suggests that the tuberculosis nursing curriculum today needs to be re-evaluated, revised and strengthened, and that this task must encompass both theory and practice. Through the wise use and selection of appropriate instructional materials an important part of the theory is learned. Of all instructional materials the textbook comes nearest to being the common denominator. In speaking of the textbook's role in learning, Spieske states that "The individual student's academic achievements and interests require that the instructional fare be varied. Yet to be a class they must have unity and direction that comes from studying a common core of content . . . a textbook, through supplying the same material to all students, acts as a cohesive element."(23)

Bredenberg and Hincker feel that: "For the most part, reading habits are established for a student of a specific field while he is within the school of his specialization. Therein he finds from his texts and outside reading assignments the references that most closely meet his needs."(3)

Burton points out that:

> Learning through the use of books is and will continue to be one of the most important activities in and out of school. The development of extensive and effective aids of other types should not blind us to this point. Contrary to much popular opinion, 'book larnin' is extremely valuable. The ability to learn through abstractions in print is reliable evidence of mental maturity. A book-learned fool is not a fool because book-learned, but because he was a fool in the first place. True, persons . . . can master books and parrot the contents. Poor books are widely distributed. Many

> traditional teachers make vicious misuse of good books. None of these things detract from the great importance and value of learning from and through books . . . most of what we know is derived from printed matter . . . obligation rests upon teachers to understand the purpose and organization of any text or supplementary volume selected for use. Printed materials must be carefully evaluated.(5)

Although the textbook plays an important role in the education of a nurse, it often times is hastily selected and its contents go unchallenged.

The Problem

Nurse experts in the field have collectively spelled out new guidelines and identified basic concepts needed for successful tuberculosis nursing. It seems wise, therefore, as nursing faculty face the task of improving tuberculosis nursing education that one of the basic teaching tools, namely, the textbook, be examined to see the extent to which it helps build the desired concepts.

Data are lacking concerning the extent to which the desired concepts of tuberculosis and long-term illness nursing are presented in recent textbooks of nursing.

The purpose of this study is to examine selected recent textbooks of nursing with major content on tuberculosis nursing to determine:

1. The extent to which authors of these textbooks include currently recognized tuberculosis nursing concepts.
2. To compare the extent to which these authors include the various categories of concepts in the texts.

Assumptions

For the purpose of this study it is assumed that:

1. Currently accepted concepts of tuberculosis nursing are essential to successful nursing of tuberculosis patients and other patients with chronic illness.
2. Because these concepts are essential they must be learned.
3. Textbooks are important aids to learning; therefore, these concepts should be an intrinsic part of the textbook content.
4. The textbooks selected constitute a reasonable sample of textbook offerings in tuberculosis nursing.
5. The check list measuring device used in this study is reasonably valid and reliable despite subjective factors introduced by the investigator.

Justification of the Problem

It is the intention of this study to measure and compare the extent to which recent nursing textbooks include tuberculosis nursing concepts recognized by authorities as needful in this area of nursing today.

If the textbooks do not adequately support these concepts, the findings will have implications for strengthening the learning.

The extent to which a text includes these concepts may assist nurse educators in making a textbook selection best suited to their

particular needs.

If a comparison of the content reveals no great difference between tuberculosis nursing concepts offered in special texts and those integrated into general texts, it may help faculty members decide if they are justified in requesting students to obtain a separate text for tuberculosis nursing.

Limitations

The investigation in this study will be confined to five selected nursing texts published since 1957 which give major offerings in tuberculosis nursing.

Only those concepts identified in the check list measuring tool as meeting the criteria established for a concept for this study, will be identified.

Only quantities of concepts in the textbooks will be measured in this study.

Source of Data

The source of data for this study will consist of the tuberculosis nursing content found in five recent selected textbooks of nursing, and those concepts of tuberculosis nursing expressed by the Tuberculosis Nursing Advisory Service in recent authoritative writings.

Procedure

A master check list of concepts will be set up on an *a priori* basis from the published reports of five studies done by experts for the Tuberculosis Nursing Advisory Service. These concepts will be arbitrarily arranged under thirteen main categories of subject matter on a large master work sheet. The work sheet will have six spaces after each concept to provide for notation of the concepts found in each text and for tabulation of the total number of texts containing each concept. The texts will then be examined and the concepts found will be listed on the master check list under the appropriate code number assigned the text.

Treatment of the Data

The findings of this investigation will then be compiled in tables to show (1) the concepts found or not found in each text, (2) the number of different concepts by topic categories found in the five nursing texts, and (3) the total number of different concepts found in the five texts and the number and per cent of the total found per text.

These tables will show (1) the extent to which tuberculosis nursing concepts are included in the five nursing texts chosen for this study, and (2) how the texts compare in their inclusion of these concepts as determined by the method used in this study.

Validation of the Measuring Tool

Only those concepts will be used on the master check list which have been stated or implied in recent, selected, documentary publications developed by experts in the field of tuberculosis.

To estimate the objectivity of the investigator, two independent investigators, A and B, each doing similar studies in nursing, will be asked to participate in establishing the percentage of agreement with the investigator. This will be determined in the following manner: beginning with the number one, all master check list concepts will be numbered consecutively. With the help of an appropriate table of random numbers, ten numbers will be selected. The ten concepts corresponding to these ten selected numbers will be compiled into a random sample of the master check list. Investigator A and B, each working independently, will then check through the five textbooks to determine the presence or absence of the ten sample concepts. The total number of agreements with the independent investigator will be determined and expressed in percentage by dividing the total number of agreements by the total possible agreements, or fifty. An acceptable per cent of agreement range for this study will be a range of from 75 per cent to 100 per cent agreement with the independent investigator.

CHAPTER II

RELATED LITERATURE AND RESEARCH

The Method of Research

Quantitative analysis, sometimes referred to as "content analysis", of documentary materials is a method of research which deals with existing records. It is concerned chiefly with specified characteristics that can be identified and counted in these records. It involves a problem to be solved, collection and selection of data from documentary sources, definition and classification of categories for dealing with the data, validation of the collection methods used, and the solution of the problem on the basis of interpretation and analysis of the findings.

In quantitative analysis it is necessary that the categories of data be carefully defined so that other researchers can apply them to the same content in order to verify the findings. There are in general two ways of doing this; one is by setting up categories of information on a priori bases from existing documentary sources, or logical considerations, or both. The second way is by establishment of categories on a posteriori bases from the materials being examined.(21) Sometimes a combination of the two is used.

Textbook Studies in General

In the field of education frequent uses have been made of this type of research in the study of textbooks. A search of the literature reveals numerous studies which have been done using textbooks of wide subject varieties at the elementary, secondary and college levels. These textbooks have been studied for a determination of such factors as: frequency and kinds of concepts presented, status studies based on definite criteria, vocabulary load, tracing of historical trends, aptness of content to grade level and different topics represented. Many of these textbook analyses, especially those of recent years, have proved useful in textbook writing, in instructional procedures, in curriculum development, and in textbook selection. According to Good and Scates,

> Content analysis of the 1950's has little relation to earlier textbook analysis of the 1920's and 1930's. While the newer type of content analysis is still largely counting, it is with a set of categories far more significant than anything contemplated in the older type of textbook analysis. The difference is comparable to that between a casual interview and depth interviewing.(7)

Other types of textbook studies which have been done in the field of education are represented by a miscellaneous group of investigations dealing with laws pertaining to textbooks, the selection of manuscripts by publishers, practices used in adopting textbooks for school systems, their physical features and the like. Studies have also been made on the average life of textbooks and the teaching

of care of textbooks. The National Society for the Study of Education considered that the textbook had become an important enough subject in American education by the 1930's to devote the thirtieth annual yearbook to its consideration, The Textbook in American Education, published in 1931. In addition to summaries of many of the above mentioned studies the Thirtieth Yearbook includes an extensive annotated bibliography on the subject of textbooks.(15)

Studies of College Textbooks

Turning from the broad field of education to the more precise field of higher education it is found by comparison that less investigation of college textbooks has been done. Among recent investigations, two studies dealing with college health textbooks were noted. One, an unpublished Master's Thesis by Tomoosh in 1950, analyzed the frequency of health concepts in six selected college health textbooks.(12) This study was unavailable for review.

The other study by Walsh(29) done at Boston University, School of Education in 1950, examined seven college textbooks of health to determine the concepts of healthful living found in them. This study was selected for review because of its relationship to the field of nursing. Walsh used as a foundation for his investigation the findings of numerous experts in the field of science education concerning criteria for determining a principle of science. He reasoned that criteria for determining a principle of science is also applicable in part to the field of health education and that:

"The foundations established in the field of science education and the background of research methods serves as a basic groundwork for needed investigation in the field of health education."(29) Criteria adapted by Walsh to determine a concept of healthful living as found in textbooks of health for college students were as follows:

1. Must be a comprehensive generalization or a part of a comprehensive generalization.
2. Must be true without exception within the limitation specifically stated.
3. Must not be a definition.
4. Must be demonstrable experimentally.
5. Must be stated definitely and/or may be implied in the writings of the author.
6. Must deal with specific substances.(29)

Walsh then identified and validated a list of three hundred and ten concepts conforming to these criteria. These were developed into a master check list by which the seven texts were measured. Of this total he found that two hundred and twenty-one concepts of health appeared in a majority of the textbooks examined but that there was a noticeable lack of information in most of the texts about topics related to adult health. Since the textbooks were written for adults it appeared that the texts had omitted an important part of the subject matter on an adult level.(29)

Studies of Nursing Textbooks

Few studies have as yet been done in nursing education dealing with the content analysis of nursing textbooks. A search of the

literature reveals two such studies, however. One is an unpublished study of the vocabulary used in three communicable disease nursing texts, by Popp(19) and was not available for review. The other study by Resar analyzed the teaching and learning aids in three nursing arts textbooks. In this study six phases of content were analyzed and arranged in tables to show placement of emphasis, illustrative material, number and source of collateral readings. Resar found that: "Textbook variations indicate a need for study of texts prior to selection."(19)

As the profession of nursing assumes increasing responsibility for its own education, it is to be expected that nurse educators will assume more of the actual teaching obligations involved. This will include more critical examination of written materials, as well as content selection, and development of new materials so that what nurses need to be taught will be more readily available. It seems reasonable to assume in the light of present progress that many more studies will be focused on this problem in the future.

Documentary Sources of Recent Tuberculosis Nursing Concepts

Much work has been accomplished in identifying those concepts of tuberculosis nursing which should be developed in the student nurse through her program of study. In this work a leadership role has been assumed by the Tuberculosis Nursing Advisory Service. This Service is sponsored jointly by the National League for Nursing, which administers it, and the National Tuberculosis Association,

which finances it. The purpose of the Service is two-fold; first, the attainment of the best possible care for tuberculosis patients and their families, and second, improvement of tuberculosis nursing education.

To achieve these purposes the Tuberculosis Nursing Advisory Service seeks to use every available resource in studying the problem. It works with the National League for Nursing, Division of Nursing Education, in helping schools appraise facilities for clinical instruction in tuberculosis and long-term illness. It conducts studies to determine current needs and evaluate present practices in both nursing service and nursing education. It assists state and local leagues for nursing and tuberculosis associations to form interorganization committees on tuberculosis nursing, helps them to define their local tuberculosis problems, and offers consultation service in solving these problems. It assists schools of nursing to strengthen their courses in tuberculosis nursing, and it publishes a wide variety of authoritative materials on tuberculosis nursing service and education.(17)

Significant published studies sponsored by this group have been selected as documentary sources for concepts used in the check list of this investigation.

The first of these documents considered was the Instructional Plan for Basic Tuberculosis Nursing completed in 1949 by the Subcommittee on Tuberculosis Nursing of the Committee on Curriculum of the National League for Nursing Education and co-sponsored by

the Tuberculosis Nursing Advisory Service. As nursing education began to outgrow the Curriculum Guide for Schools of Nursing (1937) of the National League of Nursing Education, the need for a more complete, up-to-date outline and bibliography on tuberculosis nursing became apparent. Accordingly, the chairman of the League's Committee on Curriculum appointed a Subcommittee on Tuberculosis Nursing to prepare an instructional plan for basic tuberculosis nursing. At the first meeting of this subcommittee in the fall of 1946 it was recommended that in view of its specific functions in this area, the Tuberculosis Nursing Advisory Service be asked to sponsor the work of the subcommittee. This recommendation was accepted by boards of directors of the National League of Nursing Education and the National Organization for Public Health Nursing. Through the skill of this group of experts, objectives were formulated and a resource outline for implementing these objectives was made which served as the guide for revision of existing programs and the establishment of new ones. The outline was ahead of its time, as is evidenced by the fact that numerous educational programs still find it applicable in many respects to today's needs. Except where superseded by newer concepts expressed in the recently published Curriculum Suggestions for Tuberculosis Nursing (1958), the concepts expressed or strongly implied in the Instructional Plan for Basic Tuberculosis Nursing are included in the master check list of concepts developed for this study.

A second publication of the Tuberculosis Nursing Advisory

Service used as a documentary source of concepts for this study was the second edition of Safer Ways in Nursing, a guide to precautions in the care of tuberculosis patients. It was first published in 1948 and revised in 1955. This guide represents the consensus of opinion of twenty-four experts about the principles and concepts upon which protective procedures should be based. The authorities who developed the guide were selected from the Division of Tuberculosis Control, United States Public Health Service, from the ranks of tuberculosis and communicable disease faculty members of schools of nursing, outstanding public health nurse supervisors, superintendents of tuberculosis sanatoria, professors of bacteriology, tuberculosis specialists from the Veterans Administration, and officials selected from state departments of health.

The third publication used as a documentary source of concepts for this study was the report of a tuberculosis conference for public health nurse faculty members. This report, Abilities, Basic Concepts and Content in Tuberculosis for Public Health Nurses, compiled by the Tuberculosis Nursing Advisory Service and published in 1956 with the hope that it would stimulate nation-wide evaluation and improvement of existing tuberculosis nursing programs, lists the abilities, basic concepts and content in tuberculosis nursing identified by the work of a conference held in New York City in 1955 sponsored by Tuberculosis Nursing Advisory Service, Tuberculosis Program Division of Special Health Services of the Public Health Service, and the National Tuberculosis Association. The need for such a conference had been

generally felt for some time, but it was brought into sharp focus by a study conducted in 1950-51 by South[24] which revealed that of the 28 universities studied, one fourth were not giving instruction adequate to meet the criteria of the National Organization for Public Health Nursing established to determine sufficient instruction. Of the 267 students included in the study, South found that for 17 per cent the field instruction did not include experience in home care, or clinic services to tuberculosis patients and families, and that participation in multi-disciplined tuberculosis case conferences was an experience that only a few students received.[24]

The findings of this study pointed clearly to the need for action. Through the combined efforts of the National League for Nursing and the Tuberculosis Nursing Advisory Service a study conference was planned, to which each of thirty-eight colleges and universities offering approved courses in public health nursing was invited to send a public health faculty member representative. Invitations were simultaneously sent to twenty public health nursing service agencies across the country. Funds were provided by the United States Public Health Service, Division of Special Health Services, and the National Tuberculosis Association. Of this invited group twenty-three colleges and seventeen public health nursing service agencies actively participated.

The purpose established for the conference was: "to identify the significant learning experiences in public health and public health nursing as they relate to the problem of tuberculosis . . . and

to explore ways of improving instruction in the public health nursing area of tuberculosis."(24)

To prepare the participants for the work of the conference, three months prior to its convening the Planning Group sent informational material on tuberculosis nursing and a questionnaire to be answered and returned. Data collected by the questionnaire were compiled and used for planning the guidelines to facilitate the work of the conference. The following resource people were selected to present content in tuberculosis during the meetings: Paul T. Chapman, M.D., Tuberculosis Controller of Detroit, Michigan, Department of Health; Nicholas D'Esopo, M.D., Chief, Tuberculosis Service, Veterans Administration Hospital, West Haven, Connecticut; Floyd Feldman, M.D., Medical Director, National Tuberculosis Association; Jane Hoey, Director of Social Research Division, National Tuberculosis Association; Ryrie Koch, Director of Rehabilitation Division, National Tuberculosis Association; James E. Perkins, M.D., Managing Director, National Tuberculosis Association; Joseph B. Stocklen, M.D., Controller of Tuberculosis for Cuyahoga County, Cleveland, Ohio; Julius L. Wilson, M.D., Director of Medical Education, American Trudeau Society and Director of Henry Phipps Institute, Philadelphia.

Although the excellent piece of work accomplished by this conference was directed specifically toward improving tuberculosis nursing instruction offered to nurses preparing for first level public health nursing positions, the increasing emphasis today upon

integration of public health nursing into the basic nursing curriculum makes the concepts identified by this group particularly timely for all basic nursing programs.

The latest study in the tuberculosis nursing curriculum was completed and published in the fall of 1958, too late for the inclusion of any strictly new concepts it sets forth, in the recent textbooks of nursing selected for this study. None the less, it is worthy of consideration here. To utilize the thinking and judgments of hundreds of nurses throughout the country, the Tuberculosis Nursing Advisory Service prepared a preliminary draft of curriculum suggestions for tuberculosis nursing today from the many helpful suggestions of various concerned groups and individuals. This first draft was then sent to interested nurse groups throughout the country for examination, and suggestions. Over 1,200 copies of this first draft were returned with comments for improvement. The final version of the curriculum study was then revised to include the helpful suggestions of those nurses who reviewed it. The new curriculum suggestions are designed to help nursing faculties identify the understandings and their behavioral components that tuberculosis nursing programs propose to develop in their students. The suggestions are published in three separate publications, as follows: Curriculum Suggestions for Tuberculosis Nursing for Basic Schools of Nursing - Baccalaureate Degree; Curriculum Suggestions for Basic Schools of Nursing - Diploma and Associate Degree; and Curriculum Suggestions for Basic Schools of Nursing - Practical Nurse Programs.

For those basic concepts needful in nursing concerning: diagnosis, classification, pathology, and treatment of tuberculosis, nursing looks to the leadership of the medical profession. Within the medical profession the group most concerned with keeping other physicians technically informed is the American Trudeau Society's Medical Section. This section appoints a committee of specialists whose task is to keep the medical profession and all others concerned, informed of the latest medical concepts in tuberculosis.(1) Diagnostic Standards on Classification of Tuberculosis compiled by this group has become the most widely used and accepted current authority on terminology, diagnosis, classification, and pathogenesis, of tuberculosis. For the purpose of this study those concepts concerning diagnosis, classification, and pathology of tuberculosis mentioned by the documentary sources but needing further clarification, have been checked with the 1955 revised edition of Diagnostic Standards on Classification of Tuberculosis.

Summary of Related Literature and Research

Quantitative analysis as a method of research has been widely used in the field of general education in the study and improvement of instructional materials.

Criteria for identification of concepts have been established by investigators in the fields of science and of college health. These criteria can be aptly adapted to the fields of nursing education.

The Tuberculosis Nursing Advisory Service and the American Trudeau Society, Medical Section, have published documentary materials which identify present day tuberculosis nursing concepts.

CHAPTER III

THE RESEARCH PROCEDURE AND TECHNIQUES USED

Restatement of the Problem

The primary purpose of this investigation is to indicate the extent to which concepts of tuberculosis nursing today are contained in recent selected nursing textbooks, and compare the extent to which various categories of concepts are included in the texts.

The Selection of Textbooks for Analysis

The criteria established for the selection of nursing textbooks for this study are fundamentally the same as those established by earlier investigators in the field of health education at both the secondary school and college levels.

For the purpose of this study the textbooks must:

1. Be published by well-known publishing houses with sales in all regions of the United States.
2. Be available for use at the time this study started.
3. Have been published or revised since 1957.
4. Include major offerings in tuberculosis nursing.
5. Be written by well-known authorities in tuberculosis nursing.

The latest complete catalogs of books for nurses were obtained from a list of all publishers advertising in the Nursing Outlook and American Journal of Nursing for the year 1958. A careful examination

of these catalogs showed two tuberculosis nursing texts, one communicable disease nursing text, one combined medical-surgical nursing text, and three medical nursing texts which met the above criteria. Of the three medical nursing texts only one was selected for this study on the basis of the frequency of its choice as a textbook for medical nursing by six schools of nursing in the Portland, Oregon, area.

Criteria for the Tuberculosis Nursing Concept

Speaking from a nursing education frame of reference, Louise Knapp, Director of Washington University School of Nursing, defines a concept as: " . . . a thought, an opinion, an idea. It is also a mental image of an action or thing."(13) With reference to education in general, Good describes a concept as: "a generalized idea including all that is suggested to the individual by an object, symbol, or situation."(8)

Investigators in the fields of science and health education have enlarged these definitions into a framework of criteria for determining a concept of science or health.(29) Since both of these fields of study are closely associated to nursing, criteria for tuberculosis nursing concepts were adapted from the work of earlier investigators who established criteria for concepts of science, and for concepts of health education.

For the purpose of this study, criteria for identification of a tuberculosis nursing concept in five selected textbooks of nursing

have been adapted from criteria of earlier investigators as follows:

1. It must be a comprehensive generalization or a part of a comprehensive generalization about tuberculosis nursing identical to or reasonably identical to those expressed or strongly implied in any one or all four of the documentary sources for the master check list.
2. It must be true within the limitations specifically stated above.
3. It must not be merely a definition.
4. It must be stated directly and/or be definitely implied in the writings of the author.

Method of Analysis of Textbooks for Concepts and Validation

By means of the above established criteria for selection of textbooks the following textbooks were selected for analysis, and to expedite the recording were assigned code numbers as follows:

No. 1. Houghton and Sellors. Aids to Tuberculosis Nursing, 5th Ed., 1957. Williams and Wilkins.

No. 2. Bower, Pilant, Craft. Communicable Diseases, 8th Ed., 1958. Saunders.

No. 3. Hetherington and Eshleman. Tuberculosis Prevention and Control, 4th Ed., 1958. Putnam.

No. 4. Shafer, Sawyer, McCluskey and Lifgren. Medical-Surgical Nursing. 1958. Mosby.

No. 5. Brown. Medical Nursing, 3rd Ed. 1957. Saunders.

Written permission to analyze and quote briefly from each text as expedient was then obtained from each of the publishers concerned.

Two immediate major problems confronted the investigator in the analysis of the textbooks. The first had to do with the development of a reasonably valid and reliable measuring tool by which to measure the concepts of tuberculosis nursing found in the textbooks. To do this, a master check list of 256 concepts was devised on *a priori* bases from the five following documentary sources discussed in Chapter Two of this study, namely:

1. *Instructional Plan for Basic Tuberculosis Nursing*, National League for Nursing Education.
2. *Safer Ways in Nursing*, Tuberculosis Nursing Advisory Service.
3. *Abilities, Basic Concepts and Content in Tuberculosis for Public Health Nurses*, Tuberculosis Nursing Advisory Service.
4. *Curriculum Suggestions for Tuberculosis Nursing for Basic Schools of Nursing - Baccalaureate Degree and Diploma and Associate Degree*. Tuberculosis Nursing Advisory Service.
5. *Diagnostic Standards on Classification of Tuberculosis*. Committee of the American Trudeau Society's Medical Section.

As each concept was identified it was paraphrased and copied on a large work sheet under one of the following broad categories of information: nature of the tubercle bacillus, body's reaction to invasion, diagnosis of tuberculosis, clinical classification of tuberculosis, medical treatment, surgical treatment, epidemiology, recent trends, community control, preventive measures in hospitals, socio-economic factors, personal and psychological factors, and rehabilitation. Each concept was numbered and followed by spaces for checking the presence of the concept. The textbooks were then examined according to a pre-determined order and the results recorded

on the master work sheet. Spaces were left blank where the concept was not found. Data recorded on the work sheets were then compiled into tables to facilitate the presentation of the findings.

The second major problem had to do with the objectivity of the investigator in the actual identification of concepts in the selected textbooks. Two independent investigators, A and B, concurrently doing similar studies in nursing education, were asked to participate in establishing the objectivity range, which was determined in the following manner.

First the master check list concepts were numbered consecutively from 1 to 256. From an appropriate table of random numbers constructed for statistical purposes in such a way that any digit had an equal chance to appear in any given position in the table, ten numbers were selected. The ten concepts corresponding to these ten selected numbers were then compiled into two identical sample check lists. A pre-determined agreement percentage of from 75% to 100% with the principal investigator was arbitrarily set as being a sufficiently valid objectivity range for this study. Investigators A and B, each working independently, checked through the five textbooks for the determination of the presence or absence of the ten sample concepts. To rule out the element of practice, each investigator examined the texts in a different order. The total number of agreements with the principal investigator was then determined from the sample check lists and expressed in percentage by dividing the total number of agreements by the total possible agreements, which was fifty. The

percentages of agreement found are presented in the following table.

TABLE I

THE PERCENTAGE OF AGREEMENT OF INDEPENDENT INVESTIGATORS WITH THE PRINCIPAL INVESTIGATOR

Agreement of	Books					Total
	1	2	3	4	5	
Investigator A with Principal	100%	70%	60%	100%	60%	78%
Investigator B with Principal	90%	70%	80%	90%	100%	86%

This table shows that the total percentage of agreement with Investigator A was 78%, and with Investigator B it was 86%. This was found to be within the objectivity range established as valid for this study.

CHAPTER IV

FINDINGS

The findings of this study are presented in the following tables.

TABLE II

THE DESIGNATED TUBERCULOSIS NURSING CONCEPTS FOUND IN FIVE SELECTED NURSING TEXTBOOKS

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
I. NATURE OF THE TUBERCLE BACILLUS						
*1. The causative agent of tuberculosis is the mycobacterium tuberculosis, a member of the acid-fast mycobacteria family.	x	x	x	x	x	5
2. Most of the acid-fast mycobacteria are harmless soil organisms; smegma bacteria, leprosy bacillus, and tubercle bacillus only are pathogenic members of this group.						0
3. There are a number of types of tubercle bacilli, but only two, hominis and bovine, are known to cause disease in man.	x	x	x		x	4
4. The tubercle bacillus is about 1.5 micra long, slender and beaded, and is composed of protein, carbohydrates and unusual high lipoid content.						0

* Table II is read thus: The concept "The causative agent of tuberculosis is the mycobacterium tuberculosis, a member of the acid-fast mycobacteria family" was found at least once in textbooks 1, 2, 3, 4, and 5, a total of five different books.

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
5. The tubercle bacillus is immobile, slow growing, reproduces only every 24 to 36 hours, is aerobic, and tough.				x		1
6. The tubercle bacillus is highly adaptable. It resists heating, freezing, anoxia, and time, mutates to resist drugs, and is not killed by gastric juice.						0
7. The tubercle bacillus is killed by sunlight, boiling, ultraviolet light, alcohol, compounds of cresol, and can be destroyed by mechanical cleansing with soap or other detergents.			x			1
8. Known hosts of the tubercle bacillus are man, monkey, cow, rabbit, guinea pig, and hen.						0
9. Defenses against the tubercle bacillus are the skin and mucous membranes, lymph nodes, leucocytes, immune reaction, specific allergy, and intelligence of patient, nurse, and doctor.						0
10. The portals of entry of the tubercle bacillus are respiratory tract, gastro-intestinal tract, tonsils, mucous membrane of nose and throat, skin and placenta, but the respiratory tract is by far the most important portal of entry.	x	x	x		x	4
II. BODY'S REACTION TO INVASION						
11. Human tuberculosis affects chiefly the lungs because: it is air-borne, the anatomy of the chest favors its spread, there is a ready oxygen supply, and also an X-factor.	x					1

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
12. There is no set incubation period for tuberculosis. Active disease may appear within a few weeks after entry of the causative agent, or it may be delayed months, years, or decades.		x				1
13. The first implantation of tubercle bacilli in the host, primary tuberculosis, usually causes little reaction and heals without symptoms by: resorption, calcification and ossification.	x	x	x	x		4
14. The pathology of primary tuberculosis includes a parenchymal focus and one or more regional lymph node foci. The lymph node foci enlargement tends to be much greater in children than in adults.	x	x	x			3
15. Often the primary complex, though present, cannot be visualized by x-ray because of small size or unsuitable location.		x	x			2
16. In some cases primary tuberculosis becomes progressive and spreads by contiguity, lymphatics, discharge into bronchus, the blood stream or pleural space. Atelectasis or bronchiectasis can result.	x	x	x			3
17. Tuberculo-allergy develops in 3-6 weeks following infection and is the cause of a positive reaction to the tuberculin test.		x	x			2
18. A healed primary lesion is often termed "latent tuberculosis" and formerly was the state of nearly all adults.	x		x	x		3

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
19. Extra-pulmonary tuberculosis from activation of latent hematogenous foci is a possibility occurring more often in childhood or adolescence.	x	x	x			3
20. Reinfection with tuberculosis is influenced by such factors as: age, endocrines, poor nutrition, stress, lack of rest, injuries, alcohol, other diseases, silica dust or any other factors lowering natural host resistance.	x		x			2
21. Reinfection tuberculosis may arise either from exogenous or endogenous sources.	x		x			2
22. The early reinfections are usually sub-apical, and minimal lesions in apex tend to be more lasting.		x	x			2
23. Pleurisy with or without effusion in a high percentage of cases is due to tuberculosis even when laboratory studies fail to reveal the tubercle bacillus.		x	x		x	3
24. The first lesion of reinfection tuberculosis is labile and soon retrogresses, or progresses by contiguous spread, caseation, cavatation, and bronchogenic spread.	x	x	x			3
25. Reinfection tuberculosis heals by resorption, fibrosis, and occasionally calcification.	x	x				2
26. All tuberculosis patients face the hazard of relapse because there is no positive proof that any known treatment has freed the body of all tubercle bacilli.	x		x		x	3

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
27. Laryngitis, enteritis, genito-urinary infection, massive hemoptysis and spontaneous pneumothorax can all develop from an extension of tuberculosis infection in the body.	x	x	x	x		4
28. Early tuberculosis generally has no symptoms. When they do occur they are apt to be deceiving and easy to attribute to other causes.		x				1
29. Generalized symptoms are largely on an allergic reaction basis--fever, malaise, night sweats, loss of weight, anorexia and amenorrhea.	x		x			2
30. Localising symptoms due to ulcerations and inflammation are: cough, expectoration, hemoptysis, hoarseness.	x	x	x		x	4
III. DIAGNOSIS OF TUBERCULOSIS						
31. Diagnostic standards have been established by chest experts in the medical profession. Diagnosis of tuberculosis includes family history, contact history, and socio-economic history.			x			1
32. The physical examination includes inspection, percussion, auscultation, and vital signs.			x			1
33. X-rays may be used in many ways, such as single, lateral, stero and planogram, to detect tuberculosis.	x		x		x	3

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
34. The location of pulmonary tuberculosis is indicated by the broncho-pulmonary segments. The right lung has two lobes, the left has three, but each lung has ten segments.	X					0
35. Each broncho-pulmonary segment is a separate branch from the main stem bronchus which furnishes the anatomical basis for location of disease by bronchoscopy.						0
36. Sputum is examined by smear, concentration and culture. If tubercle bacilli are absent, gastric content culture, laryngeal swab or bronchoscopic aspiration are used.	x		x			2
37. Laboratory classification of tuberculosis is based upon demonstration of acid fast bacilli in sputum and expressed as rare, few, numerous, or corresponding symbols +, ++, +++.	X		x			1
38. Since so much depends upon a single sputum examination, every precaution should be taken to make the examination as reliable as possible.	x		x			2
39. Sputum examinations detect the presence of acid fast bacilli. Proof that acid fast bacilli are tubercle bacilli can be reported only as the result of cultural procedures or animal inoculation.		x	x			2
40. The failure to culture tubercle bacilli from sputum does not have the same significance in patients who have received drugs and those who have not.						0

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
41. Re-evaluation of x-ray diagnostic procedures has focused new attention on the values of the tuberculin test.			x			1
42. The Mantoux test is an excellent diagnostic tool, but it must be carefully and accurately administered and read for reliable results.			x			1
43. The Mantoux test is used for diagnostic work, for case finding, for recheck on BCG.	x		x			2
44. There are rare exceptions when a properly administered tuberculin test is negative in the presence of tuberculosis, such as immediately following a febrile condition like measles or the anergic phenomenon of extreme debilitation.			x			1
45. The patch (Vollmer) test is used for infants and children under 15 because of ease of administering, but it is a poor substitute for the Mantoux test.		x	x			2
46. Desirable laboratory tests are as yet not available for determining activity of TB or for determining immunity to TB, but there is reason to hope that a new test may soon be perfected to determine activity.						0
47. Careful recording of pertinent observations by the nurse can assist the doctor in his diagnosis.	x		x			2

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
48. A positive reaction to the tuberculin test alone does not mean that the reactor has, or ever will have tuberculosis, nor does it reveal the location or extent of the disease. It is merely a first step in diagnosis.	x		x	x	x	4
49. Erythrocyte count, sedimentation rate, and differential leucocyte are non-specific diagnostic aids especially good for following the course of the disease.	x		x			2
50. Patients and their families can be saved needless worry if they are kept informed of the nature of diagnostic procedures, the purpose of each step in the diagnosis, and the ways in which they best can cooperate.			x	x	x	3
IV. CLINICAL CLASSIFICATION OF TUBERCULOSIS						
51. Complete agreement on classification ofpulmonary tuberculosis even among the most experienced experts is impossible, but enough agreement exists to meet present purposes.		x	x			2
52. Such important considerations as; legal requirements for isolation, medico-legal decisions for disability compensation, standards for return to work, and similar matters depend upon standard classifications of TB						0

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
53. All persons who have been infected by the tubercle bacillus fall into two categories; namely, those whose only evidence of the infection is a positive tuberculin; those with positive tuberculins plus other evidence of infection.	x		x	x		3
54. The extent of pulmonary lesions is classified roentgenologically as: minimal, moderate, far advanced. Definite standards exist for each class.		x	x			2
55. The clinical classification of tuberculosis is designated as active or inactive or activity undetermined, depending upon roentgenologic, symptomatic, and laboratory status of the disease.		x	x			2
56. When a patient is receiving chemotherapy, the word "chemotherapy" should be added in parentheses to the clinical classification.	X	x				1
57. The exercise status of a patient is classified in four groups: I Bed rest, II Semi-ambulant, III Ambulatory, IV Ordinary living conditions.	X	x				1
58. The physician classifies the patient's work prognosis as: "Full time--regular work conditions"; "Part time--regular work conditions"; "Full time--sheltered work conditions"; "Part time--sheltered work conditions"; "Uncertain".	X					0

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
59. The former clinical classification of "arrested" is no longer used.		x	x			2
60. Tuberculosis occurring in parts of the body other than lungs must be subjected to the same rigid diagnostic criteria as pulmonary disease before being classified as active or inactive.		x	x			2
61. Pathologically pulmonary tuberculosis may be classified as "pneumonic", "cavitary", "fibroid", "exudative" or "productive".	x					1
V. MEDICAL TREATMENT						
62. In the treatment of tuberculosis the major aims are to lessen toxemia when present, prevent progression and induce healing.	x	x	x			3
63. Specific measures to accomplish these aims are generally agreed by all physicians to be various effective combinations of chemotherapeutic drugs used for prolonged periods of time.	x	x	x	x	x	5
64. Non-specific measures of treatment include rest, diet, surgery, and rehabilitation.	x	x	x	x	x	5
65. Many new factors complicate the non-specific treatment of tuberculosis since the new effective tuberculosis drugs have been in widespread use.			x	x		2

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
66. Intra muscular antibiotics should be administered in such a way as to prevent abscesses, or hardened areas at the site of the injection, and to be sure needles do not inadvertently enter blood vessels or large nerve trunks.			x	x		2
67. The nurse should know what the physician requires by way of non-specific treatment and follow his leadership in the study to find the best treatment for today.		x	x	x		3
68. The treatment of tuberculosis involves individual differences. No two cases are identical. What is best for one patient is not always best for another. The physician is the one qualified to recommend the type of treatment for each patient.		x	x	x		3
69. The drugs most commonly used in treating tuberculosis are isoniazid, streptomycin and para-aminosalicylic acid. These drugs are usually more effective used in pairs.	x	x	x	x	x	5
70. The objective of chemotherapy is to give the most effective dosage without causing dangerous side reactions. Each tuberculosis drug can have some undesirable side effect of which the nurse must be aware.	x	x	x	x	x	5
71. There is general agreement among authorities that drug therapy for most cases should be continued without interruption for a long period of time, at least 12 months and possibly much longer.	x	x	x	x	x	5

TABLE II (CONTINUED)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
72. A number of new drugs are under study for possible effectiveness in tuberculosis. Some have been found of value in special circumstances, as when a patient's bacilli have become resistant to the major drugs or when the patient has a drug intolerance.	x				x	2
73. None of the tuberculosis drugs today is known to be 100% bacteriocidal, and no drug repairs body tissue. Drugs merely stop growth of tubercle bacilli and give the body a better chance to repair itself.			x		x	2
74. Patients whose organisms are drug resistant to high concentrations of drugs seldom respond to therapy with these drugs.	x	x	x	x	x	5
75. Drug-susceptibility tests reflect the presence or absence of drug-resistant tubercle bacilli.			x		x	2
76. The responsibility for diagnosis and treatment of tuberculosis rests with the physician both in the hospital and home. In the home a nurse needs to guard this relationship by consulting the physician before she visits his patient.			x			1
77. The hospital is the best place to treat active tuberculosis, but it has disadvantages.	x	x	x	x	x	5
78. There are advantages and disadvantages of care at home during active tuberculosis.		x	x	x	x	4

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
79. Whether at home or in the hospital, nursing responsibilities in tuberculosis treatment are essentially the same. The nurse in either case prepares and administers a flexible, realistic nursing care plan based on the total plan of care for the patient.		x	x	x	x	4
80. The nurse has the knowledge and is responsible for modifying nursing care in such emergencies as hemoptysis and spontaneous pneumothorax.	x	x		x	x	4
81. There are many readily available teaching aids which a nurse can easily acquire and use to help the patient and his family better understand tuberculosis and its treatment.		x	x		x	3
82. Patient and family cooperation are enhanced by understanding as a result of teaching.		x	x	x	x	4
83. Attitudes and communication are important factors in nurse, patient, family interpersonal relations which affect treatment.	x		x	x	x	4
84. Optimum state of nutrition hastens healing. Knowledge of individual needs, complications, cultural differences, individual taste, and co-existent conditions are necessary to produce optimum nutrition.	x	x	x	x		4
85. Excessive feeding is undesirable.	x	x	x	x		4

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
86. Planning with the patient and other members of the health team enables the nurse to coordinate efficiently the patient's daily regimen, which adds to the patient's comfort and security.		x	x	x		3
87. A patient new to a tuberculosis service should not be treated as though he had tuberculosis until the physician has completed his diagnosis. Nurses should guard against creating unnecessary anxieties in patients.			x	x		2
88. Of great importance are observations of the patient by the nurse. Therefore, she should record accurately what she sees and hears.	x		x		x	3
89. Complete physical rest in tuberculosis means lying as flat as is comfortable, with all exertion and outside stimuli reduced to a minimum.			x		x	2
90. The patient's physician should counsel the patient and his partner concerning sexual intercourse so they have a complete understanding of his recommendations.						0
91. Fresh circulating air, not excessively cold, is beneficial because it increases the oxygen available to the patient and decreases the tubercle bacilli in the air.						0

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
92. Provision of diversional therapy for the home patient is the responsibility of the nurse if there is no special service provided, but the patient's activity status must first be recommended by the physician.						0
93. Chemotherapy affords a very strong bridge between hospital therapy and home therapy calling for closer working relations between home and community.			x			1
94. It will be some time before it is known how much chemotherapy alone can do and when chemotherapy needs to be supplemented by other measures. This uncertainty leads to differences of opinion and practice. In order to become a part of the therapeutic team, the nurse must understand what these differences are and why they exist.						0
95. Chemotherapy is used in treating all forms of tuberculosis, pulmonary, extra pulmonary, primary, and reinfection types.	x	x	x	x		4
96. Chemotherapy may be given to new tuberculin reactors, including infants, to abort the clinical disease.			x			1
VI. SURGICAL TREATMENT						
The types of resectional surgery done for tuberculosis are pneumonectomy (done rarely for TB), lobectomy, segmentectomy, sub-segmental resection, and wedge resection.	x	x				2

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
98. No surgical procedure is considered a substitute for other standard forms of treatment	x	x	x			3
99. When surgery is indicated, the type of disease, its location, the patient's pulmonary function, are among the factors influencing the doctor's selection of procedure.	x	x	x			3
100. Physicians generally agree that most patients should first be given a period of drug therapy and bed rest to see whether the lesion will improve and the surgical risk be reduced.	x	x	x			3
101. The principles of surgical nursing which promote success of operations, comfort the patient and prevent postoperative complications are all applicable to tuberculosis surgery.	x	x				2
102. The care of the older tuberculosis patient must be adapted to the physical changes and needs of the elderly.				x	x	2
103. In all surgical procedures the nurse prevents the spread of tubercle bacilli by use of aseptic technique.	x	x	x	x	x	5
104. The nurse promotes the patient's sense of security by explaining, according to the patient's needs, the surgical procedure to be carried out.				x	x	2

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
105. Preparation of patients for surgical therapy is based upon the surgeon's plan for immediate pre and post operative care, recovery and rehabilitation.	x			x		2
106. Cavernostomy is a rare procedure used to promote drainage and shrinkage of a cavity in specially indicated cases.	x				x	2
107. Principles of good surgical nursing apply to bronchoscopies and biopsies.	x			x		2
108. Chemotherapy may be continued for a variable length of time after surgery and hospitalisation to provide adequate duration, make more certain of healing under increased activity, avoid relapse, and maintain patient morale.		x				1
109. Surgery may be indicated if after a period of effective chemotherapy the disease stubbornly persists.	x	x	x			3
110. The discovery of drugs effective in tuberculosis, new anesthesias, advances in surgical techniques, development of more accurate pulmonary function tests, and better selection of cases are factors which have led to recent wider use of surgery in tuberculosis.	x					1
111. Two types of surgery are used in tuberculosis; collapse measures and resectional measures. Of these the latter is now most commonly used.						0

TABLE II (Continued)

CONCEPT	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
112. The objective of resectional surgery is to remove as much of the diseased area as necessary with the least possible interference with normal lung function.	x	x				2
113. Collapse surgery is of two types; the reversible and permanent types.		x	x	x	x	4
114. The reversible types of surgery include: pneumothorax, pneumonolysis, pneumoperitoneum, phrenic surgery.	x	x	x	x	x	5
115. Air embolus is a very rare complication of pneumothorax or pneumoperitoneum which results when for any reason air is inserted into a blood vessel.	x		x	x	x	4
116. The permanent types of collapse surgery are thoracoplasty, plumbage.	x	x		x	x	4
117. All collapse therapy is rapidly declining in popularity in the United States.			x			1
118. The nurse and physical therapist cooperate in prevention of deformities and promotion of healing following surgery.				x		1
119. Physical therapy is always prescribed by the physician.						0
120. Wherever tuberculosis infection produces body discharges, special attention should be given to their safe disposal.						0

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
VII. EPIDEMIOLOGY						
121. Epidemiology is an important factor in formulating wise judgments and realistic nursing plans for tuberculosis nursing today.		x		x		2
122. The epidemiology of tuberculosis involves study of the disease according to population groups, at different periods of time, the collection of necessary data, and the careful evaluation of these data as the basis for judgments for present and future control or eradication.		x				1
123. The greater use of chemotherapy has accelerated a decrease in tuberculosis mortality rates.			x	x		2
124. The percentage of TB deaths among people 45 years of age and over in the total number of TB deaths has increased.			x	x		2
125. Morbidity rates for TB have not decreased to any great extent in comparison with the marked decrease in mortality rates in the United States.			x	x	x	3
126. War increases the tuberculosis problem.	x		x			2
127. Recent estimates by USPHS indicate an approximate total of 400,000 known active cases of TB in the U.S., and 150,000 unknown cases, and a total of 1,200,000 active and inactive cases.		x		x		2

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
128. The tuberculin test in the light of today's trends is one of the best indications of the magnitude of the TB problem in the U.S. and the best epidemiological tool to gauge future progress.						0
129. It is currently estimated that there are over 50 million reactors to tuberculin in the U.S. at present.			x	x		2
130. A nurse who has a positive tuberculin upon entering the employ of a hospital cannot support a claim of having acquired infection in the hospital.						0
131. Epidemiological evidence indicates that malnutrition increases incidence of tuberculosis.	x					1
132. Once centered largely among women, particularly young women, tuberculosis is becoming more and more a disease of men, especially older men.	x		x	x	x	4
133. When the tubercle bacillus is introduced to populations previously uninfected, a high incidence with a more acute, rapidly progressing form of the disease occurs, and meningitis is more common.	x	x				2
134. The death and case rates up to 30 years of age are still higher among women than men for white population.	x		x		x	3
VIII. RECENT TRENDS						
135. The mobility of national and world population today heightens the need for national and international cooperation in tuberculosis control.						0

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
136. Drug therapy has radically changed and complicated the control of tuberculosis.						0
137. Hospital stay for many patients has been shortened, but for some it has been lengthened.			x			1
138. Home and outpatient care of TB patients has increased, but the advantages of hospitalization for patients, their families and communities is still strongly emphasized.		x	x	x	x	4
139. Most areas of the country now have sufficient available beds for TB patients, and more TB patients are being treated in modern, conveniently located general hospitals.		x	x			2
140. Many older type sanatoria in isolated areas and with facilities inadequate for modern treatment have closed.						0
141. An alarming number of deaths occur each year from previously unreported tuberculosis. Many active cases are unhospitalized and untreated; indicating inadequacy of present control procedures.						0
142. There is indication that drug therapy today is increasing the reservoir of tuberculosis infection by lowering the death rate and increasing the number of those cases which could reactivate or which remain chronically ill.						0

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
143. Tuberculosis death rate among non-whites is still several times higher than that of whites in the United States.	x		x		x	3
144. A multiplicity of factors have influenced the decline of TB mortality and morbidity rates to the present all-time low in the U.S.; better housing and sanitation, adequate nutrition, better working conditions, voluntary and official agencies, tuberculin testing of cattle, pasteurization of milk, research, and improved treatment are some of the factors.			x	x		2
IX. COMMUNITY CONTROL						
145. Control of tuberculosis is provided legally by laws which vary from state to state. The nurse should be familiar with these laws in her community.						0
146. The nurse's aim should be to obtain voluntary compliance with legal regulation, which makes the use of force unnecessary.			x			1
147. All citizens in all states are required by law to report communicable diseases to proper authorities, usually the health department.						0
148. The law usually requires public health officials to instruct tuberculosis patients and their families in the control of spread of TB to themselves and community.						0

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
149. Under the direction of the physician or health officer the nurse is assigned to teach the patient and his family about positive health and prophylactic measures.			x			1
150. The responsibility for diagnosis and treatment of tuberculosis rests upon the physician.	x	x	x	x		4
151. Prevention and control of tuberculosis involves many community agencies and individuals. The nurse should be prepared to cooperate with these agencies.		x	x			2
152. A good program for control of tuberculosis has an adequate case finding and case holding program in which the nurse has many responsibilities.		x	x		x	3
153. The unknown patient with tuberculosis, as well as the known, is a major threat to community health, and every effort should be made to locate him.		x	x		x	3
154. Community wide survey programs uncover unknown cases, particularly surveys among known high incidence groups.			x	x	x	3
155. A survey program is not successful unless there are follow-up services.			x		x	2
156. Routine chest x-rays of hospital and out-patient department patients is a most productive case finding method.			x	x	x	3

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
157. The chest clinic offers a variety of needed services to tuberculosis patients, their families, and family physicians. It is extremely important in the TB control program.	x		x			2
158. The control of communicable disease is the responsibility of government; therefore chest clinics should be under official health department auspices.	x					1
159. It is the policy of voluntary agencies to initiate chest clinics where there is unmet need and to encourage official agencies to assume responsibility for their services as soon as possible.			x			1
160. All chest clinic patients should be regarded as guests and treated with dignity, courtesy, kindness, friendliness, and the highest type of professional skill, to help assure regular attendance of patients at the clinic.			x			1
161. A good program for tuberculosis control includes: adequate case finding, adequate facilities for hospitalisation or home treatment, facilities for observation and treatment of TB patients not hospitalised.		x	x	x	x	4
162. Approximately as many known active cases of tuberculosis are at home as are in hospitals.						0
X. PREVENTIVE MEASURES IN HOSPITALS						
163. The protective value of BCG is a controversial issue, and in no case is it a substitute for known effective preventive measures.				x	x	2

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
164. The program for protection of tuberculosis nursing personnel should be well planned and definite and should include: personal responsibility for positive health, medical supervision, and prompt reporting of illness.			x			1
165. Education of patients should stress personal hygiene, responsibilities for controlling spread of tubercle bacilli to protect those who care for him and society.		x	x	x	x	4
166. Application of the principles of "aseptic" technique to the nursing and housekeeping procedures minimizes the spread of tubercle bacilli in home and hospital.		x	x	x	x	4
167. To be effective, all hospital personnel must understand and use the established aseptic technique. Cooperation is imperative.		x				1
168. Visitors should be taught how to prevent spread of tubercle bacilli.		x	x		x	3
169. Adequate facilities and practices are necessary for prevention of cross contamination.		x	x		x	3
170. Mechanical agents and protective clothing can eliminate or reduce intensity of exposure to tubercle bacilli and other pathogens.	x	x	x		x	4
171. Segregation of patients, clean environment, and proper disinfection of equipment prevent transmission of pathogens.		x	x		x	3

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
172. Proficiency in techniques of health education for both individuals and groups is an essential nursing skill in tuberculosis prevention and control.			x		x	2
173. The nurse is personally responsible for proficiency and conscientiousness in preventing transmission of tubercle bacilli or other pathogens.	x	x		x	x	4
174. The functions of a good tuberculosis hospital are: isolation, treatment, education, vocational rehabilitation.	x		x			2
175. Routine hospital admission chest x-rays protect everyone concerned from the unsuspected case of TB.		x	x	x	x	4
176. The best method of approach to a patient who needs teaching or a change of attitude should be based upon a study of his total individuality, knowledge and needs.				x		1
177. Nation-wide surveys show a need for more nurses in all phases of tuberculosis nursing. The need is greatest in prevention and control programs.						0
178. The terms "aseptic" and "aseptic techniques" applied to a hospital ward must be perceived in a broader context than when applied to operating-room technique.		x				1
179. In devising any protective device or procedure against a given organism, it is necessary to take into consideration all the known characteristics of the organism.						0

TABLE XI (Continued)

CONCEPT	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
180. The nature of the transmission of disease must be kept in mind in establishing areas considered "clean" and "contaminated" or intermittently contaminated in a hospital.			x			1
181. Precautionary measures to prevent transmission of tuberculosis should be flexible and adapted to the degree of hazard in the given situation.			x			1
182. The segregation of arrested and inactive cases from active cases of tuberculosis in the hospital simplifies the designation of zones of contamination and prevents reinfection.		x	x			2
183. Both adequate floor space and volume of air standards per patient are important considerations in nursing care plans.			x			1
184. Tuberculosis organisms can be recovered from spray expelled in ordinary conversations; therefore beds of patients should be placed so that the greatest distance separates their heads.						0
185. Keeping uncontaminated areas fairly clean is facilitated by thoughtful work habits.			x			1
186. Mass chest x-ray surveys are most effective, in the light of today's tuberculosis problems, when used on a selective basis.		x	x	x		3
187. The principle of simplicity consistent with safety should be the guide in setting up all new procedures or evaluating old ones in a tuberculosis hospital.						0

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
188. Careful analysis of a procedure may show details that rightfully belong in the care of acute communicable diseases but are unnecessary in care of tuberculosis.						0
189. Ultra violet light kills tubercle bacilli only when it falls directly upon them. It does not penetrate below the surface.						0
190. Tuberculosis patients can be safely cared for in a general hospital by adapting preventive procedures to the nature of the transmission of the disease.		x			x	2
XI. SOCIO-ECONOMIC FACTORS						
191. The home situation including health, social, and economic problems is of inestimable value in understanding the needs of the patient and family. The nurse considers these factors in total nursing care plans for the patient.	x	x	x	x	x	5
192. Whether the nurse works with patients in the home, clinic, or hospital, interviewing and recording skills assist her in collecting and transmitting helpful data.		x				1
193. A critical study of present and past epidemiological data assists in making judgments about future possibilities of control or eradication of tuberculosis and a possible time table for reaching these goals.						0

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
194. Currently tuberculosis is found most frequently among low income families with sub standard living conditions.	x		x			2
195. The highest rate of tuberculosis in the U.S. today is in the age group over 65, and the next highest rate is in the age group over 45. These are mostly white males, single or separated from their families.		x	x	x	x	4
196. The case rate of tuberculosis varies widely among states in the United States and among nations of the world.	x		x		x	3
197. Accurate, up-to-date statistics are an important aid to agencies in planning realistic programs for prevention and control of tuberculosis.			x			1
198. Anything that lowers the body's resistance to disease, such as malnutrition, poor ventilation, constant exposure to cold and wet, irregular living habits, chronic alcoholism, severe respiratory diseases, favors occurrence of TB.	x		x			2
199. The use of various data collecting tools such as the family folder system, the tickler file, state and local case registers, facilitates gathering of socio-economic data.			x			1
200. National and local tuberculosis associations are voluntary agencies concerned mainly with health education, prevention of TB, and research. They derive their support from Christmas Seal sales.			x	x		2

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
201. World Health Organization and International Union Against Tuberculosis deal with prevention and research on an international basis.						0
202. State and local communities have various welfare services, both voluntary and official, which offer aid to tuberculosis patients.		x	x		x	3
203. Federal agencies concerned with tuberculosis control are the USPHS, and Veterans Administration.		x			x	2
204. Securing a suitable standard of living for each tuberculosis family is a necessary part of any effective prevention and treatment plan for the family.	x		x			2
205. The "means test" principle in effect in some states may cause a family loss of home and savings to pay for the patient's care and support the family while the patient is incapacitated.						0
206. By recognising the effect of negative socio-economic conditions on health, nurses can help build public opinion to improve these conditions.		x				1
207. The nurse understands the functions and policies of the social services in her community, her role in relation to these groups, and cooperates wisely with them.			x		x	2
208. Many patients and families refuse treatment for tuberculosis because of their fear of economic insecurity.		x	x			2

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
XII. PERSONAL AND PSYCHOLOGICAL FACTORS						
209. Basically human emotions and drives are similar in sickness or in health.				x		1
210. Previous personality patterns of individuals are often definite and deciding factors in ability to accept treatment and progress to recovery.	x		x	x		3
211. There are certain reactions commonly seen to the diagnosis of tuberculosis, which, if understood for what they are, furnish a cue for insightful nursing care.	x			x		2
212. Desirable reactions of patients to treatment assists recovery.	x	x		x	x	4
213. Expressed and unexpressed fears and anxieties about recovery and rehabilitation can impede a patient's recovery.	x	x	x	x	x	5
214. Reluctance to resume normal life and work can develop by the sheltered life of a hospital.	x			x		2
215. Tuberculosis creates a variety of emotional interactions between a patient and members of his family which can work as positive or negative factors in his recovery.		x		x	x	3
216. Existing family relationships tend to be intensified rather than changed by emotional reactions resulting from knowledge of tuberculosis.						0
217. The communicability and chronicity of tuberculosis create family problems.	x	x	x	x		4

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
218. The attitudes of the community towards tuberculosis may be reflected in the reactions of the patient and his family.				x		1
219. The nurse-patient relationship in tuberculosis or any long-term illness should be a therapeutic factor based upon the patient's particular needs. The nurse should recognise that there are skills and techniques of listening which help the patient and herself.				x		1
220. The nurse makes use of every opportunity to keep the patient and his family close together.				x		1
221. Nurses' observations of patients can be valuable contributions in group discussions with co-workers planning for the total patient care.			x			1
222. It takes time to develop a relationship that enables the patient to share his deepest feelings and concerns.				x		1
223. Understanding of the long term patient is based upon understanding of one's own attitudes, anxieties, and fears regarding long term illness.					x	1
224. Emotional drives of the tuberculosis or long term patient may be manifested as: aggressive dominance, submissive security, desire to shift responsibility for frustration to others, exaggerated satisfactions of physiological demands, and others.	x			x		2

TABLE II (CONTINUED)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
225. Understanding of the types of behavior a patient may exhibit helps prevent frustration and discouragement which can arise while caring for the long term patient.	x			x		2
226. Rehabilitation and vocational placement of the patient are not necessarily synonymous.						0
227. The nurse promotes self direction in the patient, and encourages him to participate in all decisions affecting him.				x		1
228. Understanding of the role of the medical social worker in relation to that of the nurse enhances patient care.				x		1
XIII. REHABILITATION						
229. Tuberculosis is a permanent handicap because of the danger of recurrence.						0
230. Rehabilitation is the restoration of the handicapped to the fullest physical, mental, social, vocational and economic usefulness of which they are capable.					x	1
231. Rehabilitation is considered in terms of total care and treatment of the patient and his family, and begins at the time of diagnosis.	x			x		2
232. The nurse has a definite contribution to the rehabilitation of the patient and his family.	x			x	x	3
233. Keeping the long term patient contented, happy and progressing is a challenge to the nurse.	x			x	x	3

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
234. A seeing "the patient as a whole" approach facilitates rehabilitation.				x		1
235. Patient activities may be classified according to purpose as pre-vocational, educational and cultural, diversional.						0
236. Bedside teaching, classroom teaching, shop work as the patient condition permits, facilitate rehabilitation.		x				1
237. Selected hospital activities such as printing, mimeographing, and patients' clubs can serve as rehabilitation tools.						0
238. Sheltered work shops and part-time employment provide opportunities for rehabilitation in the community.	x		x	x	x	4
239. Community resources for rehabilitation include both official and voluntary agencies.			x	x	x	3
240. To treat and rehabilitate a case of tuberculosis is costly, but failure to do so is even more costly.		x	x			2
241. Climate has little to do with successful rehabilitation.	x	x	x		x	4
242. The maximum rehabilitation of a patient is not the accomplishment of any one person or service but of all working together.			x	x	x	3
243. All persons and services concerned with rehabilitation must plan together and with the patient.				x	x	2

TABLE IX (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
244. There are many examples of good recovery from tuberculosis as a result of good treatment, care, and rehabilitation.						0
245. Realistic rehabilitation goals for the patient are based upon a study of the modifying factors in each case.			x	x		2
246. Identification of short and long term goals of rehabilitation for a patient enable the nurse to evaluate the effectiveness of nursing care.				x		1
247. A nurse may perform nursing care as a member of the rehabilitation team either directly or through the supervision and direction of auxiliary personnel.						0
248. There are characteristic old age behavior patterns which need to be considered in planning nursing care and rehabilitation for the older patient with tuberculosis or long term illness.				x	x	2
249. Motivation for rehabilitation is aided by convincing the patient he can regain or compensate for much of his lost power.				x		1
250. Rehabilitation nursing can be highly challenging and personally rewarding to the nurse who masters present day knowledge, attitudes, and skills in this area.				x	x	2
251. The nurse's role in rehabilitation programs includes such activities as schedule planning, making referrals, motivation of patient activity, observations of patient's reaction to activities, and others.				x	x	2

TABLE II (Continued)

CONCEPTS	BOOKS IN WHICH CONCEPTS OCCURRED 1	2	3	4	5	Total
252. The physician is the leader of the rehabilitation "team".			x	x		2
253. When a hospital patient is discharged a schedule, prepared by the rehabilitation team, for counseling, testing, training, work or other approved activity should be prepared for the patient.				x		1
254. Under medically approved conditions some persons with "active"TB may now safely engage in competitive work.						0
255. Each TB patient should be considered for rehabilitation services on the basis of his individual needs, the safety of others, and the physician's considered judgment, and not solely on the basis of clinical classification.			x			1
256. All nurses should know about the services of the Tuberculosis Nursing Advisory Service.		x				1
TOTALS	86	96	145	95	77	499

Table III shows the distribution of the concepts found under the various topics in the five selected textbooks.

TABLE III

THE NUMBER OF DIFFERENT CONCEPTS BY TOPICS FOUND IN THE FIVE TEXTBOOKS OF NURSING ANALYZED

TOPIC	TOTAL NUMBER OF DIFFERENT CONCEPTS	NUMBER OF CONCEPTS IN BOOK NUMBER					MEAN NO. OF CONCEPTS PER BOOK
		1	2	3	4	5	
*1. Nature of the Tubercle Bacillus	10	3	3	4	2	3	3.0
2. Body's Reaction to Invasion	20	14	14	16	3	3	10.0
3. Diagnosis of Tuberculosis	20	7	2	16	2	3	6.0
4. Clinical Classification of Tuberculosis	11	2	7	6	1	0	3.2
5. Medical Treatment	35	15	19	29	21	18	20.4
6. Surgical Treatment	24	15	12	9	10	8	10.8
7. Epidemiology	14	5	4	7	7	3	5.2
8. Recent Trends	10	1	2	5	2	2	2.4
9. Community Control	18	3	5	13	4	6	6.2
10. Preventive Measures in Hospitals	28	3	13	16	7	11	10.0
11. Socio-Economic Factors	18	5	7	12	3	6	6.6
12. Personal and Psychological Factors	20	8	4	4	17	3	7.2
13. Rehabilitation	28	5	4	8	16	11	8.8

* Table III is read thus: Of the total number of different concepts associated with the topic "Nature of the Tubercle Bacillus", which was 10, Book 1 contained 3; Book 2 contained 3; Book 3 contained 4; Book 4 contained 2; Book 5 contained 3; and the mean number of concepts for the five textbooks was 3 per book.

TABLE IV

TOTAL NUMBER OF DIFFERENT CONCEPTS FOUND IN FIVE TEXTBOOKS OF NURSING AND NUMBER AND PERCENTAGE OF THE TOTAL FOUND PER BOOK

POSSIBLE TOTAL NUMBER OF DIFFERENT CONCEPTS	NUMBER OF DIFFERENT CONCEPTS IN BOOK 1	2	3	4	5	MEAN
* 256	86	96	145	95	77	99.8
PER CENT OF TOTAL	33.5%	37.5%	56.6%	37.0%	30.0%	39.0%

* Table IV is read thus: Of the total of two hundred fifty-six concepts, eighty-six, or thirty-three and one-half per cent, were found in Book 1; ninety-six, or thirty-seven and one-half per cent, were found in Book 2, etc., for a mean of ninety-nine and eight-tenths different concepts per book, or a mean of thirty-nine per cent of the total two hundred fifty-six concepts.

Findings of Table IV

Table IV indicates that a mean number of ninety-nine different concepts were determined per book with a mean of thirty-nine per cent of the two hundred fifty-six concepts of the master check list. The mean per cent of the concepts ranged from a high of fifty-six and six-tenths per cent to a low of thirty per cent.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Restatement of the Problem

The primary purpose of this investigation was to determine and compare the number of tuberculosis nursing concepts found in five selected textbooks of nursing for basic professional nursing students.

Summary of Methods Used

This investigation was carried out after five textbooks of nursing were selected on the basis of certain pre-determined criteria. Criteria based upon those used by other investigators in the field of science education and health education were then established for the identification of tuberculosis nursing concepts.

From the latest published bulletins of recognised groups of experts in the field, a list of tuberculosis nursing concepts was identified. These concepts were arranged arbitrarily under thirteen general categories of information, and compiled into an *a priori* master check list of 256 concepts.

In pre-determined order each of the five textbooks of nursing was then examined by the investigator for the presence or absence of each concept on the master check list.

To determine the objectivity of the principal investigator in identifying a concept of tuberculosis nursing, two independent

investigators doing similar studies were asked to check through the five textbooks, each in a different pre-determined order from the principal investigator, to determine the presence or absence of a concept in a random sampling of ten master check list concepts. The objectivity was then expressed in terms of percentage of agreement determined in the following manner: the total number of concepts agreed upon by both the independent investigator and principal, divided by 50, the possible total of agreement. It was established that an agreement of 75% or above would be sufficient to establish a valid degree of objectivity for this study. The agreement per cent was found to be 78% with one independent investigator, and 86% with the other.

Summary of Findings

In analyzing five selected textbooks of nursing for basic professional nurse students, this investigator discovered that of the 256 concepts on the master check list a total of 499 concepts appeared in the five textbooks.

From a study of Tables II and III it is evident that the following general topics of information tend to have the most emphasis in the following order: (1) Medical Treatment, (2) Surgical Treatment, and (3) Preventive Measures in Hospitals. The topics receiving least emphasis appear to be: (1) Recent Trends, (2) Nature of the Tubercle Bacillus, and (3) Clinical Classification of Tuberculosis.

Table III shows disagreement among the authors as to the number

of concepts of tuberculosis nursing which should be offered under each general category of information.

Table IV indicates that a mean number of 99.3 different concepts were determined per book with a mean of 39% when compared with the 256 concepts of the master check list. The per cent of concepts per book ranged from a high of 56.6 to a low of 30 per cent.

Conclusions

Of the same concepts found in all five of the textbooks of nursing, there were few concepts which had identical wording. However, if the implication or main thought of the concept was obviously present, the textbook was given credit for having the concept.

There is a fair agreement between the actual total number of concepts found in the five textbooks, the per cent of concepts per book being 33.5, 37.5, 56.6, 37, and 30, but there seems to be wide disagreement as to number of concepts included in the various subject categories.

Most of the authors agreed that the subjects of Medical Treatment, Surgical Treatment, and Preventive Measures in Hospitals should have the widest coverage.

There was a noticeable lack of information in most of the textbooks regarding Recent Trends, Nature of the Tubercle Bacillus, and Clinical Classification of Tuberculosis; yet it is self-evident that these subjects have an important bearing upon the subject of tuberculosis nursing.

In view of the low mean number of concepts covered by each textbook compared to the 256 concepts identified by the master check list, it would appear that the authors of these textbooks have not given tuberculosis nursing concepts adequate coverage. It may be further concluded that the absence in a textbook of concepts accepted as needful by authorities in the field of tuberculosis nursing decreases the value of the book as an instructional tool.

Suggestions for Further Study

1. Analyses of syllabi used by instructors of tuberculosis nursing to identify the inclusion of concepts not now found in textbooks.

2. Analyses of learning experiences designed for student nurses in the care of patients with tuberculosis in an endeavor to identify how or if the students utilize the concepts they have been taught.

3. Further studies to determine the nature of the content of textbooks in other areas of the basic nursing curriculum.

4. An analysis of revised and older editions of nursing texts to help indicate growth taking place within the nursing profession.

5. A comparison of practical nursing texts and professional nursing texts in the light of the objectives of these two programs as an indication of agreement between the theory and objectives of these two programs.

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APPENDIX A

SAMPLE CHECK LIST USED BY INDEPENDENT INVESTIGATORS AND RESULTS

Directions:

For the purpose of this study, criteria for identification of a tuberculosis nursing concept in the five selected textbooks of nursing will be similar to those established by earlier investigators in related fields of science and health education. The criteria are as follows:

1. It must be a comprehensive generalization or a part of a comprehensive generalization about tuberculosis nursing identical to or reasonably identical to those expressed or strongly implied in any one or all four of the documentary sources for the master check list.

2. It must be true within the limitations specifically stated above.

3. It must not be merely a definition.

4. It must be stated directly and/or be implied in the writings of the author.

SAMPLE CHECK LIST USED BY INDEPENDENT INVESTIGATORS AND RESULTS

Textbook Code:

(1) Houghton and Sellors
(2) Bower, Pilant, Craft
(3) Hetherington and Eshleman
(4) Shafer, Sawyer, McClusky and Lifgren
(5) Brown

Order of investigation of textbooks for Investigator 1:

2, 1, 5, 3, 4.

Criteria for Concept:

1. It must be a comprehensive generalization or a part of a comprehensive generalization about tuberculosis nursing identical to or reasonably identical to those expressed or strongly implied in any one or all four of the documentary sources for the master check list.

2. It must be true within the limitations specifically stated above.

3. It must not be merely a definition.

4. It must be stated directly and/or be implied in the writings of the author.

RANDOM SAMPLING OF 10 MASTER CHECK LIST CONCEPTS

Place X in appropriate square if concept is contained in text examined.

Investigator 1.

CONCEPT	(1)	(2)	(3)	(4)	(5)	TOTAL AGREEMENTS
#4. The tubercle bacillus is about 1.5 micra long, slender and beaded, and is composed of protein, carbohydrates and unusual high lipoid content.	0	0	X	0	0	4

CONCEPT	(1)	(2)	(3)	(4)	(5)	TOTAL AGREEMENTS
#9. Defenses aginst the tubercle bacillus are the skin and mucous membranes, lymph nodes, leucocytes, immune reaction, specific allergy, and intelligence of patient, nurse, and doctor.	0	0	0	0	0	5
#53. All persons who have been infected by the tubercle bacillus fall into two categories; namely, those whose only evidence of the infection is a positive tuberculin; those with positive tuberculins plus other evidence of infection.	X	X	X	X	X	3
#56. When a patient is receiving chemotherapy, the word "chemotherapy" should be added in parentheses to the clinical classification.	0	X	0	0	0	5
#117. All collapse therapy is rapidly declining in popularity in the United States.	0	0	X	0	X	4
#184. Tuberculosis organisms can be recovered from spray expelled in ordinary conversations; therefore beds of patients should be placed so that the greatest distance separates their heads.	0	X	X	0	X	2
#192. Whether the nurse works with patients in the home, clinic, or hospital, interviewing and recording skills assist her in collecting and transmitting helpful data.	0	0	X	0	0	3
#193. A critical study of present and past epidemiological data assists in making judgments about future possibilities of control or eradication of tuberculosis and a possible time table for reaching these goals.	0	0	X	0	X	3

CONCEPT	(1)	(2)	(3)	(4)	(5)	TOTAL AGREEMENTS
#222. It takes time to develop a relationship that enables the patient to share his deepest feelings and concerns.	0	0	0	X	0	1
#233. Keeping the long term patient contented, happy and progressing is a challenge to the nurse.	X	0	0	X	X	3
	10	7	6	10	6	39

Order of investigation of textbooks for Investigator 2:

5, 4, 3, 2, 1.

RANDOM SAMPLING OF 10 MASTER CHECK LIST CONCEPTS

Place X in appropriate square if concept is contained in text examined.

Investigator 2.

CONCEPT	(1)	(2)	(3)	(4)	(5)	TOTAL AGREEMENTS
#4. The tubercle bacillus is about 1.5 micra long, slender and beaded, and is composed of protein, carbohydrates and unusual high lipoid content.	0	0	0	0	0	5
#9. Defenses against the tubercle bacillus are the skin and mucous membranes, lymph nodes, leucocytes, immune reaction, specific allergy, and intelligence of patient, nurse and doctor.	0	0	0	0	0	5
#53. All persons who have been infected by the tubercle bacillus fall into two categories; namely, those whose only evidence of the infection is a positive tuberculin; those with positive tuberculins plus other evidence of infection.	0	X	X	0	0	2
#56. When a patient is receiving chemotherapy, the word "chemotherapy" should be added in parentheses to the clinical classification.	0	0	0	0	0	4
#117. All collapse therapy is rapidly declining in popularity in the United States.	0	0	X	0	0	5
#184. Tuberculosis organisms can be recovered from spray expelled in ordinary conversations; therefore beds of patients should be placed so that the greatest distance separates their heads.	0	0	X	0	0	4

CONCEPT	(1)	(2)	(3)	(4)	(5)	TOTAL AGREEMENTS
#192. Whether the nurse works with patients in the home, clinic, or hospital, interviewing and recording skills assist her in collecting and transmitting helpful data.	0	X	X	0	0	4
#193. A critical study of present and past epidemiological data assists in making judgments about future possibilities of control or eradication of tuberculosis and a possible time table for reaching these goals.	0	X	0	0	0	4
#222. It takes time to develop a relationship that enables the patient to share his deepest feelings and concerns.	0	0	0	X	0	5
#233. Keeping the long term patient contented, happy and progressing is a challenge to the nurse.	X	0	0	X	X	5
	9	7	8	9	10	43

APPENDIX B

COPIES OF ORIGINAL CORRESPONDENCE WITH PUBLISHERS
AND TUBERCULOSIS NURSING ADVISORY SERVICE

SAMPLE COPY OF REQUEST SENT TO PUBLISHERS

16940 S. E. McKinley Road
Portland 36, Oregon
January 17, 1959

Williams and Wilkins Co.
Mount Royal and Guilford Avenue
Baltimore 2, Maryland

Dear Sirs:

In partial fulfillment of the requirement for a Master of Science Degree in Nursing at the University of Oregon Medical School, Division of Nursing, I plan to do an item analysis study of long term illness nursing concepts integrated in tuberculosis nursing by recent selected nursing texts dealing at considerable length with tuberculosis nursing. Houghton and Sellers, "Aids to Tuberculosis Nursing", fifth edition, 1957, is one of the texts selected.

I wish to inquire if this would infringe on any copyrights, and if I may have your permission to include this text. I do not intend to quote at length from the text. Items related to certain concepts will be briefly tabulated on a master check list set up on an a priori basis from existing authentic criteria.

If you should so desire, I shall be happy to send you an abstract of the completed study.

Thank you for your help.

Sincerely,

(Mrs.) Ruth Rea, R.N.

COPY OF REPLY FROM PUBLISHER

C. V. MOSBY
COMPANY
SCIENTIFIC PUBLICATIONS
3207 Washington Boulevard
St. Louis 3, Missouri

January 23, 1959

Mrs. Ruth Rea
16940 S. E. McKinley Road
Portland 36, Oregon

Dear Mrs. Rea:

Thank you for your letter of January 17 asking permission to use brief quotations from Medical-Surgical Nursing by Shafer, Sawyer, McCluskey and Lifgren (published in 1958) on the check list of nursing texts you are preparing in partial fulfillment of the requirement for a Master of Science Degree in Nursing at the University of Oregon Medical School, Division of Nursing.

Provided Mrs. Shafer approves and credit is given the source, our permission is granted.

We will be glad to receive an abstract of the completed study, as you suggest. No doubt Mrs. Shafer would like one as well.

Sincerely,

THE C. V. MOSBY COMPANY

(Mrs.) Mary G. Avis
Journal Production Editor

MGA:jg

cc: Mrs. Kathleen N. Shafer
Cardinal Drive
Valley Road
Plainfield, New Jersey

COPY OF REPLY FROM PUBLISHER

W. B. SAUNDERS COMPANY

PUBLISHERS
West Washington Square
Philadelphia 5, Penna.
London - 7 Grape St.

January 23, 1959

Mrs. Ruth Rae, R.N.
16940 S. E. McKinley Road
Portland 36, Oregon

Dear Mrs. Rae:

In reply to the query contained in your letter of January 17th, we should be glad to grant you permission for including references to Brown's "Medical Nursing" and Bower, Pilant and Craft's "Communicable Disease Nursing", in the item analysis study which you are preparing in partial fulfillment of the requirement for a Master of Science Degree in Nursing, at the University of Oregon Medical School, Division of Nursing. Credit, of course, should be given to the publication and to us as publishers. We shall appreciate receiving an abstract of the completed study.

Brown's "Medical and Surgical Nursing II" will not be published until sometime in March.

Sincerely yours,
W. B. SAUNDERS COMPANY

Clarence O. Wheeler
Nursing Editor

GW/vtl

COPY OF REPLY FROM PUBLISHER

G. P. PUTNAM'S SONS
210 Madison Avenue
New York 16, N. Y.

42 Great Russell Street London W.C.I. England

January 21, 1959

Mrs. Ruth Rea
16940 S. E. McKinley Road
Portland 36, Oregon

Dear Mrs. Rea:

. . . . . .

You are certainly privileged to make reference to this book in connection with item analysis study mentioned in your letter. It is not necessary that we have an abstract of the completed study but because of my interest in materials nurses are developing, I would like to see it if you can spare a copy.

My best wishes for the success of your project.

Sincerely yours,

Asa B. Elliott
Vice President

ABE/v

COPY OF REPLY FROM PUBLISHER

BAILLIERE, TINDALL & COX LTD

Medical, Nursing, Veterinary, Agricultural and Scientific
PUBLISHERS AND BOOKSELLERS
7 & 8 Henrietta Street, Covent Garden, London, W.C.2

PRM/MRB 27 February, 1959.

Mrs. Ruth Rea, R.N.,
16940 S.E. McKinley Road,
Portland 36,
OREGON,
U.S.A.

Dear Madam,

Your letter of 17 January addressed to the Williams and Wilkins Co. of Baltimore has been forwarded to us, as the publishers of AIDS TO TUBERCULOSIS NURSING by Houghton and Sellers. We find it a little difficult to ascertain from your letter quite what it is you wish to do with this book, but we are agreeable to your making short quotations from it in your thesis provided that the origin of these quotations is stated.

We would be interested to see an abstract of your study when it is completed, and perhaps you would address it to the undersigned, mentioning the reference of this letter.

Yours faithfully,
BAILLIERE, TINDALL & COX LIMITED.

P. R. WEST
Secretary.

COPY OF REPLY FROM TUBERCULOSIS NURSING ADVISORY SERVICE

N L N

NATIONAL LEAGUE FOR NURSING, INC.

2 Park Avenue, New York 16, N. Y.

ORegon 9-2040

January 14, 1959

Mrs. Ruth Rea, R.N.
16940 S. E. McKinley Rd.
Portland 36, Oregon

Dear Mrs. Rea:

We were most interested in your thesis in the field of tuberculosis nursing education and are very happy to answer your appeal for help.

. . . . . .

We will be most interested in your progress in your thesis and would like the opportunity to review it for possible publication, if you are interested in making it available to others. There is a great need for research and dissemination of information in the field of tuberculosis nursing education and we congratulate you on your potential contribution in this field.

If we can be of any further help to you in your study or in any other way, please feel free to call upon us.

Sincerely yours,

Ruth E. Leininger, Assistant Director
& Nursing Education Consultant
TUBERCULOSIS NURSING ADVISORY SERVICE

REL:pm
cc: Dr. Feldman
Miss Sheahan
Mrs. Osborne
Publications Unit

Typed by

Gwendolyn Dunning