

FRESHMEN MEDICAL STUDENTS' ATTITUDES TOWARD THE
EXPANDED ROLE OF THE NURSE

A THESIS
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

BY
KATHLEEN R. EMMITE, B.S.N.

DENTON, TEXAS

MAY 1981

Thesis
T1981
E54f
c.2

ACKNOWLEDGMENTS

The investigator wishes to express sincere thanks to Dr. Vera Harmon, whose guidance was instrumental in the completion of this project. Thanks are also extended to Dr. Douglas Haskins and Dr. Diane Ragsdale for their participation on this committee. And finally, Rosa Lee Bachtel is acknowledged for her manuscript and editorial suggestions.

3751

TABLE OF CONTENTS

ACKNOWLEDGMENTS	iii
LIST OF TABLES	vi
CHAPTER	
1. INTRODUCTION	1
Problem of Study	4
Justification of Problem	4
Conceptual Framework	5
Assumptions	8
Definitions of Terms	8
Limitations	9
Summary	10
2. REVIEW OF LITERATURE	11
Attitude and Attitude Formation	11
Interdisciplinary Education	15
The Expanded Role of the Nurse	20
Summary	23
3. PROCEDURE FOR COLLECTION AND TREATMENT OF DATA	25
Setting	25
Population and Sample	25
Protection of Human Subjects	26
Instrument	26
Data Collection and Administration	34
Treatment of Data	35
Summary	35
4. ANALYSIS OF DATA	37
Description of Sample	37
Findings	41
Summary of Findings	44

CHAPTER

5. SUMMARY OF THE STUDY	46
Summary	46
Discussion of Findings	48
Conclusions and Implications	51
Recommendations for Further Study	52
APPENDIX A: AGENCY APPROVALS	53
APPENDIX B: INSTRUMENT PACKAGE	56
APPENDIX C: FOLLOW-UP LETTER	63
REFERENCES	65

LIST OF TABLES

Table

1.	Intended Area of Specialization After Graduation of 61 Freshmen Medical Students at a Private Medical School in Southeastern Texas Responding to an Attitude Questionnaire on Professional Nursing Roles	38
2.	Comparison of Overall Mean and Mean of the Four Categories of 61 Freshmen Medical Students, 51 Senior Medical Students and 38 Physicians in Response to an Attitude Questionnaire on the Expanded Role of the Nurse	49
3.	Sex Versus Mean Scores of 61 Freshmen Medical Students, 51 Senior Medical Students and 38 Physicians Responding to a Questionnaire Regarding Attitudes Toward Professional Nursing Roles	50

CHAPTER 1

INTRODUCTION

In today's contemporary health arena there is tremendous progression and change in health care and the health care delivery system. Health, survival and the quality of life are no longer seen as a privilege of an elite few, but as a birthright of all peoples (Scott, 1974). Today, consumers not only expect but demand health services which include "acute and long term illness care, preventative health maintenance, diagnostic treatment, restoration, and health promotion services" (Ozimek, 1974, p. 3). This is by no means a small task and calls for collaboration of all health fields and interdisciplinary management. Nursing and medicine are the two major health professional groups who have the greatest potential to improve the quality of patient care and the quantity of health services (Hoekelman, 1975). A great responsibility is placed on the physician and nurse in their roles as key figures on the health care team because "there are more people to be served, more dollars to pay for those services and the reality that sectors of our society are going without adequate health service" (Medicine & Nursing, 1970, p. 1881).

Unfortunately, nurses and physicians are far from such idealistic collaboration because of the nature of their relationship. By tradition, the physician thinks of himself as a soloist in health care delivery and considers the nurse a technical assistant; hence the handmaiden image. Interprofessional relations, on the whole, are characterized by medical authoritarianism (Bates, 1970). To perpetuate this, the nurse has adjusted herself/himself to appear passive in making significant recommendations to the physician. This is done in such a manner to make the recommendations seem to be those of the physician. Stein (1967) referred to such practices as doctor-nurse games. In addition, the uniqueness of the nurse-physician relationship is seen stereotyped and dramatized in many novels and on television where the nurse is depicted as "an errand girl . . . an honest angel of mercy . . . or a potential bed partner" (Hinsvark, 1974, p. 414). The nurse-physician relationship, as it stands, is not yet ready for major interprofessional collaboration. However, the evolution of the relationship to what it is today is easy to trace and understand.

Nursing grew up, so to speak, under the guidance of physicians and for a long time was thought of as an offshoot of medicine. Therefore, physicians have assumed they know all nursing does rather than recognizing that

nursing and medicine are two related but independent fields (Brown, 1957). The previously described interaction patterns between the two professions evolved historically from the subordination of women and the sex segregation of nursing and medicine. These patterns were reinforced by nurses themselves in hospital training schools where students were taught subservience and intellectual subordination to the physician (Bullough, 1975; Stein, 1967). Traditionally then, nurses have been socialized to take a subordinate role in health care delivery, creating a barrier to their professional rights. It has only been within the past few decades that the nursing profession has realized that its contributions to the care of patients are needed, worthwhile and paramount to the patient's recovery.

With such preexisting patterns of relationship between nursing and medicine, it is no wonder that physicians today do not fully comprehend the expanded roles of nursing, nor does it seem out of line for these physicians to play their previously defined roles in nurse-physician interactions. As a result of the growth of biomedical knowledge, changes in patterns and demands for health services by the consumer, and the much needed evolution of professional relationships among health personnel, professional nursing is in a period of rapid and progressive change (Extending the

Scope, 1972). More nurses today are expanding their practice into nurse specialist and nurse practitioner roles. Presently more nurses are completing bachelor and master's degrees in nursing. The day of the physician's handmaiden is gone, and, in order to promote more efficient health care delivery for the vast population which demands it, it is the responsibility of physicians and their students to develop new attitudes accordingly.

Problem of Study

Medical curricula of universities provide little information concerning the contributions of, or the knowledge held by, nurses. However students of medicine develop attitudes of significance toward nursing somewhere along the path to becoming physicians. It is these attitudes which play a considerable part in later interprofessional communications and relations. What then are the attitudes of freshmen medical students toward professional nursing roles?

Justification of Problem

Nursing and medicine are interdependent of each other. Neither profession can deliver adequate health services without the other performing its role. However, whether openly admitted or not, the medical profession continues to give nursing little credit for its contributions or overtly

recognize and accept the expanded roles of nursing. Logan (1976) stated that "any changes made in nursing practice will be slow, hard-fought gains until the relationship between the nurse and physician changes" (p. 25). To ignore this need and assume that nurses can practice in nontraditional ways without first changing the nature of the nurse-physician relationship is naive. In order to begin any effective change in a relationship as long-standing as that which exists between nurse and physician, nurses must first determine what attitudes the medical profession has toward nursing. Using this information as a base, investigation then can begin to determine how and when such attitudes develop and how they affect nurse-physician interaction.

Conceptual Framework

As man matures he decides upon a career choice. If he is to become a health professional he will undergo not only formal education designed to give him knowledge and ways of applying it but also an informal education to "socialize" him. As he proceeds through the labyrinth on his way to becoming, he will be influenced into new ways of thinking, believing, and acting. (Folta & Deck, 1966, p. 2)

So it is with physicians and nurses. Each profession separately learns its own role in health care, not only formally within the classroom, but outside the classroom as well due to various social processes. Two social groups or organizations develop, nurses and physicians, who

are forced to interact by nature of their role descriptions. Since sociology is defined as "the scholarly discipline concerned with the systematic study of social organization" (Eitzen, 1978, p. 589), aspects of this science will be utilized to study the nurse-physician relationship.

According to sociologists, there are five social processes basic in human relations and social interaction. These are social adjustment, opposition, cooperation, accommodation, and assimilation (Brown, 1957). Social adjustment refers to "the processes through which the relationships between persons, groups, and culture elements are established on a mutually satisfactory basis" (Brown, 1957, p. 190). Opposition between individuals is inevitable, but it is desirable as well if the result is recognition of the other's rights. Cooperation is a deliberate process and may be voluntary or coerced. Accommodation involves some form of compromise to avoid, reduce or eliminate conflict and to promote adjustment. Finally, assimilation is the social process by which different individuals merge into a homogeneous unit (Brown, 1957).

Presently, the nurse-physician relationship has not yet reached the point of being mutually satisfactory. There is some degree of cooperation. This is due to the very nature of the occupations and because each has the same ultimate goal, that is, the patient's welfare. Indeed

there is opposition between nurses and physicians in regard to patient care matters and the role of nursing itself. Opposition strengthens the "we-feeling" within a social group, although in the realm of nurse-physician relationships it may be detrimental. Accommodation has been achieved mainly on the part of nursing. There has not been a mutual give and take between professions, nor an assimilation.

Research has resulted in identification of the problem areas within the nurse-physician relationship. Social scientists have conducted much research in the area of personal and group interaction. Nurse researchers, in comparison, have conducted a limited amount of studies regarding chief interaction patterns involving their profession. Using the concept of social interaction process as a base, guidelines and recommendations can be established for dealing with the nurse-physician relationship to expand it into a collaborative and mutually satisfying partnership. Thus investigation of freshman medical students' attitudes toward expanded nursing roles includes aspects of interactive processes which occur between nurses and physicians.

Assumptions

The following assumptions were recognized by the investigator as significant to this study:

1. Freshmen medical students have been indirectly or directly exposed to nurses functioning in various expanded roles.
2. Although this particular population of freshmen medical students had not been exposed directly to the nursing profession through formal education, during the freshman year of medical school students do begin to develop attitudes toward the nursing profession.

Definitions of Terms

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

Attitude--"An enduring structure of beliefs that predisposes the individual to behave selectively toward attitude referents" (Kerlinger, 1973, pp. 495-496). Specifically, in the present investigation, attitudes will refer to the mental position of freshmen medical students with regard to expanded nursing roles as measured by an attitude survey developed by Jones (1979) and Miller (1979).

Expanded role of the nurse--refers to an "extended scope of nursing practice which includes such

responsibilities as obtaining a health history, assessing health illness states and entering a person into the health care system" (Monnig, 1976, p. 773). In this study, those roles included are nurse midwives, clinical nurse specialists, nurse practitioners, pediatric nurse practitioners, geriatric nurse practitioners, and master's prepared nurses.

Registered Nurse--an individual who has graduated from a school of nursing, whether at the hospital, associate or collegiate level, and has passed the State Board Test Pool Examination.

Role--"the behavioral expectations and requirements attached to a position in a social organization" (Eitzen, 1978, p. 588).

Limitations

The following limitations to this study were recognized:

1. The sample included freshmen medical students at one medical school; therefore findings cannot be generalized to other groups of similar students.

2. The questionnaire did not provide for additional comments, thereby limiting the extent of the information obtained.

3. At the freshman level, not all students had direct contact with nurses functioning in expanded roles.

Summary

The profession of nursing has grown from a humanitarian service orientation to an occupation of educated, skilled, and competent individuals who play a much needed role in health care delivery. These contemporary nurses no longer function as those nurses did early in their professional evolution, nor do they expect to take a minimal part in the health care delivery system. Those who work collaboratively with the nursing profession must recognize this evolution and acknowledge the need for nursing services. Therefore, this study of freshmen medical students' attitudes toward professional nursing roles was undertaken to gain insight into how future physicians see the nursing profession.

CHAPTER 2

REVIEW OF LITERATURE

This chapter focuses on reviewing literature pertinent to attitudes toward professional nursing roles. Three separate but interwoven aspects are discussed independently. These are: attitude and attitude formation, interdisciplinary education and the expanded role of the nurse.

Attitude and Attitude Formation

The concept of attitude and attitude formation has been widely studied by social psychologists since the early years of the 20th century (Wagner, 1969). There are many approaches to the study of attitudes and many definitions of the concept. There is also some overlapping, some confusion, with a lack of clarity and precision in the works of those scholars who have attempted to explain attitudes as they affect human and social behavior (Halloran, 1967). One aspect of the concept of attitudes that most scholars will agree on is that there are still many areas of inquiry to be investigated and refined. So as not to become inundated in the problems of clarification, this discussion of attitudes and attitude formation will

encompass only that which has been concretely agreed upon.

Simply stated, an attitude has been defined as "a predisposition to behave in a particular way toward a given object" (Wagner, 1969, p. 2). A person's attitudes "define for him what he is and what he is not, . . . what is included within and what is excluded from his self-image" (Sherif & Sherif, 1963, p. 1). Assuming a person will act, for the most part, according to his predispositions, one could predict the response to a particular stimulus by knowing his attitude toward it. This rationale can be used not only by social psychologists, but by other disciplines as well to further investigate the repertoire of human behaviors.

Halloran (1967) described several generally basic characteristics of attitudes. First of all, an attitude is a state of readiness. In everyday life people are "ready" to deal with situations as they encounter them, without having to stop and think about every event. Secondly, attitudes are learned. They develop, are organized and are subject to change through experience. The third characteristic Halloran discussed was that attitudes are dynamic. They have "motivational qualities and can lead a person to seek (or avoid) the objects about which they are organized" (Halloran, 1967, p. 14). Finally,

attitudes are not directly observable. Rather, they are inferred and deduced from observations and considerations.

Any attitude has three component parts--affective, cognitive, and behavioral--which are intertwined and cannot be isolated (Halloran, 1967; Wagner, 1969). The affective component considers likes and dislikes and is also referred to as the feeling component. The cognitive component has to do with general knowledge and beliefs about an object, such as whether it is good or bad, appropriate or inappropriate, and so forth. The behavioral component is manifested in overt actions and verbal statements concerning behavior.

The foundation from which attitudes develop begins in early childhood. Attitudes are formed as a result of

what a person has learned in the process of becoming a member of a family, a member of a group, and of society that makes him react to his social world in a consistent and characteristic way instead of a transitory and haphazard way. (Sherif & Sherif, 1963, p. 2)

In other words, attitudes develop during and along with socialization. The socialization process "deals with transformation, of the child into the adult, a process which includes the learning of attitudes and values" (Halloran, 1967, p. 30). The process of learning attitudes develops in interactions and relationships with an individual's significant others--parents, brothers,

sisters, friends, and teachers. As a child grows up, he is directly and indirectly socializing to fit into a particular mold by those around him. Concurrently, the child selectively decides which parts of this mold he wishes to keep as part of his own individual personality according to his individual wants and needs (Campbell, 1963). In addition, group affiliations play an important role in the development of attitudes to such an extent that the "attitudes of the individual depend upon the attitudes and norms of the groups which form his frame of reference" (Halloran, 1967, p. 40). Socialization is an ongoing process that does not stop at any certain age but continues throughout the life cycle. Therefore, similar aspects relate to the formation or transformation of an individual's attitudes. This entire process results in individuals' predisposition to act in certain ways when faced with particular situations. Hence, attitudes are defined.

It is interesting to note that an attitude rarely, if ever, exists by itself as a single entity. Rather, individual attitudes usually come together to form a complex, hierarchical structure referred to as a value system (Wager, 1969). Thus,

a person may not only hold specific attitudes against, for example, deficit spending and unbalanced budgets, but may also have a systematic organization of such beliefs and attitudes in the form of a value system of economic conservatism. (Halloran, 1967, p. 20)

Therefore, just as an attitude will predispose certain behaviors and reactions in given situations, so will a person's value system with even more emphasis and certainty.

One method of altering attitudes and value systems of medical students toward expanded nursing roles that has been suggested in the literature is interdisciplinary education. The following section will consider this concept and discuss it in depth.

Interdisciplinary Education

Traditionally, medicine and nursing have worked closely in providing care for patients. In the present era, however, when health for all is an important goal of society and professional manpower is in short supply, it is necessary for these two core health professions to develop the kind of dialogue and mutual participation in the care-cure process that will insure quality care for everyone. (Kenneth, 1969, p. 46)

Although medicine and nursing do work closely together, more often than not, they work independently rather than collaboratively in their patient care efforts. The problem is compounded by the fact that physicians have little knowledge of what nurses are educated to do and are capable of doing. Most of what is taught in nursing schools is only peripherally covered in medical schools, thereby influencing students of medicine to believe that nursing skills are unimportant and need little practice to

acquire expertise (Harding, Fowler & Gordon, 1975). In fact, students of the various health professions can complete their education without having learned much about roles, educational preparation, practice, expectations and skills of other health professionals (Leininger, 1971). The issue of working relationships among those in health-care fields is one which has long been neglected in professional school criteria. One way of remedying this situation is through interdisciplinary education.

Interdisciplinary health education has received limited attention although it would seem the most likely method to develop cooperation among health fields and among students during their "professional" socialization process. Leininger (1971) believed that the

reduction of interprofessional competition and the facilitation of complementarity in role health behavior . . . can be achieved best through interdisciplinary socialization practices. (p. 787)

In addition, interdisciplinary education invites a sharing of knowledge, mutual participation and coordination of skills with those of other health care fields.

Such an approach to the education of health professionals has been instituted experimentally at various universities both within the classroom and in clinical situations. Although few incidences of this approach have been reported, the results are significant.

In March 1966, The University of California San Francisco Medical Center provided interdisciplinary clinical learning experiences for senior medical and nursing students (Kenneth, 1969). Both student bodies were assigned shared clinical responsibilities in ambulatory care settings. Such experiences helped these students recognize they had inadequate and inaccurate knowledge about what the other had been and was being taught. Also they reported confusion about the goals and emphasis of their respective programs. In joint conferences, all of the subjects discovered "the behavioral consequences resulting from the different methods of education and professional socialization for their particular health professions" (Kenneth, 1969, p. 48). Later, this program was extended by just The School of Nursing of The University of California San Francisco Medical Center (Rosenaur & Fuller, 1973). Again, post course evaluation by the students indicated that working in an interdisciplinary team was worthwhile in terms of what each learned of the other's professional role.

In another clinical experiment at Boston University, five primary health teams were organized. Each included one or two senior medical and nursing students (Sawyer & Serafini, 1975). Each group was responsible for giving total care to patients in a specific geographic area. The students who participated found that the

constant daily interaction "enhanced collaboration, sparked some competition, and most frequently increased mutual respect" (Sawyer & Serafini, 1975, p. 825).

Similar approaches have been pursued by courses focusing on interprofessional relations. At Columbia University in New York, students from four health professions--medicine, nursing, occupational therapy, and physical therapy--initiated a course designed to improve their knowledge of one another's training and skills (Boyer, Lee, & Kirchner, 1977). Entitled "Making Health Teams Work," course content included aspects of all four disciplines. On final evaluation, most students agreed that the course should be continued and expanded. The University of California at San Francisco School of Nursing initiated a course, "Introduction to Nursing," for first year medical students (Harding et al., 1975). The course goals were

to alter medical students' attitudes toward nursing, enabling them to work cooperatively with nurses; to provide medical students with an understanding of the potential, breadth, and depth of nursing practice; and to encourage free expression of perceptions and observations about nursing, medicine, and patient care in a group of both nursing and medical students. (Harding et al., 1975, p. 241)

When this course was offered the second year, twice as many medical students signed up for it.

From the previously cited trials with interdisciplinary educational methods, it can be concluded that all had positive effects on the students who participated. The evaluations of these experiences contained requests for further experimentation, both clinical and in the classroom. Based on the results of these programs, it can be assumed that interdisciplinary education should become a familiar method of professional education.

As discussed in Chapter 1, the present relationship which exists between nurses and physicians is far from satisfactory in terms of professional integrity and patient care. This stems from attitudes and orientations formed by medical and nursing students primarily in the first year of professional education (Lewis & Resnik, 1966). It would therefore appear logical that if interdisciplinary courses were taught from the very start of professional training, some of the pre-existing biases would disappear. Students would then learn together and gain insight into each other's professional roles. Interdisciplinary health education is still a goal of the future. However, it offers the key to ultimately improve our health care delivery system by gaining medical acceptance of expanded nursing roles.

The Expanded Role of the Nurse

For the past two decades, the profession of nursing has faced an exciting new era of expanded practice. Whether functioning as a nurse practitioner or clinical nurse specialist, nurses are demonstrating their determination to take a primary position in health care delivery. Some of these new nursing roles have developed, and are continuing to develop in various settings. These include specialized and nonspecialized units, hospital acute care units, ambulatory primary care agencies, and psychiatric and community health settings. Although these new nursing roles may appear unrelated, they do indeed share many things in common:

- (1) all require educational and clinical experience beyond that of the basic nursing education; (2) the functions of each of the select group of nurses are narrowed to an identifiable specialty; and (3) within that specialty, nurses take on increased responsibility for diagnosing and managing patient problems.
- (Bullough, 1977, p. 1)

Since the expanded roles have these things in common, Bullough (1977) also believed that their growth should be viewed as a large-scale movement toward specialization and expanded scope of practice, rather than as separate, unrelated events. Indeed this movement is large scale as the emergence of these roles may well be the most significant event in nursing that has occurred during the last 30 years (Mauksch, 1974). Because this expansion of

nursing into new and specialty roles is a first for nurses, it is necessary to examine the changes that have brought them about.

The concept of the "expanded" practice developed concurrently with public dissatisfaction with health care and nurse's dissatisfaction with nursing (Kinsella, 1973). A shortage of primary care physicians developed as more young residents decided to specialize, who were primarily responsible for "basic diagnosis of ailments, the treatment of ordinary illnesses, and appropriate referral to specialists for more complex treatment" (Bullough, 1977, p. 6). As a result, public sentiment for filling the gaps in health care delivery grew. At the same time, nurses found themselves involved in more positions away from direct patient care (Kinsella, 1973; Mauksch, 1975; Robinson, 1973). Bedside nursing was done by other allied health workers while the Registered Nurses were migrating toward the administration and more lucrative positions. Mauksch (1975) explained that

while aspiring to upward mobility through the managerial hierarchy, thereby mistaking the object of their occupational thrust, they (Registered Nurses) substituted the organizational bureaucracy for the patient. (p. 1839)

In addition, the women's movement gained momentum which increased the assertiveness of nurses themselves. Subsequently these same nurses realized that the worth of their

work had been seriously and deliberately underestimated and undervalued. Finally, from this turmoil, the expanded roles of nurse practitioner and clinical nurse specialist evolved as nurses felt the need to "get back to the patient" and consumer demand grew for adequate health care.

Today the movement for expanded nursing roles has grown to such an extent that clinical nurse specialists and nurse practitioners are widely accepted. Clinical nurse specialists function primarily in hospital settings where they act as role models for their nursing colleagues and utilize a "high degree of discriminative judgement . . . in assessing nursing problems, determining priorities of care and identifying nursing measures to achieve therapeutic goals" (Kinsella, 1972, p. 72). In comparison, the nurse practitioner's home base is usually a clinic, office or some other setting away from the mainstream of a hospital where they focus on delivering well patient care. Nurse practitioners are seen in industrial settings (Cepolla & Collings, 1971), emergency departments (Stanley, 1978), and in many pediatric care facilities (Stearly, Noordenbos, & Crouch, 1967). The expanded role of the nurse is also gaining notoriety in terms of the care delivered. In a study done at the University of Kansas, patients were randomly selected and assigned to a control group, where

they continued to receive medical care, or an experimental group, where medical nurse practitioners delivered primary care. Briefly,

patients receiving care from the nurses were found to have a significant reduction in the level of disability and to be significantly more satisfied with their care, when compared with patients in the control group. The costs of care were lower in the experimental group, primarily because of a decreased experience with hospitalization and these patients were also less prone to seek care for relatively "minor" symptoms. There was no difference in mortality and morbidity among the groups, and there was no problem with patient acceptance. (Lewis & Cheyovich, 1976, p. 367)

In conclusion, it is evident that expanded nursing roles have increased in depth and scope. Nurses have proven they can shed their "Nightingale" image and fill a gaping need in our health care delivery system. In time, what is now seen as an expanded role for nurses may indeed become the universal norm, as our society grows and changes and as more nurses want to advance within their own profession.

Summary

The preceding review of literature focused on pertinent areas of attitudes toward professional nursing roles. Those discussed were attitude and attitude formation, interdisciplinary education and the expanded role of the nurse.

The concept of "attitude" is still relatively new with many areas yet to be researched. An attitude does have several basic characteristics and component parts. Attitudes develop from foundations laid in early childhood. In addition, an attitude rarely exists alone, but several will come together to form one's value system.

As an innovative solution to developing cooperation among health fields, interdisciplinary education has received little notoriety. Successful experimentation has been documented in various trials. Interdisciplinary education may well be the key to gaining medical acceptance of expanded nursing roles.

During the past two decades the profession of nursing has expended to include new roles for nurses in the health care delivery system, namely the clinical nurse specialist and the nurse practitioner. Found in various settings, these nurses are filling a gaping need for administering care and are becoming widely accepted.

Each of the above areas was discussed as a separate entity. Although each can be independent of the others, they all have been shown to be interrelated in terms of the investigation of medical students' attitudes toward expanded nursing roles.

CHAPTER 3

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

This investigation was nonexperimental and descriptive in nature. It was designed to obtain freshman medical students' attitudes toward the expanded role of the nurse through a survey approach. This chapter presents the setting of the study, the population and sample, description of the protection of human subjects, the instrument, and the procedure for the collection and treatment of data.

Setting

The setting for the investigation was a state supported medical school located in a large medical center of a metropolitan area in southeast Texas. The city has a population of 1.6 million people. The medical center consists of six major hospitals and various schools of medicine, nursing and other allied health fields.

Population and Sample

The study population consisted of 214 freshmen medical students attending the selected university. All 214 students were sent a questionnaire. Sixty-one questionnaires were returned, all of which were included in data analyses.

Protection of Human Subjects

After approval by the committees for the protection of human subjects of both agencies (Appendix A), the instrument package (Appendix B) was distributed to each student. It included a letter of introduction, a personal data sheet and the instrument itself. The letter of introduction explained the topic of the questionnaire and assured the anonymity of all those who participated. It was clearly stated that no names of subjects would appear anywhere on the questionnaire. In addition, it was assumed by the investigator that those students who completed and returned the questionnaire were giving their consent to participate. Finally, the students who participated in the research were offered a method of obtaining the final results and findings of the study.

Instrument

The instrument used in this investigation was a 38-item Likert-type attitude scale developed collaboratively for two separate studies by Jones (1979) and Miller (1979) (Appendix B). Statements which reflect attitudes toward professional nursing roles were categorized into four areas. These categories are professional characteristics of the nurse, expanded nursing roles, health care team interaction, and professional autonomy.

Possible responses to each statement are contained within a 5-point scale. Those statements which demonstrated a positive attitude toward the expanded role (numbers 2, 4, 5, 6, 9, 10, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 26, 28, 29, 30, 31, 32, 34, 36) were assigned a value as follows: strong agreement, with a value of 5; agreement, with a value of 4; no opinion, with a value of 3; disagreement, with a value of 2; and strong disagreement, with a value of 1. Those statements which demonstrated a negative attitude toward the expanded role (numbers 1, 3, 7, 8, 11, 18, 25, 27, 33, 35, 37, and 38) were assigned values opposite those statements of positive attitudes in order to accurately measure positive attitudes. This was done as follows: a value of 1 for strong agreement; a value of 2 for agreement; a value of 3 for no opinion; a value of 4 for disagree, and a value of 5 for strongly disagree.

The personal data sheet which was included in the packet requested information regarding age, sex, and intended specialty after graduation. It was designed to also include requests for information concerning other family members in health fields, prior experience in health care, work association with nurses in expanded roles, knowledge of educational levels of nurses, and feelings toward collaborative practice and interdisciplinary courses with nurses (Appendix B).

Validity of the Instrument

To examine the instrument for content validity, Jones (1979) and Miller (1979) had two separate panels of three experts each examine the questionnaire for relevance and clarity. In formulating the instrument, Jones and Miller arbitrarily selected the four categories of attitude statements (professional characteristics of the nurse, expanded nursing roles, health care team interaction, and professional autonomy).

To research content validity in terms of the appropriate nature and inclusiveness of the categories selected, this investigator reviewed current literature. Halloran (1967) stated there are three main sources of attitudes. These are: "direct experience with the objects and situations, explicit and implicit learning from others and personality development" (p. 29). This investigator views the attitude statements of professional characteristics of the nurse as being a product of explicit and implicit learning and personality development. The attitude statements dealing with expanded nursing roles find their source in explicit learning, and health care team interaction statements are originated from direct experience with persons and situations. Finally, the category of professional autonomy is seen as a product of all three sources of attitudes. Since the categories of attitude statements

chosen by Jones (1979) and Miller (1979) do relate to the designated attitude sources found in the literature, it was believed that these categories were of an appropriate nature for the attitude survey.

Three statements on the questionnaire were concerned with professional characteristics of the nurse (numbers 11, 31, and 37). Professional nursing practice requires a service orientation, a strong knowledge base, a code of ethics and autonomy (Shortridge & Lee, 1980). The nurse, committed to the nursing profession, "provides care based on knowledge, maintains professional competence and adds to nursing knowledge through research" (Shortridge & Lee, 1980, p. 1). Statement 11 (Nurses should have as their primary focus of education the acquisition of skills and techniques) sought attitudes toward the knowledge base of professional nursing. Statement 31 (The nurse sees the client in a more humanistic or holistic manner than the physician) also was based on the fact that professional nursing care has a knowledge base. Statement 37 (Nurses should be individuals of intellectual and personal qualities who place service above personal gain) is concerned with attitudes toward nursing's service orientation.

According to Jones (1979) and Miller (1979), 15 statements in the questionnaire were reflective of attitudes toward expanded nursing roles (numbers 2, 4, 5, 6, 15,

16, 17, 19, 20, 21, 22, 23, 25, 27, and 32). Expanded nursing roles have taken many dimensions, such as industrial clinicians, pediatric nurse practitioners, clinical nurse specialists, and so forth. Statements 2, 4, 5, 21, and 23 specifically addressed some of the various types of roles in expanded practice. The expanded roles of the nurse have given new value to the core tasks of clinical nursing.

Thus,

they not only provide the nurse who prefers clinical practice the opportunity for a wider range of functioning and upward mobility, but also offer incentives for the acquisition of skills based on experience and enhanced by additional preparation. (Gamer, 1979, p. 11).

Statements 6, 15, 16, 19, 22, and 27 concern aspects of such a "wider range of functioning" (i.e., private practice, performance of specific diagnostic tests, treatment of minor health problems, and so forth). In addition, this investigator also chose to include statements 12, 13, 14, 26, 28, and 35 since it was decided that these statements, according to references in the literature, referred to attitudes toward expanded practice rather than attitudes toward professional autonomy where they were originally categorized according to Jones (1979) and Miller (1979). These statements made reference to some of the "functional" aspects of expanded nursing practice, such as making referrals, case finding and screening, performing physical examinations,

writing nursing orders on patient care records and placement of master's prepared nurses.

Four items on the attitude survey were grouped in the category of health care team interaction (numbers 1, 29, 30, and 33). This becomes important in a study of attitudes of medical students toward expanded nursing roles since physicians and nurses are the two primary health disciplines who interact with one another regarding patient care. Statements 1 and 33 reflect a physician dominated approach to nurse-physician relations (Patient entry into the health care system should be handled by the physician alone, and Nursing textbooks should be primarily written by physicians), while statements 29 and 30 were indicative of a more positive interrelationship (Effective use of the nurse's knowledge and skills can increase the efficiency of the physician, and The physician and nurse are equal members of the health care team in terms of contributions to patient care). The benefit of a strong nurse-physician relationship is that it makes possible

a wider professional opportunity for both professions and clearly implies and has in fact demonstrated increased effectiveness and efficiency in the delivery of health services. (Extending the Scope, 1972, p. 46)

In addition, medicine and nursing share the common goal of preservation and restoration of health and although their

roles are not identical, they do overlap and share a common ground (Bates, 1970).

The remaining category of statements dealing with professional autonomy consisted of 16 attitude items (numbers 3, 7, 8, 9, 10, 12, 13, 14, 18, 24, 26, 28, 34, 35, 36, and 38) according to Jones (1979) and Miller (1979). As previously mentioned, statements 12, 13, 14, 26, 28, and 35 were re-grouped by this investigator into the category of attitudes toward expanded nursing roles. Autonomy is the "right or the authority to determine and regulate one's own acts without interference" (Maas, Specht, & Jacox, 1975, p. 2210). Professional autonomy consists of

control over accreditation by determining the standards of preparation, continuance of practice through the measurement of performance and professional growth, and disciplining through the development and enforcement of codes of ethics. (Monnig, 1976, p. 774)

Statements 3, 7, 12, and 24 refer to determinants of nursing actions (i.e., functioning in a hospital setting, focus of nursing care, providing primary health care, and the nurse's role as determined by physician's orders). Statements 8, 18, 28, and 36 are concerned with regulation of nursing practice (when to consult with a physician over patient care, writing nursing orders on patient care records, and accountability for nursing actions). Statement 10, (The nurse should be the primary provider of

health education) was not found to have any literature support to appear in a category of professional autonomy. Also, this investigator did not find any support for this statement to be placed into any of the other three categories. It was decided that the statement was ambiguous, and although the questionnaires had already been distributed, statement 10 was deleted for purposes of data analyses. The remaining eight statements considered for analyses in the category of professional autonomy were numbers 3, 7, 8, 12, 18, 24, 28, and 36.

In conclusion, this investigator did find substantial literature evidence to confirm content validity in terms of the inclusiveness of the categories. The only change to be suggested would be additional attitude statements in the categories of professional characteristics of the nurse, health care team interaction and professional autonomy so that the number of statements in each category would be more equal.

Reliability of the Instrument

To confirm the reliability of the instrument, Jones (1979) and Miller (1979) utilized the odd-even method and computed the Spearman Rank Order Correlation Coefficient between the even numbered items and the odd numbered items. A coefficient of $r_s = .82$ was obtained by Jones and

a coefficient of $r_s = .93$ was obtained by Miller; thus the instrument was considered reliable.

To further confirm reliability, a coefficient alpha was computed by this investigator from the data obtained in this study. A coefficient alpha of .92 was obtained.

Data Collection

The instrument was administered to 214 freshmen medical students. The Director of Student Affairs at the chosen university placed the instrument package in the mail boxes assigned to these students. A designated receptacle was then placed in the Office of Student Affairs for the returned questionnaires.

At the end of one week, 32 questionnaires were returned and the investigator waited an additional three weeks. After week two, an additional 16 questionnaires were returned; after week three, an additional 11 questionnaires were returned; and after week four, an additional 2 questionnaires were returned. At the beginning of week five, the investigator submitted another letter to the students asking again for their participation (Appendix C). Extra questionnaires were provided in the Office of Student Affairs for those students who may have misplaced them. After two weeks, no additional questionnaires were returned,

therefore a total of 61 instruments were used in the final analyses of the data.

Treatment of Data

The data obtained was processed by the investigator. Information obtained on the data sheet was analyzed and means and percentages calculated. A total score for each subject was determined with a score of 116 or higher indicative of an overall positive attitude, while a score of 115 or below indicated a negative attitude. Mean scores were then computed for each category of attitude statements.

The data related to the total scores and the demographic variables identified on the data sheet (age, sex, intended area of specialization, physicians as a family member, registered nurse as a family member, educational level achieved by the registered nurse family member, work experience in health care, awareness of educational preparation of nurses, work association with nurse practitioner, clinical nurse specialists, nurse clinicians, physician's assistants or nurse midwives) were analyzed using Pearson Product Moment Correlation Coefficients, Kruskal-Wallis One-Way ANOVA and Mann-Whitney U Tests.

Summary

This chapter included information related to the procedure for the collection and treatment of the data

obtained in this study. The investigation was nonexperimental and descriptive in nature. The population consisted of 214 freshmen medical students attending a state supported medical school located in a metropolitan medical center in southeast Texas.

The instrument utilized was a 38-item Likert type attitude scale. A personal data sheet was also included. It was assumed that those students who completed and returned the questionnaire were giving their consent to participate. Although the validity and reliability of the instrument had been previously determined, validity of the categories of attitude statements was further confirmed by a literature review and a coefficient alpha was computed to further confirm reliability.

The instrument was distributed to all 214 students. After a total of seven weeks and one follow-up letter, 61 questionnaires were returned and use for purposes of data analyses.

The data were processed by the investigator. Total scores, means and percentages were calculated. Comparisons were made, utilizing Pearson Product Moment Correlation Coefficients, Kruskal-Wallis One-Way ANOVAS and Mann-Whitney U Tests, between the total scores and the demographic variables.

CHAPTER 4

ANALYSIS OF DATA

In order to appreciate the impact of the freshmen medical students' attitudes toward expanded nursing roles, the data obtained from this investigation must be analyzed and interpreted. This chapter describes and discusses the sample and the findings of the study. The results of the investigation are summarized.

Description of Sample

The study population consisted of 214 freshmen medical students. The sample consisted of 61 of those students who completed and returned the questionnaire. This was 28.5% of the total population. The age of the respondents ranged from 22 years to 31 years, with a mean age of 22.5 years. There were 43 (70.5%) male subjects and 18 (29.5%) female subjects.

Responses to the questions regarding intended area of specialization after graduation are summarized in Table 1. Eighteen, or 29.5%, of the students intend to specialize in Family Practice while no one indicated an intention to specialize in Radiology or Psychiatry.

Table 1

Intended Area of Specialization After Graduation of 61 Freshmen Medical Students at a Private Medical School in Southeastern Texas Responding to an Attitude Questionnaire on Professional Nursing Roles

Specialty	Number of Responses	Percent of Total
Ob-Gyn	1	1.6
Family Practice	18	29.5
Internal Medicine	8	13.1
Surgery	5	8.2
Radiology	0	0.0
Pediatrics	10	16.4
Psychiatry	0	0.0
Preventive Medicine	2	3.3
Pathology	2	3.3
Other ^a	15	24.6
Total	61	100.0

^aIncludes Anesthesiology, Oncology, Dermatology, Emergency Medicine, Opthamology, Clinical Research, and Unknown.

Several additional questions were asked that the investigator believed might be related to the subjects' attitudes. The students were asked whether or not a family member was involved in health care delivery, either as a physician or registered nurse. Sixteen students indicated they had a physician as a family member in comparison to 13 students who indicated that they had a registered nurse as a family member. Of the 13 students who were related to a registered nurse, 1 reported that the highest nursing educational level achieved as an Associate Degree, 10 reported a Bachelor of Science in Nursing, and 2 reported a Master's Degree.

In response to the question related to previous work experience (other than medical school training) in the field of health care, 43 students (70.5%) reported prior experience. The types of health care experience they described were orderly, medic, psychiatric attendant, registered nurse, licensed practical nurse, emergency medical technician, blood collector, genetic counselor, medical technologist, dental assistant, ward clerk, operating room technician, pharmacist, phlebotomist, nurse aide, respiratory therapist, and volunteer work in a hospital. Of these 43 students, 38 stated that they were aware of the educational preparation of the nurses who

were their co-workers, while 15 students answered they were not.

One assumption of the study was that freshmen medical students have been directly or indirectly exposed to nurses functioning in various expanded roles. Therefore, the students were asked if they had any work association with nurse practitioners, clinical nurse specialists, nurse clinicians, physician's assistants, or nurse midwives. (Although it was recognized that the physician's assistant is not a nursing role, it was included here in order to see how the students would compare it to expanded roles of the nurse.) Eighteen students (29.5%) had work experience with nurse practitioners while 16 students (26.2%) had work association with clinical nurse specialists and 16 students had work experience with nurse clinicians. Ten students (16.4%) had prior experience with a physician's assistant and three students (4.9%) had work association with a nurse-midwife.

To obtain a more complete profile of the subjects, four final questions were included. The students were asked if changes in the health care delivery system (regarding primary care) called for expanded nursing practice. Of the 61 students who responded to the questionnaire, 44 (72.1%) answered yes, while 14 students (22.9%)

answered no. Three did not indicate any response. When asked if they would consider collaborative practice with a professional nurse in order to improve patient care, 43 students (70.5%) answered positively, 17 (27.9%) answered negatively, and 1 did not reply.

The final two questions referred to interdisciplinary education. The students were asked if an interdisciplinary course between nursing and medical students concerning role clarification would be helpful. Fifty students (82%) indicated an affirmative response, 10 students (16.4%) indicated a negative answer, and 1 student (1.6%) did not respond. In the last statement, the students were asked if they would take such a course if it were offered. Forty-two students (68.8%) stated they would, while 17 (27.9%) stated they would not, and 2 students (3.3%) declined to answer.

Findings

To examine the attitudes of the sample, raw scores were computed for each subject and were followed by the computation of an overall mean score. A score of 116 or higher was indicative of a positive attitude, while a score of 115 or lower was indicative of an overall negative attitude toward expanded nursing roles. Thirty-four students (55.7%) had scores of 116 or higher while 27 students (44.3%) had scores of 115 or lower. The mean score for the entire

group on the attitude survey was 115.9, thereby minimally indicating an overall positive attitude for the 61 freshmen medical students who participated in the survey. The male respondents mean score was 112.6, indicating an overall negative attitude, while the mean score for the female students was 130.1, indicating an overall positive attitude.

In order to determine if there were statistical relationships between selected demographic variables and attitudes, comparisons were made using different statistical techniques. The Pearson Product Moment Correlation Coefficient was used to determine the relationship between age and the total score. No statistically significant correlation emerged. A Kruskal-Wallis One-Way ANOVA was used to determine the relationship of the mean score to intended area of specialization and the educational level of the registered nurse family member. No significant relationships emerged. The Mann-Whitney U Test was used to analyze relationships between the variables of: sex, physician as a family member, registered nurse as a family member, work experience in health care, awareness of the educational preparation of nurses, work association with a nurse practitioner, clinical nurse specialist, nurse clinician, physician's assistant, or nurse midwife, and the mean attitude score. These results indicated that

sex was the only variable significantly related to attitude at $p \leq .005$.

The items in each category (professional characteristics of the nurse, expanded roles of the nurse, health care team interaction and professional autonomy) were examined. Mean scores for each group of category statements then were calculated.

The category of professional characteristics of the nurse consisted of three items. These were statements 1, 31, and 37. For these questions, a score of seven or above signified a positive attitude while six or below signified a negative attitude. The total mean score was 7.06, thereby indicating a positive attitude for this category. The second category, expanded roles of the nurse, included statements 2, 4, 5, 6, 15, 16, 17, 19, 21, 22, 23, 27, and 32. For this group of statements, a score of 44 or above was considered a positive attitude while a score of 43 or below was considered a negative attitude. The total mean score was 45.36, thereby indicating a positive attitude for this category.

Health care team interaction items were statements 1, 29, 30, and 33. For this category, the total mean score was 13.84. A score of 12 or higher indicated a positive attitude and 11 or lower indicated a negative attitude, therefore, a positive attitude was reflected.

The last category was concerned with professional autonomy (statements 3, 7, 8, 9, 12, 13, 14, 18, 24, 26, 28, 34, 35, 36, and 38). A score of 60 or above denoted a positive attitude while a score of 59 or lower denoted a negative attitude. The total mean score was 51.62, thereby indicating a negative attitude for this category.

Summary of Findings

The sample of 61 freshmen medical students included 72.1% male and 27.9% female who ranged in age from 22 to 31 years. The most commonly indicated expected medical specialty was Family Practice. Pediatrics and Internal Medicine were second and third in numbers of responses. Sixteen of these students had a physician as a family member and 13 students had a registered nurse as a family member. A large majority, 70.5%, had previous work experience in health care. It was of interest to note that the population had limited health care experience with a nurse practitioner (29.5%), a clinical nurse specialist and nurse clinician (26.2%), a physician's assistant (16.4%), and a nurse midwife (4.9%).

Forty-four students (72.1%) agreed that changes in health care called for expanded nursing practice and forty-three (70.5%) stated they would consider a collaborative practice with a professional nurse. Fifty students

(82%) agreed that an interdisciplinary course between medical and nursing students would be helpful and 42 (68.8%) stated they would take such a course.

The total mean score on the attitude survey was 115.9, thereby indicating an overall positive attitude toward expanded nursing roles. Of all the demographic variables, only sex proved significantly related to the total score at $p \leq .005$.

The categories of statements were examined (professional characteristics of the nurse, expanded roles of the nurse, health care team interaction, and professional autonomy). The responses to the group of statements concerned with professional autonomy were the only group which indicated an overall negative attitude.

CHAPTER 5

SUMMARY OF THE STUDY

Students of medicine develop attitudes towards nursing which play a significant part in later interprofessional communications and relations. The purpose of this study was to investigate the attitudes of freshmen medical students toward expanded professional nursing roles.

Summary

This investigation was nonexperimental and descriptive in nature. The population consisted of 214 freshmen medical students attending a state supported medical school located in a metropolitan medical center in southeast Texas.

The instrument used was a 38-item Likert-type attitude scale developed collaboratively in two separate studies by Jones (1979) and Miller (1979). Statements which reflect attitudes toward professional nursing roles were categorized into four areas (professional characteristics of the nurse, expanded nursing roles, health care team interaction and professional autonomy). Responses to each statement were made on a 5-point scale. Content validity and reliability of the instrument had previously been

confirmed by Jones (1979) and Miller (1970). However, to establish the validity of the categories of attitude statements, a literature review was conducted by this investigator. In addition, using the data of the present study, a coefficient alpha of .92 was calculated.

The instrument, with a demographic data sheet, was distributed to all 214 freshmen medical students at the selected university. Sixty-one questionnaires were returned and utilized for purposes of data analyses. This represented 28.5% of the study population.

The total score for each subject was calculated, with a score of 116 or higher indicative of an overall positive attitude and a score of 115 or lower indicative of an overall negative attitude. The mean score for the entire group was 115.9, thereby indicating an overall positive attitude toward professional nursing roles.

Selected demographic variables were compared to total scores using the Pearson Product Moment Correlation Coefficient, the Mann-Whitney U Test, and Kruskal-Wallis One-Way ANOVA. Sex was the only variable which indicated statistical significance.

Mean scores were calculated for each category of statements on the survey (professional characteristics of the nurse, expanded role of the nurse, health-team

interaction and professional autonomy of the nurse). Attitudes reflected positive scores in all categories except professional autonomy.

Discussion of Findings

Two previous studies were conducted utilizing the same instrument with different target populations. Jones (1979) administered the same instrument to senior medical students and Miller (1979) conducted the survey among physicians. Overall mean scores and category mean scores were calculated in all three studies and are listed in Table 2. In both the previous studies, the overall mean score indicated a negative attitude toward professional nursing roles. All three studies displayed positive attitudes in the area of health team interaction and negative attitudes for professional autonomy of the nurse. It was interesting to note that the overall mean scores declined from the freshmen medical students to the senior medical students to the physicians. Mean scores also declined within the four categories. The exception was the category of health-team interaction. Within this group, the mean score increased for the senior medical students, but then decreased below that of the freshmen students for the group of physicians. From these data, it seems that attitudes toward professional

Table 2

Comparison of Overall Mean and Mean of the Four Categories of 61 Freshmen Medical Students, 51 Senior Medical Students and 38 Physicians in Response to an Attitude Questionnaire on the Expanded Role of the Nurse

Category	Freshmen Medical Students Mean	Senior Medical Students Mean	Physician Mean
Overall Mean	115.9(+) ^a	108.9(-)	100.3(-)
Professional Characteristics of the Nurse	7.1(+)	5.2(+)	6.2(-)
Expanded Role of the Nurse	45.4(+)	40.6(-)	38.0(-)
Health-Team Interaction	13.8(+)	14.8(+)	12.5(+)
Professional Autonomy	51.5(-)	48.2(-)	45.7(-)

^a(-) indicates negative attitude; (+) indicates positive attitude.

nursing roles decline during medical education and continue to decline as a physician establishes a practice.

In the present study, sex was the only demographic variable which was significantly related to total attitude score. As stated in the findings, the mean score for the female respondents indicated an overall positive attitude while the mean score of the male respondents indicated an overall negative attitude toward professional nursing roles. Jones (1979) and Miller (1979) reported overall negative

attitudes in both their male and female respondents. These mean scores are listed in Table 3. It would appear from the results of the present investigation that the expanded role of the nurse is more widely accepted initially among female medical students.

Table 3

Sex Versus Mean Scores of 61 Freshmen Medical Students, 51 Senior Medical Students and 38 Physicians Responding to a Questionnaire Regarding Attitudes Toward Professional Nursing Roles

Sex	Number of Respondents	Percent	Means ^b
<u>Male</u>			
Freshmen Medical Students	43	70.5	112.6 (-)
Senior Medical Students	39	76.5	106.6 (-)
Physicians	31	81.6	101.5 (-)
<u>Female</u>			
Freshmen Medical Students	18	29.5	130.1 (+)
Senior Medical Students	12	23.5	113.6 (-)
Physicians	4	10.5	91.8 (-)

^aThree physician respondents declined to state their sex.

^b(-) indicates negative attitude; (+) indicates positive attitude.

As indicated in Table 2, the category of statements dealing with professional autonomy of the nurse is the only category in which the freshmen medical students had

negative attitudes. These statements focused on determinants of nursing actions and regulation of nursing practice. As discussed in Chapter 1, the physician thinks of himself as a soloist in health care delivery and considers the nurse as a technical assistant. Results of this study and the previous two studies would suggest that this misconception has continued to be handed down from physician to student and continues to prevail.

Conclusions and Implications

Based upon the findings and within the limitations of this study, the following conclusions have been made:

1. Freshmen medical students have positive attitudes toward expanded professional nursing roles.
2. Sex is a significant factor in terms of attitudes toward nursing roles. Male freshmen medical students' mean scores indicated negative attitudes while female medical students' mean scores indicated positive attitudes.
3. Freshmen medical students have negative attitudes toward professional autonomy of the nurse.

Based on the above conclusions, this implication follows:

Interdisciplinary education is needed between medical and nursing students in order to more fully understand and

appreciate each other's role in health care delivery and to alleviate a lack of professional relationships caused by sexual barriers.

Recommendations for Further Study

Based upon the findings of this study, it is recommended that the same study be conducted:

1. When the study population has reached the senior level of medical school education to determine if attitudes toward nursing change during the education process.
2. Among freshmen medical students at medical schools at different geographic locations to determine if location affects attitudes toward nursing roles.
3. With a larger sample to increase the validity of the findings.

APPENDIX A
AGENCY APPROVALS

TEXAS WOMAN'S UNIVERSITY
HOUSTON CAMPUS
HUMAN RESEARCH REVIEW COMMITTEE
REPORT

STUDENT'S NAME Kathleen R. Emmitte

PROPOSAL TITLE "Freshmen Medical Students Attitudes Toward
the Expanded Role of the Nurse"

COMMENTS: _____

DATE: January 18, 1950

[Signature]
~~Disapprove~~ Approve

[Signature]
~~Disapprove~~ Approve

[Signature]
~~Disapprove~~ Approve

[Signature]
~~Disapprove~~ Approve

APPENDIX B
INSTRUMENT PACKAGE

Dear Fellow Student,

I am in graduate school at Texas Woman's University. As part of the requirements for a master's degree in medical-surgical nursing I am writing a thesis on attitudes of freshmen medical students toward the expanded role of the nurse.

I would appreciate your cooperation in completing the attached data sheet and questionnaire. It will take approximately 15-20 minutes to complete. All information will be kept confidential. Your name will not appear anywhere on the survey. Your participation is strictly voluntary and it will be assumed that your completion and return of the questionnaire indicates your willingness to participate. After completion, please deposit the questionnaire in the box provided in the Office of Student Affairs within one week.

I will be happy to share the results of the study with you if you are interested. A copy of the results will be given to the Director of Student Affairs as soon as they are available. If you have any further questions you can reach me at (713)463-8105. Thank you for taking time to participate in my study.

Sincerely,

Kathleen R. Emmite

DATA SHEET

Please complete the following:

Age _____ Sex: Male _____ Female _____

Intended Area of Specialization after Graduation:

OB-GYN _____	Pediatrics _____
Family Practice _____	Psychiatry _____
Internal Medicine _____	Preventive Medicine _____
Surgery _____	Pathology _____
Radiology _____	Other (explain) _____

Are any of your family members physicians? Yes ___ No ___

Are any of your family members registered nurses? Yes ___ No ___

If so, what was the highest educational level achieved in nursing:

Associate degree _____	Master's degree _____
Diploma _____	Doctorate _____
Baccalaureate degree _____	

Other than your medical school training, have you had any work experience in the field of health care? Yes ___ No ___

If so, in what capacity?

Are you aware of the educational preparation of the nurses you have worked with in the clinical setting? Yes ___ No ___

Have you ever worked in association with a:

Nurse Practitioner	Yes ___	No ___	Nurse-Midwife	Yes ___	No ___
Clinical Nurse Specialist	Yes ___	No ___		Yes ___	No ___
Nurse Clinician	Yes ___	No ___			
Physician's Assistant	Yes ___	No ___			

Do changes in health care delivery systems (regarding primary care) call for expanding the scope of nursing practice?
Yes ___ No ___

Once your professional education is complete, would you consider a collaborative practice with a professional nurse in order to improve patient care? Yes ___ No ___

Do you believe that an interdisciplinary course between nursing and medical students concerning role clarification would be helpful? Yes ___ No ___

Would you take such a course if it were offered? Yes ___ No ___

ATTITUDE SURVEY

Please read the following statements and circle the letter(s) that correspond with your opinion according to the following scale:

SA--strongly agree
 A --agree
 N --no opinion
 D --disagree
 SD--strongly disagree

1. Patient entry into the health care system should be handled by the physician only. SA A N D SD
2. The nurse practitioner should be able to supervise the health care of well children. SA A N D SD
3. Nurses should function primarily within the hospital setting. SA A N D SD
4. The nurse midwife should be able to care for healthy women through the maternity cycle. SA A N D SD
5. Certified nurse midwives should have admitting privileges in hospitals for their patients. SA A N D SD
6. A nurse should be allowed to have a private practice caring for clients with nursing needs. SA A N D SD
7. The focus of the nurse should be primarily to perform direct bedside care. SA A N D SD
8. Nurses should consult with the physician before explaining a diabetic diet to a newly diagnosed diabetic. SA A N D SD
9. Nurses should have freedom of action within the scope of professional autonomy. SA A N D SD
10. The nurse should be the primary provider of health education. SA A N D SD
11. Nurses should have as their primary focus of education the acquisition of skills and techniques. SA A N D SD

12. The nurse should be the major provider of primary health care. SA A N D SD
13. The nurse should be allowed to make referrals to counselors for family or marital problems. SA A N D SD
14. The nurse should conduct community clinics for case finding and screening for health problems. SA A N D SD
15. The clinical nurse specialist should be able to independently decide when and how an infected person should be isolated. SA A N D SD
16. The nurse practitioner should be able to perform specific diagnostic tests such as pap and g.c. smears. SA A N D SD
17. The nurse in private practice should be allowed third party payment for her services. SA A N D SD
18. The nurse should consult with the physician before interpreting medication orders to the patient. SA A N D SD.
19. Clinical nurse specialists should prepare the patient for discharge from the hospital and make a follow-up visit or phone call after discharge. SA A N D SD
20. The pediatric nurse practitioner should be able to conduct pre-school physical screening examinations. SA A N D SD
21. Patients in the community with chronic illness can be effectively managed in nurse clinics using established protocols (i.e., adjusting medication dose). SA A N D SD
22. The nurse practitioner should be able to treat commonly occurring minor health problems. SA A N D SD
23. The geriatric nurse practitioner should be able to supervise the health care of the elderly in nursing homes. SA A N D SD

24. The nurse's role is chiefly determined by physician orders. SA A N D SD
25. There is no need in health care services for a nurse in private practice. SA A N D SD
26. The nurse should be able to perform a routine physical examination of the patient, including examination with otoscope, ophthalmoscope, percussion and auscultation. SA A N D SD
27. There is little difference in the role of the nurse practitioner and that of the physician's assistant. SA A N D SD
28. The nurse should be able to write orders prescribing nursing care on the order sheet in the patient care record. SA A N D SD
29. Effective use of the nurse's knowledge and skills can increase the efficiency of the physician. SA A N D SD
30. The physician and nurse are equal members of the health care team in terms of contributions to patient care. SA A N D SD
31. The nurse sees the client in a more humanistic or holistic manner than the physician. SA A N D SD
32. There is a need for clinical specialization for nurses as well as for physicians. SA A N D SD
33. Nursing textbooks should be primarily written by physicians. SA A N D SD
34. Nurses should be involved in conducting research for improved patient care. SA A N D SD
35. Masters prepared nurses should be employed primarily in an academic setting. SA A N D SD
36. Nurses should be held accountable for actions based on nursing judgment. SA A N D SD
37. Nurses should be individuals of intellectual and personal qualities who place service above personal gain. SA A N D SD

38. Information regarding potential side effects of medication should be a responsibility of the physician rather than the nurse.

SA A N D SD

APPENDIX C
FOLLOW-UP LETTER

Dear Fellow Students:

A few weeks ago, I sent you a questionnaire designed to measure freshmen medical students' attitudes toward professional nursing roles. Thank you to those of you who completed and returned them. However, I am still in need of additional questionnaires in order to have a suitable sample for my study. If you have not returned your questionnaire, please do so to assist a fellow student. Extras have been placed in the Office of Student Affairs.

Thank you,

A handwritten signature in cursive script that reads "Kathleen R. Emmite".

Kathleen R. Emmite

REFERENCES

- Bates, B. Doctor and nurse. Changing roles and relations. The New England Journal of Medicine, 1970, 283(3), 129-133.
- Boyer, L., Lee, D., & Kirchner, C. A student run course in interprofessional relations. Journal of Medical Education, 1977, 52(3), 183-189.
- Brown, F. Sociology with application to nursing and health education. Englewood Cliffs: Prentice-Hall, Inc., 1957.
- Bullough, B. Barriers to the nurse-practitioner movement; problems of women in a woman's field. International Journal of Health Services, 1975, 15(2), 225-233.
- Bullough, B., & Bullough, V. (Eds.). Expanding horizons for nurses. New York: Springer Publishing Co., 1977.
- Campbell, J. D. Studies in attitude formation: The development of health orientations. In C. Sherif & M. Sherif (Eds.), Attitude, ego-involvement, and change. New York: John Wiley & Sons, Inc., 1963.
- Cepolla, J., & Collings, G. Nurse clinicians in industry. American Journal of Nursing, 1971, 71(8), 1530-1534.
- Eitzen, D. S. In conflict and order: Understanding society. Boston: Allyn & Bacon, Inc., 1978.
- Extending the scope of nursing practice--a report of the Secretary's Committee to study extended roles for nurses. JAMA, 1972, 220(9), 1229-1235.
- Folta, J., & Deck, E. (Eds.). A sociological framework for patient care. New York: John Wiley & Sons, Inc., 1966.
- Gamer, M. The ideology of professionalism. Nursing Outlook, 1979, 27(2), 108-111.
- Halloran, J. D. Attitude and attitude change. Great Britain: Leicister University Press, 1967.

- Harding, H., Fowler, M., & Gordon, N. A nursing course for medical students. Nursing Outlook, 1975, 23(4), 240-242.
- Hinsvark, I. Implications for action in the expanded role of the nurse. Nursing Clinics of North America, 1974, 9(3), 411-423.
- Hoekelman, R. Nurse physician relationships. American Journal of Nursing, 1975, 75(7), 1150-1152.
- Jones, L. Senior medical students' attitudes toward professional nursing roles. Professional paper, Texas Woman's University, Houston, Texas, May, 1979.
- Kenneth, H. Y. Medical and nursing students learn together. Nursing Outlook, 1969, 17(11), 46-49.
- Kerlinger, F. Foundations of behavioral research (2d ed.). New York: Holt, Rinehart, & Winston, Inc., 1978.
- Kinsella, D. Who is the clinical nurse specialist? Hospitals, 1973, 47(6), 72-80.
- Leininger, M. This I believe . . . about interdisciplinary education for the future. Nursing Outlook, 1971, 19(12), 787-791.
- Lewis, C., & Cheyovich, T. Who is a nurse practitioner? Processes of care and patients' and physicians' perceptions. Medical Care, 1976, 14(4), 365-371.
- Lewis, C., & Resnik, B. Relative orientations of medicine and nursing to ambulatory patient care. Journal of Medical Education, 1966, 41(2), 162-166.
- Logan, F. J. The handmaiden is not dead. The Canadian Nurse, 1976, 72(6), 25.
- Maas, M., Specht, J., & Jacox, I. Nurse autonomy reality not rhetoric. American Journal of Nursing, 1975, 75(12), 2201-2204.
- Mauksch, I. Nurse-physician interaction: A new partnership in health care delivery. Alaska Medicine, 1974, 16(6), 117-120.
- Mauksch, I. Nursing is coming of age . . . through the practitioner movement. The American Journal of Nursing, 1975, 75(10), 1835-1843.

- Medicine and nursing in the 1970's--a position paper by the AMA Committee on Nursing. JAMA, 1970, 213(11), 1881-1883.
- Miller, T. Physicians' attitudes toward the expanded role of the nurse. Professional paper, Texas Woman's University, Houston, Texas, May, 1979.
- Monnig, R. Professional territoriality: A study of the expanded role of the nurse. Aviation Space and Environmental Medicine, 1976, 47(7), 773-776.
- Ozimek, D. The baccalaureate graduate in nursing: What does society expect? NLN Publication No. 15-1520. New York: National League for Nursing, 1974.
- Robinson, A. The nurse-practitioner: Expanding your limits. RN, 1973, 36(11), 27-34.
- Rosenaus, J., & Fuller, D. Teaching strategies for interdisciplinary education. Nursing Outlook, 1973, 21(3), 159-162.
- Sawyer, M. B., & Serafini, P. Interdisciplinary education: Is it valid? American Journal of Nursing, 1975, 75(5), 825.
- Scott, J. The changing health care environment . . . its implications for nursing. American Journal of Public Health, 1974, 64(4), 364-369.
- Sherif, C., & Sherif, M. (Eds.). Attitude, ego involvement and change. New York: John Wiley & Sons, Inc., 1963.
- Shortridge, L., & Lee, E. J. Introduction to nursing practice. New York: McGraw-Hill, Inc., 1980.
- Stanley, L. "Expanded-role" nursing hits the hospital. RN, 1978, 41(1), 55-59.
- Stearly, S., Noodenbos, A., & Crouch, V. Pediatric nurse practitioner. American Journal of Nursing, 1967, 67(10), 2083-2087.
- Stein, L. S. The doctor-nurse game. Archives of General Psychiatry, 1967, 16(6), 699-703.
- Wagner, R., & Sherwood, J. (Eds.). The study of attitude change. California: Brooks/Cole Publishing Co., 1969.