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**FACTORS ASSOCIATED WITH THE ACCEPTANCE BY NURSING STUDENTS
OF ROLE FUNCTIONS AS CHARACTERISTIC OF
AN EXPANDED ROLE FOR NURSES**

BY

SHARON LEECH HOFLAND

**A thesis submitted
in partial fulfillment of the requirements for the
Degree Doctor of Philosophy, Major in
Sociology, South Dakota
State University
1976**

30

FACTORS ASSOCIATED WITH THE ACCEPTANCE BY NURSING STUDENTS

OF ROLE FUNCTIONS CHARACTERISTIC OF

AN EXPANDED ROLE FOR NURSES

Abstract

SHARON LEECH HOFLAND

Under the supervision of Dr. Robert M. Dimit

A study of graduating nursing students was conducted to determine:

(1) the extent to which these students would be willing to accept specified role functions as characteristic of an expanded role for nurses; and (2) what factors are associated with and seem to explain the graduating nursing students' acceptance of these specified role functions as characteristic of an expanded role for nurses.

An interview schedule was developed, pretested, and administered to students enrolled in their final year of study at one of the nine schools with state board approved programs for Registered Nurse licensure.

The interview schedule included questions relating to selected sociodemographic characteristics of the student nurses, the extent of their exposure to and cognitive knowledge of the expanded role concept, and their perceptions of selected reference and membership groups acceptance of specific role functions characteristic of an expanded role for nurses.

A reference group theoretical perspective was used for this study. A set of selected variables were examined to determine their association

with the student nurse's degree of acceptance of specified role functions characteristic of an expanded role for nurses.

Statistical tests utilized in the analysis of data included analysis of variance, step-wise multiple regression and t-test of significance. The .05 level of significance was accepted for this study.

The major conclusions were:

1. The specified role functions were generally accepted by students as being characteristic of an expanded role for nurses.
2. The acceptance by nursing students of role functions as characteristic of an expanded role for nurses was associated with: the type of program in which the student is enrolled; the students' knowledge of the Nurse Practice Act provision for an expanded role; the students' plans to continue education following graduation; the students' association with medical and pharmacy students; the students' plans to gain membership in the American Nurses' Association; the students' having received health care from a nurse functioning in an expanded role; sex of the student; the students' perceived classmate acceptance of specified role functions; type of preferred nursing position; and the students' perceived nursing instructor acceptance of specified role functions.

ACKNOWLEDGMENTS

The writer expresses appreciation to the following who assisted, advised and encouraged the writer in this thesis:

To Dr. Robert M. Dimit, thesis advisor;

To Dr. James L. Satterlee, Head of the Rural Sociology Department; and to Dr. Robert T. Wagner and Dr. Marvin P. Riley of the Rural Sociology Department;

To Dr. W. Lee Tucker and Dr. Dean M. Hofland for assistance with statistical procedures;

To Dr. John F. Kinyon of the English Department;

To Dr. Rosalie Sitzmann, Susan Hardin, Joanne Satterlee, Mickey Knutson, Nancy Balvin, Karen Tiede, and Mary Kay Lerssen for the definition of expanded role and role functions characteristic of an expanded role for nurses;

To Mrs. Eileen Tanke, typist;

To the respondents in the schools of nursing, without whom this research would not have been possible; and

To my husband, Dean, and my children, Lori and Todd, for their support and patience throughout this period.

SLH

FACTORS ASSOCIATED WITH THE ACCEPTANCE BY NURSING STUDENTS
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AN EXPANDED ROLE FOR NURSES

This thesis is approved as a creditable and independent investigation by a candidate for the degree, Doctor of Philosophy, and is acceptable as meeting the thesis requirements for this degree. Acceptance of this thesis does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Head, Department of Rural Sociology

Date

Date

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CHAPTER I

STATEMENT OF THE PROBLEM AND OBJECTIVES OF THE STUDY

Introduction

South Dakota has a ratio of one physician for each 1,000 residents. Only Alabama, Arkansas and Mississippi have equally low or lower ratios. This low ratio of physicians is further compounded by unequal distribution over the state. In 1974, 17 of the state's 67 counties had no physicians.¹ This shortage of physicians creates a situation where health care often is inadequate or unavailable to everyone.

One possible solution to the deficit in the quantity and distribution of health service in the United States has been to train non-physicians to assume some of the responsibility traditionally accorded to physicians.²

Recognizing the practicality of that solution, Congress passed the Nurse Training Act which provides financial assistance for the education of Registered Nurses. As Senator J. Glenn Beall, Jr. stated, ". . . we have recognized the need for nurses in the existing and

¹Proposal submitted by the Nursing Subcommittee of the South Dakota Core Curriculum Project. 1975, p. 13. (Available at the College of Nursing, South Dakota State University, Brookings, South Dakota.)

²Sheila West and Robert Johnson, "Development of Treatment Guides and a Drug Formulary for Nurse-Practitioners," American Journal of Hospital Pharmacy, Vol. 30, No. 4 (April, 1973), pp. 316-319.

expanded roles for them in delivering health care to our citizens . . . we need to expand the federal role in training nurses in this country."³

The recent revisions of nurse practice acts in various states reflect efforts to accommodate the need for expanding services of nurses by permitting certain "additional acts" in addition to those contained in the body of the definition of nursing practice. In other words, the Congressional acts and state nurse practice act revisions have authorized the expansion of the nurses' role in the provision of health care from that traditionally understood in the past.

Problems, however, exist when discussing an expanded role for nurses. The scope of the expanded role has not been specified by delineation of responsibilities, functions, or privileges. Therefore, neither nursing nor the other medical professions have a clear common perception of the "expanded role" of the nurse.

The idea of an expanded role for nurses has led to the development of programs in various universities and clinical settings to train Physician Assistants, Clinical Specialists, Physician Extenders and Nurse Practitioners. However, ambiguities exist regarding the perception and acceptance of nurses functioning in positions prepared for in these programs.

If, as R. Merton suggested, student physicians are socialized to the role of the medical physician during the educational process so

³Virginia Bankencht, "Veto Rejected--Nurse Training Act is Law," The American Nurse, Vol. 7, No. 8 (July, 1975), p. 1.

that by the time of graduation the student physician has acquired much of the medical physician's role,⁴ then perhaps it can be anticipated that the expected role of the nurse is also acquired during the educational process. If so, the study of the willingness of graduating nursing students' to accept role functions characteristic of an expanded role that has been authorized and recognized as important to the nursing profession should provide an interesting area of study.

Statement of the Problem

The problem under investigation in this study is:

To what extent are graduating nursing students in South Dakota willing to accept specific role functions as characteristic of an expanded role for nurses and what factors are associated with that acceptance?

Importance of the Problem

Research related to this problem is important because of the interdependence of nursing and medical roles in providing health care to society. Thus, a change in the role of one would have an effect on the role of the other. Evidence suggests that if successful role change is to occur not only will the physicians have to accept nurses functioning in new areas, but nurses will have to be willing to accept and acquire the new role functions.

⁴Robert Merton et al., The Student-Physician (Cambridge: Harvard University Press, 1957), p. 186.

Lamb indicates that nurses in the profession must determine what responsibility they will assume in the provision of health care and that they must be willing to assume more responsibility than they have in the past.⁵

Mauksch indicates that one needs to look at the nature of the nursing programs since ". . . they overtly and covertly set the stage for the perceptions, expectations and definitions of the nurses roles which are targets of attack by those who seek to bring about changes."⁶

The Pankratzes also involve the educational process when speaking on the preparation for autonomous roles in nursing. They state that ". . . nurses are not looking for independent functioning when they begin their education, and the education they receive does not consistently encourage it."⁷

The report to the Secretary of Health, Education, and Welfare by the Secretary's Committee to Study Extended Roles for Nurses⁸ recommended that additudinal surveys be conducted to assess factors that might affect the acceptance of nurses in extended care roles.

⁵Karen Lamb, "Freedom for Our Sister, Freedom for Our Nursing," Nursing Digest, Vol. II, No. 8 (October, 1974), p. 45.

⁶Hans O. Mauksch, Handbook of Medical Sociology (New Jersey: Prentice-Hall, Inc., 1972), p. 217.

⁷Loren and Deanna Pankratz, "Nursing Autonomy and Patients' Rights: Development of a Nursing Attitude Scale," Journal of Health and Social Behavior, Vol. 15, No. 3 (September, 1974), pp. 211-215.

⁸Secretary's Committee to Study Extended Roles for Nurses, "Extending the Scope of Nursing Practice," Contemporary Nursing Series: The Expanded Role of the Nurse (New York: The American Journal of Nursing, Co., 1973), p. 20.

Therefore, it appears that research examining the perceptions of and willingness to accept role functions characteristic of an expanded role for nurses appears appropriate so that planning and changes can be made within the educational system.

Objectives of the Study

The objectives of this study are:

1. To determine the extent to which graduating nursing students in South Dakota are willing to accept specified role functions as characteristic of an expanded role for nurses.
2. To determine what factors are associated with and seem to explain the graduating nursing students' acceptance of these specified role functions as characteristic of an expanded role for nurses.

Definition of Terms

The following terms are used in this study and are defined as follows:

Expanded (extended) role of the nurse: Extension of additional functions of the nurse into the areas of physical assessment, tentative medical diagnosis, medical management within prescribed protocols and the follow-up of patients under medical management. This includes situations where additional education is necessary and the nurse will be under the indirect (physician is available by phone or person if needed) or direct (physician is present while function is performed by the nurse) supervision of the physician. The functions of the nurse and the nurse's involvement with the physician depend upon the areas

of expertise and preparation of the nurse. The terms "expanded role" and "extended role" will be used interchangeably in this thesis.

Graduating nursing student: A student enrolled in his/her final year of study in a nursing program preparing the student for licensure as a Registered Nurse. In this study, the student will be graduating May, July, or December, 1976.

Approved nursing program: Those nursing programs which prepare the student to take state board exams for the Registered Nurse licensure and which have been approved by the State Board of Nursing in South Dakota.

Registered Nurse: An individual legally licensed to practice nursing as a Registered Nurse.

American Nurses Association: The national association which represents members of the nursing profession in all matters pertinent to the profession; the spokesman for the profession.

South Dakota National Student Nurses Association (Organization): The association (organization) that represents members in all matters pertinent to students enrolled in the various nursing education programs. The organization prepares students for membership in professional organizations and provides a channel of communication between nurses and student nurses.

Nurse Practice Act: Sets forth the state laws and rules regulating the practice of nursing.

Organization of the Thesis

The remainder of this thesis will be organized as follows:

1. Chapter II will be a review of selected literature pertinent to the study.
2. Chapter III will include the theoretical perspective and the research hypotheses.
3. Chapter IV will present the research design and methodology.
4. Chapter V will report the analysis of the research data.
5. Chapter VI will include a summary of the dissertation, conclusions and implications of the findings, limitations of the study, and recommendations for further research.

CHAPTER II

REVIEW OF LITERATURE

The literature cited herein consists of two types of studies considered relevant to the development of a background for this study: (1) studies of the acceptance of expanded role functions by physicians, other professionals and patients, and (2) studies of socialization and the development of professional roles.

Acceptance of Expanded Role Functions

If nurses are to move successfully into an expanded role area, the change must be accepted not only by nurses, but by physicians, other professionals, and patients. This section of the review of literature will focus on the acceptance of role functions characteristic of expanded roles by physicians, clinic professional staff and patients.

Physician and clinical staff acceptance. A study of physicians' acceptance and perceptions of the expanded role for nurses was conducted by M. O'Dell. Fifty-seven physicians responded to a 15-item questionnaire of functions which would constitute an expanded role for nurses under the supervision of the physician. Her findings indicated that the majority of the physicians perceived a nurse in an expanded role as performing 11 of the 15 specified functions. Nine respondents (16 percent) made suggestions for other functions a nurse could perform

in the expanded role, and 53 (93 percent) believed that, in general, there should be an expanded role for nurses.¹

M. Schiller and V. Vivian investigated the extent of agreement between physicians and dietitians on the acceptance of activities, responsibilities and qualities which comprise an expanded role for the clinical dietitian. They indicated the study was important because ". . . the American Dietetic Association has given priority to delineating an expanded role for the clinical dietitian in the dietary management of patients, including prescribing diets."² One of the findings from this study indicated that those physicians who maintained closer communication with dietitians agreed to having the dietitian perform such functions as recommending diets and attending patients' rounds with the physician. The authors concluded that these attitudes may have resulted from the fact that these physicians have utilized the services of dietitians and recognize their professional competence.³

A study on the acceptance of an expanded role function for nurses after exposure to and familiarity with nurses performing in the expanded role was conducted by E. Schlesinger and others. One purpose of the study was to determine the acceptance by the clinic professional

¹Margaret O'Dell, "Physicians' Perceptions of an Extended Role for the Nurse," Nursing Research, Vol. 23, No. 4 (July-August, 1974), pp. 348-349.

²Sister Mary R. Schiller and Virginia Vivian, "The Role of the Clinical Dietitian: The Ideal Role Perceived by Dietitians and Physicians," Journal of the American Dietetic Association, Vol. 65, No. 3 (September, 1974), pp. 284-287.

³Ibid., p. 287.

staff of nurse examiners in the prenatal clinic. A control group of 84 patients was seen by the obstetrician at each visit. For the experimental group of 246 patients, three nurse examiners provided direct prenatal care. When comparing the two groups on pregnancy outcome and staff acceptance, it was determined that there was no significant difference on pregnancy outcome and there was a high degree of acceptance of the expanded role function by the clinic professional staff.⁴

R. Mackay and others, while gaining material for an article, observed a nurse functioning in a pediatric ward as a nurse clinician. He reported, "She succeeded in assuming never before performed nursing functions for severely ill children, and she gained acceptance as a resource person from the physicians and from some of the nurses."⁵ He also reported that she coauthored an article with a physician, and, after her move to another city, even some of those who initially opposed her requested that she be replaced with a nurse who could function in a similar way.⁶

Patient acceptance. A 1972 study by J. Morgan to determine if socioeconomic variables affected the acceptance of nurses in the

⁴Edward Schlesinger et al., "A Controlled Test of the Use of Registered Nurses for Prenatal Care," Health Service Reports, Vol. 88 (May, 1973), pp. 109-111.

⁵Ruth Mackay et al., "Parents Attitudes Towards the Nurse as Physician Associate in Pediatric Practice," Canadian Journal of Public Health, Vol. 64, No. 2 (March-April, 1973), pp. 121-132.

⁶Ibid., p. 121.

expanded role of a nurse-midwife indicated that there were no differences of acceptance of the nurse in this role based on various socioeconomic groupings. He reported that 80 percent of the 300 patients would be willing to be delivered by the nurse-midwife if the physician were present or available.⁷

The study by Schlesinger and others referred to above, conducted on two patient groups to determine the acceptance by the clinic staff professionals toward three nurse examiners, also assessed the patient acceptance of the nurse examiners. They reported that patient acceptance of the nurse performing in the expanded role increased with each visit so that by the third prenatal visit 82.4 percent of the patients accepted the role of the nurse. The authors concluded that the analysis of data supported the feasibility of utilizing registered nurses with additional education for an expanded role in the prenatal clinic.⁸

The above studies suggest that contact with and exposure to professionals performing in expanded roles is associated with acceptance of an expanded role function.

Socialization and Professional Role Development

A review of studies dealing with factors involved in the socialization process that relate to the acceptance and development of the

⁷J. Morgan, "New Dimension," Journal of Nurse-Midwifery, Vol. 18 (Spring, 1973), pp. 4-10.

⁸Schlesinger, op. cit., p. 91.

professional role is pertinent to this study because the professions have expectations as to the behavior of individuals who occupy given positions in that profession. Since socialization is the process by which someone learns the ways of a given society or social group, appropriate socialization into the profession is vital to the continued existence of the profession as well as to the provision of high quality services to the society which requires them. The following review of studies will focus on the socialization involved in the professional reference system. The professional reference system is conceived of as those influences originating from several designated sources mutually related to the individual's occupation role.⁹

Included in this system will be the influence of faculty contacts and professional educational experiences, pre-professional socialization experiences, and the influence of the professional organization on the acceptance of the professional role and ideals.

Faculty contacts and educational experiences. The following observation by R. Merton gives special importance to the role of teaching faculty in the professional socialization process. He states:

Socialization refers to the processes through which he develops his professional self, with its characteristic values, attitudes, knowledge, and skills, fusing these into a more or less consistent set of dispositions which govern his behavior in a wide variety of professional situations. Socialization takes place primarily through social interaction with people who are significant for

⁹Raymond Schmitt, The Reference Other Orientation (Carbondale: Southern Illinois University Press, 1972), p. 43.

the individual--in the medical school, probably faculty members above most others, but importantly also with fellow students, with the complement of associated personnel (nurses, technicians, caseworkers) and with patients.¹⁰

P. Schwirian and N. Faccinette conducted a study to explore the relationship between students' attitudes and pharmacy faculty attitudes toward pharmacy as a health profession on three scales--Status, Prestige, and Business-financial designation. Their findings were based on three questionnaires administered over a three-year period. They reported that the students expressed more negative attitudes toward pharmacy as a health profession, especially on the Status and Prestige scales, after two years in the pharmacy program. They also reported that there was a relationship between the negative attitude change of the pharmacy faculty, as expressed on the three scales, and the pharmacy students.¹¹

The influence of the faculty on the students' perception of the professional role was demonstrated in a pharmacy study by K. Speranza. The study stressed the importance for the student to perceive the faculty as realistic and acceptable role models who reflect expanded role responsibility. Speranza reported that students in a hospital clinical course did not perceive their clinical instructors as

¹⁰Robert Merton et al., The Student-Physician (Cambridge: Harvard University Press, 1957), p. 287.

¹¹Patricia Schwirian and Neil Faccinetti, "Professional Socialization and Disillusionment: The Case of Pharmacy," American Journal of Pharmaceutical Education, Vol. 39, No. 1 (February, 1975), pp. 18-23.

practitioners and thus maintained their preconceived notions that the pharmacist has little opportunity to perform an expanded professional role. The author contended that ". . . clinical instructors must establish themselves as perceivable role models that utilize theory and reflect the expanded role responsibility. If not, the inconsistencies perceived between what educators say and what they do would serve to perpetuate the professional role conflict that exists today."¹²

Mertons' earlier cited observation indicates that reference groups may be students, staff nurses, and other professionals and persons with whom the student interacts. In an attempt by Kramer to determine which nurses serve as role models for nurses at different times, she stated ". . . at graduation, the instructors figured prominently; after employment there was a significant shift to work-centered models."¹³ She continued by stating ". . . these shifts are consistent with the theory underlying the postulate that an increase in a bureaucratic value orientation will be related to a shift in role models from one who is professionally-centered (independent, cognitive, autonomous) to one who is bureaucratically-centered (coordinating, managerial)."¹⁴

¹²Kenneth A. Speranza, Sr., "A Diary Study of the Socialization Process in a Hospital Clinical Experience Course," American Journal of Pharmaceutical Education, Vol. 39, No. 1 (February, 1975), p. 29.

¹³Marlene Kramer, "Role Models, Role Conceptions and Role Deprivation," Nursing Research, Vol. 17, No. 2 (March-April, 1968), p. 120.

¹⁴Ibid., p. 120.

The influence of the experiences during the educational program that may affect the acceptance of the professional role was demonstrated by D. Kendig. He felt that the basic educational programs need to provide interdisciplinary educational experiences in order to learn professional roles (of the self) and also of the other disciplines involved in the health care system. He contends that such experiences will lead to the development of a collaborative team approach which is necessary before effective health care will result.¹⁵

A. Sadler also speaks of the importance of collaborative teaching by medical, nursing, and allied health faculties. He reports that such common training is essential for the development of the professional role and of effective teamwork in the provision of health care.¹⁶

While attempting to identify factors related to professional roles which may inhibit effective interaction in health teams, S. Hayes and M. Patterson determined that professional value systems may develop in multidisciplinary educational involvement. In the multidisciplinary groups composed of medical, nursing, speech therapy and dietary students, there was an increased awareness of group dynamics and support. In particular, it was indicated that ignorance of other

¹⁵ David Kindig, "Interdisciplinary Education for Primary Health Care Team Delivery," Journal of Medical Education, Vol. 50, No. 12 (December, 1975), p. 97.

¹⁶ Alfred Sadler, Jr., "New Health Practitioner Education: Problems and Issues," Journal of Medical Education, Vol. 50, No. 12 (December, 1975), pp. 97-99.

health professionals' areas of expertise and capabilities emerged as a substantial barrier to effective teamwork. They stated that:

Patterns of domination and submission and the tendency to interact as professions rather than individuals, indicated the necessity for improving interprofessional communication before effective teamwork can occur. Early and frequent multidisciplinary involvement during undergraduate years may facilitate effective functioning of health care teams....¹⁷

Kendig concurs that interdisciplinary experiences are important in learning the professional role, but that the student needs to have knowledge about his or her own future professional role before such an experience occurs. If not, the more advanced students with developed attitudes and skills will make interdisciplinary collaboration difficult.¹⁸

In an attempt to develop a socialization system that would be maximally effective in motivating future pharmacists to assume a more active role in health care, Speranza conducted a longitudinal study of a hospital clinical experience to determine its effect on the socialization of the pharmacist—initially as a student, and then as a practitioner. The socialization process was investigated by a non-directed diary study of the daily clinical experience. The author concluded that through social interaction with others, students appeared to begin to develop a health professional value system that

¹⁷Susan Hayes and Margaret Patterson, "Interaction Between Students in Multidisciplinary Health Teams," Journal of Medical Education, Vol. 50, No. 5 (May, 1975), p. 474.

¹⁸Kendig, op. cit., pp. 97-100.

recognized some of the norms of the medical culture. It was also determined that certain medical values were learned that "... might conflict with the professional role." The author indicated that one such conflict value was the recognition of the physician as the dominator of the health care system.¹⁹

Pre-professional experiences. The previous review of studies spoke to the role of the faculty and educational experiences that may impute norms, values and an accepted professional role to the student during the professional socialization process. The following review will focus on the pre-professional experience of the student as it may relate to the acceptance of the professional role.

Kramer reports that in studying the behavior and attitudinal changes of soldiers during World War II, Stouffer and associates noted that often those who successfully assumed new statuses began to acquire the necessary behavioral characteristics, attitudes and role orientations prior to the time of formally assuming the role. This premature identification with the behavior and attitudes of an "aspired to" reference group Merton termed "anticipatory socialization."²⁰

The idea of anticipatory socialization has been cited as a possible factor affecting the acceptance of professional roles by Kramer. She states that students who have been employed as nurse's aides prior to entering into the professional nursing education

¹⁹Speranza, op. cit., p. 29.

²⁰M. Kramer, Reality Shock: Why Nurses Leave Nursing (St. Louis: C. V. Mosby, Co., 1974), p. 30.

programs may have identified with the work-value system held by nurses who work in institutions. When these persons enter into the nursing educational programs where they are taught professional values, they may retain their previously acquired high bureaucratic work-value orientation and thus acquire a low professional role configuration.²¹ Kramer's use of anticipatory socialization may differ from general usage by other sociologists.

Organization association. The final section of the review of literature will focus on studies dealing with a person's degree of professionalism and organizational participation as factors affecting the acceptance and retention of professional roles and ideals.

D. Arbach and P. Marsh indicated that individuals actively participating in organizations were more frequent adopters of new ideas or methods based upon their organizations' acceptance of such methods.²² This would suggest that those individuals who participate in the student nurses' organization and plan to join the American Nurses Association may be more receptive to role functions that are characteristic of an expanded role since both organizations have endorsed the expanded role concept for nurses.

Kramer, in an attempt to measure the degree of "professionalism" as it was associated with the retention of professional ideals and values by nurses, constructed an Index of Professionalism which would

²¹Ibid., p. 36.

²²Dean Arbach and P. Marsh, "Some Factors Related to Rationality in Decision Making Among Farm Operators," Rural Sociology, Vol. 23 (June, 1958), p. 122.

assess how professional nurses are in terms of selected professional criteria. Her index was constructed from indicators of the concept of professionalism in use in the general society. Among the indicators used in the scale were: the number of professional courses taken since graduation; the number of professional books purchased since graduation; the extent of professional activity within the professional organization and the employing institution; the number of professional speeches given; the number of publications in literature; and the number of hours per week spent in professional reading. Kramer was unable to find any significant differences between those nurses who obtained high scores on the professional index and those who obtained lower scores relative to the retention of professional ideals and values.²³

Summary of Literature Review

This review of literature included studies relating to physician's and others acceptance of expanded roles, the pre-professional experiences which may affect the acceptance of professional roles, professional socialization experiences which may be associated with willingness to accept professional roles, and factors such as organizational participation which affect the internalization of acceptable professional roles and ideals.

²³Kramer, op. cit., pp. 56-57.

In general, studies reviewed indicated that contact with or exposure to professionals performing in expanded roles enhance the acceptance of such role performance. Specifically, the studies indicated that:

1. The majority of physicians studied perceived and accepted nurses in an expanded role of 11 of the 15 functions appropriate for an expanded role. It was also indicated that physicians did believe nurses should function in an expanded role.

2. There was an association between the acceptance of an expanded role for dietitians and the extent to which physicians had maintained close communication with the dietitian and had experience with the dietitian performing such functions.

3. Acceptance by nursing professionals of the expanded role was elicited after association with and exposure to the nurse functioning in an expanded role.

4. The acceptance of nurses in nurse-midwifery roles was not affected by selected socioeconomic variables of the patients. Eighty percent of 300 patients indicated a willingness to accept nurses in such roles after the patients had received health care from the nurses.

In general, studies indicated that acceptance of professional roles is associated with various professional socialization factors. Specifically, the studies indicated that:

1. Faculty attitudes appear to influence the attitudes of students toward the profession.

2. The student's perception and acceptance of the faculty as practitioners versus teachers has an effect on the acceptance of expanded role opportunities for the profession.

3. The reference groups of the students will change during the educational process and following entry into the profession as a participating member.

4. The exposure to various persons who may serve as role models may produce role conflict in students as to the correct professional role.

5. Interdisciplinary educational experiences are associated with the acceptance of the professional role if that experience occurs after the student has identified his own professional role. If not, the student may experience role confusion and be subjected to the domination of those students who have identified with their profession. The result may be withdrawal and role restriction.

6. Before effective health care can be provided, there needs to be the formation of health care teams who function as a collaborative unit. The literature review indicated that the team approach must begin during the educational program so that health professionals may become knowledgeable of other health professionals' areas of expertise and capabilities.

7. Pre-professional work experiences may affect the acceptance of the professional role as the person may have accepted the norms of the bureaucratic work value orientation, as reflected by nurses working in

institutions, rather than the professional value orientation reflected by the faculty.

8. Organizational participation may be associated with an increased rate of adoption of innovative methods. Therefore, if a change in a role function may be considered innovative, then organization participation may be associated with the acceptance of that role change if the organization norms favor innovativeness.

In summary, the above literature review supports the contention that educational experiences such as interdisciplinary experiences may lead to the acceptance of the professional role; that perceived attitudes of the faculty are associated with attitudes of the students toward the profession; that exposure to persons functioning in expanded roles promotes acceptance of that role function; and that if the professional role models are not acceptable, the student will not accept the professional role. Finally, a review of literature suggests that students may accept members of other professions or persons within their own profession as role models who may not reflect the professional values and ideals of the faculty. Such a situation may produce nonacceptance of the desired professional role or role conflict.

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CHAPTER III

THEORETICAL PERSPECTIVE

Introduction

Student nurses are preparing for professional career status and during the educational process they interact with a variety of role models who reflect various perceptions and attitudes toward the professional role of the nurse. This is especially true since opportunities for nurses to change their professional role has developed. Such a change has been reflected in two distinct types of role orientations--a traditional role orientation and an independent, autonomous, expanded role orientation.

The existence of the two role orientations requires that the student approach the situation utilizing perspectives formed through interaction with the various role models.

This study will utilize reference group theory to facilitate the study of differential associations and loyalties and thus facilitate the study of selective perceptions. The purpose of this chapter is to provide a theoretical perspective utilizing reference group theory so that variations in graduating nursing students' willingness to accept specific role functions as characteristic of an expanded role for nurses can be understood.

Reference Group

The concept of "reference group" has become a central analytic tool in social psychology and sociology, being used in the construction of hypotheses concerning a variety of social phenomena. Much of the interest in reference groups arises out of interest in situations in which a person is confronted with the necessity of choosing between two or more organized perspectives. Merton has given the following comprehensive statement concerning the aims of reference group theory:

Reference group theory aims to systematize the determinants and consequences of those processes of evaluation and self appraisal in which the individual takes the values or standards of other individuals and groups...¹

According to Merton, theories of the middle range lie between the minor but necessary working hypotheses and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behavior, social organization and social change. Reference group theory is an example of middle range theory used principally to guide empirical inquiry. Merton has stated that theories of the middle range consolidate, rather than fragment, empirical findings.²

¹Robert K. Merton and Alice Kitt Rossi, "Contributions to the Theory of Reference Group Behavior," Robert K. Merton and Paul Lazerfeld eds., Continuities in Social Research: Studies in the Scope and Method of the American Soldier (Glencoe, Ill.: Free Press, 1950), p. 35.

²Robert K. Merton, Social Theory and Social Structure (New York: The Free Press, 1968), pp. 39-59.

Literature reveals that all discussions of reference groups postulate some identifiable group to which an actor is related and whose norms and values he shares in some manner. Available formal definitions of "reference group" are inconsistent and sometimes contradictory in usage. A review of the differing usages of this concept will be presented.

H. H. Kelley suggests that reference groups serve two distinguishing functions--a comparative function and a normative function.³

The comparative function of a reference group is that of serving as or being a standard or comparison point against which the person can evaluate himself and others.

The normative function of a reference group is that of setting and enforcing standards for the person. M. Sherif speaks of the reference group as a group whose norms are used as anchoring points in structuring a person's perceptual field.⁴ A group can assume the function of norm-setting and norm-enforcement whenever it is in a position to deliver rewards or punishments for conformity or

³Manford Kuhn, "Reference Group," A Dictionary of the Social Sciences, Julius Gould and William Kolb (eds.) (New York: The Free Press, 1964), p. 581.

⁴Muzafer Sherif, "The Concept of Reference Groups in Human Relations," M. Sherif and M. Wilson (eds.) Group Relations at the Crossroads (New York: Harper and Bros., 1953), pp. 203-31.

non-conformity. Kelley states that an individual will adhere to the norms of such a group, of which he may or may not be a member.⁵

The clarification of the comparative and normative function of reference groups implies that the individual may use one group to serve both functions. If a group is to serve both functions, it is usually called the membership group.

It is also possible that individuals may form their attitudes in opposition to the norms of a group as well as in accordance with them. Therefore, one can distinguish between positive and negative types of reference groups. Furthermore, multiple groups may either reinforce the same outcome or produce conflicting consequences for the individual.

Theory on the Selection of Reference Group

Perceptions and attitudes of persons preparing for a career status are associated with the perceived perceptions and attitudes of the groups which form his frame of reference.

Reference group theory would hold that most people become so accustomed to a more or less compartmentalized life, shifting from one social world to another as they participate in a succession of transactions and reveal different facets of personality with each role they play, that they are generally not aware that their actions do not fit a coherent pattern. They become acutely aware of the existence of

⁵Harold Kelley, "Two Functions of Reference Groups," Hyman and Singer (eds.) Readings in Reference Group Theory and Research (New York: The Free Press, 1968), pp. 80-81.

different outlooks only when they are successively caught in a situation where conflicting demands are made upon them. These conflicts are essentially alternate ways of defining the same situation and arise from several possible perspectives. The hypothesis has been advanced that the choice of reference groups--that is, conformity to the norms of the group whose perspective is assumed--is a function of one's relationship and personal loyalty to others who share that outlook.⁶ H. Sullivan referred to a person directly responsible for the internalization of norms as the "significant other" and held that the choice of reference group rested upon personal loyalty to the significant others in each social world.⁷

Socialization Function of Reference Group

The reference group perspective also serves to explain how individuals are incorporated into society. The process is known as socialization and is conceived of as one in which individuals learn to play appropriate roles in society. Socialization is a life-long process. It includes early socialization and adult socialization. This study will focus on later socialization--specifically, student nurses socialization into the role of the professional nurse. There is increasing recognition of the integral involvement of individuals with

⁶Tamotsu Shibutani, "Reference Groups as Perspectives," American Journal of Sociology, 1958, Vol. 60, pp. 562-569.

⁷H. S. Sullivan, Conceptions of Modern Psychiatry (Washington, D.C.: W. H. White Psychiatric Foundation, 1947), pp. 18-22.

the socialization process as the means through which cultural patterns—values, beliefs, language, and other symbols—are internalized into the personality system. It is through this process that actors are provided with the interpersonal and other skills necessary for playing roles and are motivated to expend energy in roles.⁸ All socialization is not uniform, however. B. Berelson and G. Steiner conclude that there are differences due to the social strata in which people find themselves and differences in social characteristics, such as class, religion, age, sex, and residence.⁹

T. Newcomb's two studies of Bennington College women indicate that perceptions and behavior are a consequence of attitude formation occurring under the tutelage of parents, peers, and pedagogues in reinforcing social environments, and supported by the avoidance of conversion with persons presenting incompatible attitudes.¹⁰

L. Cottrell speaks of the socialization function of the reference group when he suggests that perceptions and behavior vary directly with the extent to which a role permits an individual to realize the dominant goals set by his subcultural group. He also indicates that

⁸Everett K. Wilson, Sociology: Rules, Roles, and Relationships (Homewood, Ill.: The Dorsey Press, 1971), pp. 120-152.

⁹Bernard Berelson and Gary Steiner, Human Behavior: An Inventory of Scientific Findings (New York: Harcourt, Brace & World, Inc., 1964), p. 570.

¹⁰Theodore Newcomb, "Persistence and Regression of Changed Attitudes: Long-Range Studies," Journal of Social Issues, Vol. 19, No. 4 (October, 1963), p. 12.

future behavior will vary with the amount of intimate contact one has with persons who allow identification of appropriate behavior to occur.¹¹

T. Kemper indicates that normative and comparative reference groups affect a socialization outcome which will affect performance in a given situation.¹²

According to Kemper, the normative reference group affects a socialization outcome by motivating conformity to basic cultural patterns. This includes acceptance of the roles appropriate to age, modified by sex, and dominated by the family, education process and occupation. The normative group directs the individual into conformity by encouraging or by requiring the individual to play certain roles. The group specifies certain roles and directs the individuals to play these roles. This group also sets the major boundaries for conformity or deviance by defining the latitude of permissible variation.

The comparison group assists the individual by providing role models that facilitate the acquisition of the behavioral correlatives of attitude conformity. The more complex the task, the more pressing the need for a concrete model. The comparison group thus aids in socialization by maintaining the standards of a role through determining adequacy of performance. Coupled with the normative

¹¹Leonard S. Cottrell, Jr., "Individual Adjustment to Age and Sex Roles," Sociological Review, Vol. 7, No. 5 (October, 1942), pp. 618-19.

¹²Theodore Kemper, "Reference Groups, Socialization and Achievement," American Sociological Review, Vol. 33, No. 1 (February, 1968), p. 32.

prescription to "do this" or "do that," there is also a need to know "how" this or that is done. Therefore, the comparison reference group helps meet a socialization goal.¹³

A discussion of Merton's concept of anticipatory socialization is appropriate at this time to help explain the behavior of that individual who is preparing for future statuses in his status-sequence. The formal process involved in preparing for future statuses is by education and training. However, much preparation for future statuses is unwitting and informal and it is to this type of preparation that anticipatory socialization is directed. Individuals may take, as a reference group, a non-membership group to which they aspire to belong. They then begin to socialize themselves to what they perceive to be its norms before they are exposed to the group's influence.¹⁴

Relationship of Reference Group to the Willingness
of Student Nurses to Accept Role Functions
Characteristic of an Expanded Role for Nurses

The review of literature and theoretical perspective support the contention that the individual identifies himself to some degree with those individuals and groups that have been influential in shaping his expectations.

The influence of the educational system and the role models within those systems which may serve as reference groups has been stated as

¹³ Ibid., pp. 34-39.

¹⁴ Merton, Social Theory, p. 438.

a variable which will serve to organize a person's perspective. These groups would serve to motivate the student to play certain roles and would also facilitate the acquisition of the behavioral correlatives of attitude conformity. As earlier reviewed literature indicated, some students failed to perceive the instructor as a practitioner and therefore were not accepting the role desired by the profession. The review of literature also indicated that instructors must be realistic role models if professional socialization into roles is to be accomplished. This discussion suggests that if the nursing curricula and faculty project a conservative traditional dependent role, the student may accept such roles as normative and reflect such attitudes toward role functions characteristic of an expanded role for nurses. Similarly, the discussion suggests that a curriculum designed with opportunities for students to interact with nurses who reflect an independent, autonomous, expanded role orientation will promote a situation wherein the student may perceive such a role orientation as desirable.

The anticipatory socialization concept has implications for this study because many nursing students have been former nurse's aides, orderlies or candy strippers, and may have accepted the working nurses as a reference group. Literature has indicated that norms held by nurses in hospitals may differ from norms reflected by nursing faculty. In such cases, the students may have begun to socialize themselves to what they perceive to be the norms of the profession before they are exposed to the formal educational preparation process.

Anticipatory socialization is also involved in those instances where students have lived in areas where nurses provided health care in the absence of a physician. This is especially true in South Dakota where a project was implemented that involved nurses who traveled to towns providing health service. Those students who were exposed to or knowledgeable about that project may have selected those nurses as their reference group and begun to socialize themselves to those perceived norms. The anticipatory socialization concept may also be involved if a member of the students' family is prepared as a health practitioner. Depending on the norms and attitudes reflected by that family member, the student may have adopted those norms before entering the nursing educational process. If those norms included an independent, autonomous, expanded role orientation there would appear to be more willingness to accept role functions characteristic of an expanded role for nurses.

A discussion of reference group theory enables one to realize that individual perspectives are influenced by a multitude of reference groups through various socialization processes the individual has experienced.

Theoretical Framework

The review of literature and theoretical perspective enables one to generate the following theoretical framework:

- I. Self-definitions of a role in a given status-position are influenced by groups to which persons are oriented.

II. Groups to which persons may be oriented can be membership or reference groups.

III. Student nurses occupy a status-position both within membership groups and reference groups.

IV. Among others, membership groups of student nurses include family and peer groups.

V. Particular reference groups providing orientation for student nurses are faculty, professional associates and speciality groups within nursing.

VI. Persons preparing for professional incumbencies are individuals who attempt to define role expectations appropriate to anticipated status-positions.

VII. Variations in the definition of role expectations are associated with variant membership and reference group affiliations.

VIII. The expanded role for nurses is a role option for professional nurses.

IX. Therefore, selected membership and reference group associations will help explain the willingness of student nurses to accept specific role functions as characteristic of an expanded role for nurses.

Research Hypotheses

The review of literature, theoretical perspective and framework enable one to generate the following hypotheses:

The willingness by graduating nursing students to accept role functions as characteristic of an expanded role for nurses is associated with:

1. The type of nursing program in which the student is enrolled
2. The pre-professional work experience of the student as a nurse's aide, orderly or candy striper
3. The student's level of knowledge of the Nurse Practice Act provision for an expanded role
4. Plans for continued education following graduation
5. Educational association with medical students
6. Educational association with pharmacy students
7. Plans to gain active membership in the American Nurses' Association
8. The student having received health care from a nurse functioning in an expanded role
9. Community proximity where nurses functioned in an expanded role
10. Sex of the student
11. The number of hours spent in discussion of the expanded role
12. Number of contact hours spent with a nurse in an expanded role during the educational experience
13. Number of articles read on the topic of expanded role
14. Type of preferred employment in five years
15. Type of preferred nursing position
16. Age of the student

17. Perceived role function acceptance of selected reference groups and membership group
18. Health occupation education of family members
19. Extent of participation in student nursing organization
20. Number of subscriptions held to nursing, medical, or hospital journals.

Population

The population for this study consisted of all nursing students in the first semester of the first year of the nursing program at the University of North Carolina at Chapel Hill. The population was selected from the list of students in the first semester of the first year of the nursing program at the University of North Carolina at Chapel Hill. The population was selected from the list of students in the first semester of the first year of the nursing program at the University of North Carolina at Chapel Hill.

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CHAPTER IV

METHODOLOGY

The research methodology used for this study is reviewed in this section. This includes a discussion of the population, method of collecting data and the procedures used in analysis of the data.

Population

The population for this study included all students enrolled Spring semester 1976 of their final year of school for part-time or full-time study in all of the nine schools with state board approved programs for Registered Nurse licensure. The student will be referred to as a graduating nursing student. The schools of nursing categorized by type of programs are as follows:

I. Two year Associate Arts Degree Programs:

University of South Dakota
Vermillion, South Dakota

Dakota Wesleyan University
Mitchell, South Dakota

Presentation School of Nursing
Aberdeen, South Dakota

II. Three year Hospital Diploma Programs:

Sioux Valley Hospital School of Nursing
Sioux Falls, South Dakota

St. John's School of Nursing
Huron, South Dakota

Rapid City Regional Medical School of Nursing
Rapid City, South Dakota

III. Four year Baccalaureate Degree Programs:

Augustana College
Department of Nursing
Sioux Falls, South Dakota

Mount Marty College
Department of Nursing
Yankton, South Dakota

South Dakota State University
Department of Nursing
Brookings, South Dakota

Method of Collecting Data

A questionnaire was developed to measure the willingness of graduating nursing students to accept specified role functions as characteristic of an expanded role for nurses.

The definition of expanded role and the expanded role functions used in this study were obtained through correspondence with registered nurses who were educationally prepared to function in an expanded role. These professionals were requested to:

1. Provide an acceptable and measureable definition of "Expanded Role of the Nurse"
2. Provide a list of functions which would be appropriate for a nurse to perform while functioning in an expanded role.

Part one of the questionnaire explained the purpose of the study, and a definition of expanded role.

Part two of the questionnaire included questions regarding socio-demographic factors such as age, sex, type of educational program, amount of exposure to the expanded role concept, and other descriptive information.

Part three of the questionnaire contained a list of specified role functions that are characteristic of an expanded role. The student was to indicate the extent of agreement with each role function.

The acceptance of specified role functions was measured using a seven-point Likert scale, with value 1 representing the strongest agreement and value 7 representing the strongest disagreement. An "undecided" response was indicated by the value 4. Therefore, a lower scale score would indicate a greater acceptance of the role function since 1 represented the strongest agreement (see Appendix A).

The questionnaire was then pretested with students at South Dakota State University not enrolled in their final year of nursing education. Copies of the questionnaire were sent to a designated faculty member at each of the above stated schools of nursing. That faculty member administered the questionnaire to the graduating nursing students in that school and returned the completed questionnaires to this researcher.

Procedure for Analysis

Questionnaires were administered to 407 students. Eleven questionnaires were eliminated from analysis due to missing information. Analysis in this study is based upon data from the remaining 396 questionnaires.

Descriptive techniques of analysis were used for data relating to Objective One.

Analysis of variance, t-test, and step-wise multiple regression procedures were used in analyzing data relating to Objective Two.

The specified level of significance for the study was .05.

Dependent variable. The dependent variable was the extent of the respondents' willingness to accept specified role functions, as characteristic of an expanded role. This was operationalized by summing the individual responses in column five of questions 27-40 on the questionnaire.

Independent variables. The independent variables selected for analysis and the method of measurement were:

- X_2 - Type of nursing education program in which the student is enrolled: Associate Degree, Diploma Program, Baccalaureate Degree Program.
- X_3 - Plans for continued education following graduation: yes or no.
- X_6 - Number of hours spent in discussion on the expanded role: Respondent was asked to indicate the number of hours.
- X_8 - Number of contact hours spent with a nurse functioning in an expanded role during educational program: Respondent was asked to indicate the number of contact hours.
- X_9 - Number of articles read on the topic of expanded role: Respondent was asked to indicate the number of articles read.
- X_{10} - Association with medical students during educational program: The respondent was asked to check one of the following: No interaction; seminars/lectures only; shared the same clinical facilities with minimal or no interaction; shared the same clinical facilities and interacted as a team in providing patient care; both seminars/lectures and sharing of clinical facilities; both seminars/lectures and clinical facility team interaction; other (specify).
- X_{11} - Association with pharmacy students during educational program: Measured as in X_{10} .
- X_{12} - Pre-professional work experience as a nurse's aide, orderly or candy striper: Respondent was asked to check one of the following: Yes, as a nurse's aide or orderly; Yes, as a candy striper; Yes, as a nurse's aide and candy striper; no.

- X₁₄ - Type of preferred employment five years following graduation: Respondent was asked to check one of the following: No employment; less than half-time employment; half-time employment; full-time employment.
- X₁₆ - Area of preferred nursing position following graduation: Respondent was asked to check one of the following: Staff nurse on medical, surgical, pediatrics, maternity or geriatrics; Head Nurse on medical, surgical, pediatrics, maternity or geriatrics; Community or Public Health Nurse; Staff Nurse in Coronary Care Unit or Intensive Care; Clinical Specialist or Nurse Practitioner.
- X₂₁ - Plans to gain active membership in The American Nurses' Association upon graduation: yes or no.
- X₃₀ - Recipient of health care from a nurse functioning in an expanded role: yes or no.
- X₃₁ - Community proximity where nurses functioned in an expanded role: Yes or no to the question, "Have you ever lived in a community where nurses provided services in an expanded role because there was no physician in the community?"
- X₃₂ - Knowledge of the Nurse Practice Act provision for an expanded role: Yes, no or uncertain to the question, "Does the Nurse Practice Act provide for the nurse to function in an expanded role?"
- X₃₃ - Sex of the student.
- X₃₄ - Age of the student: Respondent was asked to indicate her/his age as of last birthday.
- X₁₁₉ - Student-perceived nursing instructor role function acceptance: The respondent was asked to indicate the extent of agreement or disagreement to specified role functions from the viewpoint of their nursing instructor.
- X₁₂₀ - Student-perceived nursing staff role function acceptance: The respondent was asked to indicate the extent of agreement or disagreement to specified role functions from the viewpoint of the nursing staff with whom they have interacted during the educational experience.
- X₁₂₁ - Student-perceived physician role function acceptance: The respondent was asked to indicate the extent of agreement or disagreement to specified role functions from the viewpoint of physicians with whom they have interacted during their educational experience.

- X₁₂₂** = Student-perceived classmate role function acceptance: The respondent was asked to indicate the extent of agreement or disagreement to specified role functions from the viewpoint of their classmates.
- X₁₂₃** = Extent of participation in student nursing organization: An index was developed to measure the extent to which respondents participated in the student nursing organization. The index represented the sum of the total number obtained from the following information:
- a. If membership is held in the Student Nurse Organization.
 - b. Offices previously or presently held.
 - c. Committee membership.
 - d. Percentage of attendance at meetings.
- X₁₂₄** = Health occupation education of family members: Respondent was asked to state the health occupation preparation of mother, father, at least one brother, at least one sister.
- X₁₂₅** = Number of subscriptions held to nursing, medical, or hospital journals: Respondent was asked to list the journals subscribed to. The journals were then summed to indicate the total number of subscriptions.

CHAPTER V

ANALYSIS OF DATA

This chapter reports the results of analysis of the data.

Analysis will be reported under the following sections:

1. Selected sociodemographic characteristics of the responding students.
2. The extent of exposure to and cognitive knowledge of the expanded role.
3. The acceptance by graduating nursing students of specified role functions characteristic of an expanded role for nurses.
4. Relationship of selected variables to the acceptance of role functions characteristic of an expanded role for nurses.

Sociodemographic Characteristics of the Respondents

Type of program. The sample for this study consisted of 396 students enrolled in their final year of study at one of the nine South Dakota schools of nursing. One hundred fifty-one (38.1 percent) of the students were enrolled in an associate degree program; 145 (36.6 percent) of the students were enrolled in a baccalaureate degree program; and 100 (25.3 percent) were enrolled in a diploma program.

Sex. Three hundred sixty-two (91.4 percent) of the respondents were female and 33 (8.3 percent) were male. One student (0.25 percent) did not respond to the question.

Age. The respondents' mean age was 21.92 years. The reported ages ranged from 19 to 48 years.

Pre-professional work experience as a nurse's aide, orderly or candy striper. Nearly one-half (41.1 percent) of the students who responded to this question had worked either as a nurse's aide, orderly or candy striper prior to entering their professional educational program. Of these, 50 (12.6 percent) had worked as a nurse's aide, and 113 (28.5 percent) had worked as a candy striper. Fifty-eight (14.6 percent) had worked both as a nurse's aide or orderly and candy striper.

Journals subscribed to and read. The journal most frequently subscribed to was RN. Two hundred seven of the students reported they subscribed to RN; 188 subscribed to American Journal of Nursing; and 82 students have subscribed to Nursing '75 or '76. Other magazines listed were Imprint, Nursing Opportunities, and Nursing Outlook. Ninety-eight of the students had not subscribed to any nursing, medical or hospital journal.

The American Journal of Nursing was reported by 357 students as a magazine they usually read. Two hundred eighty-six students reported reading RN; 88 reported reading Nursing '75 or '76; and 103 reported reading Nursing Outlook.

Organizational commitment. Two hundred two (51.0 percent) of the students stated they hold or have held membership in the student nursing association. Fifty-nine (14.9 percent) indicated they serve or have served on committees, and 30 (7.6 percent) reported they hold

or have held offices in the student association. Two hundred sixty-three (63.9 percent) students indicated they had not attended any student association meetings. The remaining 143 (36.1 percent) students indicated they attended approximately 60 percent (58.9 percent) of the meetings. Thirty (7.6 percent) students reported attending 100 percent of the meetings.

Three hundred twenty-five (82.1 percent) of the students reported that they planned to become active members of the American Nurse's Association upon graduation. Sixty-eight (17.2 percent) of the students reported that they did not plan to join the Association.

Interdisciplinary educational experience. An examination of Table I (page 45) shows that a greater number of nursing students associated with medical students than associated with pharmacy students during their educational program. Two thirds of the students associated with medical students compared with less than one third associating with pharmacy students. The data also indicate that the most common type of student association with medical and pharmacy students was the sharing of clinical facilities with minimal or no interaction. As depicted in Table I, there was minimal interaction with medical or pharmacy students in a team approach to health care.

TABLE I

TYPE OF STUDENT ASSOCIATION WITH MEDICAL AND PHARMACY STUDENTS
DURING EDUCATIONAL EXPERIENCE BY FREQUENCY AND PERCENT
OF STUDENT RESPONSE

Type of Association	Medical Students		Pharmacy Students	
	F	%	F	%
No interaction	128	32.3	287	72.5
Seminars or lectures only	16	4.0	11	2.8
Shared clinical facilities with minimal or no interaction	158	39.9	62	15.7
Shared clinical facilities and interacted as a health team	49	12.4	18	4.5
Seminars or lectures and shared clinical facilities	30	7.6	8	2.0
Seminars or lectures and team interaction	8	2.0	7	1.8
Other	0	0.0	1	0.3
Did not respond to the question	7	1.8	2	0.5
Total	396	100.0	396	100.0

Preferred employment. Two hundred thirty-seven (59.8 percent) of the students reported they would prefer to be employed full-time in nursing five years from now. One hundred twenty-nine (32.6 percent) would prefer half-time employment; 19 (4.8 percent) would prefer fewer than 20 hours a week; and 11 (2.8 percent) students indicated they did not prefer to be employed in nursing in five years. A total of 151 students preferred some type of part-time employment.

An examination of Table II indicates that the major reason for preferring part-time employment in nursing is because of marriage and family responsibility. The remaining reasons for preferring part-time employment were interests other than nursing, dislike for nursing, money, stable income of husband, and work in anesthesia.

TABLE II

REASON FOR PREFERRING PART-TIME EMPLOYMENT
BY FREQUENCY AND PERCENT OF STUDENT RESPONSE

Reason for Preferring Part-time Employment	Frequency	Percent
Marriage/family	125	83.3
Other interests	12	8.0
Future school plans	4	2.7
Do not like nursing	3	2.0
Money	2	1.3
Do not want to be tied down	2	1.3
Husband has stable income	1	0.7
Anesthesia	1	0.7
Total	151	100.0

Preferred nursing position. One hundred sixteen (29.4 percent) of the students stated they preferred a staff nurse position on a unit such as medical, surgical, pediatrics, maternity or geriatrics. Forty-three (10.9 percent) students preferred a head nurse position on one of the above units; 85 (21.5 percent) preferred a staff position on a coronary care unit (CCU) or intensive care unit; and 80 (20.2 percent) preferred a clinical specialist or nurse practitioner position.

Seventy (17.7 percent) students preferred a community or public health position. The preferred nursing position was selected under the assumption that qualifications for the position had been met.

Future educational plans. Two hundred thirteen (53.8 percent) of the students indicated they planned to continue their nursing education after graduation. Eighty (40.0 percent) stated they planned to obtain a baccalaureate degree in nursing, and 16 (7.5 percent) planned to obtain a baccalaureate degree in a non-nursing area. Seventy-seven (36.1 percent) of the students reported they planned to obtain a master's degree in a non-nursing area. Twelve (5.6 percent) students indicated they planned to enter a program of anesthesia; and 15 (7.1 percent) planned to enter programs preparing for a nurse practitioner, physician assistant or extender, or family specialist role. The remaining five students stated they planned to enter nurse-midwifery programs or were undecided in what type of program they planned to enroll following graduation.

Health occupation preparation of family members. An examination of Table III (page 48) indicates that the vast majority of family members of the students do not have any health occupation preparation.

The most frequent health occupation preparation reported by the students was a family member prepared as a Registered Nurse. Twelve percent of the students reported that at least one sister had such preparation and nearly nine percent of the students reported that their mothers have such preparation. Preparation as a Licensed Practical Nurse was the second most common health occupation preparation with

nearly four percent of the students reporting that at least one sister had such preparation.

TABLE III

TYPE OF HEALTH OCCUPATION PREPARATION OF FAMILY MEMBERS
BY FREQUENCY AND PERCENT OF STUDENT RESPONSE

Type of Health Preparation	Mother		Father		Brother		Sister	
	F	%	F	%	F	%	F	%
No health preparation	348	87.9	388	98.0	374	94.4	325	82.1
Registered Nurse	35	8.8	1	0.3	4	1.0	48	12.1
Licensed Practical Nurse	6	1.5	0	0.0	1	0.3	15	3.8
Medical doctor	2	0.5	5	1.3	6	1.5	0	0.0
Pharmacist	0	0.0	1	0.3	1	0.3	2	0.5
Laboratory/X-Ray Technician	2	0.5	1	0.3	2	0.5	5	1.3
Dentist	0	0.0	0	0.0	3	0.8	0	0.0
Respiratory/Physical Therapist	1	0.3	0	0.0	5	1.3	1	0.3
Dietitian	1	0.3	0	0.0	0	0.0	0	0.0
Medical Record Librarian	1	0.3	0	0.0	0	0.0	0	0.0
Total	396	100.0	396	100.0	396	100.0	396	100.0

Summary of general respondent characteristics. The typical respondent was female, 21 years of age, a member of the nursing student organization, and had often had experience as a nurse's aide prior to her enrollment in a nursing program. Generally, she was enrolled in

an associate degree or a baccalaureate degree program. She planned to continue her education after graduation and to join the American Nurse's Association. As a student, she subscribed to RN magazine and read RN and American Journal of Nursing magazines most frequently. Her educational experiences provided her with no or very few opportunities for association with medical or pharmacy students. She would prefer full-time employment in nursing as a staff nurse, but marriage and family responsibilities might make her prefer less than full-time employment. The family members of the student were generally without preparation in a health occupation, but if such preparation had been obtained, a sister or mother was prepared as a Registered Nurse or as a Licensed Practical Nurse.

Extent of Exposure to and Cognitive Knowledge of the Expanded Role

This section examines the amount of exposure to the expanded role by reporting on the amount of study on the topic, the amount of contact with nurses functioning in the expanded role, and knowledge of the Nurse Practice Act provision for an expanded role.

Study of the expanded role. Three hundred twenty (80.8 percent) of the students reported that their educational program had included lectures or seminars on the expanded role topic for nurses. The mean number of hours spent on such discussion was 8.22. Seventy-five (18.9 percent) of the students stated they had not attended such lectures or seminars.

The mean number of articles read on the topic of the expanded role was 6.95. The reported number of articles read ranged from 1 to 75 articles.

Contact with nurses functioning in an expanded role. Over one-half of the students (235, or 59.3 percent) indicated that their nursing program placed them in contact with nurses who function in an expanded role. The mean number of hours spent with such nurses was 8.55. The reported number of contact hours with such nurses ranged from 1 to 49 hours.

Although over one-half of the students had been in contact with nurses functioning in an expanded role, only 53 (13.3 percent) reported they had received health care from a nurse whom they believed to be functioning in an expanded role. The most frequent service performed by the nurse, as reported by 18 (4.5 percent) of the students, was the performing of a pap smear. Seven (1.8 percent) students reported that a nurse performed a physical assessment for them. The remaining services reported as performed by nurses in an expanded role were the removal of stitches, tuberculosis and mononucleosis testing, family planning, drug prescription, and obstetrical care. A number of students stated the role title of the nurse performing the service rather than the role function or service. The vast majority (85.9 percent) of the students reported they had not received service from a nurse believed to be functioning in an expanded role.

Knowledge of Nurse Practice Act provision for an expanded role.

An examination of Table IV (page 51) indicates that slightly over

one-half (52.5 percent) of the students were knowledgeable that the South Dakota Nurse Practice Act does provide for nurses to function in an expanded role. A large percentage (40.7) were uncertain, and 6.8 percent of the students stated that the Nurse Practice Act did not provide for an expanded role.

TABLE IV

STUDENTS' KNOWLEDGE OF NURSE PRACTICE ACT PROVISION
FOR AN EXPANDED ROLE BY FREQUENCY AND PERCENT
OF STUDENT RESPONSE

"Does the Nurse Practice Act
provide for an expanded role
for nurses?"

Frequency

Percent

Yes

208

52.5

No

27

6.8

Uncertain

161

40.7

Total

396

100.0

Summary of exposure to and cognitive knowledge of the expanded role. The previous analysis suggests that the responding students have been exposed to the expanded role concept for nurses by attending lectures or seminars, reading published material, and through personal contact with such nurses as part of their educational program. Generally, the exposure to nurses in the expanded role has not occurred as a result of being the recipient of health care from such nurses nor by living in a community where such nurses function. Further, there

were almost as many students who were uncertain or unaware that the Nurse Practice Act provided for an expanded role as there were who were aware of such a provision.

Acceptance of Specified Role Functions
Characteristic of an Expanded Role

The acceptance of responding students toward specified role functions was determined by ascertaining the extent of agreement or disagreement with statements describing role functions which are characteristic of an expanded role for nurses. This section examines the acceptance of the respondents toward selected diagnostic procedures, obstetrical management, selected assessment procedures, prescribing medications, selected minor surgical procedures, and the management of stable chronic illnesses.

Acceptance of selected diagnostic procedures. As indicated by the data in Table V (page 53) the majority of students would accept the performing of pap smears, diagnosing of sore throats, and the ordering of roentgenograms for injured limbs as expanded role functions; 83.0 percent, 75.5 percent, and 78.7 percent would accept such functions, respectively. The greatest percentage (14.6) of students opposed the diagnosing of sore throats compared with 12.4 percent who opposed the ordering of roentgenograms, and 9.6 percent who opposed the performing of pap smears as expanded role functions. Less than 10 percent of the students were undecided regarding their decision to agree or disagree with the acceptance of the three functions.

TABLE V
ACCEPTANCE OF SELECTED DIAGNOSTIC PROCEDURES BY FREQUENCY
AND PERCENT OF STUDENT RESPONSE*

An Expanded Role Function Would Include:	Strongly Agree		Agree		Somewhat Agree		Undecided		Somewhat Disagree		Disagree		Strongly Disagree		Total	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Performing a pap smear	115	29.0	155	39.1	59	14.9	29	7.3	14	3.5	20	5.1	4	1.0	396	100.0
Diagnosing of sore throats	77	19.4	150	37.9	72	18.2	39	9.8	35	8.8	19	4.8	4	1.0	396	100.0
Ordering roentgenograms of injured limbs	92	23.2	164	41.4	56	14.1	35	8.8	19	4.8	24	6.1	6	1.5	396	100.0

* The mean score, based on a seven point scale where 1 represents strongly agree and 7 represents strongly disagree, for each of the specified role functions was 2.36, 2.69 and 2.54, respectively.

Acceptance of obstetrical management. An examination of Table VI (page 55) shows that over 90 percent of the students would accept the managing of prenatal and postnatal care compared with 75 percent acceptance of the delivering of normal mothers as expanded role functions. Not only would fewer students favor the delivering of normal mothers, but a higher percentage (8.6) of the students were undecided as to whether they should agree or disagree with the function as an expanded role function. Only 3.0 percent and 4.0 percent were undecided regarding their decision to agree or disagree with the managing of prenatal and postnatal care as expanded role functions.

Acceptance of selected assessment procedures. As the data in Table VII (page 56) show, the vast majority (94.7 percent) of the students felt that assessing a patient and deciding on immediate intervention or referral was acceptable as an expanded role function. In addition, nearly 80 percent of the students expressed acceptance of making housecalls for assessment purpose, and the performing of complete physical examinations. Approximately 12 percent of the students disagreed with such functions, and nearly 8 percent of the students were undecided whether or not to accept such functions in an expanded role.

TABLE VI

ACCEPTANCE OF OBSTETRICAL MANAGEMENT FUNCTIONS BY FREQUENCY
AND PERCENT OF STUDENT RESPONSE*

An Expanded Role Function Would Include:	Strongly Agree		Agree		Somewhat Agree		Undecided		Somewhat Disagree		Disagree		Strongly Disagree		Total	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Managing pre- natal care	156	39.4	163	41.2	53	13.4	12	3.0	4	1.0	6	1.5	2	0.5	396	100.0
Delivering normal mothers	98	24.7	119	30.1	76	19.2	34	8.6	25	6.3	24	6.1	20	5.1	396	100.0
Managing post- natal care	127	32.1	178	44.9	62	15.7	16	4.0	11	2.8	2	0.5	0	0.0	396	100.0

* The mean score, based on a seven point scale where 1 represents strongly agree and 7 represents strongly disagree, for each of the specified role functions was 1.91, 2.80 and 2.02, respectively.

TABLE VII
ACCEPTANCE OF SELECTED ASSESSMENT PROCEDURES BY FREQUENCY
AND PERCENT OF STUDENT RESPONSE*

An Expanded Role Function Would Include:	Strongly Agree		Agree		Somewhat Agree		Undecided		Somewhat Disagree		Disagree		Strongly Disagree		Total	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Performing initial assessment and making one of three decisions: 1) immediate inter- vention, 2) arrange for emergency care, 3) refer to physician	166	41.9	164	41.4	45	11.4	11	2.8	4	1.0	4	1.0	2	0.5	396	100.0
Making initial housecalls to assess the patient's condition	108	27.3	150	37.9	57	14.4	31	7.8	28	7.1	16	4.0	5	1.3	396	100.0
Performing complete physical exams	94	23.7	147	37.1	72	18.2	32	8.1	23	5.8	20	5.1	8	2.0	396	100.0

* The mean score, based on a seven point scale where 1 represents strongly agree and 7 represents strongly disagree, for each of the specified role functions was 1.84, 2.36, and 2.58, respectively.

Acceptance of medication prescription. An analysis of Table VIII (page 58) indicates a greater approval of prescribing medications for sore throats than for sedation. Fifty percent of the students indicated approval of drug prescribing for sore throats compared with slightly over one-third of the students indicating approval of prescribing medication for sedation. Forty-eight percent of the students opposed the prescribing of medications for sedation compared with 36.8 percent indicating disapproval of prescribing medications for sore throats.

Acceptance of minor surgical procedures. The data in Table IX (page 59) shows that a greater percentage (70.7) of the students would agree to the suturing of minor lacerations as an expanded role function than would accept the surgical removal of a wart. Approximately 55 percent would approve of the latter. In addition, 17.9 percent of the students were undecided as to whether they should agree or disagree with the removal of a wart as an expanded role function.

Acceptance of managing stable chronic illnesses. The vast majority (85.8 percent) of students agreed to the managing of stable chronic illnesses as an expanded role function. Seven percent would oppose it and approximately 6 percent were undecided as to its acceptance as an expanded role function.

TABLE VIII
ACCEPTANCE OF MEDICATION PRESCRIBING BY FREQUENCY
AND PERCENT OF STUDENT RESPONSE*

An Expanded Role Function Would Include:	Strongly Agree		Agree		Somewhat Agree		Undecided		Somewhat Disagree		Disagree		Strongly Disagree		Total	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Prescribing medication for sedation	15	3.8	55	13.9	70	17.7	62	15.7	54	13.6	93	23.5	46	11.6	396	100.0
Prescribing medication for sore throats	37	9.3	83	21.0	80	20.2	50	12.6	56	14.1	61	15.4	29	7.3	396	100.0

* The mean score, based on a seven point scale where 1 represents strongly agree and 7 represents strongly disagree, for each of the specified role functions was 4.38 and 3.76, respectively.

TABLE IX

ACCEPTANCE OF SELECTED MINOR SURGICAL PROCEDURES BY FREQUENCY
AND PERCENT OF STUDENT RESPONSE*

An Expanded Role Function Would Include:	Strongly Agree		Agree		Somewhat Agree		Undecided		Somewhat Disagree		Disagree		Strongly Disagree		Total	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Performing minor surgical procedures such as wart removal	44	11.1	90	22.7	85	21.5	71	17.9	57	14.4	34	8.6	15	3.8	396	100.0
Suturing minor lacerations	52	13.1	126	31.8	102	25.8	38	9.6	32	8.1	36	9.1	10	2.5	396	100.0

* The mean scores, based on a seven point scale where 1 represents strongly agree and 7 represents strongly disagree, for each of the specified role functions was 3.42 and 3.05, respectively.

Summary of the acceptance of specified role functions characteristic of an expanded role for nurses. The previous analysis suggests that the responding students agreed to accept the performing of pap smears, diagnosing of sore throats, ordering roentgenograms for injured limbs, managing prenatal and postnatal care, and delivering normal mothers as expanded role functions. The students would also accept an expanded role function to include initial patient assessment with the purpose of immediate intervention, emergency care arrangement or referral to a physician. In addition, they would accept the making of initial housecalls to assess a patient's condition, and performing complete physical examinations as expanded role functions. There was no definite consensus as to whether prescribing drugs for sedation and sore throats would be accepted as expanded role functions. In fact, more students opposed prescribing drugs for sedation than approved of it; however, slightly more than half of the respondents approved prescribing drugs for sore throats than opposed such action. There also appeared to be a greater number of students who were undecided whether to accept or disapprove of drug prescribing as an expanded role function than there were for the other stated functions. The respondents did approve of the surgical repair of minor lacerations and the removal of warts as functions appropriate for an expanded role, although they indicated greater acceptance of laceration repair than of the practice of wart removal. Finally, the management of stable chronic illnesses was accepted by the students as constituting an expanded role function.

Relationship of Selected Variables to the
Acceptance of Specified Role Functions
Characteristic of an Expanded Role for
Nurses

This section will report the findings of selected variables as they related to the extent of willingness of the respondents to accept role functions characteristic of an expanded role for nurses. The degree of acceptance was measured by summing the extent of agreement of responses to the following variables:

Variable 46 = Performing complete physical exams.

51 = Performing minor surgical procedures such as wart removal.

61 = Delivering normal mothers.

66 = Managing prenatal care.

75 = Managing postnatal care.

80 = Diagnosing of sore throats.

85 = Prescribing medications for sedation.

90 = Prescribing medications for sore throats.

95 = Suturing minor lacerations.

100 = Ordering roentgenograms for injured limbs.

105 = Performing initial assessment and making one of three decisions: 1) immediate intervention, 2) arrange for emergency care, 3) refer patient to physician.

110 = Managing stable chronic illnesses.

115 = Making initial house calls to assess patient's condition.

The degree of acceptance as measured by the summation was the dependent variable (Y) for analysis.

Independent variables using analysis of variance statistical analysis. The selected independent variables for analysis of variance were:

- X_2 = The type of nursing program in which the student is enrolled.
- X_{12} = Pre-professional work experience of the student as a nurse's aide/orderly, candy striper or both.
- X_{32} = Knowledge of the Nurse Practice Act provision for an expanded role.

The procedure for reporting the findings is as follows:

1. Each hypothesis will be stated in null form for the purpose of testing.
2. The results will be discussed.
3. The analysis of variance tables will be presented in

Appendix B.

Type of nursing program in which the student is enrolled.

Null Hypothesis 1. No significant difference will be found to exist between the type of nursing program in which the student is enrolled and the acceptance by students of role functions characteristic of an expanded role for nurses.

The null hypothesis of no difference in the acceptance of the expanded role functions and the type of nursing program (associate, diploma or baccalaureate program) in which the student is enrolled was rejected (see Table X in Appendix B).

Pre-professional work experience.

Null Hypothesis 2. No significant difference will be found to exist between students who have worked as a nurse's aide/orderly, candy striper, nurse's aide/orderly and candy striper, or no such work experience and the acceptance of role functions characteristic of an expanded role for nurses.

Analysis of variance indicated that there was no difference between those students who had worked as a nurse's aide/orderly, candy striper, nurse's aide/orderly and candy striper, or no such work experience and the acceptance of role functions characteristic of an expanded role for nurses. Therefore, the null hypothesis failed to be rejected (see Table XI, Appendix B).

Knowledge of Nurse Practice Act provision for an expanded role.

Null Hypothesis 3. No significant difference will be found to exist between the students' level of knowledge that the Nurse Practice Act provides for an expanded role and the acceptance by students of role functions characteristic of an expanded role for nurses.

The analysis of variance test indicated that there was a difference between those students who were aware, unaware or uncertain that the Nurse Practice Act contained provision for an expanded role for nurses and the acceptance of role functions characteristic of an expanded role. The null hypothesis was rejected (see Table XII, Appendix B).

Independent variables using t-test analysis. The selected independent variables for t-test analysis were:

X_3 = Plans for continued education following graduation.

X_{10} = Educational association with medical students.

X_{11} = Educational association with pharmacy students.

X_{21} = Plans to gain active membership in the American Nurses' Association.

X_{30} = Recipient of health care from a nurse functioning in an expanded role.

X_{31} = Community proximity where nurses functioned in an expanded role.

X_{33} = Sex of the student.

The procedure for reporting the findings is as follows:

1. Each hypothesis will be stated in null form for the purpose of testing.
2. The results will be discussed.
3. The t-tables will be presented in Appendix B.

Plans for continued education following graduation.

Null Hypothesis 4. No significant difference in the degree of acceptance of role functions characteristic of an expanded role for nurses will be found to exist between students who plan to continue their education following graduation and those who do not plan to continue their education.

An examination of Table XIII (Appendix B) indicated that the obtained t value exceeds the required level and therefore is statistically significant. Those students who plan to continue their education upon graduation have a higher acceptance of the role functions characteristic of an expanded role for nurses than those students who do not plan to pursue further education. The null hypothesis was rejected.

Educational association with medical students.

Null Hypothesis 5. No significant difference in the degree of acceptance of role functions characteristic of an expanded role for nurses will be found to exist between those students who have associated with medical students and those students who have not associated with medical students.

Analysis of data indicated that those students who have associated with medical students during their educational program had a higher level of acceptance of the role functions characteristic of an expanded role for nurses than those students who have not experienced such association. The null hypothesis was rejected (see Table XIV, Appendix B).

Educational association with pharmacy students.

Null Hypothesis 6. No significant difference in the degree of acceptance of role functions characteristic of an expanded role for nurses will be found to exist between those students who have associated with pharmacy students and those students who have not associated with pharmacy students.

As Table XV (Appendix B) illustrates, the obtained t value exceeds the required level and is statistically significant. Those students who have associated with pharmacy students had a higher acceptance of the role functions than those students who have not participated in such association. The null hypothesis was rejected at the .05 level.

Although there was a significant difference in the acceptance of the role functions characteristic of an expanded role for nurses between students who had associated with pharmacy and medical students and those students who had not experienced such associations, data indicate that of the 107 students who had associated with pharmacy

students all but 21 had also associated with medical students. Therefore, the difference may be due to association with a number of different professionals and other persons rather than the two professionals investigated.

Plans to gain active membership in the American Nurses' Association.

Null Hypothesis 7. No significant difference in the degree of acceptance of role functions characteristic of an expanded role for nurses will be found to exist between students who have plans to gain membership in the American Nurses' Association and those students who do not plan to obtain membership.

An examination of data in Table XVI (Appendix B) indicates that there was a significant difference in the acceptance of role functions characteristic of an expanded role for nurses between students who plan to join the American Nurses' Association and those who do not plan to join the Association. The null hypothesis was rejected at the .05 level.

Recipient of health care from a nurses functioning in an expanded role.

Null Hypothesis 8. No significant difference in the degree of acceptance of role functions characteristic of an expanded role for nurses will be found to exist between students who have received health care from a nurse functioning in an expanded role and those students who have not received health care from a nurse functioning in an expanded role.

There were significant differences in the expanded role acceptance between students who have received health care from nurses functioning in the expanded role and those students who have not received such

care. The null hypothesis was rejected at the .05 level (see Table XVII, Appendix B).

Community proximity where nurses function in an expanded role.

Null Hypothesis 9. No significant difference in the degree of acceptance of role functions characteristic of an expanded role for nurses will be found to exist between students who have lived in a community where nurses have functioned in an expanded role and those students who have not lived in such a community.

The null hypothesis failed to be rejected at the .05 level. There were no significant differences in the acceptance of role functions characteristic of an expanded role between those students who have lived in communities where nurses have functioned in an expanded role because there was no physician and those students who have not resided in such communities.

Sex of the student.

Null Hypothesis 10. No significant difference in the degree of acceptance of role functions characteristic of an expanded role for nurses will be found to exist between female and male students.

There were significant differences in the acceptance of role functions characteristic of an expanded role for nurses between the female and male graduating nursing students. The null hypothesis was rejected.

Independent variables for multiple regression analysis. The step-wise least squares multiple regression analysis was used for the purpose of testing the association between the dependent variable and the following set of independent variables. Utilization of this

technique yielded in rank order fashion the independence of variables and their association with the dependent variable.

The independent variables were:

- X_6 = Number of hours spent in discussion on the expanded role.
- X_8 = Number of contact hours spent with a nurse in an expanded role during the educational experience.
- X_9 = Number of articles read on the topic of expanded role.
- X_{10} = Degree of association with medical students.
- X_{11} = Degree of association with pharmacy students.
- X_{12} = Pre-professional work experience of the student as a nurse's aide/orderly, candy striper or both.
- X_{14} = Type of preferred employment in five years.
- X_{16} = Type of preferred nursing position.
- X_{33} = Sex of the student.
- X_{34} = Age of the student.
- X_{119} = Student-perceived nursing instructor role function acceptance.
- X_{120} = Student-perceived nursing staff role function acceptance.
- X_{121} = Student-perceived physician role function acceptance.
- X_{122} = Student-perceived classmate role function acceptance.
- X_{123} = Extent of participation in student organization.
- X_{124} = Health occupation education of family members.
- X_{125} = Number of subscriptions held to nursing, medical, or hospital journals.

Null Hypothesis

Assuming that the least squares equation represents the best estimate of the linear regression equation, and defining the multiple variables as a set, a null hypothesis was formulated for the purpose of testing the significance of the association hypothesized between the independent variables and the dependent variable. The following null hypothesis was formulated:

Null Hypothesis 11. The set of independent variables will not contribute significantly to the explanation of the variation observed in the acceptance by graduating nursing students of role functions as characteristic of an expanded role.

The Statistical Findings

The statistical findings are given in Table XX. The variations observed in the following variables were found to contribute significantly to the explanation of variations in the acceptance by graduating nursing students of role functions as characteristic of an expanded role for nurses: student-perceived classmate role function acceptance (X_{122}); type of preferred nursing position (X_{16}); student-perceived nursing instructor role function acceptance (X_{119}); and sex of the student (X_{33}). The statement of no association between the above stated independent variables and the dependent variable was rejected.

The final step-wise equation with the appropriate intercept and regression coefficients for the significant variables was:

$$Y = 5.57911 + (0.79127)_{X_{122}} + (-0.50416)_{X_{16}} + (0.13566)_{X_{119}} \\ + (-2.07625)_{X_{33}}$$

Stated descriptively in terms of research hypotheses, the findings were that within the context of the set of independent variables:

1. The greater the belief that their classmates would accept role functions as characteristic of an expanded role for nurses, the greater the willingness by the students to accept the specified role functions.

2. The preferred type of nursing position following graduation is associated with the students' willingness to accept role functions as characteristic of an expanded role for nurses.

3. The greater the belief that their nursing instructors would accept role functions characteristic of an expanded role for nurses, the greater the students' willingness to accept role functions as characteristic of an expanded role for nurses.

4. The sex of the student is associated with the students' willingness to accept role functions as characteristic of an expanded role for nurses.

TABLE XX

SUMS OF SQUARES AND PROPORTION OF VARIANCE ACCOUNTED
FOR BY THE INDEPENDENT VARIABLES IN ORDER OF
IMPORTANCE AS ENTERED INTO THE EQUATION

Variable Number	Sum of Squares Accounted For	Percent of Pro- portion Reduced	Cumulative Proportion Reduced Step-wise	Regression Coefficient Through Step 4	Y Intercept
X ₁₂₂	36131.36	82.59	82.59	0.79127	5.57911
X ₁₆	300.69	.69	83.28	-0.50416	
X ₁₁₉	200.21	.46	83.74	0.13566	
X ₃₃	113.69	.26	84.00	-2.17792	
X ₁₂₀	53.50	.12	84.12		
X ₁₂₃	59.77	.11	84.23		
X ₁₂	39.35	.09	84.32		
X ₁₄	22.16	.05	84.37		
X ₆	22.05	.05	84.42		
X ₁₂₁	14.94	.03	84.45		
X ₁₂₅	10.85	.03	84.48		
X ₈	10.50	.02	84.50		
X ₁₂₄	3.23	.01	84.51		
X ₉	2.35	.00	84.52		
X ₁₁	1.06	.00	84.52		
X ₃₄	1.16	.00	84.53		
X ₁₀	0.46	.00	84.53		

CHAPTER VII

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The purpose of this chapter is to present:

1. A summary of the research problem, objectives, and design.
2. A summary of major findings and conclusions as related to the two objectives of the study.
3. A statement of implications derived from the research findings and conclusions.
4. A statement of limitations to the study and recommendations for further research.

Summary of the Research Problem, Objectives and Design

In an attempt to meet the deficit in the quantity and distribution of health services, it has been suggested that the nursing profession assume some responsibility traditionally accorded to physicians. Impetus for this has come in the form of increased federal financial assistance for education and in the revision of state nurse practice acts. Such changes have authorized the expansion of the role of the nurse. Problems, however, do arise when discussing an expanded role for nurses because the scope of the expanded role by definition or by delineation of responsibilities, functions, or privileges has not been defined professionally. Also, a review of literature suggested that

all nurses are not willing to accept an expanded role, and that nursing education programs do not encourage the concept of independent functioning that is characteristic of an expanded role.

Consequently, the objectives of this study were to determine:

1. The extent to which graduating nursing students in South Dakota are willing to accept role functions as characteristic of an expanded role for nurses.

2. What factors are associated with and seem to explain the graduating nursing students' acceptance of these specified role functions as characteristic of an expanded role for nurses.

Major generalization from a review of literature related to the study indicated the following:

1. Association and exposure to persons functioning in an expanded role increased the acceptance by other professionals of an expanded role function.

2. Faculty attitudes appear to influence the attitude of students toward the profession.

3. Exposure to various persons who may serve as role models may produce conflict in students as to the correct professional role.

4. The acceptance of the professional role may be affected by pre-professional work experience.

5. Interdisciplinary educational experiences are associated with the acceptance of the professional role.

6. The reference groups of the student will change during the educational process and entry into the profession as a participating member.

7. Organizational participation may enhance the adoption of innovative ideas and acceptance of the professional role.

The theoretical perspective, utilizing Reference Group theory, and the review of literature supported the contention that there are identifiable groups or individuals that are influential in shaping one's expectations and whose norms and values are shared in some manner.

The hypotheses derived from the theoretical perspective and review of literature suggested that variations in selected sociodemographic variables would help explain variations in the students' willingness to accept expanded role functions that are characteristic of an expanded role for nurses.

An interview schedule was designed and administered to 407 graduating seniors enrolled at all of the nine nursing programs in South Dakota that prepare an individual to be licensed as a Registered Nurse. Usable questionnaires were returned by 396 students who served as a sample for the study.

A descriptive analysis of the general characteristics of the students, and their acceptance of role functions characteristic of an expanded role for nurses was provided to fulfill Objective One of the study.

To fulfill Objective Two, a statistical analysis using t-test, analysis of variance, and step-wise least squares multiple regression

was used. Such analysis attempted to account for variations in factors that would help explain the observed variations in the respondents acceptance of role functions characteristic of an expanded role for nurses.

Major Findings and Conclusions

The major findings and conclusions as related to the two objectives of the study were:

Objective One: Major Findings and Conclusions

Objective One of this study was to determine the extent to which graduating nursing students in South Dakota are willing to accept role functions as characteristic of an expanded role for nurses.

Major Findings: Objective One. The general findings related to Objective One were:

1. The majority of the students accepted as expanded role functions areas of assessment such as performing pap smears, ordering roentgenograms for injured limbs, and performing initial assessments in the clinical area and in the patient's home.
2. Minor surgical interventions such as laceration repair and the removal of warts were accepted as role functions by the majority of students.
3. The majority of the students accepted as expanded role functions those including obstetrical management of prenatal and post-natal care, and delivering normal mothers. They also felt that the management of patients with stable chronic illnesses was an acceptable expanded role function.

4. The majority of the students indicated they would accept diagnosing of sore throats, but did not generally accept prescribing medications for sore throats or for sedation as expanded role functions.

5. Finally, the analysis indicated that the students have been exposed to the topic of an expanded role for nurses, but were generally uncertain about, or unaware of, the provision for an expanded role in the Nurse Practice Act.

Conclusions: Objective One. The findings suggest that the students apparently were willing to accept functions that involve assessment and diagnosis, but were not so willing to accept as functions of the expanded role those which include direct intervention such as prescribing medications and performing minor surgical procedures.

Objective Two: Major Findings and Conclusions

Objective Two of this study was to determine what factors were associated with and seem to explain the graduating nursing students' acceptance of role functions as characteristic of an expanded role for nurses.

Major Findings: Objective Two. The general findings related to Objective Two were:

1. Using analysis of variance and t-test, it was determined that the acceptance by students of role functions as characteristic of an expanded role for nurses was associated with: (a) the type of program in which the student is enrolled; (b) the student's knowledge that the Nurse Practice Act contains a provision for an expanded role; (c) plans to continue their education following graduation; (d) association with

medical and pharmacy students during their educational program; (e) plans by the student to obtain membership in the American Nurses' Association following graduation; (f) the student having been a recipient of health care from a nurse functioning in an expanded role; and (g) the sex of the student.

2. The acceptance of role functions as characteristic of an expanded role for nurses was not associated with: (a) the student's preprofessional work experience as a nurse's aide, orderly or candy striper; or (b) the student having lived in a community where nurses functioned in an expanded role because there was no physician available.

3. Using multiple regression analysis, four of the independent variables were found to contribute significantly to the explanation of the variation observed in the willingness of students to accept role functions as characteristic of an expanded role. Stated in order of the greatest contribution to the explanation, they were:

a. The belief that their classmates would accept the specified role functions as characteristic of an expanded role for nurses.

b. The preferred type of nursing position following graduation.

c. The belief that their nursing instructors would accept the specified role functions as characteristic of an expanded role for nurses.

d. The sex of the student.

Conclusions: Objective Two. Variations in responses to selected variables as they were associated with the acceptance by students of role functions as characteristic of an expanded role for nurses suggest

the following conclusion: the findings support the theoretical framework that there are identifiable groups that are influential in shaping one's expectation and whose norms and values are shared in some manner. In this study it was found that the perceived classmate acceptance of the role functions as characteristic of an expanded role contributed greatly to the explanation of the student's willingness to accept such role functions. The perceived nursing instructor acceptance was also found to contribute to the students acceptance of role functions as characteristic of an expanded role. It also appears that exposure or interaction with a nurse functioning in an expanded role, as a result of receiving health care from that nurse, is significantly associated with the willingness to accept role functions as characteristic of an expanded role whereas having lived in a community where nurses function in an expanded role was not found to be associated with such acceptance.

Implications of Research

Preparing nurses to function in an expanded role is one possible way to provide adequate health to society. Some pertinent implications of this study as related to that role are:

1. The student's strong willingness to accept role functions involved in the assessment and diagnostic areas is encouraging. Traditionally, many in the nursing and medical profession have felt that only physicians are capable of diagnosing. The findings suggest a reversal by the students of that belief.

2. The area of direct intervention was not as well accepted by students as a role function. Such a response may imply the need for nursing curricula to include such functions as part of the student's educational process. Such experiences may provide the student with capabilities to carry out such interventions and create an acceptance of such functions.

3. The nursing instructors' perceived acceptance of the stated role functions emerged as an explanatory factor in the acceptance of role functions as characteristic of an expanded role. This implies that the faculty are an important source of values and norms for the students and they should, therefore, maintain the standards and goals of the profession. It is important to convey such standards and goals to the students in the classroom or clinical setting.

4. The large percentage of students who were uncertain or unaware of the Nurse Practice Act provision for an expanded role suggests that discussion of the Nurse Practice Act should occur in the schools of nursing. This is especially true since the rules and regulations of the nursing profession are contained in the Nurse Practice Act.

5. The preferred type of nursing position was found to explain variation in the acceptance of the stated role functions. Such a finding suggests that a student's educational program should place the student in a variety of nursing positions, permitting the student to be as independent as possible and to make as many

decisions as possible. Such experiences may encourage more students to seek positions where independent functioning and increased decision-making is appropriate. Such qualities are necessary for an expanded role.

Limitations and Recommendations

Limitations of the Study

This study had the following limitations:

1. The generality of the findings and conclusions is restricted to South Dakota.
2. The validity and reliability of the instrument used for the collection of data, measurement of the variables, and the variables selected for analysis must be considered as possible limitations.
3. Comparability between male and female students would have been enhanced if there had been a more equal proportion between the sexes.

Recommendations for Further Research

The author recommends the following for further research:

1. A study of the acceptance of role functions as characteristic of an expanded role for nurses utilizing students in large industrialized states would provide for comparison with students from small rural states.
2. A study should be initiated utilizing a more in-depth and comprehensive role function list. Such a study may detect greater

variations in the observed acceptance of role functions than were obtained in this study.

3. A study utilizing a random sample on a regional or national level is recommended. This would provide a basis for broader application of the findings.

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APPENDIX A

1-3
4

SOUTH DAKOTA SENIOR STUDENT EXPANDED ROLE STUDY

The items in this questionnaire are designed to provide data to assist in the determination of the degree of acceptance of an expanded role for nurses among graduating nursing students in South Dakota. Please fill in the blanks with the information requested, or check the appropriate category for each item.

For purposes of this study, an "expanded role" is defined as: The extension of additional functions of the nurse into the areas of physical assessment, tentative medical diagnosis, medical management within prescribed protocols and the follow-up of patients under medical management. Additional education is necessary and the nurse will be under the indirect (Physician is available by phone or person if needed) or direct (Physician is present while function is performed by the nurse) supervision of the Physician.

Your responses will be treated anonymously, and will be used only for the purposes of this study. IT IS IMPORTANT THAT YOU ANSWER ALL QUESTIONS!!

1. In which of the following nursing programs are you presently enrolled?
(5)

- ☐ 1. Associate Degree Program
- ☐ 2. Baccalaureate Degree Program
- ☐ 3. Diploma Program

2. After graduation, do you plan to continue with further nursing education?

(6-

7) ☐ 1. Yes, If yes, check the type of program you plan to enter. (CHECK ONE)

- ☐ 2. No
 - ☐ 1. Baccalaureate in nursing
 - ☐ 2. Baccalaureate not in nursing
 - ☐ 3. Masters Degree in nursing
 - ☐ 4. Masters Degree with Nurse Practitioner/Clinical Specialist option.
 - ☐ 5. Masters Degree not in nursing.
 - ☐ 6. Nurse Practitioner Program
 - ☐ 7. Physician Assistant/Extender Program
 - ☐ 8. Family Specialist Program
 - ☐ 9. Other _____

3. During your nursing education program, have you attended lectures/seminars (9- that included discussion on the expanded role for nurses?

10)

- ☐ 1. Yes, If yes, indicate the approximate number of hours spent in discussion on the expanded role. _____
- ☐ 2. No

4. Have any of your nursing education experiences placed you in contact with (11-nurses who function in the expanded role?

13)

- ☐ 1. Yes, If yes, indicate the approximate number of contact hours. _____
- ☐ 2. No

5. Approximately how many articles have you read on the topic of an expanded (14-role for nurses? _____

15)

OVER

6. Under which of the following circumstances have you interacted with medical
(16) students during your educational experience? (check one)

- ☐ 1. No interaction with medical students.
- ☐ 2. Seminars/lectures only.
- ☐ 3. We shared the same clinical facilities with minimal or no interaction.
- ☐ 4. We shared the same clinical facilities and interacted as a team in providing patient care.
- ☐ 5. Both Seminars/lectures and sharing of clinical facilities.
- ☐ 6. Both Seminars/lectures and clinical facility team interaction.
- ☐ 7. Other _____

7. Under which of the following circumstances have you associated with Pharmacy
(17) students during your educational experience? (check one)

- ☐ 1. No interaction with pharmacy students.
- ☐ 2. Seminars/lectures only.
- ☐ 3. We shared the same clinical facilities with minimal or no interaction.
- ☐ 4. We shared the same clinical facilities and interacted as a team in providing patient care.
- ☐ 5. Both Seminars/lectures and sharing of clinical facilities.
- ☐ 6. Both Seminars/lectures and clinical facility team interaction.
- ☐ 7. Other _____

8. Prior to your enrollment in a nursing program, did you ever work as a nurse's
(18) aide or a Candy Stripper? (check one)

- ☐ 1. Yes, I worked as a nurse's aide.
- ☐ 2. Yes, I worked as a Candy Stripper.
- ☐ 3. Yes, I worked both as a nurse's aide and a Candy Stripper.
- ☐ 4. No.

9. Prior to your enrollment in a nursing program, did you ever work in a location
(19) where nurses were employed? (Do not include your work experience as a nurse's aide or as a Candy Stripper).

- ☐ 1. Yes, I worked in a location where nurses were employed when I was a _____
- ☐ 2. _____ (specify).
- ☐ No.

10. What type of employment would you prefer five years from now?
(20)

- ☐ 1. No employment in nursing.
- ☐ 2. Employed less than half-time in nursing (less than 20 hours per week).
- ☐ 3. Half-time employment in nursing (20 hours a week).
- ☐ 4. Full-time employment in nursing (40 hours a week).

11. If you prefer other than full-time employment in nursing five years from now,
(21) please indicate your reason for this decision.

I choose not to work full-time in nursing because _____

12. Assuming you were fully qualified for any of the following nursing positions,
(22) which position would be your first choice? (check one)

- ☐ 1. Staff nurse on Medical/Surgical/Pediatrics/Maternity/Geriatrics
- ☐ 2. Head Nurse on Medical/Surgical/Pediatrics/Maternity/Geriatrics
- ☐ 3. Community/Public Health Nurse
- ☐ 4. Staff Nurse in CCU/Intensive Care
- ☐ 5. Clinical Specialist/Nurse Practitioner

13. Check where applicable in regards to the Nursing Students' Association of
(23- South Dakota.
(27)

Membership	Committee member	Office holder	Percentage of meetings attended since Aug., 1975

14. Do you plan to become an active member of the American Nurses' Association
(28) upon graduation from your nursing program?

1. Yes
2. No

15. If you answered No to question 14, please state your reason(s) for your decision.
(29)

16. Please indicate what Nursing/Medical/Hospital Journals you have subscribed to
(30- as a student.
(31)

None

List:

17. What nursing journals do you usually read? (check all applicable answers).
(32-

- 36) 1. American Journal of Nursing 4. Nursing Research
2. RN Magazine 5. Other (specify) _____
3. Nursing Outlook

18. Have you ever received health care from a nurse whom you believed to be
(37) functioning in an expanded role?

1. Yes, If yes, indicate the service(s) she/he performed while in the expanded role _____
2. No.

19. Have you ever lived in a community where nurses provided services in an expanded
(38) role because there was no physician in the community?

1. Yes (Please indicate the county where the community is located).
The community is located in _____ county, _____ state.
2. No.

20. To your knowledge, does the South Dakota Nurse Practice Act provide for the
(39) nurse to function in an expanded role? (check one)

1. Yes, it does provide for the expanded role function.
2. No, it does not provide for the expanded role function.
3. Uncertain as to what the Act provides.

21. Are you: 1. Female
(40) 2. Male

22. What was your age as of your last birthday? _____

(41-
42)

OVER

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23. In the spaces provided, indicate which type of health occupation education the following family members have obtained. (LPN, RN, MD, Physical Therapist, etc.)

- (43) My mother is educated as a _____
 (44) My father is educated as a _____
 (45) At least one brother is educated as a _____
 (46) At least one sister is educated as a _____

24. Check if appropriate: ___ I am an RN completing my Baccalaureate in Nursing.

(47)

25. Check if appropriate: ___ I am an LPN completing study for an RN licensure.

(48)

26. When do you anticipate graduating? _____ Month _____ Year

(49)

During your nursing educational experience, you have interacted with nursing instructors, staff nurses, physicians and classmates. Please (✓) check the column that you feel would indicate the extent of agreement or disagreement with the following statements from the viewpoint of each person stated. *Staff R.N.s refers to those nurses with whom you have come in contact during your educational experience, but who are not your legal or appointed clinical instructors.

EXAMPLE: All nurses are intelligent.

	Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree		✓			
Agree				✓	
Somewhat Agree					
Undecided			✓		
Somewhat Disagree	✓				
Disagree					
Strongly Disagree					✓

Based on the above example, proceed with the following statements.

27. An expanded role function would include performing complete physical exams.

	(50)	(51)	(52)	(53)	(54)
	Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1				
Agree	2				
Somewhat Agree	3				
Undecided	4				
Somewhat Disagree	5				
Disagree	6				
Strongly Disagree	7				

28. An expanded role function would include performing diagnostic procedures such as a pap smear.

		(55)	(56)	(57)	(58)	(59)
		Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1					
Agree	2					
Somewhat Agree	3					
Undecided	4					
Somewhat Disagree	5					
Disagree	6					
Strongly Disagree	7					

29. An expanded role function would include performing minor surgical procedures such as wart removal.

		(60)	(61)	(62)	(63)	(64)
		Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1					
Agree	2					
Somewhat Agree	3					
Undecided	4					
Somewhat Disagree	5					
Disagree	6					
Strongly Disagree	7					

30. An expanded role function would include delivering normal mothers.

		(65)	(66)	(67)	(68)	(69)
		Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1					
Agree	2					
Somewhat Agree	3					
Undecided	4					
Somewhat Disagree	5					
Disagree	6					
Strongly Disagree	7					

31. An expanded role function would include managing prenatal care.

		(70)	(71)	(72)	(73)	(74)
		Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1					
Agree	2					
Somewhat Agree	3					
Undecided	4					
Somewhat Disagree	5					
Disagree	6					
Strongly Disagree	7					

Card 2 1-3

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32. An expanded role function would include managing postnatal care.

	(5)	(6)	(7)	(8)	(9)
	Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1				
Agree	2				
Somewhat Agree	3				
Undecided	4				
Somewhat Disagree	5				
Disagree	6				
Strongly Disagree	7				

33. An expanded role function would include the diagnosing of sore throats.

	(10)	(11)	(12)	(13)	(14)
	Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1				
Agree	2				
Somewhat Agree	3				
Undecided	4				
Somewhat Disagree	5				
Disagree	6				
Strongly Disagree	7				

34. An expanded role function would include prescribing medications for sedation.

	(15)	(16)	(17)	(18)	(19)
	Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1				
Agree	2				
Somewhat Agree	3				
Undecided	4				
Somewhat Disagree	5				
Disagree	6				
Strongly Disagree	7				

35. An expanded role function would include prescribing medications for sore throats.

	(20)	(21)	(22)	(23)	(24)
	Most of my Nursing Instructors Would:	Most Staff R.N.S Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1				
Agree	2				
Somewhat Agree	3				
Undecided	4				
Somewhat Disagree	5				
Disagree	6				
Strongly Disagree	7				

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36. An expanded role function would include suturing minor lacerations.

	(25)	(26)	(27)	(28)	(29)
	Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1				
Agree	2				
Somewhat Agree	3				
Undecided	4				
Somewhat Disagree	5				
Disagree	6				
Strongly Disagree	7				

37. An expanded role function would include ordering roentzenograms of injured limbs.

	(30)	(31)	(32)	(33)	(34)
	Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1				
Agree	2				
Somewhat Agree	3				
Undecided	4				
Somewhat Disagree	5				
Disagree	6				
Strongly Disagree	7				

38. An expanded role function would include performing initial assessment and making one of three decisions: 1) immediate intervention, 2) arrange for emergency care, 3) refer patient to physician.

	(35)	(36)	(37)	(38)	(39)
	Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1				
Agree	2				
Somewhat Agree	3				
Undecided	4				
Somewhat Disagree	5				
Disagree	6				
Strongly Disagree	7				

39. An expanded role function would include managing stable chronic illnesses.

	(40)	(41)	(42)	(43)	(44)
	Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1				
Agree	2				
Somewhat Agree	3				
Undecided	4				
Somewhat Disagree	5				
Disagree	6				
Strongly Disagree	7				

OVER

40. An expanded role function would include making initial house calls to assess patient's condition.

	(45)	(46)	(47)	(48)	(49)
	Most of my Nursing Instructors Would:	Most Staff R.N.s Would:	Most Physicians Would:	Most of my Classmates Would:	I Would:
Strongly Agree	1				
Agree	2				
Somewhat Agree	3				
Undecided	4				
Somewhat Disagree	5				
Disagree	6				
Strongly Disagree	7				

Indicate the extent of your agreement or disagreement to the following statements.

	Strongly Agree	Agree	Somewhat Agree	Undecided	Somewhat Disagree	Disagree	Strongly Disagree
	1	2	3	4	5	6	7
41. If a nurse disagrees with the physician, the nurse should keep it to her/himself?							
42. The role of the nurse should be expanded to include more patient care activities previously done by the physician?							
43. Nurses should assume a more independent role in providing care to society?							

Your cooperation is appreciated. Thank you.

TABLE X

LEAST SQUARES ANALYSIS OF VARIANCE OF RELATIONSHIP BETWEEN
ACCEPTANCE OF EXPANDED ROLE FUNCTIONS AND TYPE OF
NURSING PROGRAM IN WHICH THE STUDENT IS ENROLLED

Source	DF	Sum of Squares	Mean Squares	F Ratio
Between Groups	2	5691.0000	2845.5000	26.841
Within Groups	393	41663.6250	106.0143	
Total	395	47354.6250		

$P < .05$.

TABLE XI

LEAST SQUARES ANALYSIS OF VARIANCE OF RELATIONSHIP BETWEEN
ACCEPTANCE OF EXPANDED ROLE FUNCTIONS AND PRE-PROFESSIONAL
WORK EXPERIENCE

Source	DF	Sum of Squares	Mean Squares	F Ratio
Between Groups	3	423.8750	141.2917	1.180
Within Groups	387	46346.3125	119.7579	
Total	390	46770.1875		

$P > .05$.

TABLE XII

LEAST SQUARES ANALYSIS OF VARIANCE OF RELATIONSHIP BETWEEN
ACCEPTANCE OF EXPANDED ROLE FUNCTIONS AND AWARENESS,
UNAWARENESS OR UNCERTAINTY OF NURSE PRACTICE ACT
PROVISION OF EXPANDED ROLE

Source	DF	Sum of Squares	Mean Squares	F Ratio
Between Groups	2	2566.1250	1283.0625	11.258
Within Groups	393	44788.5000	113.9656	
Total	395	47354.6250		

$P < .05$.

TABLE XIII

MEAN SCORE FOR EXPANDED ROLE ACCEPTANCE SCALE, N's, STANDARD
DEVIATION AND t -VALUES BETWEEN CONTINUED EDUCATION PLANNERS
AND BASIC EDUCATION COMPLETORS

	N	Mean	Standard Deviation	t Value
Continued Education Planners	218	35.1789	10.185	6.39
Basic Education Completers	177	41.9322	10.751	

$.05t_{393} = 1.96$

TABLE XIV

MEAN SCORE FOR EXPANDED ROLE ACCEPTANCE SCALE, N's, STANDARD
DEVIATION AND t -VALUES BETWEEN ASSOCIATORS
AND NON-ASSOCIATORS

	N	Mean	Standard Deviation	t Value
Associators	261	37.2835	11.594	2.46
Non-associators	128	40.1484	8.922	

$$.05t_{387}=1.96$$

TABLE XV

MEAN SCORE FOR EXPANDED ROLE ACCEPTANCE SCALE, N's, STANDARD
DEVIATION AND t -VALUES BETWEEN PHARMACY ASSOCIATORS
AND NON-ASSOCIATORS

	N	Mean	Standard Deviation	t Value
Associators	107	35.0841	1.016	3.47
Non-associators	287	39.3031	0.638	

$$.05t_{392}=1.96$$

TABLE XVI

MEAN SCORE FOR EXPANDED ROLE ACCEPTANCE SCALE, N's, STANDARD
DEVIATION AND t-VALUES BETWEEN A.N.A. JOINERS
AND NON-JOINERS

	N	Mean	Standard Deviation	<u>t</u> Value
A.N.A. Joiners	325	37.3938	10.996	3.37
Non-joiners	68	42.2647	9.970	

$$.05t_{391}=1.96$$

TABLE XVII

MEAN SCORE FOR EXPANDED ROLE ACCEPTANCE SCALE, N's, STANDARD
DEVIATION AND t-VALUES BETWEEN HEALTH CARE RECIPIENTS
AND NON-RECIPIENTS

	N	Mean	Standard Deviation	<u>t</u> Value
Health Care Recipients	53	35.2453	11.128	2.14
Non-recipients	343	38.6822	10.865	

$$.05t_{394}=1.96$$