RESEARCH PRODUCTIVITY OF NURSE EDUCATORS

DISSERTATION

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

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BY

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This study examined the research productivity of a selected group of nurse educators in the United States. Research productivity was defined as: (1) the number of past research studies conducted in relation to degree requirements, (2) the number of past research studies conducted which were not in connection with degree requirements, (3) the number of research studies that have been published, and (4) the number of ongoing research studies.

An analysis of past and present research studies was made to determine the types of studies and content areas being examined. Nurse educators were also asked to identify content areas that should be explored in the future by educators. Reasons for current non-involvement in research were examined. Support received from educational institutions for faculty research and the use of research productivity in the evaluation of faculty members were also analyzed.

The study population was identified from the membership list of the American Nurses' Association. A questionnaire specifically designed for this study was sent to a random
sample of 500 nurse educators. Usable returns were received from 394 (79 per cent) of the sample.

Descriptive statistics, including frequency distributions and percentages, were used in the data analysis. The Chi-square Test for Contingency Tables was used to determine the relationship between research productivity and the following demographic characteristics of nurse educators: number of years in nursing; basic nursing educational preparation; highest level of education completed; clinical specialty area; years of teaching experience; academic rank, tenure status, and the highest level of nursing education offered at the nurse educator's school of employment. Chi-square tests were also run between these demographic variables and nurse educators' plans for research within the next two years. Thirty-two chi-square tests were run, and sixteen significant relationships were found.

The major findings and conclusions of the study are:

1. Nurse educators holding doctorates and those holding the rank of Professor are the profession's most productive researchers.

2. The majority of the present research studies is being conducted by faculty in graduate rather than undergraduate nursing programs. Many nursing programs are providing support for faculty research. However, as a
collective, the research support provided by educational institutions is minimal, and only 50 per cent of the institutions use research productivity as a criterion measure for the evaluation of faculty.

3. The majority of the research has been done in connection with degree requirements. However, 72 per cent of the nurse educators who hold doctorates report that they have conducted additional research studies in the past, and 65 per cent of them report ongoing research studies.

4. Past involvement and present involvement in nursing practice research was reported to a greater degree than the literature findings would indicate.

5. The publication plans of nurse educators show a sharp increase over their previous publication records.

6. Descriptive research is the study type chosen by the majority of nurse educators, both in the past and at the present time.

7. Priority areas listed for future research by nurse educators included clinical research in all areas, studies that will enable better prediction of student success in nursing education, and studies related to the entry into practice issue.

8. Little interest could be found in the development of nursing theories or the application of specific theories to practice.
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CHAPTER I

INTRODUCTION

In recent years, the nursing profession has become increasingly interested in developing a scientific basis for its practice. Contemporary nursing textbooks and journals contain many references to the need for nursing research. Most nurses are no longer content either to be the "handmaiden" of the physician or to use medical knowledge as the primary foundation for their practice. Since the Medical Model, which is based on the diagnosis and treatment of disease entities, is no longer deemed sufficient for the practice of nursing, it has become necessary for the nursing profession to pursue and identify its own essential body of knowledge. Indeed, one might ask whether nurses have the right to call themselves professionals until they can identify a common body of knowledge for their practice.

In order to establish a core of nursing knowledge, scientific research is a necessity. Nursing science must seek knowledge about man and his environment and then utilize this knowledge in the practice of nursing. This quest for knowledge requires the commitment of the
entire profession but especially that of nurse educators. As transmitters of nursing knowledge and role models for nursing students, nurse educators influence attitudes toward nursing research. Their involvement in nursing research may be indicative of the progress that is being made in the establishment of a body of nursing knowledge.

Subject of the Study

The subject of the study was the involvement in research activities of a selected group of nurse educators in the United States.

Purposes of the Study and Research Questions

The purposes of this study and corresponding research questions were

1. To determine the relationship between selected demographic characteristics of the nurse educator and research productivity.

   a. What is the relationship between the nurse educator's number of years in the nursing profession and research productivity?

   b. What is the relationship between the nurse educator's basic nursing educational preparation and research productivity?
c. What is the relationship between the nurse educator's highest level of education completed and research productivity?

d. What is the relationship between the nurse educator's clinical specialty area and research productivity?

e. What is the relationship between the nurse educator's years of teaching experience and research productivity?

f. What is the relationship between the nurse educator's academic rank and research productivity?

g. What is the relationship between the nurse educator's tenure status and research productivity?

h. What is the relationship between the levels of nursing education offered at the nurse educator's school of employment and research productivity?

2. To identify research studies of nurse educators.

a. What content areas were examined in the research studies that have been conducted by nurse educators to fulfill degree requirements?

b. What content areas are being examined in the ongoing research studies of nurse educators?

c. What types of research studies have been conducted in the past by nurse educators?
d. What types of research studies are being conducted at the present time by nurse educators?

e. What reasons were indicated by nurse educators for their lack of current involvement in research activities?

3. To examine the support being provided by educational institutions for faculty research.

   a. What type of support is being provided by educational institutions for nursing faculty research?

   b. How is research productivity used in the evaluation of faculty members?

4. To analyze the future research plans of nurse educators.

   a. What are the plans for publishing results of present research studies?

   b. What is the relationship between selected demographic variables and nurse educators' plans to conduct research studies within the next two years?

   c. What content areas are nurse educators planning to examine in the research studies they conduct during the next two years?

   d. What content areas should be examined in the future research studies of nurse educators?
Background and Significance of the Study

Research and experimentation are universally recognized instruments for finding out new facts and principles and for applying these facts and principles to the problems of everyday life. People have always experimented, but it is only in recent years that the value of organized research by competent, trained people has been fully realized. Advancement in any area or field comes about as a result of research. This is as true for nursing as for other fields (Werley, 1977). Treece and Treece (1977) also point out that the principles of research are the same in any discipline.

Hope for the future of nursing lies in commitment to inquiry on the part of all nurses, according to Notter (1974). Without research it is not possible to identify a body of knowledge in a scientific manner (Riehl & Roy, 1974). It is, therefore, essential for members of a profession to be involved in research activity.

Nurses have always been involved in nursing research. Long before the organized profession came into existence, nurses were altering their care to meet the needs of their patients. However, the nature of this "research" was largely by trial and error with little attention being given to a systematic, scientific method of examining nursing care. Not until Florence Nightingale established
her system of nursing did scientific nursing research actually come into existence. She directed her nurses to develop the habit of systematically recording observations and trying to determine the meaning of the observations. These observations were seen as the only reliable means for discovering and verifying knowledge useful for saving lives and promoting the health of individuals (Nightingale, 1860). She envisioned the development of a scholarly, humane, and scientific discipline whose reason for being resided in the responsibility of its practitioners to promote the health of human beings and to engage in a relentless search to discover nature's "law of health" (Nightingale, 1860, p. 6).

Unfortunately, nursing did not follow the admonishment of its founder. In general, nurses have not inquired into problems of nursing practice nor sought to develop a body of nursing knowledge. The exact number of nurse researchers and the number of nursing research studies that have been conducted in the past and are being presently pursued is unknown. However, it is believed that the numbers are insufficient in both categories (de Tornyay, 1977; Downs, 1978; Henderson, 1977; Schlotfeldt, 1977).

As early as 1927, Marvin, in an article published in the American Journal of Nursing, pointed out the need for
research. According to this nurse, scientific research would mean that the art of nursing the patient could be perfected in a shorter time than would be possible by the slow accumulation of knowledge gained through casual experience (Marvin, 1927). The ensuing years brought some mention of research in the nursing literature. However, as recently as 1970, one author stated that little clinical research was being conducted even though its importance had been recognized many years earlier (Diers, 1970).

In 1960 Adams identified the purposes of nursing research which still seem to be appropriate today: to improve patient care and to know (1) what the most effective nursing care consists of, (2) how efficiently and humanely to give this care, (3) how to teach this care in the shortest time possible, and (4) how to develop the full potential nurse power of all levels of nursing personnel (Adams, 1960). Nursing research is also needed in order to improve the education of future practitioners. According to Jacox (1974), much of what is taught to nursing students is untested theory and nursing practices that have not been systematically examined. A great deal of clinical nursing practice is based on "intuition and rituals (otherwise known as procedures)" (Jacox, 1974, p. 383).
Abdellah and Levine (1965) assert that the study of the art and science of nursing underlying the practice of nursing is a "must" for the profession. In a stronger tone, Diers (1970) says "to deny that research has a place in nursing or to deny it the necessary resources in people and money is criminal to the people we serve and suicidal for the profession" (p. 51). Schlotfeldt (1974) agrees that systematic inquiry is essential to the survival of the nursing profession and to the well-being of those served by nurses. Nursing must make its proper contribution to society. Society, through its legislators particularly, is beginning to show increased interest in research. Consumer interest and awareness in health care have spurred this interest. Also, the high cost of health care services has increased the need for the judicious use of tax dollars (Gortner, 1975). This responsibility to social welfare is also emphasized by Kelly (1975). Gortner (1975) believes that research can become the "common meeting ground" by which all health care professionals can help to solve the health problems of society.

Research will foster in nursing the development of an accountability of and to science. Scientific accountability must become as much a part of nursing as its humanitarian tradition is. Without this, nursing services will remain "custodial and idiosyncratic" (Gortner, 1974, p.
Only as the science of nursing emerges can the art of nursing achieve new dimensions of artistry (Rogers, 1970).

An indication of the profession's sincere desire to become involved in nursing research is demonstrated in the Resolution on Priorities in Nursing Research passed by the House of Delegates of the American Nurses' Association in 1974:

WHEREAS, nursing is a discipline in need of further developing and testing of its body of knowledge, and WHEREAS, the communication of nursing knowledge would be enhanced by the existence of tested concepts and constructs, and WHEREAS, nursing lacks significant influence, power, and prestige because of its inability to specify its contribution to health care; therefore, be it RESOLVED, that the American Nurses' Association make a concerned effort to build a public image of nursing research as an essential contribution to knowledge in the health care field, and be it further RESOLVED, that during the next decade the principal thrust of nursing research be a threefold one, namely,

a. the development of systematically derived information relevant to the practice of nursing,

b. the development and testing of theories in practice,

c. the identification of criterion measures, tools, and instruments to document the outcomes and effectiveness of nursing practice. (p. 5)

Even today, with the recognized need for research in nursing, many nurses do not choose to become involved in research. Science, for some nurses, brings to mind test tubes and laboratories. It is only in recent years that nurses have seemed to realize that the study of bed-making procedures can be scientific if it is used to
determine whether a cardiac patient expends more energy when his bed is changed from head-to-toe or from side-to-side. As Ellis (1970) says, "Science can be an effective tool of the humanist. It is not his enemy" (p. 444). However, many nurses feel the need to protect their patients from research experiments. Martinson (1976) reports that a nursing administrator suggested that the term "nursing research" not be used in relation to her study. The administrator said that many staff nurses believe they must protect the patients and their families against their use as research subjects.

In general, however, there is a high degree of consensus among leaders of the nursing profession regarding the value of research (Creighton, 1977; de Tornyay, 1977; Gortner, 1975; Hyde, 1977; Meyer & Heidgerken, 1962; Riehl & Roy, 1974; Schlotfeldt, 1977). As Schlotfeldt (1977) states,

The key predictor of nursing's eventual fulfillment of its potential as a socially significant, scientific, humanistic, learned profession is commitment to research, as it is expressed by individuals, by the corporate profession, and by institutions. (p. 4)

Is this commitment to nursing research borne out by nurse educators' actual involvement in research, or do they only give lip service to the value of research? An answer to this question should have significance for the entire profession of nursing. For, in large measure,
nurse educators' involvement in nursing research will determine the progress of nursing in its quest to become a scientific profession with an identified body of knowledge. Until a substantial cadre of nursing faculty becomes engaged in research activities, the prevailing image of nursing will continue to be that of a service-oriented art rather than a scientific profession.

Definition of Terms

The following terms were defined for the purposes of this study:

Nurse Educator—an individual who is involved in the education of nursing students in institutions granting a diploma, associate degree, baccalaureate degree, or higher degree in nursing.

Nursing Research—systematic, detailed attempt to discover or confirm the facts that relate to a specific problem or problems in nursing (Abdellah & Levine, 1965).

Research Productivity—is defined in the following four ways:

a. The number of past research studies conducted in relation to degree requirements.

b. The number of past research studies conducted which were not in relation to degree requirements.
c. The number of research studies that have been published.

d. The number of ongoing research studies.

Three types of research, according to Turney and Robb (1971):

**Historical**—organizing and classifying the recorded evidence of past events.

**Descriptive**—determining the facts of current situations.

**Experimental**—systematically varying one or more factors (independent variables) in order to determine what effects this variation produces on another factor (dependent variable).
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CHAPTER II

REVIEW OF THE LITERATURE

This chapter presents a review of the literature relevant to the development of nursing research in the United States. The review is divided into the following sections: (1) Overview of Nursing Research, (2) Slow Growth of Nursing Research, (3) Development of Clinical Nursing Research, (4) Influence of Nursing Organizations on Research, (5) Resources for Nursing Research, (6) Communication and Collaboration in Nursing Research, (7) Qualifications for Nursing Research Investigators, (8) The Role of Nursing Education and Nurse Educators in Nursing Research, and (9) Summary.

Overview of Nursing Research

Simmons and Henderson (1964) believe the development of research in nursing parallels the growth of the nursing profession as a whole. They divide the history of professional nursing in the United States into three phases. The first phase, from 1870 to 1900, saw the establishment of hospital controlled nurse training schools. "The authoritarian system of training, the public image of the nurse, the social background of most of them, and
the demands of service that superseded the students' needs were deterrents to the development of inquiring minds" (Simmons & Henderson, 1964, p. 30). The only published research in that period of time was conducted by Florence Nightingale. The next phase of nursing, from 1900 to 1930, saw the rapid growth of hospital schools and the beginning of basic nursing programs in colleges and universities. Changes in education and service began to come about as the result of perceived needs. However, because of the heavy demand for their services, nurses tended to ignore or sacrifice an analytical approach to nursing and did not seek to formulate a body of nursing knowledge. Finally, in the latest phase of nursing, from 1930 to the present, nurses have begun to examine more closely their reason for being. Research has come to be considered a necessity for the development and maturity of the nursing profession.

Aside from the research efforts made by Florence Nightingale in the late 19th century, little evidence or documentation of nursing research can be found until the 1950s. Although several significant studies were conducted during the first half of the 20th century, these studies were primarily fact finding surveys about nurses themselves (Schlotfeldt, 1975). They looked at the
"learning, living, and working" experienced by nurses (Abdellah & Levine, 1965, p. 4).

However, even during the early half of this century, the need for nursing studies was recognized by such nursing leaders as Adelaide Nutting and Isabel Stewart. Bunge (1958) believes Adelaide Nutting had a true researcher's approach to her work and constantly asked the question, "Why?" "Why?" Henderson (1957) also says the nursing profession owes a debt of gratitude to Nutting and Stewart for the historical research done in their "spare time."

Important studies were conducted in this country in the early 1900s (Dock, 1902; Nutting, 1912; Wald, 1915). A well-known study of nursing and nursing education by the Committee for the Study of Nursing Education (1923), often called the Goldmark report, was published in 1923. A report, now considered a classic, titled **Nurses, Patients and Pocketbooks** (Burgess, 1928) was published in 1928. During that same year Johns and Pfefferkorn (1928) published a study concerning the activities in which nurses were involved. A study on nursing schools (Committee on the Grading of Nursing Schools, 1934) was published in 1934. Six years later Pfefferkorn and Rovetta (1940) studied the administrative costs of nursing service and nursing education.
Studies of nurses and nursing education became prevalent in the 1940s. One of the most famous of these studies, titled *Nursing for the Future*, was published in 1948 by Esther Lucile Brown. One of the major recommendations of the study concerned the need for hospitals to hire enough permanent staff without the use of nursing students. Schools, in turn, should be able to maintain an independent educational program (Abdellah & Levine, 1965). Unfortunately, the recommendations of these studies were not always implemented. Notter (1975) believes nursing in this country might be quite different today if some of the findings of these early studies had been considered more seriously at the time they were reported.

The Public Health Service Act passed in 1944 gave the Surgeon General of the United States the authority to encourage and support research through grants to individuals and to health care institutions (Vreeland, 1964). In 1948 the Division of Nursing Resources was organized within the Public Health Service. This division was combined with the Division of Nursing in 1960. Today the Division of Nursing is contained in the Bureau of Health Manpower in the Health Resources Administration. A large amount of nursing research activity in this country today is under the auspices of this Division of Nursing. Downs
and Fleming (1979) contend that when society accepts the fact that nurses are health professionals in their own right, it will be possible to establish an "Institute of Nursing, a Bureau of Nursing or even a Department of Nursing" in the government (p. 195).

The decade of the 1950s was a period when the organized profession began to become increasingly involved in research activities. The Institute of Research and Service in Nursing Education, established in 1953 at Teachers College, Columbia University, was the first known unit to be set up with a full-time staff to conduct organized study in nursing and nursing education (McManus, 1961). The first unit directed primarily toward research in nursing practice was established in 1957 at the Department of Nursing of the Walter Reed Army Institute of Research (Werley, 1962).

After the nursing profession officially endorsed research and research support became available, the number of nurses earning doctoral degrees increased rapidly (ANF, 1973). Prior to 1950, only thirty nurses held earned doctorates. During the 1950s, 115 nurses earned doctoral degrees. The 1960s saw over 500 nurses being awarded doctorates. The number of nurses studying for the doctorate continued to increase steadily during the 1970s. In 1979 Downs and Fleming estimated that over
1,800 nurses held doctorates in the United States. This country has the largest number of nurses prepared to conduct research of any country in the world (Downs & Fleming, 1979). Gortner (1975) believes there is a direct relationship between the size of the investigator pool and the amount of research that is being conducted. Consequently, nursing research has begun to increase in this country.

Slow Growth of Nursing Research

Nursing research has been slow to develop in this country as well as in the rest of the world. The reasons for the failure of nurses in this country to become committed to research are many and varied. In the past, nursing has been considered primarily a vocation. Thompson (1968) says a vocation often leads to blind devotion which stultifies progress. Also, nurses have tended to accept ideas and knowledge from authorities without many questions (Notter, 1975). Schools of nursing throughout the world were influenced by British nursing education and have continued to rely upon tradition and authority as those British schools did. Despite her skill in scientific investigation, Florence Nightingale derived the foundation for modern nursing education from the military tradition which emphasized the concept of authority (Notter, 1974).
TenBrink (1975) believes one of the greatest reasons for non-involvement by nurses in research is related to the traditional roles of women. She writes, "Within the paradox of our actually submissive role and our desire for important influence lies much of the tradition of all women" (p. 16). Glass (1977) concurs with this position and calls for the examination of nursing history from a feminist perspective. Many of the attitudes, values, and social pressures that are related to the role of women in society also influence women in the academic world (Downs, 1978).

Notter (1975) points out the fact that nursing education has greatly influenced the nursing profession, and this education has been influenced by the general status of all women in this country and by the educational facilities available to women. In a profession dominated by women, research could expand only as women were educated (Treece & Treece, 1977). Simmons and Henderson (1964) suggest that it was necessary for nursing educational programs to be established within universities before nurses could be prepared to do research. The reason for the importance of the university setting to the development of research, according to these authors, is related to the role of the university as a center for research and for research training.
Neither early nurse leaders nor college and university educators envisioned the university as a place where nurses would receive their basic educational preparation (Gortner & Nahm, 1977). According to Glass (1977), it has only been in the last few decades that increasing intellectual pursuits by women have been developing. University level education for nurses was accepted slowly in this country, and nurses in many other countries of the world are just beginning to move toward university education for their profession. This is one of the reasons that research has been slow to materialize on the international scene (Glass, 1977).

Even with the increase of women in higher education in this country, most college and university environments have been relatively nonsupportive of women faculty members (TenBrink, 1975). Nursing faculty are not generally viewed by the members of the university community as scientific practitioners or professionals who are concerned with the mastery of science (Schlotfeldt, 1977). The university community tends to share the public's view of nursing as a "technically- and medically-oriented occupation without a free-standing or substantive knowledge base" (Downs, 1978, p. 60). Nursing has been looked upon as a service to assist the physician in his treatment of the sick person and has not been visualized as a separate
profession in its own right. The general public does not appear to perceive the need for nursing research nearly as readily as they perceive the need for medical research, according to Notter (1975). An editorial in the September 1979 issue of Research in Nursing and Health indicates knowledge generated by nursing research is less likely to capture the imagination of the general public (Research in Nursing Health, 1979).

According to Diers (1970), research has been identified as a tradition for men. She points out that the idea of a scientist in a starched lab coat does not fit the public image of the nurse in her white uniform and cap ministering to the sick. Fawcett (1979) concurs that the "caring" image of women that is so much a part of nursing's history does not fit the picture normally equated with scientific research. Cang (1979) indicates that some nurses feel that research is an "invasion of privacy" in exchange for information of dubious value. Until a few years ago access to clinical agencies for data collection was seldom a problem. The picture has changed dramatically, according to Hedgman (1978). Many health care agencies now have their own research review boards and are establishing their own departments of nursing research. Jacox (1974) reports that the finding of a
suitable sample population is one of the greatest problems facing a researcher.

Diers (1970) writes about the "myth" that nurses are incapable of doing research or of thinking logically. Even some nurses do not think nurses can, or should, do research, and that when nurses conduct research they become "non-nurses" (p. 54). Research has come to be identified as something removed from the real concerns and problems of the nurse, patient, and health services (Cang, 1979). Fawcett (1979) contends that most nurses do not view themselves as scientists committed to the pursuit of knowledge, but rather as other oriented "doers." Nursing is a practice profession; nurses have often placed more emphasis on its practical aspects than on research (Notter, 1974).

According to Schlotfeldt (1977), nursing academicians, collectively, espouse attitudes similar to those of other women. The results of a 1972 survey of 42,000 faculty members, conducted by the American Council on Education, indicated that male faculty members view their own success as an academic professional to be related to the research image of their institutions, while female academicians view their success as only weakly or moderately related to the research image of their institutions (Tidball, 1976). Women faculty members generally feel
less successful than male faculty members and utilize other value systems than research productivity by which to define their success as academic professionals. Tidball (1976) concludes that "research is associated with maleness and teaching with femaleness" (p. 388). Almost 97 per cent of doctorally prepared nurses are women whose socialization has influenced their attitudes toward themselves as academicians and as investigators (Pitel & Vian, 1975). A study by the Graduate Record Examination Board found that more women than men indicated a particular interest in teaching. This choice was viewed as being based on the "societal or sex role expectations for women" (Centra, 1974, p. 154).

Involvement in research activities calls for a time commitment that is often difficult for women to make. Kalisch (1975) believes that this can be a great problem for women, especially for those women with traditional views who still feel their rightful place is in the home. She considers it very understandable that so many men and not women are among the great creators. So many demands are placed on a woman's time and energy that little of either is left for creative ventures.

However, there is evidence that women are becoming increasingly involved and accepted in the scientific community (Schlotfeldt, 1975). Glass (1977) attributes
this to the altered position of women in society and to the advances in educational opportunities. Fawcett (1979) indicates the women's movement has helped nursing faculty to overcome the negative aspects of sex role definitions. It is no longer considered "unfeminine" to be a scientist. As women faculty members are beginning to be taken more seriously by their male colleagues, nursing faculty are also gaining respect in academia. Downs (1978) believes "affirmative action" has helped to push nursing into a position of influence in higher education and says that it is essential that this historical occurrence be utilized to the best advantage by nursing faculty. She indicates the image of nursing faculties will not improve a great deal until a substantial number of faculty members are engaged in scientific inquiry, especially involving clinical investigation.

The slow growth of nursing research can also be attributed to the profession's value and reward system. Ketefian (1975) believes increased recognition of the value of nursing research leads to increased research activity. Schlotfeldt (1975) also sees research as inextricably related to the value placed on inquiry by persons who are influential. There must be clear indications that research is valued, according to Werley (1975). Nursing's reward system must be structured so that research
productivity is accorded appropriate rewards. This reward system has not been successful in attracting or retaining nurses in research work. All too frequently rewards are distributed for all kinds of activities rather than research (Werley, 1977). Frequently a nurse researcher is "rewarded" with a position in which she can no longer pursue research activities, reports Kalisch (1975). She calls for a reward system to be established which will motivate nurses to become involved with research activities and remain dedicated to this area of work.

Another reason for the slow growth of nursing research involves the workload placed on nurses. Leaders in nursing have heavy demands placed upon them for teaching, administration, and practice, as well as for research and writing (Schlotfeldt, 1977). With crushing teaching and service loads, as well as outside activities such as workshops, little time remains for research (Kalisch, 1975). According to Ketefian (1977a), universities used to provide faculty with more time to carry out scholarly activities. However, today academic institutions are making greater demands on their faculty, increasing their teaching loads, and requiring that they be more productive in activities that yield revenue for the institution.

Also, faculty members who are qualified to carry out research projects are almost always capable of
contributing to other institutional goals. Kalisch (1975) says that it is not uncommon to hear administrators make comments such as: "The research you are doing is really marvelous," and in the next breath ask the individual to do several other tasks. Until deans and department heads expect research and make provisions for it, faculty will have to be coaxed to conduct research (Werley, 1977).

High caliber research requires time and cannot be done in its entirety "after midnight and on weekends" (Werley, 1975, p. 453). With proper reinforcement and adjusted workloads, many research-prepared nurses will become and remain active in nursing research. Therefore, assessment of faculty workloads is necessary so that adequate time can be allotted for research on an ongoing basis (Werley, 1975). Faculty or staff who find that administrators are supportive of research will be much more likely to engage in research activities (Kalisch, 1975).

Downs (1978) suggests universities see their faculty as developers as well as purveyors of knowledge, and there is evidence that universities are beginning to expect research productivity from their faculty members. An increase in research expectations for faculty members, probably more than any other factor, will socialize nurses into the research role and cause them to seek means of integrating research activities into their normative
faculty workloads (Fawcett, 1979). Ketefian (1977b) contends that instructor ability and good teaching are not being weighed as heavily as research productivity, because there is no systematic, valid means of evaluating teaching ability. Research productivity is increasingly being required for promotion and tenure, and nursing faculty are beginning to subscribe to these institutional policies that require research productivity for promotion and tenure (Fawcett, 1979).

Another influential factor in the development of nursing research involves the socializing forces within the profession. A predominant barrier to nursing research may be the lack of proper socialization of nursing faculty, according to Fawcett (1979). She discusses the importance of socialization in the development of nurse researchers and views the low status currently given to research in nursing schools as reflecting peer expectations as much as or more than the expectations of the university. New faculty members tend to model the behavior of senior faculty members, and since these faculty members are not conducting research to any degree, new faculty members tend to follow their lead. One active nurse researcher on a faculty can serve as a role model for other faculty members, and Fawcett (1979) calls for faculty recruitment committees to seek such persons for their faculties.
The amount of financial support also has been a large factor in the development of nursing research. Little support was available prior to the 1950s. Beginning with the provision of fellowships and research grants in the middle 1950s, public and private support for nursing research has risen. However, if scholarly activity is to increase, nursing must be willing to give the researcher appropriate recognition and honor beyond the mere financial support of research projects (Downs, 1969). Support for research equipment, supplies, space, and services must have budget allocations in nursing schools (Schlotfeldt, 1974). Many of the requirements necessary for the support of research activities may be difficult to justify in university budgets (Gortner & Nahm, 1977). However, in a survey conducted by Margolius, Corns, and Levi (1978) it was revealed that universities were providing some means of indirect support for research, such as sabbatical time, secretarial support, computer time, and decreased teaching loads. Although support for nursing research has increased within and outside the university, this support continues to remain quite limited.

Development of Clinical Nursing Research

During the later half of the 1970s, a shift in emphasis was apparent in nursing research. Clinical
nursing and the improvement of patient care became a higher priority area than the study of nurses and nursing education. However, this change was brought about slowly and many nursing leaders feel progress is still moving too slowly.

Early nursing leaders in this country were often occupied with problems of nursing education. Schlotfeldt (1977) writes that "their energies had to be directed toward preserving their newly established schools as educational institutions" (p. 5). As a result of this interest in nursing education, a great deal of attention was focused on this type of research and on the preparation of individuals to conduct research in this area. As a result, nursing education seemed to move far ahead of nursing service (Gortner & Nahm, 1977). In a 1956 editorial in Nursing Research, Henderson (1956) reported over half of the doctoral dissertations had been carried out in the field of education, rather than in nursing.

A great deal of nursing research effort has also been focused on nurses themselves. Henderson (1956) noted that studies of the nurse outnumbered studies of her practice ten to one. In 1960 Adams identified some questions that were being studied: Who is the nurse? Why did she choose to become a nurse? What should she be doing as a nurse? Behavioral scientist, Hochbaum (1960), contends that an
inordinate amount of research has been done on nurses at the expense of research on nursing. He says that it seems as though nurses were perplexed about themselves and were trying to understand better "what they are, who they are, why they are nurses, and what makes them a distinct profession" (Hochbaum, 1960, p. 192).

According to Abdellah and Levine (1965), although several significant studies were conducted during the first half of the 20th century, these studies were primarily surveys to determine activities in which nurses were engaged, the supply and demand for nurses, and the circumstances of learning, living, and working experienced by nursing students and graduate nurses. The reason for focus on this type of research may be more related to the research interest of investigators than to the need for this type of research in nursing. Due to the lack of nurses prepared in research methodology, nursing has drawn from many other fields, primarily sociology and psychology (Bunge, 1958). Much of the early research in nursing, therefore, was carried out by members of other disciplines to build and test theories of their own professional practice (Downs, 1967). This research, conducted by social and behavioral scientists, was adding to their respective bodies of knowledge but was not
necessarily expanding nursing's body of knowledge (Henderson, 1956).

It was only after the close of World War II that strenuous efforts were made to prepare nurses to do research (Gortner & Nahm, 1977). Even then, many nurse researchers continued to find psychological variables more interesting than variables related to physical nursing care. O'Connell's (1976) study of research reported in Nursing Research from 1970-1974 indicated that research into nursing practice did not increase over this five-year period. In a report from eighty-four nursing schools surveyed by Margolius et al. (1978), clinically-oriented nursing research was not as prevalent as studies in education.

The need for clinical research, however, has long been recognized by nurses. The origin of practice-related clinical research can be traced to the late 1920s and 1930s, when the need for evaluation of nursing procedures was first recognized. Marvin (1927) proposed many research questions involving procedures: What was the safest, simplest, quickest method of preparing a hypodermic? How long should the hands be scrubbed, by what method, and with what kind and percentage strength of soap? In the same year, Broadhurst (1927) and her colleagues reported on the efficiency of handwashing...
procedures. Ryan and Miller (1932) investigated thermometer disinfecting techniques. The 1930s also saw emphasis on nursing care plans changed from their use as a teaching tool to their use as a method for improving patient care (Gortner & Nahm, 1977).

The 1940s and early 1950s were characterized by studies of nursing personnel, services, and organizational administration variables. Few nursing practice studies were conducted. Schwartz (1948) documented the effectiveness of nursing care for inducing sleep in patients and for decreasing their intake of medications. Also, McNett (1949) helped to demonstrate the usefulness of masks in preventing the spread of tuberculosis.

The late 1950s began to show a trend toward studies in patient care. Some of these studies are reported by Brown (1958) and Roberts (1954). The increasing concern for practice-related studies was reflected in the priorities for nursing research published by the American Nurses' Association (American Nurses Foundation, 1960): effects of performance of nursing acts on the patient (nursing procedures), effects on nursing of changing patterns of nursing care and changing health needs, effects of administrative organization on patient care, nursing needs of patients and nursing in different categories of illness.
During the 1970s, particularly in the last five years of that decade, the emphasis on practice-related research continued to expand. Carnegie (1978b) reported that the number of clinical articles reported in Nursing Research had tripled between 1973 and 1978. Gortner (1975) says that considerable value is also being attached to the "antecedents to, correlates of, and outcomes of effective practice" (p. 193). Because of the high costs of services and increased consumer awareness and interest in their care, Gortner contends the health professions can no longer assume "infallibility" with regard to their practice. Adams (1960) indicates that nursing research came about as an outgrowth of the demand for improved health services. Therefore, responsibility and accountability for health care must be addressed by the nursing profession. As early as 1961, McManus asserted that nursing will be less than professional until nurses can be reasonably certain about the outcomes of their efforts. There has also been a shift from research studies being conducted by members of other disciplines to those being conducted primarily by nurses themselves. O'Connell's (1976) report of the 275 studies published in Nursing Research from 1970 through 1974 indicates that 86 per cent were written by nurses.
The nursing research that has been conducted in the past and the reporting of research trends has been discussed in the nursing literature by Abdellah (1970), Glass (1977), Gortner and Nahm (1977), Notter (1974), and others. Some research has been fairly well documented on such topics as the management and care for those with terminal illnesses (Gortner & Nahm, 1977). However, the majority of needed research either has not been conducted or needs further validation and refinement. The strong need for replication studies to add reliability to existing study results has been pointed out by many authors, including Batey (1970) and Treece and Treece (1977).

Although there seems to be a consensus among nursing leaders of the need for practice-related research, many nursing leaders point up the continued need for research in many other areas of nursing. Treece and Treece (1977) point out three major areas of concern in nursing research: (1) nursing education, (2) the practice of nursing, and (3) nursing service. Jacox (1974) calls for patient teaching research, while Schlotfeldt (1974) believes that the nursing profession should support historical research. Cooper (1975) points out the need for research on continuing education and on in-service education. Nurse researchers should also study change and its effects on the student, the educator, the patient,
the patient's family, the nurse, the nursing profession, and other professions as they relate to nursing (Treece & Treece, 1977). de Tornyay (1977) calls for the implementation of the research priorities enunciated by the American Nurses' Association's Commission on Nursing Research. These priorities are divided into two categories, according to the practice and the profession of nursing.

Twelve practice areas for study were listed:

1. Studies to reduce complications of hospitalization and surgery (sleep deprivation, anorexia, diarrhea, neuro-sensory disturbances, respiratory infections, circulatory problems, and others).
2. Studies to improve the outlook for high-risk parents and high-risk infants.
3. Studies to improve the health care of the elderly.
5. Studies of adaptation to chronic illness and the development of self-care systems and group-care systems.
7. Studies of nursing interventions to promote health.
8. Studies to facilitate the successful application of new knowledge to patient care.
9. Studies to define and delineate health states.
10. Studies of addictive and adherence behaviors.
12. Studies to evaluate the outcomes and/or effectiveness to consumers and providers of different patterns of delivery of nursing services. (de Tornyay, 1977, p. 405)
Six areas for study were listed pertaining to the profession of nursing:

1. Studies of manpower for nursing education, practice, and research.
2. Studies of quality assurance for nursing and of criterion measures for practice and education.
5. Studies of nursing curriculum.
6. Studies of the organization of the nursing profession. (de Tornyay, 1977, p. 405)

These priorities seem to be broad enough to include most areas of research that have been called for by nursing leaders. Schlotfeldt (1977) believes that the nursing profession should not only point out priority areas, but also should sanction inquiries that represent a broad spectrum of research problems.

Influence of Nursing Organizations on Research

All major organizations whose membership is composed of nurses are concerned with nursing research. They all have included or are in the process of adding nursing research as one of their objectives (Treece & Treece, 1977). Simmons and Henderson (1964) contend that organized nurses are the "foremost promoters of research" (p. 82). The advantage of formal organizations in
promoting research is their ability to mobilize a variety of resources into specific programs (See, 1977). A supportive climate for research must be provided by a peer group or a professional group. The two largest nursing organizations, the American Nurses' Association (ANA) and the National League for Nursing (NLN), have been largely responsible for the growth of nursing research in this country. Both the ANA and the NLN have sponsored research independently as well as in collaboration with other groups.

The NLN has long seen the need for nursing research. Although it was formally chartered only in 1952, NLN was composed of several predecessor organizations which were involved in aspects of nursing research. For example, the National Organization for Public Health Nursing conducted surveys and studies of public health nursing agencies from the early decades of this century (Johnson, 1977). These studies continue today through the NLN Department of Home Health Agencies and Community Health Services. During the first seven years of its existence, NLN research and data collecting functions were decentralized and controlled through several programs and membership units. However, in 1959 a research and studies department was created. This helped to centralize the administration of projects and to coordinate skills and
resources. This department today is known as the Division of Research. In 1975 a Committee on Research was established to help improve the planning and scheduling of projects and to help establish priorities for the allocation of research resources which are in strong demand (Johnson, 1977). Most research of this organization has focused on nursing education, nursing students, and organizational aspects of community health nursing.

The ANA has included research in its program of activities since its beginning. However, in recent years interest has increasingly been focused on research. ANA has, over the years, collaborated in studies of nursing, sponsored research conferences, granted money for studies of nursing, and received grants to develop nursing studies. The organization established the American Nurses' Foundation (ANF) in 1955. ANF's goal is to promote high-level wellness and to improve patient care (Hyde, 1977). The foundation has served as a receiver and administrator of funds and has awarded grants to researchers. Through 1977, ANF had helped 123 nurse researchers in their studies with grants ranging from $3,500 to $40,000. Many of these nurses were students working on their doctoral dissertations. ANF also conducts programs of research in nursing and provides consultation services to research facilities, nursing
students, and other individuals engaged in nursing research (See, 1977).

A standing Committee on Research and Studies was established by ANA during its 1954-1956 biennium. This committee published the **Blueprint for Research in Nursing** (ANA, 1962) which was intended to serve as a long-range guide for the individual nurse and others interested in conducting and promoting nursing research (Gortner & Nahm, 1977). The committee was replaced in 1970 by the Commission on Nursing Research which was created by the ANA House of Delegates (ANA, 1970). The purpose of this nine-member commission was to formulate professional policy in nursing research and to promote the development of a corps of expert nurse researchers. During that same year, the ANA Board of Directors approved a proposal for the development of a Council of Nurse Researchers. Members are required to be ANA members with master's or higher degrees who conduct research, guide graduate students in research, or serve as research consultants. In 1972 ANA established a Department of Nursing Research whose purpose is to provide focus and increased attention on the responsibility of the organization with regard to research (Gortner & Nahm, 1977).
Resources for Nursing Research

Resources for nursing research have been slowly increasing over the last twenty-five years. Much of the credit for this increase can be attributed to nursing leaders in the 1950s who were able to convince legislators of the need for research in nursing. From 1955 to 1977, over $39 million was awarded for research grants in nursing and $7.5 million for fellowships (Gortner & Nahm, 1977). Although the authority for the Division of Nursing to conduct research and research training can be traced to the Public Health Service Act of 1944, it was not until 1955 that financial support for nursing research actually became available in substantial amounts. During that year the Nursing Research Grants and Fellowship Programs were established within the Division of Nursing. Also in 1955 the Commonwealth Fund awarded a gift to the NLN for a Fellowship Program for nurses. The fellowship programs are largely responsible for the rapid growth in numbers of nurses earning doctorates (Schlotfeldt, 1973). In this same year, the National Institute for Health began to make money available for research. Half a million dollars was granted to nursing research the first year (McManus, 1961).

In 1958 the federal government began funding a program to nursing schools for faculty research development.
By 1970 a total of eighteen university nursing programs had received funds to develop the research skills of their faculties (Krueger, Nelson, & Wolanin, 1978). The universities were able to provide assistance to their faculties through seminars, released time, and the purchase of needed equipment, supplies, and expertise (Gortner & Nahm, 1977). The first grants were made to the University of California at Los Angeles and the University of Washington.

To complement the fellowship programs begun in the 1950s to support individuals for research training, a program of institutional grants known as the Nurse Scientist Graduate Training Grants program was begun in 1962. These grants were used to expand departmental resources. This included the provision for more laboratory and more clinical space as well as a decrease in the student-faculty ratio to a more nearly optimum level (Gortner & Nahm, 1977).

Krueger et al. (1978) see the years from 1955 to 1968 as the developmental years for nursing research. Studies dealt with the role of the nurse and the process and theory of nursing practice and nursing education. Most of the studies were conducted by non-nurses, mostly behavioral scientists and systems engineers. Consequently, a large portion of the financial resources for nursing
research during that time was directed toward the preparation of nurses in research training.

In 1969 commitment to research as a role responsibility was not yet fully accepted by practicing nurses. They still believed that nursing's primary focus should be on teaching and the improvement of nursing practice (Krueger et al., 1978). According to Krueger et al., 1969 was the "changeover year" for nursing research for several reasons. By then, almost 600 nurses held doctoral degrees. Their studies began to appear in the literature, and many of these studies were focused on clinical nursing. This shift to clinical studies was accompanied by a shift in the focus of research development grants received by universities. The emphasis on developing research skills appeared to be changing to the strengthening of research activity and productivity of nursing schools.

The decade of the 1970s saw support for nursing research grow rapidly. Research Development Grants helped supplement the Faculty Research Development Grants begun in the late 1950s. Nursing schools also became eligible for General Research Support Grants. Individual university research grants became available for many interested faculty members.

Other types of support have been added during the last twenty-five years. Foundations such as Avalon,
Cunningham, Robert Wood Johnson, Rockefeller, Russel Sage, and W. K. Kellogg have contributed large sums of money in support of nursing research. Sigma Theta Tau, National Honor Society of Nursing, has been funding nursing research since 1936. Funds from alumnae and private citizens have also furthered nursing research. Carnegie (1978b) points out kinds of support other than direct financial resources that have been received for research. These include released time; access to data; help with data collection; physical facilities, such as library, laboratory, and office space; equipment, such as duplicating machines and computers; consultant and secretarial services; and research assistance.

Communication and Collaboration in Nursing Research

Research has not been completed until it has been communicated for the purpose of advancing knowledge. There are many avenues for communicating nursing research and for encouraging collaboration among researchers, including research conferences, research centers and consortiums, regional agencies, and the presentation of research findings in many publication mediums.
Research Conferences

The first nursing research conferences were held in the 1950s under the auspices of the Western Council on Higher Education for Nursing (WCHEN). The purpose of the first conference, held at the University of Colorado in 1957, was to "strengthen and to expand effective research in the field of nursing through improvement of knowledge and skills of those who teach research methods and guide students in their studies" (Carnegie, 1977b, p. 323). Support for these conferences was received from the Division of Nursing within the federal government.

In 1965 the ANA, with support from the Division of Nursing, began a series of national research conferences to bring researchers together for the purpose of critiquing and communicating nursing research. The ANA sponsored the last of these nine annual research conferences in 1973. They were replaced by the annual research conferences of the then newly formed American Nurses' Association Council of Nurse Researchers.

Many research conferences are being held today, and these conferences are being sponsored not only by national and regional nursing organizations but also by other groups such as the Sigma Theta Tau, state nurses' associations, universities, hospitals, community health organizations and specialty organizations such as the Oncology
Nursing Society and the Council on Cardiovascular Nursing of the American Heart Association. In 1974 the Eastern Regional Conference of Nursing Research held its first biennial conference, and in 1978 the Midwestern Society for Research in Nursing held its first research conference. Much progress has been made since that first research conference held twenty-three years ago and attended by a handful of nurses--mostly university faculty--to those held today that are attended by hundreds of nurses in all areas of practice and education.

Research Centers and Consortia

To augment the research efforts of individual researchers, a new approach to research was taken in 1969 with the establishment of a center for nursing research at Wayne State University. The multidisciplinary plan included research projects, dissemination of research results, opportunity for predoctoral students to serve as associates, as well as for students and nurses from service settings to participate as learners and contributors in large research projects (Werley & Shea, 1973). In 1972 Ohio State University established a research center. Since then, other centers have been developed at the University of Texas System School of Nursing, the University of Minnesota, the University of
Utah, the University of Arizona, and at the Memorial Sloan-Kettering Cancer Center in New York (Carnegie, 1978a).

Stevenson (1977) lists some of the advantages and disadvantages of research centers. Aspects of a problem can be studied at once while using a large source of personnel, supplies, and equipment. There is also better socialization of new researchers. On the other hand, too much bureaucracy may stifle individual researchers, and young investigators may be exploited by their seniors.

Consortia have also been developed to strengthen research efforts. In a consortium, faculty from several universities bring their resources together to focus on a joint research project. Each school assumes responsibility for one aspect of the research project (Notter, 1975). Gortner and Nahm (1977) report that the number of consortia and collaborative efforts in research is increasing both "intraprofessionally (nurse scientists and clinicians) and interprofessionally (nurse scientists and health service researchers or medical scientists)" (p. 13).

Regional Agencies

Another source of communication and collaboration in nursing research is found in regional agencies. These agencies in both the South and the West have supported
programs of nursing education and nursing research for many years. One of the best known regional efforts is that of the Western Council on Higher Education for Nursing (WCHEN). This agency was begun in 1958. One of the first steps undertaken by this group was to conduct three research conferences. Since that time, many conferences have been sponsored by WCHEN. One of the functions of WCHEN is "to stimulate research in nursing within colleges, universities and health care facilities in the western regions" (WCHEN, 1973, p. 1). This group also periodically surveys thirteen western states to identify resources and then tries to link these resources with persons needing assistance.

Another well-known regional effort was developed through the Southern Regional Education Board established in 1948. Within this agency, nurse educators founded the Committee on Graduate Education and Research in Nursing in 1950. This committee later became the Council of Collegiate Education for Nursing. The Council devoted its twenty-first meeting to a discussion of the South's research resources and needs and to plans for accelerating research activity (Gortner & Nahm, 1977). Schlotfeldt (1974) says "it is especially advantageous to have regional agencies such as the SREB to provide opportunities for collaborative endeavors" (p. 455).
Publishing Nursing Research

Carnegie (1977a) states: "Research has not been completed until . . . the findings have been communicated for the purpose of advancing knowledge" (p. 83). Investigators want to keep in touch with what others are doing, according to Kalisch (1975). Publication of research allows the results to be more widely "disseminated, discussed, and evaluated as potential bases for practice" (Downs, 1969, p. 399). All well-developed disciplines have many informal information exchange systems that provide for sharing of ongoing research activities among members, according to Downs (1978). At the present time, means for disseminating nursing research are still very limited.

The first concerted effort toward sharing research results was made in 1952. A group of nurses under the sponsorship of the Association of Collegiate Schools of Nursing launched a new journal called Nursing Research. For over twenty-five years it remained the only magazine in the United States devoted exclusively to research in nursing. Many nurse scholars view this publication as essential to the profession (Downs & Fleming, 1979). However, Schlotfeldt (1977) indicates that Nursing Research may become an inadequate publication outlet for nursing research. de Tornyay (1977) predicts the day when this
journal will no longer exist. As the volume of research increases it will be published in all nursing journals and in other publications. Carnegie (1978b) concedes this may eventually be true but does not believe it will occur in her generation. She calls for the profession's continued support of nursing research. Two more journals are now in existence which are primarily devoted to nursing research—Research in Nursing and Health and Advances in Nursing Science.

Results of nursing research studies can also be found in many other publications. Dissertation Abstracts International carries abstracts of all doctoral dissertations. These are available in xerographic form and on microfilm. Information concerning nursing research is also contained in publications of the federal government, national nursing organizations, regional organizations, foundations, state nurses' associations, universities, hospitals and other service agencies, publishing houses, and non-nursing magazines (Carnegie, 1977a). Many of these sources do not give much detail regarding actual studies but do tend to further awareness of current nursing research.

In the future, research findings must be shared with scientists in other disciplines, since knowledge gained from research is not owned by any one group (de Tornyay, 1977). As nurses become more involved in research, Glass
(1977) believes studies should be shared internationally. Since 1966 the American Journal of Nursing Company has been publishing the *International Nursing Index* on a quarterly basis. It carries a list of books by and for nurses and includes a list of doctoral dissertations by nurses arranged by country and institution.

**Qualifications for Nursing Research Investigators**

The nursing profession has been unable to reach a consensus on who should conduct nursing research. In the developing years of nursing research, because of the lack of qualified nurse researchers, there was little choice but to allow researchers from other disciplines to conduct research in nursing. However, today there is a small group of nurses who, by virtue of their educational preparation, can be considered researchers (Fox, 1970). The number of nurses with doctoral degrees has gradually increased, and many nurses feel this is the cadre from which nurse researchers should be drawn. They believe that individuals with lesser preparation will not be able to carry out quality research projects. Diers (1970) fears that there may be a trend to conduct many hurriedly prepared studies to make up for the dearth of nursing research. This might, in turn, lead to invalid studies and incorrect results. Cang (1979) contends that meaningful research cannot be forced into existence because of
the pressure nurses are feeling relative to research needs.

Among those nurses who view the doctorate as desirable preparation for a researcher are de Tornyay (1977), Downs (1978), and Martinson (1976). de Tornyay (1977) proposes that doctoral preparation in nursing will only be the beginning of a career in research. Post doctoral preparation will become more common "to encourage the full development of the nurse researcher and will occur prior to the other obligations of being a university faculty member" (p. 406). Downs (1978) speaks of the doctorate as preparation for scholarship. The doctorate is but one step in what should be a life-long commitment to creative work. Martinson (1976) reveals that in most disciplines even a doctorate is insufficient for active research, and post doctoral study of perhaps five years is presumed.

On the other side of the issue, O'Connell (1976) contends that, in contrast with other professions that require doctoral degrees for researchers, nurses with master's degrees are capable of conducting nursing research. Her contention is based on research conducted by nurses with master's degrees that was published in Nursing Research from 1970-1974. Ketefian (1977a) in writing about a research project in which she was
involved, reached the conclusion that nurses did not have to hold doctoral degrees in order to participate in research.

Other nursing leaders, while not specifically calling for doctoral training in research, do see the need for intensive research training. As early as 1948, Bixler called for preparation beyond the master's level. Competence should be gained through the independent study of problems, and the production of a piece of research presupposes that the individual has "developed or is developing competence in the use of all the tools of research" (Bixler, 1948, p. 45). According to Adams (1960), nurses who believe that they can become investigators without graduate level preparation will be doing themselves and the nursing profession a disservice. She believes that only a few nurses will be able to develop the skills necessary for scientific inquiry.

Hochbaum (1960) wrote about a widespread idea that anyone could go into research in nursing as long as she was a "good and intelligent nurse" (p. 194). However, according to this behavioral scientist, sound research preparation requires many years of highly specialized training, and many more years of experience are required for the development of research scientists. Research is "serious business" writes Diers (1970), and the
complexity of nursing suggests the need for researchers to have the highest level of preparation in research (Garrison, 1973). In arguing against Notter's (1963) position that research is "every nurse's business," Hayes (1974) asserts that nursing research is not every nurse's business. It is not as simple as the problem-solving method or observation skills usually taught to nursing students but should be carried out by specially trained persons.

Even nurses prepared at the doctoral level may not be suited for research. Nurses frequently tend either to underestimate the skills and resources needed or to overestimate their own qualifications (Hochbaum, 1960). The Ph.D. is a research-oriented degree, but a nurse with such a degree may not choose to conduct nursing research (Treece & Treece, 1977). He or she may find more personal interest and challenge in other areas of the profession. Bixler (1948) says that individuals may not be qualified by personality characteristics to be happy in research work even when they have adequate preparation.

In contrast to the opinions of those individuals calling for stringent research preparation prior to conducting research studies, there seem to be even more nurses who believe that all members of the nursing
profession can and should conduct research. Notter (1975) says that every nurse has a role in nursing research either as a principal investigator, as a research participant, or as a user of research findings in her practice. Bunge (1958) indicates that some role in nursing research is available for all professional nurses. A few will prepare themselves for designing and conducting large research projects while others will confine their interest to small studies related to their own work interest. Finally, Bunge believes that all nurses have a responsibility to use research results to improve their practice. Martinson (1976) writes of the desirability of doctoral preparation for nurse researchers, but indicates that progress in nursing at the present time depends on research by all nurses whether they be nurse educators, nurse administrators, or staff nurses. Although Diers (1970) also sees the need for rigid research training, she, too, believes that nursing research should not be delayed until there are enough available nurse researchers. The "skill, motivation, wisdom, and proximity of practicing nurses today should be used" (Diers, 1970, p. 53). Krueger et al. (1978) concur with the opinions of Martinson (1976) and Diers (1970) when they write that the nursing profession cannot look only to its
doctorally prepared nurses or wait until larger numbers are prepared.

Jacox (1974) believes that practitioners and not just the "career" researcher, must be more involved in research before nursing will be able to develop a scientific basis for its practice. Given the right mix of support, resources, and consultation, all nurses could be involved in research (Ketefian, 1977a). Schlotfeldt (1974) sees the requisites as "curiosity, conceptual ability, competence, and creativity balanced with caution" (p. 454). She believes that these are to be found among educators, administrators, and practitioners as well as investigators and students. Other nursing leaders also call for research by nursing students. Small research projects can be carried out in any area in which a student has gained the necessary skills to conduct the study (Treece & Treece, 1977). Even small research enterprises by students are capable of advancing knowledge in the profession (Fox, 1970). Small studies, which Ramshorn (1972) labels research with a small "r," should be done by many nurses who possess only elementary skills in research.
The Role of Nursing Education and Nurse Educators In Research

Society has assigned the primary responsibility for research to the universities. According to Schlotfeldt (1977) this involves the discovery, restructure, and transmission of knowledge related to all disciplines. She agrees with the Carnegie Commission's report (1973) that society will not only continue to hold this expectation of universities, but will continually increase their expectations of the universities' ability to solve the problems of the world through research. Although many types of organizations have a responsibility for research and the preparation of researchers, universities have always been thought to have a unique responsibility in both areas (Bunge, 1958). Notter (1975) also agrees that society has traditionally expected research leadership to come from the universities. University nursing schools have, in turn, received the responsibility for promoting research in nursing (Schlotfeldt, 1977). Downs (1976) believes that faculty members in university schools of nursing have an obligation to meet the university requirements for all faculty members including the research expectations.
At the present time, large numbers of university nursing programs are recognizing the need for research by faculty members and are supporting this research by the provision of time and services for research (Notter, 1975). Some universities have established research centers and sponsored research conferences. Support has been obtained for research equipment and services, and research laboratories (Schlotfeldt, 1977). Also, some nursing schools have attracted a number of prepared investigators who are committed to scientific inquiry and are involved in basic and clinical research in a variety of settings. Collaborative efforts have also been established between and among several universities. The Southern Regional Education Board has been instrumental in promoting collaboration among nursing schools in the South.

Despite the efforts by some universities, many other nursing schools place little emphasis on research. In a survey by Margolius et al. (1978), little institutional support for faculty research was found in the form of money or time provided for research activities. Schlotfeldt (1977) believes that few nursing schools operating under the aegis of institutions of higher education have, as yet, committed their resources to scientific inquiry in nursing. Research is the most valued of the triad of
academic responsibilities in most disciplines. However, in most schools of nursing, teaching excellence receives highest priority, followed by service. Research is accorded the lowest priority (Fawcett, 1979). There is some evidence that graduate nursing programs are more involved in nursing research than baccalaureate programs, according to Margolius et al. (1978). All of the twenty-two schools with higher degree programs that were reported on in the study indicated ongoing research. Of the ten "baccalaureate only" programs, however, eight reported ongoing research.

Nursing educational administrators will need to be receptive to faculty members' research interests and efforts, according to Werley (1977). It is imperative that investigators be allowed to develop their research interests early in their teaching careers before they become burdened with the traditional educational chores. Once new faculty members become overloaded, they tend to follow the pattern in nursing education of devoting total efforts to course work, curriculum matters, meetings, and committee work. Werley (1977) calls for deliberate planning to support research as well as teaching and service endeavors of faculty members.

The universities must also promote student interest and efforts in research. The nature, content, and
placement of research content in nursing programs has been discussed and debated during the last twenty years. In the recent past, many nurse educators still believed research content was not appropriate for undergraduate students and should be included only in master's or doctoral programs (Diers, 1970; Werley, 1972). Before 1968 research was generally not part of the undergraduate curriculum (Verhonick & Seaman, 1978). However, at the present time all types of undergraduate educational programs--diploma, associate degree, and baccalaureate--either include formal research courses or provide opportunities for students to learn to interpret and understand research (Carnegie, 1978b). Research must be viewed as an inherent part of nursing education both "content-wise and process-wise," according to Werley (1972). Familiarity with research at the undergraduate level prepares the student for graduate research and prepares students for participation in clinical research (Verhonick & Seaman, 1978). There are two major reasons why research methodology and techniques should be studied on the undergraduate level: (1) students can gain research skills and, hopefully, (2) gain a positive attitude toward research (Treece & Treece, 1977).

Diers (1970) believes that nursing does itself an injustice if research training is postponed. Numerous
studies document the effect of professional education on the role conceptions of nursing students (Corvin & Traves, 1962; Kramer, 1968, Olesen, 1966). Students should be introduced to research from the beginning of their nursing education. Since students are exposed to science and scientific methods in high school, they are ready to continue in this area in nursing. A beginning student in nursing is academically prepared to learn basic research techniques and methodology, according to Treece and Treece (1977). Gortner (1975) has an aspiration for students to "learn early the joy of discovery that can come with early exposure to research" (p. 196). Undergraduate students should also have the opportunity to experience the role of researcher by creating, developing, and working through formalized research projects (Rinke, 1979). The importance of research knowledge for undergraduate students was underscored by the 1978 publication of a book by Verhonick and Seaman titled Research Methods for Undergraduate Students in Nursing.

The influence of nurse educators on nursing research has been pointed out by many nursing leaders. Schlotfeldt (1974) indicates that the research competencies of faculty members have immediate and long-range implications for sustaining and enhancing nursing research activities. Faculty members have the responsibility not only to
disseminate knowledge but also to generate knowledge, according to Werley (1975). However, even more important is the influence that nurse educators' involvement in nursing research has on nursing students' attitudes toward research. The nursing instructor is perceived by students to be the most influential person in forming their conception of the role of the nurse (Jones & Jones, 1977). Kramer (1968) says that the nurse role learned by students often reflects the instructor's "ideal" image of nursing. If instructors do not instill in their students a positive attitude toward research, students cannot be expected suddenly to develop a desire to conduct research after they graduate (Werley, 1972).

To build up this positive attitude and interest in research, Werley (1972) proposed that a challenge be constantly given to undergraduate students to ask the questions: How? Why? Who? When? She further believes that unless nursing students are socialized with respect to nursing research in their undergraduate and graduate programs, the dearth of nursing research will continue. To promote this socialization process, she believes that faculty should conduct their own research, serve as research models, and form partnerships with students in research projects.
One of the major problems facing young researchers today appears to be the lack of role models. There must be someone or some group with whom to identify. One young nurse researcher modeled two social scientists, and then later had difficulty in relating to the nursing profession (Davis, 1968). Hayes (1974) says that one of the qualifications for researchers is their ability to find role models and create their own self-image. Since education is now centered in educational institutions, there has been a decline in the opportunity for students to model after staff nurses or head nurses (Kramer, 1968). As a result, the nurse model now provided is the nursing instructor. McBride, Deers, and Schmidt (1970) call for the teacher-researcher to find the means for greater involvement in nursing practice. Otherwise, the nurse role learned by the student may reflect only the instructor's "ideal" image of nursing described by Kramer (1968).

A group of scientists considered to be "creative" were asked to describe those college professors who most stimulated creativity. One of the characteristics attributed to these identified professors was their encouragement of students to engage in research (Chambers, 1972). Firsthand acquaintance with research may stimulate students' interest in this area. Werley (1972) envisions the day when students will seek out institutions
with qualified instructor-researchers in order to ensure the development of their own research skills.

According to Martinson (1976), if it were not for "timidity," nursing students could demand of their faculty that they be involved in research. She quotes one graduate student's letter to the editor of the University of Minnesota Daily:

One of the missions of almost any university is to participate in, if not to lead, the advancement of knowledge within the disciplines that comprise it. The University is the institution above most others where creative research and its application derive. . . . We must demand, as students . . . that our teachers participate in the advances of their chosen fields; without that participation they become stale, unable to convey to us the knowledge we should expect as a matter of course. (Engstrand, 1975, p. 6)

Faculties in higher education have the obligation to set priorities on their time that will permit fulfillment of all three of their university functions-teaching, service, and research. University faculty members are expected not only to teach research methods but also to serve as research role models for their students (Notter, 1975).

The need for faculty research seems to be well established. According to Werley (1975), research is the most important responsibility of the triad of teaching, research, and service. Nursing education and nursing practice must be based on research. However, few
Faculty members are conducting research. Fox (1970) contends that the majority of nurse educators are research consumers rather than active researchers. Werley (1977) wonders where the clinical teaching-research faculty authors are and asks the question, "Do they . . . not conduct their own research on which to base their teaching?" (p. 80). Jacox (1974) reveals, that at the present time, most nursing faculty are prepared at the master's level. While most of them have had a course or two in research in their graduate programs, they do not feel prepared to function as independent researchers. They are hesitant to conduct research, even though they recognize the need for it.

The amount of research in nursing has increased considerably in the past ten to fifteen years, but much of the research has been conducted as a requirement for a master's or doctoral degree (Andreoli, 1977; Notter, 1975). Of the research studies published in Nursing Research from 1970-1974, the majority were done by nurses with master's degrees in connection with educational objectives, as opposed to nurses conducting research as part of their position responsibilities. Most of the research reported at national conferences and in the nursing literature has been carried out to fulfill degree requirements and, once the degree has been
achieved, only a few nurses prepared at the master's and doctoral levels continue to conduct research (Jacox, 1974). "Among faculty who hold a doctoral degree, many, if not most, usually have not conducted research beyond their own dissertations" (Downs, 1978, p. 58). A review of the literature supports this quote from Downs. The number of nurse researchers who continue to publish research studies more than five years after obtaining a doctoral degree is extremely small (Fuller, 1976). Garrison (1973) also says that there are few nurses with research training at the doctoral level who are pursuing research projects in their post-doctoral careers.

There are many reasons for the lack of research productivity among nurse-doctorates. However, one important reason involves the socialization of these researchers during their educational experiences. Doctoral candidates frequently feel isolated. Their dissertations tend to become the centers of their lives, and they generally do not receive help that would make them feel part of the scholarly community. In other words, they may not have had a pleasant experience with research. Downs (1969) speaks of "research rigor mortis." It is described as the desire never to hear the word "research" spoken again. Research is no longer an exciting quest for knowledge but a dreary burdensome task to be avoided at all cost.
She believes that nursing cannot afford to pay the price for such waste of talent. To develop a scientific basis for nursing, research must be more than a "one-time thing" (Notter, 1975, p. 762). Even when nursing faculty lack advanced research knowledge and skills this should not dissuade them from engaging in research activities (Fawcett, 1979).

De Tornyay (1977) reports that few authors publish more than one research article. Many of these studies have been described as a "first step." The studies are frequently based on small samples and further study is recommended. However, these follow-up studies are rarely done (Ellis, 1977). Therefore, there has been little cumulative effect of individual research projects (Notter, 1975). A primary concern in nursing, according to Pitel and Vian (1975), is the failure of nurses qualified in research to continue to pursue research activities in and related to nursing.

It is difficult to determine factors related to research productivity by nurse educators. In a study of nurses holding doctoral degrees, fifty-eight factors related to personal background were examined to determine if any relationship could be found between these factors and research productivity. A relationship was found between only three of these factors and research productivity.
The age of the respondents at the time of their first publication was found to be related to the quantity of productivity. The respondents' professional ages and their feelings about the importance of publications were found to be associated with both quantity and quality of publications (Phillips, 1973).

There is some indication that the research productivity of nursing faculty members may be increasing. In a survey of nurses with doctoral degrees conducted by the American Nurses' Foundation in 1973, 80 per cent reported they were engaged in research at that time or had been engaged in research in the preceding five years. Of this number, 43 per cent responded that they were currently engaged in research, and 36.3 per cent indicated they had been engaged in research in the past five years. The remaining number (20.8 per cent) gave no indication of being engaged in research at the present time or during the last five years (Pitel & Vian, 1975, p. 350). de Tornyay (1976) says that the research productivity of individual nurse scholars compares favorably with that of individual scholars in other fields. This is the most encouraging statement found in the literature concerning nurse educators' involvement in research activities.
Summary

In 1955 there was only a handful of nurse researchers in this country--fewer than one hundred nurses held earned doctorates; one university operated a nursing research center; the journal *Nursing Research* was only three years old; the first nursing research conference was still two years away, and federal and private funding was just beginning to become available for nursing research. Today, there are approximately 2,000 nurses with doctoral degrees; research is being conducted in a number of universities and service settings; many publications carry the results of nursing research; nursing research conferences are being held throughout the country, and there is continued growth in public and private funds available for nursing research.

Nursing leaders seem to be more optimistic today concerning the future of nursing research. To quote Downs (1978), "Given the resources available to us, I think we have done a very good job in a deliberate and responsible fashion in an extremely short time" (p. 60). The future of nursing research cannot be predicted accurately, but evidence accumulated during the past twenty-five years points to the probability of continued growth in nursing research in this country.
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A study was designed to obtain data on the research productivity of a selected group of nurse educators in the United States. This chapter describes the methods and procedures followed in this study. It is divided into the following sections: (1) Subjects of the Study, (2) Development of the Research Instrument, (3) Procedures for the Collection of Data, and (4) Methods of Data Analysis.

Subjects of the Study

There were approximately one million employed registered nurses in this country at the time of this study (ANA, 1979). Nurse educators made up nearly 25,000 of this total. The study population was identified from the membership list of the American Nurses' Association (ANA) which totaled approximately 180,000 members. Of this number, 12,500 listed "School of Nursing" as their place of employment. The definition of nurse educator (see p. 11) formulated for the purpose of this study included only those educators employed in nursing schools with diploma,
associate degree, baccalaureate, or higher degree programs. Since the ANA membership list did not contain this information, the returns were analyzed and those respondents who failed to meet these criteria were eliminated from the study. Although the study population was composed only of nurse educators who were members of the ANA, it was felt that they would represent concerned and involved nurse educators as evidenced by membership in their professional organization.

A computerized program was used to select a systematic random sample of 500 names from the membership list of 12,500 nurse educators. Roscoe (1975) indicates there are few occasions in behavioral research when samples larger than 500 in size can be justified. A sample size of 500 assures that the sampling error will not exceed \( \sigma/10 \) approximately 98 per cent of the time.

The acceptable return rate for this study was arbitrarily set at 325 (65 per cent). Although the response rate on mailed questionnaires frequently does not exceed 50 per cent (Miller, 1977), Dillman, Christensen, Carpenter, and Brooks (1974) indicate they consistently get a 70 to 75 per cent return rate. They assert, "With a mail methodology available which will consistently provide a high response, poor return rates can no more be excused than can inadequate theory or inappropriate statistics"
They propose that better return rates are the result of skilled construction of questionnaires and appropriate follow-up procedures.

Development of the Research Instrument

A self-report questionnaire to elicit data required by the study (see Appendix C) was designed by the researcher since no existing tool was found in the literature which was deemed appropriate for use in this study. The questions were designed to obtain answers to the research questions of the study (see pp. 2-4). An initial form of the questionnaire (see Appendix B) was submitted to a jury in order to establish the content validity of the instrument. According to Treece and Treece (1977) content validity refers to the extent to which an instrument samples the factors or situations under study. Someone must judge if the content is appropriate. "A jury opinion is better than that of a single individual. The jury should be composed of individuals who are experts in the field under study" (Treece & Treece, 1977, p. 116).

The research proposal containing the research questions and a copy of the proposed questionnaire along with a cover letter (see Appendix A) was delivered to four doctorally prepared nurse educators who composed the jury. These judges were asked to examine the research
questionnaire for its appropriateness in eliciting responses to the research questions. Irrelevant questions were to be deleted and additional questions were to be formulated, if needed. The jury members were also asked to examine the format, style, and language clarity of the questionnaire. Following revisions and suggestions by the jury, the research questionnaire was written in final form (see Appendix C).

This research instrument contained twenty-three questions. The first eight questions sought demographic data: number of years in nursing; basic nursing educational preparation; highest level of education completed; clinical specialty area; teaching experience; academic rank; tenure status; and the level of nursing education offered at their school of employment. Questions Nine and Ten sought information concerning the support for faculty research provided by educational institutions. Research conducted in the past as part of the requirements for a degree was called for in Questions Eleven and Twelve. Additional research conducted by nurse educators was requested in Questions Thirteen and Fourteen. The number of research studies that had been published by nurse educators was sought in Question Fifteen. The following four questions, Sixteen through Nineteen, concerned present research studies and publication plans for these
studies. If nurse educators were not presently conducting research, they were asked to check the appropriate reason(s) in Question Twenty for their non-involvement in research. Future research plans were asked for in Questions Twenty-one and Twenty-two. Finally, in Question Twenty-three, educators were asked to list areas of research which they believed should be investigated in the future by nurse educators.

The instrument was designed to gather the appropriate data in a manner which would facilitate responses and limit the time factor involved in responding to the questionnaire. It was believed that the simplicity of the instrument would increase the percentage of returns. The majority of the questions (seventeen) required only a check-mark response.

Procedures for the Collection of Data

Data for this study were collected during the Fall of 1979. The initial step in data collection was to obtain a random sample of nurse educators residing in the United States. On September 28, 1979, the research questionnaires were mailed to the sample of 500 nurse educators. A cover letter (see Appendix D) explained the purposes of the study, how the individual's name was chosen, and the method of returning the questionnaire
which would ensure the anonymity of the respondent. Summaries of the findings of the study were to be made available upon request. A return-addressed, stamped envelope was enclosed for the return of the questionnaire. Also, a return-addressed, stamped post card was included. The respondent was asked to return the post card containing the respondent's name, to indicate the return of the completed questionnaire by a separate mailing. This was intended to ensure the confidentiality of the information on the questionnaire and, at the same time, enable the researcher to determine those nurse educators who had returned the questionnaire. Returns were requested by October 15, 1979. By October 25, 322 returns had been received, which comprised 64.4 per cent of the sample population. On October 26, a second questionnaire was mailed to the 178 nurse educators who had not returned a questionnaire. Another cover letter (see Appendix E) was also enclosed. This letter stressed the importance of receiving a return from each individual nurse educator included in the study population. Again, an envelope was included for the return of the questionnaire and a post card on which the respondents could write their names and mail to the researcher to indicate the return of their questionnaires by separate mail. Respondents were asked to reply by November 15, 1979. On December 8, 1979,
data collection was concluded. At this time, returns had been received from 405 (81 per cent) of the nurse educators. Of this number, 394 (78.8 per cent) were determined to be usable questionnaires. This far surpassed the percentage of respondents (65 per cent) that had been arbitrarily determined as a required minimum for the study. Of the eleven questionnaires that were not included in the data analysis, four were received from nurses who were no longer nurse educators and seven were received from nurses who were teaching in practical nursing programs.

Procedures for the Analysis of Data

The analysis of the data was accomplished with the use of appropriate statistics. These included descriptive statistics involving frequency distributions and percentages. The Chi-Square Test for Contingency Tables was used to determine the relationships between selected demographic characteristics of nurse educators and research productivity. These demographic characteristics were number of years in nursing; basic nursing educational preparation; highest level of education completed; nursing clinical specialty area; years of teaching experience; academic rank, tenure status, and the highest level of nursing education offered at the nurse educator's school of employment.
For the purposes of this study the eight demographic characteristics were treated as the independent variables and research productivity as the dependent variable. The data were organized into contingency tables in order to determine if classification on the row variable was independent of classification on the column variables. The marginal frequencies were not determined until the sampling was completed. Such a contingency table is called a bivariate frequency table, and the statistical test used is the Test of Independence (Roscoe, 1975). The level of significance for the analysis of data was specified as .05. The contingency correlation coefficient was calculated to determine the degree of relationships between the independent and dependent variables. The chi-square relationships and the contingency coefficients were obtained through the use of selected computer programs available in the Statistical Package for the Social Sciences (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975).

Responses to all of the open-ended questions were examined to identify research content areas. The data were then subjectively categorized and frequencies were reported.
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CHAPTER IV

PRESENTATION OF DATA

Introduction

A descriptive study was conducted to determine the research productivity of nurse educators. The data were gathered in the Fall of 1979 through a research questionnaire designed specifically for the study. The sample population consisted of 394 nurse educators in the United States randomly selected from the membership of the American Nurses' Association.

This chapter details the statistical treatment and analysis of the data collected in the study. All data will be presented and analyzed in relation to the research questions formulated for the purposes of the study.

Research Questions and Data Analysis

Question 1.a.--What is the relationship between the nurse educator's number of years in the nursing profession and research productivity?

The distribution of the sample according to the numbers of years the nurse educators have been in the nursing profession is depicted in Figure 1. The largest group (45 per cent) of nurse educators in the sample has
been in the nursing profession for over twenty years. The smallest group (6 per cent) of the respondents has been in nursing less than five years. The remaining 51 per cent of the sample are fairly evenly distributed between the three categories of "6-10 years," "11-15 years," and "16-20 years."

Fig. 1 -- Distribution of sample by years in nursing
Research productivity of nurse educators according to the number of years in the nursing profession is shown in Table I. The statistical analysis revealed no significant relationships between years in nursing and the four measures of research productivity. The data of Table I show nurse educators in the "16-20 years" and "over 20 years" categories to be slightly more productive than the other groups of educators.

Question 1.b.--What is the relationship between the nurse educator's basic nursing educational preparation and research productivity?

Figure 2 depicts the distribution of the sample according to their basic nursing educational preparation. Diploma and baccalaureate graduates are approximately the same with 185 in the first category and 193 in the last category. Sixteen nurse educators received associate degrees in their basic nursing educational programs.

A comparison of the relationship between basic nursing educational preparation and research productivity is shown in Table II. The only significant relationship was found between basic educational preparation and the number of research studies in conjunction with degree requirements. A larger percentage of educators with basic nursing educational preparation in diploma and associate degree programs have conducted multiple studies for degree
<table>
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<th>Years in Nursing</th>
<th>Sample Size</th>
<th>Nurse Educators Involved in Research Studies</th>
<th>Published Studies</th>
<th>Present Studies</th>
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<td>6-10</td>
<td>72</td>
<td>23</td>
<td>46</td>
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<td></td>
<td></td>
<td>(32%)</td>
<td>(64%)</td>
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<td>Over 20</td>
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<td>58</td>
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Note: See Table IX for chi-square values.
requirements than have nurse educators with baccalaureate nursing preparation.

Fig. 2--Distribution of sample by basic nursing educational preparation.

Question 1.c.--What is the relationship between the nurse educator's highest level of education completed and research productivity?
### TABLE II

**RELATIONSHIP BETWEEN BASIC NURSING EDUCATION AND RESEARCH PRODUCTIVITY**

<table>
<thead>
<tr>
<th>Basic Nursing Education</th>
<th>Sample Size</th>
<th>Nurse Educators Involved in Research Studies</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Degree Studies</td>
<td>Non-Degree Studies</td>
<td>Published Studies</td>
<td>Present Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>1</td>
<td>&gt;1</td>
<td>0</td>
<td>1</td>
<td>&gt;1</td>
<td>0</td>
</tr>
<tr>
<td>Diploma</td>
<td>185</td>
<td>59</td>
<td>99</td>
<td>27</td>
<td>132</td>
<td>26</td>
<td>27</td>
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<tr>
<td></td>
<td></td>
<td>(32%)</td>
<td>(53%)</td>
<td>(15%)</td>
<td>(71%)</td>
<td>(14%)</td>
<td>(15%)</td>
<td>(92%)</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>16</td>
<td>5</td>
<td>8</td>
<td>3</td>
<td>13</td>
<td>1</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(31%)</td>
<td>(50%)</td>
<td>(19%)</td>
<td>(81%)</td>
<td>(6%)</td>
<td>(13%)</td>
<td>(94%)</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>193</td>
<td>64</td>
<td>118</td>
<td>11</td>
<td>131</td>
<td>30</td>
<td>32</td>
<td>173</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(33%)</td>
<td>(61%)</td>
<td>(6%)</td>
<td>(68%)</td>
<td>(15%)</td>
<td>(17%)</td>
<td>(90%)</td>
</tr>
</tbody>
</table>

Note: See Table IX for chi-square values.
The highest levels of education completed by the sample of nurse educators are illustrated in Figure 3. The majority of the sample (57 per cent) holds a master's degree in nursing.

Fig. 3--Distribution of sample by highest level of education completed.
Sixteen per cent of the sample hold a master's degree in another field. Baccalaureate-prepared nurse educators comprise 13 per cent of the sample. Doctorates in nursing are held by 3 per cent of the sample with 8 per cent of the sample holding doctorates in other fields. The remaining 3 per cent of the sample are composed of educators with baccalaureate degrees in other fields, associate degrees in nursing, and diplomas in nursing.

Table III depicts the relationship between the highest level of education completed and research productivity. Because of the small number of nurses holding baccalaureates in other fields, associate degrees in nursing and diplomas in nursing, these individuals were not included in the statistical analysis.

Significant relationships were found between nurse educators' educational levels and all four measures of research productivity. Nurse educators holding doctorates have conducted and published more research studies than any of the other three groups. These doctorally prepared nurse educators are also conducting more research at the present time than other educators. Ongoing research studies are reported by 83 per cent of the sample who hold doctorates in nursing, while 58 per cent of the educators holding doctorates in other fields report ongoing research. In contrast, 48 per cent of the nurse educators holding
<table>
<thead>
<tr>
<th>Highest Education</th>
<th>Sample Size</th>
<th>Nurse Educators Involved in Research Studies</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Degree Studies</td>
<td>Non-Degree Studies</td>
<td>Published Studies</td>
<td>Present Studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>1</td>
<td>&gt;1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>50</td>
<td>33</td>
<td>16</td>
<td>1</td>
<td>43</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(66%)</td>
<td>(32%)</td>
<td>(2%)</td>
<td>(86%)</td>
<td>(10%)</td>
</tr>
<tr>
<td>Master's in Nursing</td>
<td>226</td>
<td>59</td>
<td>154</td>
<td>13</td>
<td>164</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(26%)</td>
<td>(68%)</td>
<td>(6%)</td>
<td>(72%)</td>
<td>(17%)</td>
</tr>
<tr>
<td>Master's in Other Field</td>
<td>64</td>
<td>29</td>
<td>25</td>
<td>10</td>
<td>47</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(45%)</td>
<td>(39%)</td>
<td>(16%)</td>
<td>(73%)</td>
<td>(11%)</td>
</tr>
<tr>
<td>Doctorate in Nursing</td>
<td>12</td>
<td>0</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0%)</td>
<td>(58%)</td>
<td>(42%)</td>
<td>(42%)</td>
<td>(8%)</td>
</tr>
<tr>
<td>Doctorate in Other Field</td>
<td>31</td>
<td>0</td>
<td>20</td>
<td>11</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0%)</td>
<td>(65%)</td>
<td>(35%)</td>
<td>(23%)</td>
<td>(19%)</td>
</tr>
</tbody>
</table>

Note: See Table IX for chi-square values.
doctorates in other fields have published studies compared to only 25 per cent of the educators holding doctorates in nursing.

**Question 1.d.**—What is the relationship between the nurse educator's clinical specialty area and research productivity?

The distribution of the sample of nurse educators according to their nursing clinical specialty areas is illustrated in Figure 4. The largest group of educators (46 per cent) claim medical-surgical nursing as their specialty area. The next largest group (16 per cent) indicated that psychiatric-mental health was their area of interest. Nurse educators number approximately forty each in the categories of community health, obstetrics, and pediatrics. Nineteen nurse educators indicated other clinical specialty areas including gerontology, oncology, adult health, and general practice.

The relationship between the nurse educator's clinical specialty area and research productivity is displayed in Table IV. Because of the small number and the variations in specialty areas of nurse educators in the "other" category, these respondents were not included in the statistical analysis of data for this research question.

No significant relationships were found between nurse educators' clinical specialty areas and the four
measures of research productivity. The nurse educator's clinical specialty area, therefore, does not seem to be an influencing factor in the educator's degree of involvement in research activities. However, an examination of the Table IV reveals some information that is noteworthy.
### Table IV

<table>
<thead>
<tr>
<th>Clinical Specialty Area</th>
<th>Sample Size</th>
<th>Degree Studies</th>
<th>Non-Degree Studies</th>
<th>Published Studies</th>
<th>Present Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Health</td>
<td>45 (31%)</td>
<td>14 (31%)</td>
<td>26 (58%)</td>
<td>10 (41%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Medical/Surgical</td>
<td>183 (77%)</td>
<td>14 (7%)</td>
<td>4 (5%)</td>
<td>18 (10%)</td>
<td>21 (12%)</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>38 (55%)</td>
<td>14 (37%)</td>
<td>4 (10%)</td>
<td>28 (74%)</td>
<td>6 (4)</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>44 (21%)</td>
<td>9 (21%)</td>
<td>4 (9%)</td>
<td>7 (16%)</td>
<td>30 (7)</td>
</tr>
<tr>
<td>Psych/Mental Health</td>
<td>65 (22%)</td>
<td>21 (32%)</td>
<td>8 (13%)</td>
<td>14 (58%)</td>
<td>15 (21)</td>
</tr>
</tbody>
</table>

Note: See Table IX for chi-square values.
Thirty-two per cent of the educators claiming psychiatric-mental health nursing as their clinical specialty indicate they are presently conducting research, while only 13 per cent of the nurse educators who consider obstetrics as their area of interest are presently involved in research studies. A further examination of Table IV also reveals that psychiatric-mental health nurse educators have conducted and published a larger percentage of studies than the other nurse educators.

**Question 1.e.** What is the relationship between the nurse educator's years of teaching experience and research productivity?

Figure 5 illustrates the distribution of the sample of nurse educators according to the number of years that they have been teaching. The largest number (32 per cent) of nurse educators have been teaching between six and ten years. Twenty-nine per cent of the sample have been teaching five years or less. Nineteen per cent of the sample have been teaching between eleven and fifteen years. The "over 20 years" category contains 20 per cent of the sample and the remaining 8 per cent are found in the "16-20 year" category.

The relationship between the number of years in teaching and research productivity is shown in Table V. The statistical analysis of the data revealed significant
relationships between the number of years in teaching and three of the four measures of research productivity. The number of years in teaching was found to be significantly related to the number of studies conducted for degree requirements, the number of additional past studies not connected with degree requirements, and the number of
### TABLE V
RELATIONSHIP BETWEEN NUMBER OF YEARS IN TEACHING AND RESEARCH PRODUCTIVITY

<table>
<thead>
<tr>
<th>Years in Teaching</th>
<th>Sample Size</th>
<th>Nurse Educators Involved in Research Studies</th>
<th>Degree Studies</th>
<th>Non-Degree Studies</th>
<th>Published Studies</th>
<th>Present Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>1</td>
<td>&gt;1</td>
<td>0</td>
</tr>
<tr>
<td>0-5</td>
<td>116</td>
<td></td>
<td>44</td>
<td>67</td>
<td>5</td>
<td>92</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(38%)</td>
<td>(58%)</td>
<td>(4%)</td>
<td>(79%)</td>
</tr>
<tr>
<td>6-10</td>
<td>125</td>
<td></td>
<td>33</td>
<td>82</td>
<td>10</td>
<td>82</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(26%)</td>
<td>(66%)</td>
<td>(8%)</td>
<td>(66%)</td>
</tr>
<tr>
<td>11-15</td>
<td>74</td>
<td></td>
<td>24</td>
<td>37</td>
<td>13</td>
<td>45</td>
</tr>
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<td></td>
<td></td>
<td>(32%)</td>
<td>(50%)</td>
<td>(18%)</td>
<td>(61%)</td>
</tr>
<tr>
<td>16-20</td>
<td>32</td>
<td></td>
<td>11</td>
<td>16</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(34%)</td>
<td>(50%)</td>
<td>(16%)</td>
<td>(72%)</td>
</tr>
<tr>
<td>Over 20</td>
<td>47</td>
<td></td>
<td>16</td>
<td>23</td>
<td>8</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(34%)</td>
<td>(49%)</td>
<td>(17%)</td>
<td>(72%)</td>
</tr>
</tbody>
</table>

*Note: See Table IX for chi-square values.*
published studies. All groups are shown to be most pro-
ductive in regard to research studies connected with
degree requirements. Although no significant relationship
was found between the number of years in teaching and
present research studies, it is noteworthy that nurse
educators in the "over 20 years" category reported the
smallest percentage of ongoing research studies.

Question 1.f.--What is the relationship between the nurse
educator's academic rank and research pro-
ductivity?

Figure 6 shows the distribution of the sample accord-
ing to the academic rank of the nurse educators. Of the
sample of 394 educators, 158 (40 per cent) indicate that
they hold the rank of Instructor, 126 (32 per cent) are
Assistant Professors, 65 (17 per cent) are Associate Pro-
fessors, and 21 (5 per cent) hold the rank of full Profes-
sor. Twenty-four respondents indicated other position
titles including: Dean, Director, Department Chairman,
and Coordinator of Curriculum. Several individuals
indicated that academic rank was not granted in their
schools, but they checked the category for Instructors.

The relationship between the academic rank of the
nurse educator and research productivity is depicted in
Table VI. Significant relationships were found between
academic rank and all four measures of research productivity.
Although the statistical test does not allow for inferences to be made regarding the groups, a cursory examination of the Table VI shows the higher the rank of the nurse educators, the more productive they have been in the past, and the more productive they are at the present time. A large percentage of nurse educators with the rank of
### TABLE VI

**RELATIONSHIP BETWEEN ACADEMIC RANK AND RESEARCH PRODUCTIVITY**

<table>
<thead>
<tr>
<th>Academic Rank</th>
<th>Sample Size</th>
<th>Nurse Educators Involved in Research Studies</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Degree Studies</td>
<td>Non-Degree Studies</td>
<td>Published Studies</td>
<td>Present Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0</td>
<td>1</td>
<td>&gt;1</td>
<td>0</td>
<td>1</td>
<td>&gt;1</td>
<td>0</td>
</tr>
<tr>
<td>Instructor</td>
<td>158</td>
<td>64</td>
<td>81</td>
<td>13</td>
<td>123</td>
<td>22</td>
<td>13</td>
<td>155</td>
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<tr>
<td></td>
<td></td>
<td>(41%)</td>
<td>(51%)</td>
<td>(8%)</td>
<td>(78%)</td>
<td>(14%)</td>
<td>(8%)</td>
<td>(98%)</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>126</td>
<td>33</td>
<td>85</td>
<td>8</td>
<td>90</td>
<td>17</td>
<td>19</td>
<td>114</td>
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<tr>
<td></td>
<td></td>
<td>(26%)</td>
<td>(68%)</td>
<td>(6%)</td>
<td>(71%)</td>
<td>(14%)</td>
<td>(15%)</td>
<td>(90%)</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>65</td>
<td>19</td>
<td>39</td>
<td>7</td>
<td>41</td>
<td>12</td>
<td>12</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(29%)</td>
<td>(60%)</td>
<td>(11%)</td>
<td>(64%)</td>
<td>(18%)</td>
<td>(18%)</td>
<td>(85%)</td>
</tr>
<tr>
<td>Professor</td>
<td>21</td>
<td>3</td>
<td>10</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(14%)</td>
<td>(48%)</td>
<td>(38%)</td>
<td>(24%)</td>
<td>(5%)</td>
<td>(71%)</td>
<td>(52%)</td>
</tr>
</tbody>
</table>

**Note:** See Table IX for chi-square values.
Professor have conducted and published studies in the past, and 52 per cent of this group of educators indicate they are presently involved in research studies. The differences in the reported measures of research productivity are quite pronounced between educators who hold the rank of Professor and those who indicate that they are Instructors. For example, 48 per cent of those holding the rank of Professor have published research studies while only 2 per cent of the Instructors have published studies.

Question 1.g.--What is the relationship between the nurse educator's tenure status and research productivity?

The nurse educators' tenure status is illustrated in Figure 7. The majority of the sample (67 per cent) are non-tenured faculty members. Several of the respondents reported that tenure was not granted at their institutions. However, these individuals are included in the non-tenured group in the sample distribution and statistical analysis of data.

The relationship between the nurse educator's tenure status and research productivity is presented in Table VII. No significant relationships were found between the independent and dependent variables in the statistical analysis of data. However, according to the data in Table VII, a slightly larger percentage of tenured faculty
members have conducted and published research studies in the past than have non-tenured faculty members. The percentage of faculty members conducting research at the present time is approximately 25 per cent for both groups of nursing educators.
### TABLE VII

**RELATIONSHIP BETWEEN TENURE STATUS AND RESEARCH PRODUCTIVITY**

<table>
<thead>
<tr>
<th>Tenure Status</th>
<th>Sample Size</th>
<th>Nurse Educators Involved in Research Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Degree Studies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0 1 &gt;1</td>
</tr>
<tr>
<td>Non-Tenured</td>
<td>262</td>
<td>82 (31%) 155 (59%) 25 (10%)</td>
</tr>
<tr>
<td>Tenured</td>
<td>132</td>
<td>46 (35%) 70 (53%) 16 (12%)</td>
</tr>
</tbody>
</table>

*Note: See Table IX for chi-square values.*
What is the relationship between the levels of nursing education offered at the nurse educator's school of employment and research productivity?

Although the level of nursing education offered at the nurse educator's school of employment is not a personal characteristic of the faculty member as have been the other demographic variables, these data will be considered as a demographic variable for the purposes of this study. The histogram in Figure 8 illustrates the distribution of the sample of nurse educators according to the highest level of nursing education offered by their school of employment. Seventy-two per cent of the nurse educators teach in institutions offering either associate, baccalaureate, or master's degrees. The numbers are almost evenly divided between these three groups. Seventeen per cent of the sample teach in diploma programs, and 11 per cent of the educators teach in institutions offering doctoral programs.

The relationship between the highest level of nursing education offered by the nurse educator's school of employment and research productivity is shown in Table VIII. Research productivity in this instance is measured by present involvement in research studies. The other three measures of research productivity were not considered to be appropriate for comparison with this independent
variable. It was felt that many of the past research studies were conducted and published prior to the educators' employment in their present faculty positions.

A significant relationship was found between the two variables presented in Table VIII. Nurse educators
teaching in nursing schools offering doctorates and master's degrees are significantly more involved in present research activities than those nurse educators teaching in the other three types of programs.

**TABLE VIII**

RELATIONSHIP BETWEEN HIGHEST LEVEL OF NURSING EDUCATION OFFERED BY EMPLOYER AND PRESENT RESEARCH PRODUCTIVITY

<table>
<thead>
<tr>
<th>Highest Level of Education Offered by Employer</th>
<th>Sample Size</th>
<th>Not Involved in Research</th>
<th>Involved in Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>69</td>
<td>59 85</td>
<td>10 15</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>93</td>
<td>82 88</td>
<td>11 12</td>
</tr>
<tr>
<td>Baccalaureate Degree</td>
<td>91</td>
<td>72 79</td>
<td>19 21</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>100</td>
<td>57 57</td>
<td>43 43</td>
</tr>
<tr>
<td>Doctorate</td>
<td>41</td>
<td>27 66</td>
<td>14 34</td>
</tr>
</tbody>
</table>

The relationships between all of the demographic variables and research productivity is shown in Table IX. Eight demographic variables and four measures of research
productivity are compared. A total of twenty-nine chi-square tests was run. Thirteen significant relationships were found.

There were no significant relationships discovered between three of the demographic variables and research productivity. These variables are years in nursing, clinical specialty area, and tenure status. Only one significant relationship was found between basic nursing education and research productivity, and this concerned the number of studies conducted for degree requirements. Significant relationships were found between the highest education completed and all four measures of research productivity. The contingency coefficients show a moderate degree of relationship in all four categories. The number of years in teaching was found to be significantly related to research productivity in three of the four measures. The chi-square for present research studies was the only relationship which failed to reach a significant level. The contingency coefficients show mild degrees of relationships for the three significant relationships. Academic rank was found to be significantly related to all four measures of research productivity. The contingency coefficients showed mild to moderate degrees of relationship between the variables. The highest level of nursing education offered by the nurse educator's
<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Measurement</th>
<th>Degree Studies</th>
<th>Non-Degree Studies</th>
<th>Published Studies</th>
<th>Present Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$X^2$</td>
<td>12.5303</td>
<td>8.6616</td>
<td>5.1929</td>
<td>3.7973</td>
</tr>
<tr>
<td></td>
<td>$p$</td>
<td>.1291</td>
<td>.3716</td>
<td>.2681</td>
<td>.4341</td>
</tr>
<tr>
<td></td>
<td>$C$</td>
<td>.1755</td>
<td>.1466</td>
<td>.1148</td>
<td>.0977</td>
</tr>
<tr>
<td>Years in Nursing</td>
<td>$X^2$</td>
<td>9.4620</td>
<td>1.7211</td>
<td>1.0546</td>
<td>0.0164</td>
</tr>
<tr>
<td>Basic Nursing Education</td>
<td>$X^2$</td>
<td>91.9498</td>
<td>68.9923</td>
<td>70.3026</td>
<td>44.8692</td>
</tr>
<tr>
<td></td>
<td>$p$</td>
<td>&lt;.0001*</td>
<td>&lt;.0001*</td>
<td>&lt;.0001*</td>
<td>&lt;.0001*</td>
</tr>
<tr>
<td></td>
<td>$C$</td>
<td>.4400</td>
<td>.3906</td>
<td>.3938</td>
<td>.3238</td>
</tr>
<tr>
<td>Highest Education</td>
<td>$X^2$</td>
<td>5.6442</td>
<td>13.5068</td>
<td>5.5441</td>
<td>6.0237</td>
</tr>
<tr>
<td>Completed</td>
<td>$p$</td>
<td>.6870</td>
<td>.0956</td>
<td>.2359</td>
<td>.1974</td>
</tr>
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<td>$C$</td>
<td>.1217</td>
<td>.1864</td>
<td>.1207</td>
<td>.1257</td>
</tr>
<tr>
<td>Clinical Specialty Area</td>
<td>$X^2$</td>
<td>16.9272</td>
<td>16.3283</td>
<td>23.2730</td>
<td>7.9707</td>
</tr>
<tr>
<td></td>
<td>$p$</td>
<td>.0309*</td>
<td>.0379*</td>
<td>.0001*</td>
<td>.0927</td>
</tr>
<tr>
<td></td>
<td>$C$</td>
<td>.2029</td>
<td>.1994</td>
<td>.2361</td>
<td>.1408</td>
</tr>
<tr>
<td>Years in Teaching</td>
<td>$X^2$</td>
<td>29.9592</td>
<td>57.2511</td>
<td>48.9147</td>
<td>16.0808</td>
</tr>
<tr>
<td>Academic Rank</td>
<td>$p$</td>
<td>&lt;.0001*</td>
<td>&lt;.0001*</td>
<td>&lt;.0001*</td>
<td>&lt;.0001*</td>
</tr>
<tr>
<td></td>
<td>$C$</td>
<td>.2737</td>
<td>.3660</td>
<td>.3417</td>
<td>.2040</td>
</tr>
<tr>
<td>Tenure</td>
<td>$X^2$</td>
<td>1.4793</td>
<td>3.1316</td>
<td>3.2080</td>
<td>0.0062</td>
</tr>
<tr>
<td>Status</td>
<td>$p$</td>
<td>.4773</td>
<td>.2089</td>
<td>.0733</td>
<td>.9995</td>
</tr>
<tr>
<td></td>
<td>$C$</td>
<td>.0611</td>
<td>.0880</td>
<td>.0991</td>
<td>.0062</td>
</tr>
</tbody>
</table>
employer was found to be significantly related to the
number of educators presently conducting research.

**Question 2.a.**—What content areas were examined in the
research studies that have been conducted
by nurse educators to fulfill degree
requirements?

Research studies in conjunction with degree require-
ments have been conducted by 265 (67 per cent) of the
nurse educators. No study titles were given by twenty
respondents. The remaining 245 educators listed a total
of 280 study titles or content areas. The majority of
the sample included the exact titles of their studies.
However, several of the respondents indicated they had
forgotten the titles and did not have the studies readily
available. Therefore, they described the subject matter of their studies.

The studies are divided according to three broad content areas: nursing education, nursing practice, and the nursing profession. Table X shows the number of studies in each category. An emphasis on nursing education was shown in the studies of seventy nurse educators. Twenty-one of these studies were concerned with predicting success in nursing education. Selected titles of these studies include Multivariate Prediction of Academic Achievement in a Collegiate Program of Nursing, The Effectiveness of University Admission Tests as the Criteria for Successful State Licensure, and The Use of the Pre-Nursing and Guidance Exam as a Selection and Guidance Tool for Nursing Students. Curriculum content and curriculum design was the concern of fifteen studies. Eleven studies involved the characteristics and attitudes of nursing students. Included in these studies were Role Preferences and Perceptions of Freshmen Nursing Students and Nursing Students' Reactions to Conflict in the Integration of Religious Beliefs and Psychiatric Nursing Concepts. Other studies in the category of nursing education included those related to teaching and learning variables, evaluation of student learning, and studies concerning faculty.
TABLE X
CONTENT AREAS OF DEGREE STUDIES

<table>
<thead>
<tr>
<th>Content Areas</th>
<th>Number of Studies</th>
<th>Per cent of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Education</td>
<td>70</td>
<td>25</td>
</tr>
<tr>
<td>Nursing Practice</td>
<td>157</td>
<td>56</td>
</tr>
<tr>
<td>Nursing Profession</td>
<td>53</td>
<td>19</td>
</tr>
<tr>
<td>Totals</td>
<td>280</td>
<td>100</td>
</tr>
</tbody>
</table>

Studies related to nursing practice composed 56 per cent of the total number of degree studies. Of the 157 studies in this category, the majority of studies was concerned with nursing assessment and the planning of patient care rather than with nursing interventions and the evaluation of nursing care. Thirty studies focused on patient attitudes and behavior. Such studies included Attitudes of Patients Before and After Rhytidectomy and Hostility Reactions in Trauma Patients. The identification of patients' needs and the formulating of nursing diagnoses were the focus of nineteen studies. Noteworthy titles are Identification of Factors Inherent in the Emotional Support of Women in Labor and Health Teaching Needs of Patients with Hip Nailing. Twelve studies concerned patient education and the evaluation of patient teaching.
Nurses' attitudes and behaviors affecting patient care were the subject of nine studies. One such study is titled Correlation of Attitudes Toward Death and Dying and the Perception of Pain in Medical-Surgical Nurses and Oncology Nurses. Nine studies were related to parent-infant bonding or attachment behaviors. The application of specific theories to nursing practice was readily identifiable in seven studies. Titles of these studies included The Relationship Between Locus of Control and Complications Patients Experience on Hemodialysis and Life Change, Ego Energy, and Field Dependency in a Group of Older Adults.

The smallest number of studies conducted for degree requirements concerned the profession of nursing. Fifty-three studies, or 19 per cent, of the total number of studies for degree requirements were classified as nursing profession studies. Characteristics and attitudes of nurses were included in the titles of nineteen of these studies. Such titles included Do Nurses Support the "Living Will" More Strongly Than Lay People? and Job Satisfaction of Intensive Care Nurses. The role of the nurse was examined by eleven respondents. One such study is titled Acceptance of Nurses in the Primary Care Role. Nine historical studies were conducted, including the Historic Evolution of Nursing. Professional issues were
examined by five nurse educators, including one study concerning the use of foreign nurses in this country.
The entry into practice issue was examined in five studies. This issue concerns the debate over the type of educational preparation that should be required for professional nurses and how each existing classification of graduates (diploma, associate degree, and baccalaureate degree) functions in the patient care setting and in the profession as a whole. A study included in this category is titled *Patients' Evaluation of Quality of Nursing Care Compared With Educational Preparation of the R.N.* Although the entry into practice issue is of vital concern to both nursing education and the nursing profession, a determination was made to include it under the nursing profession since this issue will have to be settled by the entire profession rather than within nursing education alone. The value of continuing education for nurses was the focus of three studies, and one study was identified as being concerned with theory development.

**Question 2.b.--**What content areas are being examined in the ongoing research studies of nurse educators?

Research studies are being conducted at this time by ninety-seven responding nurse educators. A total of 114 study titles or subject areas was listed. These studies
are classified into the three board content areas of: nursing education, nursing practice, and the nursing profession. Table XI shows the number of studies in each category.

TABLE XI
CONTENT AREAS OF ONGOING RESEARCH STUDIES

<table>
<thead>
<tr>
<th>Content Areas</th>
<th>Number of Studies</th>
<th>Per cent of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Education</td>
<td>50</td>
<td>44</td>
</tr>
<tr>
<td>Nursing Practice</td>
<td>46</td>
<td>40</td>
</tr>
<tr>
<td>Nursing Profession</td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td>Totals</td>
<td>114</td>
<td>100</td>
</tr>
</tbody>
</table>

The largest number (44 per cent) of the studies are related to issues in nursing education. Again, as in the studies for degree requirements, educators are very concerned with the determination of success factors in nursing education. Thirteen studies were placed in this category. Titles of these studies include Correlation of Achievement on NLN and State Board Exams with Theory and Clinical Grades and Predictive Factors Influencing State Board Results. Curriculum matters are being examined in twelve studies. These concern curriculum research and curriculum evaluation. Nursing students are the focus of eleven
studies, including one titled *Profiles of Disadvantaged Students in Nursing*. Teaching and learning variables were identified in nine study titles. Two of these concerned simulated learning experiences for students.

Nursing practice studies comprise 40 per cent of the present research efforts of nurse educators, with forty-six studies being included in this category. Again, as in the degree studies, nursing assessment and the planning of nursing care are more predominant than studies of nursing interventions and the evaluation of nursing care. Patients' attitudes and behaviors are the focus of eleven studies and include titles such as *Patients' Perception of Territoriality* and *Patients' Satisfaction with a Nurse-Directed Anticoagulation Clinic*. Ten studies are related to the identification of patients' needs and the formulation of nursing diagnoses. Titles of these studies include *Nursing Diagnoses for Persons on Chemotherapy Regimen* and *Nursing Diagnoses in a Population of Obstetrical-Gynecological Patients*. Nursing intervention and evaluation studies include *A Study of Nursing Interventions for the CVA Patient*; *Interventions to Promote Infant Competence*; *Effectiveness of Support Groups in the Resolution of Grief*, and *The Effect of Telephone Follow-up on Adherence to Antihypertension Regimen*. 
Issues relating to the nursing profession are currently being examined by eighteen nurse educators. These studies make up 16 per cent of the ongoing research projects of educators. Four historical studies were listed and four studies concern the characteristics and attitudes of nurses. Continuing education for nurses is the concern of three nurse educators. One of these studies is titled *Formalized Continuing Education: Effect on Delivery of Care*.

**Question 2.c.--What types of research studies have been conducted in the past by nurse educators?**

The study population of nurse educators was asked to list the number and types of completed research studies that were not connected with degree requirements. A total of 118 nurse educators indicated that they had conducted additional research studies in the past. These researchers reported a total of 247 completed studies. The respondents were asked to classify their studies as historical, descriptive, or experimental. A category labeled "other" was available for studies not falling into these three categories. Table XII presents the number of studies in each category.

Descriptive studies comprise the overwhelming majority (75 per cent) of the past studies. Fifty-three studies were categorized as experimental and only one
TABLE XII  
TYPES OF PAST RESEARCH STUDIES*  

<table>
<thead>
<tr>
<th>Type of Study</th>
<th>Number of Studies</th>
<th>Per cent of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>Descriptive</td>
<td>186</td>
<td>75</td>
</tr>
<tr>
<td>Experimental</td>
<td>53</td>
<td>22</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Totals</td>
<td>247</td>
<td>100</td>
</tr>
</tbody>
</table>

*Not for degree requirements

respondent listed a historical study. Seven studies were listed under the category of "other." These were classified as survey studies (3), quasi-experimental (1), epidemiological (1), and exploratory (1). No classification was given for two studies.

Question 2.d.--What types of research studies are being conducted at the present time by nurse educators?

Nurse educators were asked to list the number and types of research studies in which they were presently engaged. A total of ninety-seven educators indicated ongoing research. They listed 118 studies. The respondents classified their studies as being historical,
Table XIII presents the number of studies in each category.

### TABLE XIII
**TYPES OF PRESENT RESEARCH STUDIES**

<table>
<thead>
<tr>
<th>Type of Study</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Descriptive</td>
<td>93</td>
<td>79</td>
</tr>
<tr>
<td>Experimental</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>118</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Again, it was found that descriptive studies make up the majority of the research studies. Ninety-three studies or 79 per cent, of the total research efforts of nurse educators can be classified as descriptive. Nurse educators reported nineteen experimental studies or 16 per cent of the total number of studies. These studies include *Effect of Reality Orientation/Remotivation on Patients and Nurses' Aides; Pediatric Physical Assessment: Time and Economy*, and *The Use of Simulators in the Experiential Learning of the Administration of Medications by Student Nurses*. Four historical studies are underway at the
present time. Titles of these studies include: *Autonomy in Nursing* and *A Study of the Chinese Health System*.

**Question 2.f.--**What reasons were indicated by nurse educators for their lack of current involvement in research activities?

A majority of the study population (75 per cent) is not involved in research at the present time. Figure 9 illustrates the reasons given by these nurse educators for their lack of current involvement in research. Many respondents checked more than one reason on the questionnaire form. One educator checked all seven reasons listed. Lack of time was checked by 182 educators or 62 per cent of those who are not involved in present research. The next most frequently chosen reason was lack of skills. Research is not their area of interest, according to 101 respondents. This number represents 38 per cent of those nurse educators not involved in research and 29 per cent of the total sample population. Thirty-eight nurse educators listed additional reasons for non-involvement in research. Most of these reasons can be attributed to lack of time. Ten of the study sample indicated that they were currently enrolled in educational programs. Several respondents listed family responsibilities, such as a new baby, which precluded their involvement in research activities. Heavy teaching loads were listed by some nurse
Lack of Study Population
Lack of Facilities
Lack of Funds
Lack of Support from Employer
Lack of Interest
Lack of Skills
Lack of Time

Reasons

Fig. 9--Reasons for current non-involvement in research (includes multiple responses by some respondents)

educators as barriers to research involvement. Several other educators indicated they were new in teaching and were more concerned with adjusting to their new responsibilities than with research studies.

Table XIV compares the reasons for current non-involvement in research according to the highest level of
<table>
<thead>
<tr>
<th>Reasons</th>
<th>Bachelor's or lower (n = 52)</th>
<th>Master's Nursing (n = 180)</th>
<th>Master's Other (n = 50)</th>
<th>Doctorate (n = 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Time</td>
<td>18</td>
<td>129</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>(35%)</td>
<td>(72%)</td>
<td>(50%)</td>
<td>(67%)</td>
</tr>
<tr>
<td>Lack of Skills</td>
<td>30</td>
<td>66</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(58%)</td>
<td>(37%)</td>
<td>(32%)</td>
<td>(6%)</td>
</tr>
<tr>
<td>Lack of Interest</td>
<td>19</td>
<td>66</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(36%)</td>
<td>(37%)</td>
<td>(36%)</td>
<td>(13%)</td>
</tr>
<tr>
<td>Lack of Support from Employer</td>
<td>12</td>
<td>47</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(23%)</td>
<td>(26%)</td>
<td>(12%)</td>
<td>(26%)</td>
</tr>
<tr>
<td>Lack of Funds</td>
<td>11</td>
<td>37</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(21%)</td>
<td>(20%)</td>
<td>(18%)</td>
<td>(13%)</td>
</tr>
<tr>
<td>Lack of Facilities</td>
<td>7</td>
<td>13</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(13%)</td>
<td>(7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of Study Population</td>
<td>--</td>
<td>3</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1%)</td>
<td>(2%)</td>
<td></td>
</tr>
</tbody>
</table>

*Numbers and percentages in each column total more than the number of respondents due to multiple responses by some respondents.*
education achieved. Nurse educators with educational preparation below the master's level indicate less confidence in their research skills than those with a master's or doctoral degree. Thirty respondents or 58 per cent of the nurse educators with less than master's preparation indicated they lacked adequate research skills. Only one doctorally prepared educator gave this reason for her lack of involvement in research, while ten (67 per cent) of the educators with doctoral degrees indicated lack of time was their primary reason for failure to conduct research at the present time.

**Question 3.a.--What type of support is being provided by educational institutions for nursing faculty research?**

The majority (66 per cent) of the educational institutions surveyed provide at least minimal support for the research efforts of their faculty members, according to the nurse educators in this study. However, 135 of the sample, or 34 per cent of the total sample, report no research support available at their schools. Figure 10 illustrates the types of research support provided and the number of schools which provide each type of support. The majority of the schools supply several sources of support.

Respondents also listed other types of support that are being provided at their schools. These include
Fig. 10--Types of support provided by employer for research (includes multiple sources of support by some employers).

released time or decreased teaching loads; less committee work; research assistants; consultation and assistance with grant applications; assistance with statistics and data analysis, and research workshops and visiting lecturers. Several nurse educators listed the psychological support they receive from their educational institutions, and indicated they felt this is very important for research productivity.
An examination of Table XV shows the higher the level of nursing education offered by the educational institution, the greater the amount of research support provided for faculty research. Only 32 per cent of the educators employed in diploma schools report research support. Educators employed in associate degree programs report that 55 per cent of their institutions provide support. Sixty-six baccalaureate programs, or 73 per cent, provide some type of research support. Support provided for faculty research in schools with master's programs reaches 78 per cent. The forty-one nurse educators employed in nursing schools which offer doctoral programs report 85 per cent of their schools provide some type of research support.

TABLE XV

RESEARCH SUPPORT ACCORDING TO LEVEL OF NURSING EDUCATION OFFERED BY INSTITUTION

<table>
<thead>
<tr>
<th>Highest Level of Education</th>
<th>Percentage Offering Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>32</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>55</td>
</tr>
<tr>
<td>Baccalaureate Degree</td>
<td>73</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>78</td>
</tr>
<tr>
<td>Doctorate</td>
<td>85</td>
</tr>
</tbody>
</table>
Question 3.b.--How is research productivity used in the evaluation of faculty members?

Table XVI presents the analysis of data for this research question. The educational institutions employing 50 per cent of the nurse educators in the sample do not consider research productivity in the granting of either tenure, promotions, or salary increases. Seventy-nine nurse educators (20 per cent) report that research productivity is considered in all three of these reward systems at their schools. Other uses of research productivity as an evaluative method for the granting of tenure, promotion, or salary increase are shown in Table XVI.

Question 4.a.--What are the plans for publishing results of present research studies?

The majority (83 per cent) of the nurse educators presently conducting research indicate they plan to submit their study results for publication. Only 14 per cent had no publication plans for their studies, while 3 per cent were undecided.

Professional journals will be the publication medium sought by the majority of nurse educators presently conducting research. Some educators have already received requests for their studies and others are planning to submit their study results in the near future. Some of the
### Table XVI

**EVALUATION OF RESEARCH PRODUCTIVITY FOR TENURE, PROMOTION, AND SALARY INCREASE**

<table>
<thead>
<tr>
<th>Use of Research Productivity by Employer</th>
<th>Number of Respondents</th>
<th>Percentage of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>196</td>
<td>50</td>
</tr>
<tr>
<td>Tenure, Promotion, and Salary</td>
<td>79</td>
<td>20</td>
</tr>
<tr>
<td>Tenure and Promotion</td>
<td>66</td>
<td>17</td>
</tr>
<tr>
<td>Promotion only</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Tenure only</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>Promotion and Salary</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Salary only</td>
<td>3</td>
<td>0.6</td>
</tr>
<tr>
<td>Tenure and Salary</td>
<td>2</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>394</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

...journals mentioned include Nursing Research, American Journal of Nursing, Journal of Gerontological Nursing, Western Journal of Nursing Research, and Journal of Nursing Education.

**Question 4.b.** What is the relationship between selected demographic variables and nurse educators' plans to conduct research within the next two years?

Nurse educators' plans for research within the next two years according to the number of years in the nursing
profession are shown in Table XVII. The percentage of educators planning to conduct research increases as the number of years in the nursing profession increases, up to twenty years. Only 34 per cent of the nurse educators who have been in the profession over twenty years indicate they have plans for conducting research within the next two years. This trend was also seen in Table I which compared the relationship between research productivity and the number of years in the nursing profession.

TABLE XVII
RESEARCH PLANS FOR THE NEXT TWO YEARS ACCORDING TO THE NUMBER OF YEARS IN NURSING

<table>
<thead>
<tr>
<th>Number of Years in Nursing</th>
<th>Number of Respondents (n=394)</th>
<th>Percentage Planning Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>22</td>
<td>36</td>
</tr>
<tr>
<td>6-10</td>
<td>72</td>
<td>42</td>
</tr>
<tr>
<td>11-15</td>
<td>64</td>
<td>45</td>
</tr>
<tr>
<td>16-20</td>
<td>66</td>
<td>52</td>
</tr>
<tr>
<td>Over 20</td>
<td>170</td>
<td>34</td>
</tr>
</tbody>
</table>

Chi-square = 7.0134  
Degrees of Freedom = 4  
Level of Significance = 0.1352  
Contingency Coefficient = 0.1322
Table XVIII presents the research plans of nurse educators in relation to the educator's basic nursing educational preparation. Only small differences are seen between the groups with the baccalaureate prepared nurse educators slightly ahead of diploma and associate degree prepared educators in their plans for conducting research within the next two years.

**TABLE XVIII**

**RESEARCH PLANS FOR THE NEXT TWO YEARS ACCORDING TO BASIC NURSING EDUCATION**

<table>
<thead>
<tr>
<th>Basic Nursing Education</th>
<th>Number of Respondents (n=394)</th>
<th>Percentage Planning Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>185</td>
<td>38</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>16</td>
<td>38</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>193</td>
<td>43</td>
</tr>
</tbody>
</table>

Chi-square = 1.1043  
Degrees of Freedom = 2  
Level of Significance = 0.5757  
Contingency Coefficient = 0.0528

The comparison of the highest educational preparation of nurse educators with their plans for conducting research studies within the next two years is shown in Table XIX. Large differences are found between the five groups. Only 32 per cent of the nurse educators holding
TABLE XIX
RESEARCH PLANS FOR THE NEXT TWO YEARS ACCORDING TO HIGHEST EDUCATION COMPLETED

<table>
<thead>
<tr>
<th>Highest Education</th>
<th>Number of Respondents (n=383)</th>
<th>Percentage Planning Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baccalaureate</td>
<td>50</td>
<td>32</td>
</tr>
<tr>
<td>Master's in Nursing</td>
<td>226</td>
<td>38</td>
</tr>
<tr>
<td>Master's in other field</td>
<td>64</td>
<td>38</td>
</tr>
<tr>
<td>Doctorate in nursing</td>
<td>12</td>
<td>92</td>
</tr>
<tr>
<td>Doctorate in other field</td>
<td>31</td>
<td>71</td>
</tr>
</tbody>
</table>

Chi-square = 26.9113
Degrees of Freedom = 4
Level of Significance = <0.0001 (significant beyond .05 level)
Contingency Coefficient = 0.2562

Baccalaureate degrees, in comparison with 92 per cent of the educators holding doctorates in nursing, plan to conduct research in the near future. Of the thirty-one nurse educators with doctoral degrees in other fields, 71 per cent have research plans for the next two years. Differences in these two groups of doctorally prepared educators were also seen in their research productivity as shown in Table III.
The research plans of nurse educators according to their clinical specialty areas are shown in Table XX. Only small differences are found among the five groups. The largest number (47 per cent) of educators planning research studies within the next two years is found in the group claiming community health as their clinical specialty area. Only 38 per cent of the sample claiming medical-surgical as their specialty area report research plans for the near future.

**TABLE XX**

RESEARCH PLANS FOR THE NEXT TWO YEARS
ACCORDING TO CLINICAL SPECIALTY AREA

<table>
<thead>
<tr>
<th>Clinical Specialty Area</th>
<th>Number of Respondents (n=375)</th>
<th>Percentage Planning Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Health</td>
<td>45</td>
<td>47</td>
</tr>
<tr>
<td>Medical/Surgical</td>
<td>183</td>
<td>38</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>38</td>
<td>42</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>44</td>
<td>39</td>
</tr>
<tr>
<td>Psych/Mental Health</td>
<td>65</td>
<td>42</td>
</tr>
</tbody>
</table>

Chi-square = 1.4033
Degrees of Freedom = 4
Level of Significance = 0.8436
Contingency Coefficient = 0.9610
The future research plans of nurse educators compared to the number of years they have been teaching is presented in Table XXI. Four of the groups are almost identical in their plans for conducting research within the next two years. Nurse educators with the smallest percentage of plans for future research are those in the "over 20 years" category. This finding corresponds with the data in Table XVII, which show that educators who have been in the profession over twenty years have the lowest percentage of plans for research in the next two years.

### TABLE XXI

RESEARCH PLANS FOR THE NEXT TWO YEARS ACCORDING TO THE NUMBER OF YEARS IN TEACHING

<table>
<thead>
<tr>
<th>Number of Years in Teaching</th>
<th>Number of Respondents (n=394)</th>
<th>Percentage Planning Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>116</td>
<td>49</td>
</tr>
<tr>
<td>6-10</td>
<td>125</td>
<td>43</td>
</tr>
<tr>
<td>11-15</td>
<td>74</td>
<td>41</td>
</tr>
<tr>
<td>16-20</td>
<td>32</td>
<td>41</td>
</tr>
<tr>
<td>Over 20</td>
<td>47</td>
<td>30</td>
</tr>
</tbody>
</table>

Chi-square = 2.65361  
Degrees of Freedom = 4  
Level of Significance = 0.6174  
Contingency Coefficient = 0.0817
Research plans for the next two years compared with academic rank is recorded in Table XXII. There seems to be a positive relationship between the academic rank and future research plans. Those with the rank of Instructor have the smallest percentage of future research plans, while nurse educators with the rank of Professor have the largest percentage of future research plans. However, a decrease is seen between the research plans of Assistant Professors and those of Associate Professor.

### TABLE XXII

**RESEARCH PLANS FOR THE NEXT TWO YEARS ACCORDING TO ACADEMIC RANK**

<table>
<thead>
<tr>
<th>Academic Rank</th>
<th>Number of Respondents (n=370)</th>
<th>Percentage Planning Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor</td>
<td>158</td>
<td>28</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>126</td>
<td>53</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>65</td>
<td>43</td>
</tr>
<tr>
<td>Professor</td>
<td>21</td>
<td>62</td>
</tr>
</tbody>
</table>

Chi-square = 22.9132  
Degrees of Freedom = 3  
Level of Significance = < 0.0001 (significant beyond .05 level)  
Contingency Coefficient = 0.2414

The relationship between tenure status and research plans within the next two years is shown in Table XXIII.
A larger percentage of non-tenured faculty have future research plans than do tenured faculty. The level of significance reached 0.0564, which approached the 0.05 level specified for the study.

**TABLE XXIII**

RESEARCH PLANS FOR THE NEXT TWO YEARS ACCORDING TO TENURE STATUS

<table>
<thead>
<tr>
<th>Tenure Status</th>
<th>Number of Respondents (n=394)</th>
<th>Percentage Planning Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-tenured</td>
<td>262</td>
<td>44</td>
</tr>
<tr>
<td>Tenured</td>
<td>132</td>
<td>33</td>
</tr>
</tbody>
</table>

Chi-square = 3.63958  
Degrees of Freedom = 1  
Level of Significance = 0.0564  
Contingency Coefficient = 0.1010

A comparison between the highest level of nursing education offered by the nurse educators' employers and the future research plans of nurse educators is reported in Table XXIV. A significant relationship is found between these two variables. Only 17 per cent of the educators teaching in diploma programs plan research within the next two years. The percentage increases as the level of nursing education increases at the nurse educator's school of employment. Educators teaching in
TABLE XXIV
RESEARCH PLANS FOR THE NEXT TWO YEARS
ACCORDING TO LEVEL OF NURSING EDUCATION OFFERED BY EMPLOYER

<table>
<thead>
<tr>
<th>Highest Level of Nursing Education</th>
<th>Number of Respondents (n=394)</th>
<th>Percentage Planning Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>69</td>
<td>17</td>
</tr>
<tr>
<td>Associate Degree</td>
<td>93</td>
<td>24</td>
</tr>
<tr>
<td>Baccalaureate Degree</td>
<td>91</td>
<td>46</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>100</td>
<td>58</td>
</tr>
<tr>
<td>Doctorate</td>
<td>41</td>
<td>61</td>
</tr>
</tbody>
</table>

Chi-square = 47.3405
Degrees of Freedom = 4
Level of Significance = <0.0001 (significant beyond .05 level)
Contingency Coefficient = 0.3775

Schools offering doctoral programs show the highest percentage of future research plans.

Question 4.c.--What content areas are nurse educators planning to examine in the research studies they conduct during the next two years?

Research studies are planned within the next two years by 159 nurse educators, or approximately 40 percent of the study population. A total of 117 proposed titles or content areas was listed by 109 educators. The remaining fifty nurse educators either left the title
space blank or indicated they were undecided. These undecided nurse educators include eighteen respondents who said they would be conducting research studies in conjunction with degree requirements. Seventeen of the 117 studies listed are either continuation or expansion of present studies.

Nursing practice studies outnumber nursing education studies by 10 per cent, or 44 per cent to 34 percent. Studies related to the nursing profession were mentioned in 22 per cent of the future research study titles or content areas.

### TABLE XXV

**CONTENT AREAS OF RESEARCH STUDIES TO BE CONDUCTED WITHIN THE NEXT TWO YEARS**

<table>
<thead>
<tr>
<th>Content Areas</th>
<th>Number of Studies</th>
<th>Per cent of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Education</td>
<td>40</td>
<td>34</td>
</tr>
<tr>
<td>Nursing Practice</td>
<td>51</td>
<td>44</td>
</tr>
<tr>
<td>Nursing Profession</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>117</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Studies related to nursing education include *A Descriptive Study of Male Nursing Students in a Baccalaureate Program: Assets and Conflicts Identified and*
Stress in Middle Adult Students (25-40 years) in Nursing.
Some of the noteworthy titles or proposed titles of studies related to nursing practice are Suicide or Attempted Suicide in Persons Under 18 Years of Age; Client Perception of Family Centered Maternity Care, and Confirmation-Disconfirmation Among Psychiatric Patients. Several interesting study titles were categorized as relating to the profession of nursing. These include Ethical Issues Related to the Implementation of Public Law 94-142 and The Development of the Hospice Movement in the United States.

Question 4.d.--What content areas should be examined in the future research studies of nurse educators?

The last question on the research questionnaire called for areas of research which should be investigated in the future by nurse educators. Suggestions were given by 268, or 68 per cent, of the educators. A total of 505 ideas was listed by the respondents. Again, the studies were classified according to the three broad areas of nursing education, nursing practice, and the nursing profession. This is shown in Table XXVI. However, many of the respondents were not specific in their suggestions as indicated by "what shouldn't nurse educators research?" and "anything and everything."
Therefore, thirty-two suggestions were included in a category labeled "general."

TABLE XXVI
CONTENT AREAS OF RESEARCH NEEDED IN THE FUTURE

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Number of Times Suggested</th>
<th>Percentage of Total Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Education</td>
<td>210</td>
<td>42</td>
</tr>
<tr>
<td>Nursing Practice</td>
<td>178</td>
<td>35</td>
</tr>
<tr>
<td>Nursing Profession</td>
<td>85</td>
<td>17</td>
</tr>
<tr>
<td>General</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>Totals</td>
<td>505</td>
<td>100</td>
</tr>
</tbody>
</table>

Nursing education issues were the concern of 210 nurse educators, or 42 per cent of the sample, who gave suggestions for future studies. Curriculum studies were a high priority with fifty-two respondents. Teaching and learning variables were mentioned by fifty-one nurse educators. A large number of these suggestions concerned the use of educational technology such as computer-assisted instruction and the use of simulators in teaching. The need for better methods to evaluate student learning, particularly in the clinical area, was listed by thirty-one educators. Means of predicting success in nursing education was called for by twenty-four respondents. These educators showed an interest in
predicting success in nursing school as well as in performance on State Board exams.

Studies relating to nursing practice were called for by 178 nurse educators, or 35 per cent, of the educators listing research suggestions. The areas needing research are many and varied, according to this group of educators. Clinical research, in general, was called for by twenty-eight nurse educators. Nursing interventions were mentioned by thirty-two educators. However, the suggestions were very general, and included such ideas as "nursing interventions which will effect changes in patient outcomes," "relationship of patient outcome and nursing interventions," and "effectiveness of variety of nursing practices on client outcomes." Patient education studies were called for by eleven nurse educators. The need for more emphasis on care for the elderly was listed by eleven respondents, while on the other end of the age continuum, maternal and infant studies are given high priority by ten nurse educators.

Studies related to the nursing profession were mentioned by eighty-five nurse educators, or 17 per cent, of those making suggestions. One area that continues to gain the attention of nurse educators is the entry into practice issue. This topic was mentioned by forty-four respondents. Studies of the nurse were called for by
twenty-five individuals. Suggestions in this area included "pay for nurses," "burnout in nursing," "nurses' dissatisfaction," "mobility of nurses," and "how to raise the self-concept of nurses." Professional issues were mentioned by ten respondents and included areas such as collective bargaining and the involvement of nurses in the state political process.
CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS,
AND RECOMMENDATIONS

Summary

This study examined the research productivity of a selected group of nurse educators in the United States. Research studies conducted in the past by these educators and those planned for the future were analyzed. This analysis involved a determination of the types of studies and content areas examined in these studies. Support received from educational institutions for faculty research and the use of research productivity in the evaluation of faculty members were also explored.

Findings

An analysis and interpretation of the data obtained in this study revealed the following major findings:

1. Five of the demographic variables concerning nurse educators were found to be significantly related to research productivity in at least one of the four measures of productivity. A significant relationship was found between basic nursing educational preparation and the number of studies conducted for degree requirements. Significant relationships were found between the highest level of education completed by the nurse educator
and all four measures of research productivity. The number of years in teaching was found to be significantly related to the number of studies conducted for degree requirements, the number of additional past research studies conducted, and the number of studies published. Academic rank showed a high degree of correlation with all four measures of research productivity. The highest level of nursing education offered by the nurse educators' employers was found to be significantly related to the number of educators conducting research at the present time.

The statistical analysis of three demographic variables concerning nurse educators revealed no significant relationship to research productivity. The educator's years in the nursing profession, clinical specialty area, and tenure status seemed to have no effect on research productivity. Although no significant relationship was found between the number of years in teaching and ongoing research activities, it was observed that the smallest percentage of ongoing research studies was reported by nurse educators who had been teaching over twenty years.

The demographic variables were all compared individually to the four measures of research productivity. Combinations of these variables might produce a different set of relationships. No attempt was made to control for intervening variables in the data analysis.
2. A total of 157, or 56 per cent, of the studies conducted in the past by nurse educators as part of degree requirements were categorized as nursing practice studies. Eighty-seven of these studies related to nursing assessments and the planning of nursing care. Studies of nursing interventions and the evaluation of nursing care were the concern of forty-one of the studies. Patient education was the most frequently mentioned nursing intervention. In the area of nursing education studies, a total of 70 studies was conducted. This represented 25 per cent of the total number of degree studies. These studies were primarily concerned with means of predicting student success in nursing education and nursing practice. Studies related to the profession made up 19 per cent of the degree studies. Of the 53 studies in this category, the characteristics and attitudes of nurses and the role of nurses in health care were mentioned most frequently.

3. A total of fifty studies, or 44 per cent of the ongoing research studies, were categorized as nursing education studies. The prediction of success in nursing education and nursing practice was mentioned most frequently. Curriculum studies were the next most frequently mentioned subject matter. In the area of nursing practice, a total of 46 studies was identified. This comprises 40 per cent of the total number of ongoing research studies.
Nursing assessment and planning studies were more predominant than nursing intervention and evaluation studies. Studies related to the nursing profession make up 16 per cent of the ongoing studies. Of the eighteen studies in this category, the characteristics and attitudes of nurses and the need for continuing education for nurses were mentioned most frequently.

4. Descriptive studies constitute 75 per cent of the total studies conducted by nurse educators in the past. These studies include only studies that were not connected with degree requirements. Experimental studies make up 16 per cent of the total. Only one historical study was conducted. Seven studies were not considered by educators as belonging to any of the three categories and were classified as "other."

5. Descriptive studies constitute 79 per cent of the present research studies being conducted by nurse educators. Again, 16 per cent of the studies were classified as experimental. Four studies, or 3 per cent of the total, are historical studies, and two studies were classified as "other."

6. Lack of time is seen by nurse educators as the greatest barrier to research productivity. In descending order of importance are lack of skills, lack of interest,
lack of support from employer, lack of funds, lack of facilities, and lack of a study population.

7. When the data were examined according to the highest level of education completed by the nurse educator, educators with baccalaureate level preparation or less considered lack of skills to be the primary reason for their lack of involvement in research.

8. At least minimal support for faculty research by educational institutions was reported by 66 per cent of the sample. The majority of these institutions provide more than one source of support. Types of support from the most frequently mentioned to the least frequently mentioned are secretarial support, sabbatical time, computer services, supplies, and financial assistance. Other types of support include decreased teaching load, consultation services, assistance with data analysis, and research workshops.

9. The higher the level of nursing education offered by the educational institution the more likely research support is to be provided to faculty members.

10. Research productivity is used as an evaluative basis for the granting of either tenure, promotion, or salary increases by 50 per cent of the educational institutions employing the sample of nurse educators.
11. A total of 83 per cent of the nurse educators presently conducting research studies indicated they plan to publish the results of their studies. Professional journals will be the publication medium sought by almost all nurse educators.

12. Three demographic variables were found to be significantly related to nurse educators' plans to conduct research within the next two years. These variables are: highest level of education completed, academic rank, and the highest level of nursing education offered by their employer.

13. Approximately 40 per cent of the nurse educators plan to conduct research within the next two years. This group includes educators who will be conducting research studies for degree requirements as well as those who will continue or expand ongoing research studies. Nursing practice studies will be conducted by 44 per cent of those planning research. Nursing education variables will be studied by 33 per cent, and 22 per cent of the nurse educators planning research within the next two years will examine content areas related to the profession of nursing.

14. Areas in which research is thought to be needed for the future were listed by 68 per cent of the sample. Nursing education topics constitute 42 per cent of the
suggestions given. Nursing practice is the concern of 35 per cent of those listing suggestions, while nursing profession issues were mentioned by 17 per cent of the nurse educators. A total of thirty-two studies were too general to classify under these three headings. In the area of nursing education, the need for curriculum studies and studies concerning teaching learning variables were mentioned most frequently. Better means of predicting success by nursing students were called for by twenty-four respondents. Research studies proposed in the area of nursing practice were very general, with twenty-eight respondents listing the need for "clinical research." Health care for the elderly is seen as a priority need by eleven nurse educators, while ten educators called for maternal and infant studies. Nursing profession studies continue to attract the interest of some nurse educators. Studies to examine the entry into practice issues were predominant.

Conclusions

The 79 per cent return rate of the questionnaire made it possible to draw conclusions from the data which are applicable to the total population of nurse educators sampled. The following conclusions are based on the findings of the study.
Nurse educators holding doctorates and the rank of Professor are the profession's most productive researchers. Since many educators indicated that they felt unprepared to conduct research, it is possible that they wish to entrust nursing research to a small group of qualified researchers. This position supports that of nursing leaders who call for stringent research preparation for research investigators. The question can still be raised as to whether the nursing profession can afford to look primarily to its doctorally prepared nurse educators for answers to questions in nursing.

The majority of research studies at the present time is being conducted by faculty in graduate rather than undergraduate nursing programs. Surprisingly, a higher percentage of studies were reported from educators in institutions granting a master's degree than in those with doctoral programs. Many graduate nursing programs foster a climate for research by providing the external support necessary for faculty research. However, as a collective, the research support provided by educational institutions is minimal. The sample of nurse educators report that 34 per cent of their schools provide no support for faculty research, and 50 per cent of the institutions do not consider research productivity in the evaluation of faculty members. These findings concur
with the reports in the literature which indicate that educational institutions, and nursing schools within these institutions, have not accepted the responsibility for research which has been entrusted in them by society. It will be difficult for faculty research to increase substantially until a research climate is fostered by the institutions of higher education.

The majority of the research that has been conducted in the past by the sample of nurse educators has been done in connection with degree requirements. This supports the literature findings. However, 72 per cent of the nurse educators who hold doctorates report that they have conducted additional research studies in the past, and 65 per cent of them report ongoing research investigations. This refutes the contentions of nursing authors that few doctorally prepared nurses have conducted research beyond their dissertation research.

Nurse educators in the sample reported past involvement and present involvement in nursing practice research to a greater degree than the literature findings would indicate. This may demonstrate that nurse educators are concerned with the development of a scientific basis for the practice of nursing, and that they are beginning to heed the admonishments of Florence Nightingale to search for nature's "law of health."
The publication plans of nurse educators show a sharp increase over their previous publication records. Although this finding would need a follow-up study for verification, a conclusion can be drawn that nurse educators are considering the importance of communicating nursing research. Hopefully, nurse educators will follow through with their publication plans, and the dissemination of research study findings will become widespread.

Descriptive research has been the study type chosen by the great majority of nurse educators in the past. An examination of the research designs listed by nurse educators for their ongoing research studies indicates a continued preference for descriptive studies. It might be well for nurse educators to consider the advantages of conducting more experimental studies, especially in the area of nursing practice.

Little interest was indicated by nurse educators in the development of nursing theories or the application of specific theories to practice. Only with the development and testing of theories will it be possible to identify an essential body of knowledge for the nursing profession.

Recommendations

Based on the findings and conclusions of this study, the following recommendations are made:
1. A follow-up study should be conducted on this same group of nurse educators in two years to determine if they have carried out their research plans and publication plans.

2. The study should be replicated using a population of nurse educators who do not belong to their professional organization, and comparisons could then be made with the results of this study.

3. A study should be conducted using multiple regression techniques of data analysis to predict those nurse educators who will be the most productive researchers.

4. A study should be conducted to determine the reasons nurse educators conduct descriptive studies rather than experimental studies.

5. A survey should be conducted among the administrators of nursing schools in the United States to determine their use of research productivity in the evaluation of faculty members.

6. The research study titles obtained in this study should be further examined and a more detailed classification system designed.
July 28, 1979

Dear ______________________

In partial fulfillment of the requirements for the Doctor of Philosophy degree at North Texas State University, I am writing a dissertation concerning the involvement of nurse educators in research. The study is designed to determine the research that has been conducted by nurse educators in the past. An analysis will also be made of the areas of research presently being examined by nurse educators. Finally, an attempt will be made to discover the future research plans of nurse educators.

As part of the dissertation preparation, I am seeking validation of the measurement instrument. One method of validation consists of submitting the instrument to a panel of judges. With the approval of my dissertation committee, I am asking you, as a doctorally prepared nurse educator, to be one of these judges.

Attached to this letter you will find a copy of my dissertation proposal. The purposes of the study and research questions are on pages 2 and 3. The description of the study population is on page 10. The research questionnaire is contained on the last three pages of the proposal. I would like for you to try to determine if the questionnaire will be suitable for obtaining answers to the research questions. Please feel free to write on the questionnaire. Put an "X" by any question that you think is irrelevant or will not be useful in the study. Please change the wording on any question that is unclear. If you feel additional questions are needed, please write these on the back of the last page of the questionnaire.

A dissertation is often considered to be the efforts of one individual, but, in reality, it involves the efforts of many individuals. I would greatly appreciate your assistance in my research study. If I can ever help you in your research efforts, please contact me.

Sincerely,

Rose Marie Nieswiadomy
Doctoral Candidate
North Texas State University
RESEARCH QUESTIONNAIRE

(Please check the appropriate category)

1. Number of years in nursing:
   0-5 yrs._____   6-10 yrs._____   11-15 yrs._____   
   16-20 yrs._____   over 20 yrs._____   

2. Basic nursing educational preparation:
   Diploma_____   Assoc. Degree_____   B.S. or higher degree_____   

3. Highest level of education completed:
   Diploma_____   Assoc. Degree_____   B.S._____   M.S._____   
   Doctorate in Nursing_____   Doctorate in other field_____   
   Other_____   

4. Level(s) of nursing education offered at your school of employment: (may check more than one)
   Diploma_____   Assoc. Degree_____   B.S._____   M.S._____   
   Doctorate_____   

5. Your clinical specialty area:
   Community Health_____   Medical/Surgical_____   
   Obstetrics_____   Pediatrics_____   Psych/Mental Health_____   
   Other_____   

6. Teaching experience:
   0-5 yrs._____   6-10 yrs._____   11-15 yrs._____   
   16-20 yrs._____   over 20 yrs._____   

7. Academic rank:
   Instructor_____   Asst. Professor_____   
   Assoc. Professor_____   Professor_____
8. Tenure:
   Yes_____ No_____ 

9. At your school of employment, research productivity is considered in the determination of:
   A. Tenure Yes_____ No_____ 
   B. Promotion Yes_____ No_____ 
   C. Salary Increase Yes_____ No_____ 

10. Does your educational institution support faculty research activities?
    Yes_____ No_____ 

11. If "yes" what type(s) of support is (are) provided? (may check more than one)
    Financial assistance _____
    Decreased teaching load _____
    Sabbatical time _____
    Supplies _____
    Secretarial support _____
    Computer time _____
    Other (please describe) ________________________________

12. Have you conducted research as part of the requirements for a degree?
    Yes_____ No_____ 

13. Have you conducted other research studies in the past?
    Yes_____ No_____ 
    (If "yes" please continue to Question #14)
    (If "no" please continue to Question #17)

14. Number of past research studies conducted (excluding those studies as part of the requirements for a degree)
    __________

15. Type(s) of research studies conducted (list number of each type)
    Historical_____ Descriptive_____ Experimental_____ 
    Other__________
16. Number of research studies published:


17. Are you presently conducting a research study?
(excluding any study as part of a degree requirement)
Yes____  No____

18. Type(s) of present research study(ies)
(list number of each type)
Historical_____  Descriptive_____  Experimental_____  
Other__________

19. Please give the title(s) or proposed title(s) of your present research study(ies) in order to help classify the area of your research:


20. Do you plan to submit the results of the study(ies) for publication?
Yes____  No____

21. If you are not presently involved in a research study, which of the following reasons is most appropriate? (may choose more than one)
I do not have the time _____
My research skills are not well developed _____
Research is not my area of interest _____
There are inadequate funds for research _____
There is little institutional support _____
Facilities are inadequate _____
A study population is not available _____
Other__________________________________

22. Do you have plans for involvement in a research study within the next two years?
Yes____  No____
23. If "yes" please give the title(s) or proposed title(s) of your future research study(ies) in order to help classify your area of interest:


24. Please list areas of research which you believe should be investigated in the future by nurse educators:


Thank you for your interest and cooperation!
<table>
<thead>
<tr>
<th>RESEARCH QUESTIONNAIRE</th>
</tr>
</thead>
</table>

(Please check the appropriate category)

1. Number of years in nursing:
   - 0-5 yrs.
   - 6-10 yrs.
   - 11-15 yrs.
   - 16-20 yrs.
   - Over 20 yrs.

2. Basic nursing educational preparation:
   - Diploma
   - Associate Degree
   - Baccalaureate or higher degree

3. Highest level of education completed:
   - Diploma
   - Associate Degree
   - Baccalaureate in nursing
   - Baccalaureate in other field
     (specify)
   - Master's in nursing
   - Master's in other field
     (specify)
   - Doctorate in nursing
   - Doctorate in other field
     (specify)

4. Clinical specialty area:
   - Community Health
   - Medical/Surgical
   - Obstetrics
   - Pediatrics
   - Psych/Mental Health
   - Gerontology
   - Other
     (specify)

5. Teaching experience:
   - 0-5 yrs.
   - 6-10 yrs.
   - 11-15 yrs.
   - 16-20 yrs.
   - Over 20 yrs.

6. Academic rank:
   - Instructor
   - Assistant Professor
   - Associate Professor
   - Professor
   - Other (specify)

7. Tenure:
   - Yes
   - No

8. Level(s) of nursing education offered at your school of employment:
   (may check more than one)
   - Diploma
   - Associate Degree
   - Baccalaureate
   - Master's
   - Doctorate

9. At your school of employment, research productivity is considered in determining:
   - Tenure
   - Promotion
   - Salary Increase
   - None of the above

10. What type of support does your school of employment provide for faculty research?
    - None
    - Financial assistance
    - Sabbatical time
    - Supplies
    - Secretarial support
    - Computer time
    - Other (specify)

11. Have you conducted research as part of the requirements for a degree?
    - Yes
    - No

12. If "yes", list the title(s) of the research study(ies):

    __________________________________________
    __________________________________________
    __________________________________________
    __________________________________________
13. Number of additional research studies conducted in the past:

- None
- One
- Two
- More than two (specify number)

14. List the number of each type of past research study (excluding studies for degree requirements):

- Historical
- Descriptive
- Experimental
- Other (specify type)

15. Number of past research studies that have been published (excluding studies for degree requirements)

16. Type of research study presently being conducted: (if more than one in each type, list number)

- None
- Historical
- Descriptive
- Experimental
- Other (specify type)

17. List the title(s) or proposed title(s) of your present research study(ies) in order to help classify the area of your research:

18. Do you plan to submit study results for publication?

- Yes
- No

19. If "yes", what publication medium will be used? (book, professional journal, etc.)

20. If you are not presently conducting research, which of the following reasons is appropriate? (may choose more than one)

- I do not have time
- My research skills are not well developed
- Research is not an area of interest
- There are inadequate funds for research
- Lack of support from my school of employment
- Inadequate research facilities
- A study population is not available
- Other (specify)

21. Do you have plans to conduct a research study within the next two years?

- Yes
- No

22. If "yes", list the title(s) or proposed title(s) of your future research study(ies) in order to help classify your area of research:

23. List areas of research which you believe should be investigated in the future by nurse educators:
September 20, 1979

Dear Nurse Educator:

In partial fulfillment of the requirements for the Doctor of Philosophy degree at North Texas State University, I am writing a dissertation concerning the involvement of nurse educators in research. The study will determine the research that has been conducted by nurse educators in the past. An analysis will also be made of the areas of research presently being examined by nurse educators. Finally, the future research plans of nurse educators will be analyzed.

Your name was randomly chosen from nurse educators residing in the United States. All information will be held strictly confidential and you will not be identified in any way in the study. The questionnaires are not to be signed.

Completion of the questionnaire should take only ten to fifteen minutes of your time. I am enclosing a return-addressed, stamped envelope for your convenience in returning the questionnaire. Also, please fill in your name on the enclosed post card and return by separate mail. This will enable me to determine that you have returned the questionnaire while still maintaining the confidentiality of the information on the completed questionnaire. Return of the questionnaire by October 15, 1979, will be greatly appreciated.

Thank you for your cooperation. Summaries of the findings of this study will be available upon request. If I can ever help you in your research effort, please contact me.

Sincerely,

Rose M. Nieswiadomy, R.N.
Doctoral Student
North Texas State University

Home Address:
11350 Drummond Drive
Dallas, Texas 75228
October 25, 1979

Dear Nurse Educator:

A few weeks ago you received a request to complete a questionnaire related to nurse educators' involvement in research. Response to this request was very good, surpassing the usual rate of returns on mailed questionnaires. Replies have been received from nearly 65 per cent of the random sample of nurse educators that were contacted. This indicates that nurse educators are willing to support one of their peers in her research efforts.

The data collected from these questionnaires will help to determine the past and present research studies of nurse educators. Their future research plans will also be analyzed. Each completed questionnaire increases the reliability of the study results. Your input is very important.

As a nurse educator myself, I realize your daily schedule is always full. However, completion of the enclosed questionnaire should take only ten to fifteen minutes of your time. A return-addressed envelope is included for your convenience. Please do not include your name on the questionnaire. Fill out the post card and send by separate mail. This will enable me to determine that you have returned the questionnaire while still maintaining the confidentiality of the information on the complete questionnaire. No data received after November 15, 1979 will be included in the study.

Thank you for your cooperation. If you have already mailed the questionnaire, please disregard this reminder and accept my gratitude for your participation in the study. Summaries of the findings of this study will be available upon request. If I can ever assist you in your research effort, please contact me.

Sincerely,

Rose Marie Nieswiadomy  
Home Address:  
Doctoral Candidate  
11350 Drummond Dr.  
North Texas State University  
Dallas, TX. 75228
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