

A STUDY OF PHYSICIANS' ATTITUDES TOWARD
THE CONCEPT OF THE NURSE PRACTITIONER

by

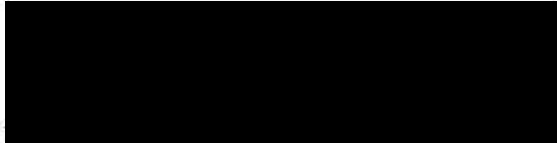
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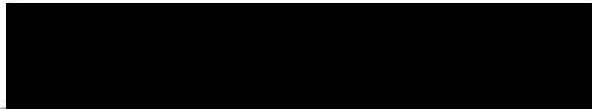
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m.s.

For Rich

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CHAPTER I
INTRODUCTION

"We live in a country which can land a man on the moon, but cannot provide adequate medical care for its citizens". (Hoff, 1971, p. 32)

This nation's inability to provide adequate medical care to its populace has become one of the greatest concerns of American society in the seventies. Harold Wise made a particularly strong statement against the current health care delivery system in his contention that the unsuccessful quest for preventative care and health maintenance is no longer the plight of the "poor" alone. He pointed out the problem of insufficient primary care facilities and related that many persons now seek primary care in the emergency room due to their inability to receive this care from a general practitioner. Furthermore, he stated that primary care held a low priority in medical education. He went on to say that the trend toward specialization has resulted in a shortage of generalists in the clinical field (1971).

Changes in bio-medical technology support this trend toward further fragmentation. The remarkable progress in bio-medical technology has not been matched by changes in the underlying philosophy regarding the provision of health care. Large gaps exist in meeting health care needs in the areas of maintenance of health and prevention of diseases and in primary care. There is growing public sentiment urging that these gaps be filled.

A report by Bullough (1976) states that specialist now outnumber

general practitioners by three to one and that furthermore, this trend could be expected to continue. In essence, this implies that whether or not an overall shortage of physicians exists, the fact remains that there is a shortage in the number of physicians giving primary care.

Recent studies have begun to demonstrate, however, that the problem is not so much one of numbers of health personnel but rather is one of distribution (O'Dell, 1974). One such study, by Flynn (1974), identified attempts to reorganize practices in the delivery of health services in response to the problem of shortage and mal-distribution of manpower.

The increased demand for health services has added impetus to the development of new patterns of health care delivery, utilizing personnel other than physicians. Several authors have examined the role of the physician's assistant in response to this need (Fein, 1967; Lohrenz, 1971; Egeberg, 1972). While physician assistant programs did not pre-date programs for the nurse practitioner, it cannot be denied that this highly visible movement was an important factor in the nurse practitioner development. Specifically, the physician's assistant programs demonstrate that a significant number of responsibilities could be delegated. It became apparent that a large corps of nurses existed that were already prepared to fill this need.

The American Medical Association issued an official statement in 1970 supporting the expansion of the nurses' role. In support of that report on Extending the Scope of Nursing Practice, the Department of Health, Education and Welfare asserted:

"Nurses constitute by far the largest single group of professional health personnel; there are well over one million active and inactive nurses in the United States. While the number of nurses will have to increase substantially to catch up and keep pace with the expanding demand for nursing services, it will be necessary at the same time to enable professional nurses to extend the scope and range of their contribution to health care, to assume duties that involve increased responsibility of the care of patients, and to collaborate more effectively with physicians and other health professionals".

(Richardson, 1971, p. 494)

The literature review supports the contention that there is a demonstrated need for professionals to fill primary care health needs. The nurse has been well prepared by her generic education and advanced preparation to fill this need. For the past several years, state legislators have demonstrated interest in a commitment to developing realistic, workable, practice acts for nursing. Legislation has been drafted which recognizes the expanded role of the nurse practitioner (HB 2806 from the 1979 Oregon Legislation). The United States House of Representatives Ways and Means Health Sub-committee approved Medicare reimbursements for health care service provided by "primary care extenders" in rural health clinics (PL 95-210).

Role expansion has facilitated new trends in nursing education. In 1973, more nurses graduated from collegiate than from hospital schools, representing a dramatic change in educational resources. Financial support has been made available to further educational programs designed to prepare nurses to function in the expanded role. However, even with better education, nurses have problems in being utilized by the physician in more responsible roles. Acceptance by the physician has

been a major barrier in the utilization of the nurse in the expanded role (Bergman, 1971; Yankauer, Trip, Andrews & Connelly, 1972; Schoen, 1973; Burash, 1975).

Problem Statement

There exists, in the United States today, large numbers of persons who are not receiving adequate medical care. The cause of the problem of health care delivery has been said by many, to be found in the shortage of health personnel, primarily physicians. The problem is not so much one of numbers, but one of the distribution of available health care personnel. Many new health care roles have been created to attempt a reduction of the problem, including physician's assistants and nurse practitioners.

It is the opinion of this investigator that the nurse is the best qualified to fill this auxiliary position. The nurse has been well prepared by her generic education and advanced preparation to fill this need. Studies have demonstrated both the nurse's ability to function in this role as well as consumer satisfaction with regards to the nurse in the expanded role. However, lack of understanding and acceptance of the expanded role of the nurse on the part of the physicians has hindered the utilization of nurses to meet the health care needs of the American consumer.

Definition of Terms

1. Expanded role of the nurse: Including any or all of the tradition-

ally medical functions of history taking, physical examination, diagnosis, and therapy in addition to established nursing functions and perspectives.

2. Nurse practitioner: A registered nurse who is prepared to "provide management of mental and physical health care in the applicable specialty area...in collaboration with physicians and other health care professions". Oregon Nurse Practice Act (ORS 678).
3. Health care delivery system: The system through which the consumer obtains medical services both in hospital and ambulatory settings.
4. Primary care: Health care delivered to ambulatory patients in the physician's office or out-patient clinic.

Review of the Literature

In reviewing the literature, three categories will be presented:

- (1) the impact of the nurse practitioner on the cost of direct patient care;
- (2) consumer acceptance of the nurse practitioner as a care giver;
- (3) physician's attitudes toward the role of the nurse practitioner.

The nurse practitioner is a fairly recent addition to the manpower pool of the health care delivery system. In the early and mid 1960's, federally funded programs began to subsidize the training of nurse practitioners and physician's assistants in an attempt to alleviate the problem of a shortage of physicians.

Sultz, Henry and Carrol (1977) did a study encompassing over 200 listed nurse practitioner programs which met the following criteria:

- (1) formal curriculum offered with courses to start by January 1, 1974;
- (2) course work to provide preparation for the student which, upon completion, would enable the student to function in the expanded nurse role;
- (3) entering students would be required to be registered nurses.

The purpose of the Sultz, et al. study was to determine background and personal characteristics of those entering nurse practitioner training programs. Demographic data indicated that of the 131 identified programs, 38.2% were Pediatric Nurse Practitioner programs, 22.1% were Family Nurse Practitioner programs, 17.6% were Adult Nurse Practitioner programs, 10.7% were Maternity Nurse Practitioner programs, 8.4% were Midwifery Nurse Practitioner programs, and 3.0% were Psychiatric Nurse Practitioner programs. There were 1,001 graduates of the programs studied by Sultz, et al.

The study also revealed that the majority of nurse practitioner students were female, with a least one year of professional nursing experience and a median number of two years nursing experience prior to nurse practitioner training. Sultz and her colleagues hypothesized that early dissatisfaction with the traditional nursing role may have been the impetus for many of these nurses to seek the expanded role of the nurse practitioner.

In addition, results of this study showed that one third of the graduates surveyed worked in inner-city locations, while one-fifth settled in rural locations. Most of the graduates (63.4%) worked in

ambulatory clinical practice settings.

The Impact of the Nurse Practitioner
on the Cost of Direct Patient Care

Some studies looked at cost of care with three different areas typically identified: employment cost, cost to the patient, and manpower production (training costs).

In terms of cost effectiveness, a California survey team of O'Hara-Devereau, Dervin, Andrus, and Judson (1977) showed that Family Nurse Practitioners were cost effective in a variety of practice settings. When ninety-three practice settings, employing Family Nurse Practitioners, were reviewed, it was found that the potential gross income generated by the FNP was around \$40,000. This figure was greater than the cost of salary obligations, overhead, and mal-practice risks. According to this study, the average fee-for-service charged by the nurse practitioner was highest in the hospital setting (\$15.54) followed by solo-practice setting charges (\$15.07). Group practice settings charged \$10.85, while public health community clinic settings charged the least at \$8.85 per visit.

A group of 26 Pediatric Nurse Practitioners were studied by Yankauer, Tripp, Andrews, and Connelly (1972). These graduate Nurse Practitioners generated an average of \$2,500 each annually, over and above their salary. Spitzer (1974) estimated that the addition of two nurse practitioners to a two physician practice would generate an added 9% increase in revenue.

Visit duration and frequency of in-patient care was studied by

Lewis and Resnik (1967). While patients seen by the nurse practitioner had more frequent clinic visits, they were found to have significantly fewer in-patient care days resulting in substantially lower annual per patient cost, per year (\$98.51) as compared to \$127.24 per year.

In an exploration of costs to the patient, Merenstein, Wolfe, and Barker (1974) measured the impact of nurse practitioners in private general practice settings. Over a two-year period, the three nurse practitioners studied had become responsible for a large portion of the case load. Patient costs rose 3.3% (\$7.18 to \$7.41). Increases for patients in the group receiving predominantly physician care, experienced cost increases of 25.4% (\$9.61 compared to \$7.66). There is no documentation about factors other than man-power costs which might explain this observed difference.

A two-year study by Burnip (1976) examined the costs of care by a nurse practitioner with those of care by a physician. The calculated savings to the consumer reflected by the employment of a nurse practitioner was 17% in the San Francisco area and 36% in the Oakland area. These differences were stated to be due to the variations in visit frequency and duration.

While results of most studies indicate a cost saving when a nurse practitioner is used, a study by Spector, McGrath and Alpert (1975) disputes this and adds the dimension of quality of care as well. Their findings indicated that the nurse practitioner's care was judged to be satisfactory in dealing with 98% of old problems (i.e. problems defined by the physicians) and 85% of new problems (problems detected by the nurse practitioner). However, use of the nurse practitioner

was found not to be economically feasible, primarily because of a higher visit rate to the nurse practitioner than to the physician. Spector, et al. attributed this higher visit rate to the nurse practitioner as a high degree of insecurity on the part of the nurse practitioners which resulted in a high number of return appointments.

A study by Schultz and McGlone (1977) used an experimental design to compare the delivery of primary care by two means, the physician only versus the nurse practitioner/physician team. Effectiveness, measured by the Goal Attainment Scale, and efficiency, determined by measuring the operational use and cost of the primary and supportive health care delivery were used to compare the two groups.

A random selection of 167 elderly patients from a large, private, multi-specialty, out-patient clinic were selected to participate in a ten-month long study. These patients were classified into Ambulatory, Homebound, and Nursing Home categories. Results indicated the traditional physician-only pattern of primary care was more cost effective for the Ambulatory, chronically ill elderly (mean cost per patient \$448.00). Ambulatory patients cared for by the nurse practitioner/physician team on the average cost \$679.00 per patient. On the other hand, Homebound elderly and Nursing Home patients cared for by the nurse practitioner/physician team provided more cost effective care than by the physician only. Cost of care of the Nursing Home patient was \$5,813 for the nurse practitioner/physician team as compared to \$5,893 for the physician only group. Cost of care for the Homebound elderly was \$4,017 for the physician only and \$2,473 for the nurse practitioner/physician team.

In addition, results from this study indicated that both the cost of health care services and use of the health care services increased as the patient's condition led to greater dependency. Homebound patients cared for by the nurse practitioner/physician teams however, used fewer health services with resultant lower costs. Those nursing home patients cared for by the nurse practitioner/physician team used about the same amount of services but achieved higher levels of health care goals.

A study by Systems Services, Inc. (1977) was the only comprehensive one of all new health practitioners found in the literature. Two levels of nurse practitioners, two levels of physician's assistants, seven nurse practitioners Master's degree programs, 22 Nurse Practitioner Certificate programs, 11 Physician's Assistants programs and three Medex programs were analyzed. Findings indicated that public sources accounted for virtually all program fundings. Tuition was a significant fund source for Nurse Practitioners Master's programs and Physician's Assistant programs. In all cases, federal funds accounted for 50% of support, ranging from 54.5% for Nurse Practitioners Master's programs, to 76.2% for Adult Nurse Practitioners Certificate programs. Variations in per-graduate costs ranged from \$14,300 for Nurse Practitioners Master's graduate program to \$5,700 for certificate program graduates, reflecting program length differences.

Consumer Acceptance of the Nurse Practitioner as a Care Giver

In terms of consumer acceptance of a nurse practitioner, the literature is replete with case studies and reports. Virtually all document that the nurse practitioner is highly acceptable as a care giver (Conant,

Robertson, Kosa, & Alpert, 1971; Schoen, Erikson, Barr & Allen, 1973; Spitzer, Sackett, Silby, Roberts, Gent, Kergin, Hackett & Olynich, 1974; Levine, Orr, Sheatsley, Lohr & Brodie, 1978).

In a study by Conant, et al. (1971) conducted in Boston, two communities were matched in terms of physician availability, lack of hospital facility, and population size. The study was concerned with the degree of acceptance of the nurse practitioner undertaking a variety of tasks. The only difference between the two test groups was that of income. One was upper middle class, the other was lower/middle working class incomes. One hundred and twenty households were randomly selected. Results of this study indicated a greater degree of acceptance of the physician's use of nurse practitioners by the upper middle class community when compared with the lower middle and working class community. Additionally, the upper middle/income class respondents were more accepting of task delegation in which nurse practitioners played a subservient or dependent role relative to the physicians, i.e., the nurse practitioner being allowed to order laboratory tests only after a direct order from the physician rather than as a matter of independent judgement.

A well designed study by Chenoy (1973) looked at a rural population in central Ontario, a medically underserved area. Using a multi-item questionnaire, 1,501 individuals were interviewed. Results indicated a high degree of acceptance of the concept of the nurse practitioner as a primary care giver, especially in the area of health maintenance, home visits for the elderly and for children. On the other hand, if the patient perceived a more severe health problem, the physician was the professional chosen. The combination of nurse practitioner

and physician however, was the most acceptable alternative.

A somewhat different approach to assessing patient acceptance of the nurse practitioner was taken in a study by Lewis and Resnik (1967). Two populations chosen for specific similarities were analyzed in terms of before/after attitudes of nurse practitioner versus physician care. After a one year study period, it was found that the group assigned to the nurse practitioner exhibited several statistically significant preference shifts toward the increased utilization of the nurse practitioner based care. On the other hand, patients being cared for by physicians in the control group showed no shifts during the testing period.

A study by Shively (1975) looked at private obstetrical/gynecological patients from a middle class urban medical practice and found that 95.9% of the patients felt the examination given by the nurse practitioner was thorough, and 90% of the population was confident in the findings of the examination performed by the nurse practitioner. Only 17% of the patients sought further information from the physician. Almost every patient was aware of the fact that the physician was immediately available if needed. Eighty-percent of the patients voiced willingness to have subsequent visits with the nurse practitioner.

The findings summarized in the preceding paragraphs suggest that consumer acceptance of the nurse practitioner as a primary care giver is relatively high. It must be noted, however, that two limitations can be noted in each of the studies: (1) in the area of specific population, and (2) the settings and number of practices. Long term accep-

tance and patient behaviors are also viewed as study limitations since in almost every study, the nurse practitioner had been introduced only two years before the study actually took place.

Physicians Attitudes Toward the Concept of the Nurse Practitioner

Although there is a great deal of evidence supporting the advantages, capabilities and willingness of nurses assuming an expanded role, there is also evidence that physicians are reluctant to delegate to them (Bergman, 1971; Yankauer, et al., 1972; Schoen, 1973; Burosh, 1975).

Attitudes of physicians in Wisconsin were surveyed by Coye and Hansen (1968). The results showed 42% of those questioned to be in favor of using nurse practitioners, 30% opposed, and 18% ambivalent. The physicians in the sample tended to see nurse practitioners almost exclusively as technicians. Although they agreed to the use of nurses for performing technical skills (suturing, innoculating, lab work, etc.), there was opposition toward utilizing them in areas requiring independent judgement, such as physical examinations, anesthetics, prenatal and well-baby care. The researchers felt that the physician's self image was being an independent and conservative professional, one who would be extremely reluctant to expose his patient to injury by delegating responsibilities in matters that would involve an element of risk.

A similar study was conducted in central Virginia by McCormack, Allen, and Livers (1971). A nurse practitioner was described as someone with additional training beyond basic nursing education, who, when

supervised by a physician, could manage non-nursing functions with a certain degree of independence. Forty percent of the sample responded negatively, stating they would never hire one, 50% responded positively, and 10% were uncertain. The physicians expressed the following concerns: (1) disruption of the doctor-patient relationship; (2) loss of personal control over the patient, and (3) patient rejection of the nurse or dominance by the nurse.

Dunn and Von Ruden (1975) utilized a questionnaire to survey the attitudes of physicians toward the nurse practitioner's role in primary care. Forty-nine physicians working in a large Veterans Administration Hospital participated in this well designed study. The tool was modified from a questionnaire developed by Schoen (1973). The Schoen questionnaire had been pretested for validity and reliability. The instrument consisted of four scales. A demographic scale was utilized to elicit descriptive information in order to compare the physician group. The second addressed traditional nursing functions versus nurse practitioner functions as commonly cited in the literature. The third scale was a set of 20 questions designed to determine physician attitudes toward the nurse practitioner role. The fourth scale contained a set of eight functions which the respondents were asked to rank according to which activities they would be most willing to delegate to the nurse practitioner.

Results of the Dunn and Von Ruden study indicated that the physicians in their study accepted the concept of the nurse practitioner, agreed that the utilization of the nurse practitioner would have an impact upon

the quality of health care delivery, and reduce cost of care to the patient. In addition, the physicians felt the nurse practitioners were accepted as care givers by the patient.

In terms of the functions that physicians were most willing to delegate to the nurse, results showed that traditional nursing functions, e.g., patient teaching and counseling, already an integral part of nursing, were the most often delegated functions, while diagnosing, modifying or adjusting medications, ordering or interpreting diagnostic laboratory or radiological tests were areas where physicians were least willing to delegate responsibility to the nurse. Physicians did see the nurse practitioner as functioning well in the role of managing patients with chronic illness, taking histories and doing physical examinations. Overall the study showed that while physicians accepted the concept of the nurse practitioner, they were reluctant to delegate functions to the nurse practitioner that require evaluation and judgment.

Limitations of the Dunn and Von Ruden study include the small sample size and lack of randomization techniques which limit generalizations to a larger physician population. Another limitation was that 56% of the physicians had had prior work experience with nurse practitioners that could have influenced their attitudes towards and perceptions of the nurse practitioner.

A study of pediatrician's attitudes toward the concept of the Pediatric Nurse Practitioner was done by Holzman, Weston, and Jeanes (1978). The purpose of the study was to validate the reports and feelings that Pediatric Nurse Practitioners were not being well accepted by pediatricians in South Carolina.

All pediatricians registered with the South Carolina Pediatric Society were surveyed. A response rate of 50% (85 completed and returned questionnaires) was attained from a questionnaire instrument with 47 items. Sixteen items inquired about practice settings, 2 items requested information on reasons for employing/not employing nurse practitioners, and 29 attitude statements concerned the competency of the Pediatric Nurse Practitioner. Of prime importance were the attitudes of the physicians toward nurse practitioner care of the well and ill child.

Results indicated that the pediatricians were the most comfortable with the Pediatric Nurse Practitioner managing aspects of well child care, had some comfort with history taking and patient education and were least comfortable with the traditional physician responsibility of physical examination, diagnosis and medical management.

Of the 85 respondents, fifteen pediatricians who did employ nurse practitioners were found to have evaluated the Pediatric Nurse Practitioners more positively than those 70 pediatricians who did not employ Pediatric Nurse Practitioners. Limitations of the study include the small sample, but results indicated that (1) work experience with nurse practitioners was associated with greater willingness to delegate responsibility, and (2) at least two out of every five pediatricians in South Carolina did not view the Pediatric Nurse Practitioner as a viable member of the health care delivery system.

Another study utilizing a questionnaire was conducted by Pinchoff (1978) to survey the attitudes of 1,914 New York state physicians' atti-

tudes toward the nurse practitioner. A total of 41.1% returned questionnaires were analyzed in terms of physician willingness to hire nurse practitioners. Results indicated 29% would be willing to hire a nurse practitioner, 26% were uncertain, and 45% were negative. Limitations included the possibility that physicians' attitudinal receptivity to the hiring of a nurse practitioner could not necessarily be translated into behavior which might in fact lead to overstatement of employment potential.

Attempts to define the role of the nurse practitioner as a health care provider have resulted in discrepancies and disagreement on the part of the physician as to which functions are acceptable role behavior for the nurse practitioner. What is needed are roles that are defined by patient oriented functions, rather than traditionally professional images to achieve a collegial relationship between the physician and the nurse practitioner through joint practices.

Summary

There are large numbers of the American population who are unable to obtain adequate medical care. Although the shortage of physicians is indeed part of the problem, the poor distribution of available health care personnel is a more important factor. Many new health care roles have been created in attempts to alleviate the problem, the best suited of which appears to be the nurse.

Although the general public has accepted the nurse in the expanded role and the nurse has demonstrated the ability to assume this role,

physicians are reluctant to delegate added responsibility to the nurse. The difficulty seems to lie with a conflict between traditional roles and practices and modern innovations.

Purpose of the Study

The purpose of this study is to assess the attitudes of a random selection of physicians, currently licensed to practice in the State of Oregon, toward the concept of the nurse practitioner. Three hypotheses have been generated. They are:

1. Physicians graduating from medical school after 1965 will be more accepting of the concept of the nurse practitioner than physicians graduating before 1965.
2. Solo practitioners will be more willing to delegate responsibility to the nurse practitioner than physicians in multi-specialty practice.
3. Physicians practicing in an urban area will be more accepting of the concept of the nurse practitioner than physicians practicing in a rural setting.

CHAPTER II

METHODOLOGY

The purpose of this study was to survey physician's attitudes toward the concept of the nurse practitioner. Since this study dealt with physician's attitudes, the survey approach was selected as the research design. This approach, which is a non-experimental type of research, was used for three purposes: (1) to obtain demographic data, (2) to determine attitudes held by physicians toward the nurse practitioner and the expanded role of the nurse, and (3) to identify those health care responsibilities the physician would be willing to delegate to the nurse practitioner.

Participants

A directory listing all physicians registered for active practice with the Board of Medical Examiners for the State of Oregon for the year 1978 was obtained from the Board of Medical Examiners. From an alphabetized, numbered population of 4,644 physicians, 300 participants (7% of the total) were randomly selected to insure heterogeneity of the population. The table of random numbers was used to extend validity of the study.

Instrument

Since there was no available standardized instrument to survey physicians' attitudes toward the concept of the nurse practitioner, the investigator developed one. A questionnaire, based on both a tho-

rough review of the literature and the adaption of other researcher's questionnaires relating to this subject was developed. (See Appendix C for the source(s) of the instrument items).

A self-administered questionnaire was chosen because it is a relatively simple method for obtaining information from a large, cross-section of population, it offers the respondent a large degree of anonymity, and it decreases interview bias. The limitations of the use of a questionnaire include: (1) the potential problem with reliability and validity, (2) misinterpretation of questions, and (3) inappropriate responses/or forced-choice responses. Strengths of the questionnaire were that the items were designed to be non-offensive, to elicit honest opinions, and to take no longer than 20 minutes to complete. (See Appendix D for complete questionnaire).

The questionnaire included a definition of the nurse practitioner, 14 forced-choice attitude statements, and a demographic section to provide the investigator with information on the characteristics of the sample. The definition of the nurse practitioner was taken from the Oregon Nurse Practice Act (ORS 678) and is as follows..."A registered nurse who is prepared to provide management of mental and physical health care in the applicable specialty area...in collaboration with physicians' and other health care professionals." The 14 attitude statements were designed to measure physician's attitudes toward the concept of the nurse practitioner. Each question incorporated into the design of the instrument was assigned to one of four general categories.

The first category consisted of those items dealing with the health

care delivery system and the rationale for expanding the role of nursing (Items 1, 2, 5). Response to these items indicated the degree to which the participating physicians in the study felt that the nurse practitioner would or would not contribute to a higher quality of health care delivery by freeing the physician to spend more time with patients having more complex needs.

The second category of items included those dealing with participant's reservations concerning the nurse's ability to take on the expanded role in the health care delivery system (Items 3, 4, 7, 8). These reservations appear frequently in the literature which discusses physician's attitudes toward the concept of the nurse practitioner. (Lewis & Resnik, 1967; Richardson, 1971; Hoff, 1971; Dunn & Von Ruden, 1975; Lawrence, 1977; Greenfield, 1978; Bullough, 1978).

The third category consisted of those items dealing with the unique contributions that are stressed in nursing education (Items 6,9) and are supported by documented studies (Schoen, Erickson, Barr & Allen, 1973; Spitzer, Sacket, Sibley, Roberts, Gent, Kergin, Hackett & Olynich, 1974; Dunn et al. 1975; Ambrose, 1978; Holzman, Weston & Jeanes, 1978; Simborg, 1978; Storms, 1978).

Covered in the final category were items related to skills the nurse practitioner now performs which are traditionally within the physician's domain, and the willingness of the physician to delegate this responsibility (Items, 10, 11, 12, 13, 14). (Coy & Hansen, 1968; Levin, 1971; Dunn et al. 1975; Lawrence, 1977; Schoen et al. 1978; Sullivan, 1978).

Validity

To ascertain content validity, the completed questionnaire was critically examined by a panel of nurses. The panel agreed 90% of the time and made recommendations regarding the content of some of the items. They considered, for example, problems related to poorly worded items, ambiguous answers, and the appropriateness of alternatives offered.

Reliability

The questionnaire in its edited form was then pretested with a group of 23 local physicians. The physicians participating in the pilot study were assured of anonymity and confidentiality. Each participant was given freedom to make comments regarding clarity of the questions and whether the given alternatives were appropriate. They were asked to comment on the instructions and length of the instrument. Reliability co-efficient was established by the comparison between the total scale score and the criterion item. The pretesting of the questionnaire helped both to eliminate ambiguity and problems concerning misinterpretation of questions, and to establish the reliability of the final questionnaire.

As a result of the pretest, several changes were made on the existing questions before the questionnaire was administered. In addition, a final question, "would you consider hiring a nurse practitioner?" was included on the demographic data portion. The response to this final question served as the criterion for acceptance of the concept of the nurse practitioner. Total scale score was correlated with the

criterion item using Kendall's Tau. Correlation coefficient $r = .53$ at $p < .0000$ indicating that the higher the total score, the more likelihood the respondent would indeed hire a nurse practitioner.

Demographic information was gathered on the last section of the questionnaire in order to determine characteristics of the sample. Informational requests included age, sex, recency of graduation from medical school and specialty area, i.e. General Practice, Family Practice, OB-Gyn, Anesthesiology, Neurology, Internal Medicine, General Surgery, Psychiatry, Orthopedics, Pediatrics, ENT, Cardiology, Dermatology, and other. Location of practice (urban or rural) and type of practice (solo, partnership, group of institutional teaching/staff position) were also requested. The following two questions completed this section: (1) Have you ever had any experience with a nurse that fits the description of a nurse practitioner, and (2) Would you consider hiring a nurse practitioner? Question (1) asking for information on previous experience with a nurse fitting the description of a nurse practitioner was included because the literature indicated a positive relationship between previous experience with a nurse practitioner and the physician's acceptance of the concept of the nurse practitioner as well as subsequent willingness to delegate responsibility to the nurse practitioner (Coy et al. 1969; Goldsmith, 1971; Linn, 1972; Schoen et al. 1973; Dunn et al. 1975; Pinchoff, 1978)

Design

This study was descriptive, comparative and non-experiential,

using the survey approach. Independent variables (year of graduation from medical school, type of practice, and location of practice) derived from the demographic data portion of the survey were related to the dependent variables (the physician's attitude toward to acceptance of the nurse practitioner and their willingness to delegate responsibility to the nurse practitioner).

Procedure

After selection of the sample population, a packet was sent to each of the 300 survey participants. Each packet contained a cover letter stating the purpose of the study, a consent form with assurance of confidentiality, a copy of the questionnaire with appropriate instructions, and a self-addressed return envelope. (See Appendix C).

When completed questionnaires and consent forms were returned, they were placed face down in separate boxes with no attempt on the part of the investigator to match the respondent's name on the consent form with his/her name of the original address mailing list by means of a color coded notation indicating return of questionnaire. This process was used to facilitate follow-up mailing procedure.

Thirty days after the original mailing, follow-up letters were sent to those physicians who had not returned the questionnaire, urging them to complete and return the questionnaire before the November 15, 1979 deadline. Questionnaires returned after that date were not included in the study.

Analysis of the Data

After compiling the responses on questionnaires, descriptive statistics were computed. Tabulations of the results of the study included scoring each questionnaire and determining the number and percent of the five possible responses to each item.

The responses to the fourteen items were scored using a Likert-type scale. Each item was assigned a number from 1 - 5, with 1 indicating the least favorable attitude toward the concept of the nurse practitioner and 5 indicating the most favorable attitude.

The highest possible score on the questionnaire would be 70, indicating the most favorable attitude toward a nurse practitioner selected on every item. The lowest possible score would be 14, indicating the least favorable attitude toward the nurse practitioner selected on every item. Kendall's Tau was used to help determine the validity of the total score.

The first major statistical maneuver was to compute percentage characteristics of the sample from each of the items listed on the demographic data sheet. Computation of percentages for comparison is very appropriate in this study as the sample population is composed of sub-groups by specialty, age, sex, year of graduation from medical school, type of practice (solo vs. group, partnership, institutional teaching), and location of practice (urban vs. rural). In addition, the sub-groups are of unequal size.

Percentages for frequency and overall selection patterns were computed for responses to each of the fourteen items. (See Appendix E).

As previously stated, each of the fourteen items on the questionnaire was assigned to one of four broad categories which were then statistically analyzed by means of percentage scores for frequency and overall physician selection patterns. Category I - willingness of physician to accept nurse practitioners (Items, 1, 2, 5). Category II - perceptions of the nurse practitioner's ability to take on an expanded role in the health care delivery system, (Items 3, 4, 7, 8). Category III - physician's perceptions of nurses psychosocial skills, (Items, 6, 9). Category IV - the willingness of physicians to delegate the physicians role of traditionally medical functions, (Items 10, 11, 12, 13, 14).

The Chi square was used to determine population differences in patterns of responses to questions regarding physicians' attitudes toward the nurse practitioner, year of graduation from medical school, type of practice, and location of practice. Chi square is commonly used to examine relationships between variables. When there was a significant statistical difference in selection response patterns, then the type and direction of the difference was shown using the percentage data. Statistical range of significance was set at .10 ($p = .10$).

Percentage scores were tabulated on the two questions included on the demographic data sheet to determine: (1) the number of physicians in the sample population having had previous experience with a person fitting the description of a nurse practitioner, and (2) physician's willingness to hire a nurse practitioner.

CHAPTER III

RESULTS AND DISCUSSION

Description of the Data

Overall, the physicians in this study responded favorably to the concept of the nurse practitioner. In order to facilitate clarity, the results of the study will be discussed as they are presented. The characteristics of the sample population will be discussed first. The fourteen items of the questionnaire will then be presented, first in terms of percentages and frequency responses, and then in terms of the separation into four categories. Finally, three hypotheses tested in this study will be discussed.

A sample of three hundred physicians was randomly selected from an alphabetized, numbered list of all physicians licensed to practice in the State of Oregon by the Board of Medical Examiners. Of the three hundred questionnaires sent out in a one-time mailing, a total of 151 (50%) of the questionnaires were returned before the deadline. Of those returned, four respondents elected not to participate in the study on the grounds that they felt the nurse practitioner concept did not apply to them or to their practice. A total of 147 completed questionnaires were returned and used for this study.

Characteristics of the Sample

The demographic information obtained, as shown by Table 1, indicates that the sample was made up of 93% males and 7% females. The age range of the respondents was from 30 to 71 years with a mean age of 46 years.

Table 1
 Characteristics of the Subjects
 Related to Sex and Age

Characteristic	Number	Percentage
Sex		
Male	137	93.2%
Female	10	6.8%
	<hr style="width: 50px; margin: 0 auto;"/> 147	
Age		
25-34	22	15.0%
35-44	55	37.4%
45-54	31	21.1%
55-64	30	20.4%
65-Over	9	6.1%
	<hr style="width: 50px; margin: 0 auto;"/> 147	

Type of practice, year of graduation from medical school and location of practice depicted on Table 2 indicate that the type of practice was fairly evenly divided between solo practice, partnership, and group practice settings. Institutional or staff positions made up 6% of the sample. Fifty-five percent of the participants graduated from medical school before 1965 and forty-four percent graduated from medical school after 1965. The sample was predominately urban physicians with four physicians who reported practicing in both rural and urban communities; therefore, their responses were tabulated under both headings.

Table 2

Characteristics of the Subjects Related to Type of Practice,
Location of Practice and Year of Graduation from Medical School

Characteristic	Number	Percentage
Type of Practice		
Solo	50	34.2%
Partnership	44	30.1%
Group	43	29.3%
Institutional Teaching	9	6.2%
	<hr/> 146	
Location of Practice		
Urban	114	80.3%
Rural	28	19.7%
	<hr/> 144*	
Year of Graduation from Medical School		
Before 1965	79	55.2%
After 1965	66	44.8%
	<hr/> 145	

*Four physicians cross-filled both groups.

As can be seen in Table 3, the specialty area of practice with the greatest representation in the sample was Internal Medicine, followed closely by General Practice and Family Practice. Ob-Gyn, General Surgery, Orthopedics, Pediatrics and Psychiatry were closely grouped. The remainder of the practice areas were Anesthesiology, Neurology, ENT, Cardiology, Dermatology, and Urology.

Table 3
 Characteristics of the Subjects
 Relating to Specialty Area of Practice

Characteristic	Number	Percentage
Specialty Area		
Internal Medicine	19	12.9%
General Practice	18	12.2%
Family Practice	15	10.2%
General Surgery	11	7.5%
OB-Gyn	10	6.8%
Orthopedics	10	6.8%
Pediatrics	9	6.1%
Psychiatry	7	4.8%
Anesthesiology	3	2.0%
Neurology	3	2.0%
ENT	3	2.0%
Cardiology	3	2.0%
Dermatology	3	2.0%
Urology	3	2.0%
Other*	29	19.7%
	146	

*Other specialty areas with less than two respondents each.

Item Analysis

The percentage responses on the fourteen-item questionnaire indicated that the physicians in this sample responded in a slightly more favorable way to the concept of the nurse practitioner. The scores reveal a wide range of attitudes. (See Appendix E).

The items on the questionnaire were divided into four separate categories for the purpose of analysis. See Table 4 for summary statistics for the four categories.

Table 4
Summary Statistics for the Four Categories

Category	Favorable	Unfavorable	Neutral	\bar{X}	sd
I	51.3	3.5	45.2	11.3	2.202
II	42.9	14.9	42.2	13.4	3.272
III	14.0	19.6	66.5	5.9	1.517
IV	29.9	57.5	12.5	16.6	4.141

Mean of scale score = 47.5

The first category provided data about physician's attitudes toward the concept of utilizing the nurse practitioner as a measure to increase the effectiveness of the health care delivery system. As seen in Table 5, the physicians in this sample generally felt the nurse practitioner contributes to a high quality of health care delivery by freeing physicians to spend more time with patient whose needs are more complex.

Table 5
 Category I: Utilization of the Nurse Practitioner to
 Increase the Effectiveness of the Health Care Delivery System

Item	Favorable	Unfavorable	No Opinion
Item 1	67.3%	10.4%	22.2%
Item 2	69.6%	8.3%	22.1%
Item 3	68.9%	18.3%	13.4%

Results of the study indicate that 69% of the physicians in the sample agreed that the nurse has advantages over other non-physician personnel in taking on the expanded role (Item 2). Noting the high percentage of "no opinion" responses as shown in Table 5, the investigator could only hypothesize that the physicians in this sample are either unaware of the nurse practitioner functioning in the expanded role or have little interest in this aspect of the nurses' role.

Category II, as shown in Table 6, indicated that the majority of the physicians felt that nurses had the ability to take on the expanded role. One reservation a great number of physicians expressed was that patients would not be as receptive to (medical) advice given by a nurse as they would be to advice given by a physician (Item 7). Research has indicated, however, that nurse practitioners are well accepted by patients (Dunn et al., 1975; Ambrose, 1977; Storms, 1978; Simborg, 1978; Levine, 1978). As with Category I, this category also yielded a large percentage of "no opinion" responses. The investigator could only hypothesize that the physicians in the sample felt a reluctance to state how another person might feel. Another explanation for the high percentage of unfavorable or uncertain responses might relate to item ambiguity.

Table 6
 Category II: The Nurse Practitioner's Ability
 To Take on the Expanded Role

Item	Favorable	Unfavorable	No Opinion
Item 3	67.4%	9.0%	23.6%
Item 4	48.6%	38.1%	13.4%
Item 7	36.8%	33.7%	19.4%
Item 8	68.0%	20.6%	11.8%

Category III, shown in Table 7, did not indicate that the physicians perceive the nurse's expertise in psycho-social areas. These unique contributions are stressed in nursing education and are supported by documented studies (Dunn et al. 1975; Theis, 1976; Ambrose, 1977; Lawrence, Defriese, Putnam, Picard, Cye & Whiteside, 1977; Simborg, 1978; Storms, 1978). Results indicated that while 51% of the physicians in the sample agree nurses have this special expertise, the idea that patients feel more freedom to express personal concerns to a nurse (Item 9) was widely rejected by the respondents with 47% disagreeing and 31% expressing "no opinion". The investigator could only hypothesize that the physicians in the sample were reluctant to or uncertain about taking a stand on how they (the physician) should comment regarding the degree of freedom someone else (the patient) feels in expressing personal concerns to a nurse rather than to a physician.

Table 7
 Category III: The Nurse Having Special
 Contributions to Make to Health Care

Item	Favorable	Unfavorable	No Opinion
Item 6	51.0%	26.9%	22.1%
Item 9	22.9%	46.5%	30.6%

Category IV, as shown in Table 8, demonstrates the physician's willingness to delegate traditional medical functions. Participants generally expressed confidence in the nurse practitioner's abilities to act on his/her own judgement in screening patients in the emergency room setting (Item 10), and in administering emergency medications covered by standing orders (Item 11). These two items were the most widely favored items on the questionnaire. These results were as expected, since nurses have been functioning competently in both role for some time and physicians generally have confidence in the nurses judgement and expertise in these areas (Coy et al., 1968; McCormack et al., 1971; O'Dell, 1974; Dunn et al., 1975; Holzman et al., 1978; Sullivan et al., 1978).

Table 8
 Category IV: The Nurse Practitioner Being Capable
 of Assuming Traditional Physician Functions

Item	Favorable	Unfavorable	No Opinion
Item 10	75.2%	13.7%	11.0%
Item 11	77.8%	13.2%	9.9%
Item 12	42.1%	38.6%	21.4%
Item 13	29.8%	50.7%	19.4%
Item 14	60.4%	23.0%	16.5%

The physicians in this study also responded positively to the concept of the nurse practitioner's capabilities in treating chronically ill patients over a long period of time (Item 14). This finding concurs with the results of other well documented studies (Coy et al. 1968; O'Dell, 1974; Dunn et al. 1975; Shively, 1975; Holzman et al. 1978).

A source of negative response was found concerning the nurse practitioner and physical examinations. A large number of physicians did not agree that physical examinations performed by the nurse practitioner would be as complete as those performed by a physician (Item 13). Physician response to Item 12, regarding the nurse practitioner's ability to assess the necessity for laboratory work and interpreting the results to determine the need for physician intervention, was not overwhelmingly positive. This type of response would seem to indicate either reluctance to delegate responsibility or some difficulty with the wording of the items.

The response pattern regarding the nurse practitioner's ability to do physical examinations and to order and interpret laboratory and radiological tests is consistent with Dunn's (1975) study. In this study, physicians rank ordered these tasks very low when ranking tasks they would be willing to delegate to the nurse practitioner.

In response to the question, "Have you ever had any experience with a person fitting the description of a nursing practitioner?" an overwhelming 86% reported having had contact with such a person.

On the question of willingness to hire a nurse practitioner, 71 (49%) replied in the affirmative, 58 respondents (40%) replied in the negative and 15 respondents (10%) reported they would hire with limits. Unsolicited comments on the returned questionnaire included statements such as "would not apply to my practice", "practice limited in size, so hiring a nurse practitioner would not be cost effective", "no need for such a person at this time", and "I already employ three nurse practitioners".

Chi square was used to determine if there was any significant difference between response patterns on individual questionnaire items and the four categories in terms of year of graduation from medical school, type of practice (solo vs group, partnership, institutional teaching) or location of practice (urban vs. rural). When Chi square was applied to each of the fourteen individual items on the questionnaire, some interesting results appeared.

Four of the items demonstrated significant differences in responses, therefore, they will be discussed in detail. Item 1, relating to the

utilization of the nurse practitioner to extend the overall effectiveness of the physician by allowing him more time with patients having complex needs revealed a significant difference ($p = <.05$) between urban and rural physicians (Table 9). The urban physicians agreed more strongly with this item than did the rural physicians. Additionally, an extremely high percentage of the rural physicians voiced "no opinion" on this test item. This "no opinion" response could be the result of less utilization of the nurse practitioner by physicians practicing in the rural area.

Table 9
Chi Square Analysis of Item 1
Relating to Location of Practice

Item 1 *	Location of Practice	
	Urban	Rural
Strongly Disagree	2.7%	0.0%
Disagree	9.8%	3.7%
No Opinion	19.6%	37.0%
Agree	44.6%	55.6%
Strongly Agree	23.2%	3.7%

* $p = <.05$

The second item showing a significant difference in physician selection response was Item 10 which refers to the nurse practitioner in an emergency room or clinic being capable of screening patients to determine the necessity of a physician's consultation (Table 10). Results of Chi square analysis showed a significant difference ($p = <.10$) in physician response patterns according to year of graduation

from medical school. These results indicated that 72.8% of those physicians graduating before 1965 agreed with the nurse practitioner's capability in this area. A slightly higher (76.9%) positive response was obtained by physicians graduating after 1965. However, the significant difference became apparent when the negative responses were computed. Those physicians graduating before 1965 responded with a much greater disagreement to this concept than did the post - 1965 graduates (18.8% as opposed to 7.7% negative responses). This would seem to indicate the existence of a small but solid group of physicians graduating before 1965 who reject the concept of the nurse practitioner. Since the innovation of the nurse practitioner had its beginning in the mid 1960's, the lack of exposure to the nurse practitioner might account for the negative response pattern in the older physicians. The negative response pattern as indicated in this study was consistent with results of other studies (Goldsmith, 1971; Schoen et al. 1973; Dunn et al. 1975; Lawrence, 1977).

Table 10
Chi Square Analysis of Item 10
Relating to Recency of Graduation from Medical School

Item 10 *	Graduation from Medical School Before 1965	Graduation from Medical School After 1965
Strongly Disagree	6.3%	0.0%
Disagree	12.5%	7.7%
No Opinion	7.5%	15.4%
Agree	56.3%	52.3%
Strongly Agree	17.5%	24.6%

* p = < .10

Results of the Chi square test when applied to Item 10 (Table 11) also indicated a significant difference ($p = <.05$) in response patterns between locations of practice (urban vs. rural). The rural physicians were more negative (18.5% toward nurse practitioners than the urban physicians 12.4%). This response pattern is consistent with the response patterns on Item 1. On one hand, there appeared to be acceptance of the concept with 75.5% positive response from rural physicians and a 73.4% positive response from the urban physicians. On the other hand, as in Item 1, there appeared to be a group of rural physicians not accepting the concept. Additionally, it was interesting to note that all the rural physicians responded either favorably or unfavorably to the concept of the nurse practitioner, there were no "no opinion" responses.

Table 11
Chi Square Analysis of Item 10
Relating to Location of Practice

Item 10 *	Physicians Practicing in Urban Areas	Physicians Practicing in Rural Areas
Strongly Disagree	2.7%	7.4%
Disagree	9.7%	11.1%
No Opinion	14.2%	0.0%
Agree	52.2%	74.1%
Strongly Agree	21.2%	7.4%

* $p = <.05$

Chi square analysis of Item 13, indicated a significant difference in response patterns ($p = <.10$) in terms of year of graduation from medical school. There was an overall rejection of this concept with a 61% negative response. It was anticipated that physicians graduating before 1965 would be more negative toward the concept of the nurse practitioner than those graduating after 1965. This negative response was consistent with other studies in this area (Goldsmith, 1971; Shoen et al. 1973; Dunn et al. 1975; Lawrence et al. 1977). Note in Table 12, that 39% of the younger physicians responded favorably.

Table 12

Chi Square Analysis of Item 13
Relating to Recency of Graduation from Medical School

Item 13 *	Physicians Graduating Before 1965	Physicians Graduating After 1965
Strongly Disagree	28.8%	10.9%
Disagree	32.5%	26.6%
No Opinion	16.3%	23.4%
Agree	15.0%	31.3%
Strongly Agree	7.5%	7.8%
	100%	100%

* $p = <.10$

As can be seen in Table 13, Item 13 also revealed a significant difference ($p = <.05$) when type of practice (solo vs. group, partnership, institutional teaching) was considered. Overall response patterns indicated a 50% rejection of the concept by all responding physicians, however, there was a tendency for the solo practitioners to be slightly more negative (58%) as opposed to partnership (40%), group (50%), and

institutional teaching (57%). The results of solo practitioner's response patterns are consistent with other studies (Goldsmith, 1971; Yankauer, 1972; Ford, 1977; Pinchoff, 1978). These previous results indicated solo practitioners were the least receptive, with group and partnership being more receptive to the concept of the nurse practitioner. The high percentage of rejection of the concept by institutional/teaching physicians was not consistent with other studies (Lawrence et al. 1977; Pinchoff et al. 1978). In each of these studies, results indicated that the physicians employed in institutional teaching settings were more accepting of the concept than those physicians in this sample population.

Table 13
Chi Square Analysis
Relating to Type of Practice

Item *	Solo	Partnership	Group	Institutional Teaching
Strongly Disagree	34.0%	11.4%	16.7%	0.0%
Disagree	24.0%	29.5%	33.3%	57.1%
No Opinion	18.0%	25.0%	19.0%	0.0%
Agree	22.0%	27.3%	14.3%	42.9%
Strongly Agree	2.0%	6.8%	16.7%	0.0%
	100%	100%	100%	100%

* $p = < .05$

The Chi square analysis was applied to the four broad categories developed by the investigator from the fourteen individual questionnaire items to further test the three hypotheses. Chi square analysis showed no

statistically significant differences between category responses and year of graduation from medical school, type of practice or location of practice. As a result of this testing, the three hypotheses were not accepted. There was no difference between rural and urban physician's attitudes. For example, the overall percentage of responses on the four categories was basically the same whether the physician's practice was located in the urban area or rural area. This also applied to type of practice and year of graduation from medical school.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

Summary

The problem addressed in this study was that of physician acceptance of the concept of the nurse practitioner. A review of the literature supported the contention that there is a demonstrated need for professionals to fill primary care health needs. The literature further contends that nurse practitioners have been well prepared by their generic education and advanced preparation to fill this role. Although studies indicate the nurse has demonstrated the ability to assume an expanded role and that patient acceptance of the nurse practitioner is high, physicians are reluctant to delegate added responsibility to the nurse practitioner. The difficulty seems to lie with the conflict between traditional roles and practices on the one hand, and modern innovations on the other.

A randomly selected sample population of 300 physicians currently licensed to practice in the State of Oregon was surveyed to determine their attitudes toward the concept of the nurse practitioner. A fourteen item questionnaire was administered, scored, and analyzed statistically, using frequencies, percentages, and Chi square.

Percentage scores of the fourteen individual questionnaire items were compared and results indicate that physicians in the sample population of this study were generally positive toward the concept of the nurse practitioner.

The fourteen items of the questionnaire were sub-divided into four categories for analysis. The first category addressed the current health care delivery system and the rationale for expanding the role of nursing. The responses to the first broad category indicate that the physicians in this sample generally feel the nurse practitioner contributes to a higher quality of care. A total of 67% of those surveyed responded positively, indicating acceptance of the concept that the nurse practitioner has advantages over other non-physician personnel in taking on the expanded role.

The second category included those questionnaire items dealing with the nurse's ability to take on the expanded role in the health care delivery system. The results in this category were positive, with 55.2% of the physicians responding favorably. The respondents indicated, however, that patients would be less receptive to medical advice given by a nurse than by a physician. Although results of other studies have indicated nurse practitioners are well accepted by patients, responses suggest that the physicians in this sample have either not accepted or are unaware of this evidence.

The third category consisted of those questionnaire items dealing with the unique contributions of the nurse practitioner to patient care. The physicians in this study did not indicate general acceptance of the nurse's expertise in the area of psychosocial needs of the patients. Results show 46.5% of the physicians rejected the idea that patients feel more freedom to express personal concerns to a nurse than to a physician.

The final category of items were those dealing with skills of the nurse practitioner and the physician's willingness to delegate traditional physician responsibilities to the nurse practitioner. The physicians in this study generally expressed confidence in the nurse practitioner's abilities to act on their own judgement in screening patients in emergency room settings, in administering emergency medications and in treating chronically ill patients. However, a large number of physicians (50.7%) did not agree that physical examinations performed by a nurse practitioner would be as complete as physical examinations performed by a physician. With this exception, the physicians in the study did indicate a willingness to delegate some traditional physician functions requiring judgement and decision-making to the nurse practitioner.

Three hypotheses were tested by this study. They were:

1. Physicians graduating from medical school after 1965 will be more accepting of the concept of the nurse practitioner than physicians graduating before 1965.
2. Solo practitioners will be more willing to delegate responsibilities to the nurse practitioner than physicians in a multi-specialty practice.
3. Physicians practicing in an urban area will be more accepting of the concept of the nurse practitioner than physicians practicing in a rural area.

Chi square analyses showed no statistically significant difference in responses to the questionnaire items and year of graduation from medical

school, type of practice (solo vs. group, partnership, institutional teaching, and location of practice (urban vs. rural). Therefore, the three hypotheses were rejected. There was no significant difference between rural and urban physicians attitudes toward the concept of the nurse practitioner, i.e., the overall percentage of responses to the four broad categories was basically the same whether the physician was located in an urban or a rural area. This also applied to type of practice and year of graduation from medical school.

Demographic data revealed that the majority of the respondents (86%) had experienced previous exposure to a person fitting the description of a nurse practitioner and that 49% of the respondents would consider hiring a nurse practitioner.

Conclusions

In reviewing the results of the study, it must be stated that the study is not representative of the attitudes of all physicians. Random selection of the sample does aid in the generalization of the results, however, the small number of respondents (147) may limit this generalization. The results can be taken as an indication of physician attitudes toward the concept of the nurse practitioner in Oregon.

With regard to the concept of the nurse practitioner offering a partial solution to the health care delivery crisis, respondents demonstrated overwhelming agreement showing this area to be the least controversial of the four. Few can deny the problem of the health care delivery crisis. In the same fashion, few would hold negative feelings towards

a reasonable plan for alleviating the problem.

In the area of accepting the nurse practitioner's ability to accept the expanded role, more than half of the physicians responded favorably. This suggests that physicians are generally willing to accept the nurse with additional education in an expanded role.

The area in which the most ambivalent attitudes were found involved the nurse's psychosocial expertise and the nurse's unique contribution to the delivery of health care. One-third of the responses were negative and nearly another one-third expressed "no opinion". These negative results indicated that physicians either do not accept the nurse's special ability in the area of psychosocial care or do not feel that this ability is very important to the delivery of health care. Since physicians control the health care delivery system, unless they realize the nurse's ability, the nurse practitioner position will not be utilized to its fullest potential. This is indeed an area in which further study is indicated.

Finally, the responses toward the nurse practitioner assuming traditionally physician functions were, for the most part, favorable. The one exception to this was the nurse practitioner being capable of performing physical examinations which are as thorough as those performed by physicians. Perhaps this traditional function was too much a part of the physician's role to allow it to slip from their sphere of influence. Another explanation could be found in the fact that this item put the nurse practitioner on an equal plane with the physician, a concept which may be entirely too threatening to the physician.

In conclusion, the study indicates generally positive attitudes toward the concept of the nurse practitioner. There is indication, how-

ever, that the nurse practitioner's role and abilities must be more clearly defined and accepted if the nurse practitioner can be utilized to his or her fullest potential..

Recommendations for Further Study

1. Survey attitudes of nurses currently practicing in the State of Oregon for comparison of their attitudes to those of the physicians responding to this study.
2. Examine and identify organizational and setting variables that influence the level and scope of nurse practitioner care.
3. Examine the content of nurse practitioner care in different settings to determine if the nurse practitioner's care provides a different patient outcome than that of the physician.
4. Support shared studies in common course content by medical and nursing students to create the opportunity for development of collegial relationships.

REFERENCES

REFERENCES

- Ambrose, D.M. Physicians and nurses rank importance of nursing activities. Hospitals, Journal of American Hospital Association, 1977, 51, 115-118.
- American Medical Association Statement. Physicians guidelines for delegation of duties and functions to nurses. Wisconsin Medical Journal, 1972, 71, 494-501.
- Bergman, A. Physician's assistants belong in the nursing profession. American Journal of Nursing, 1971, 71, 975-81.
- Burkett, G., Parker-Harris, M., Kuhn, J., & Escovity, G.H. A comparison study of physicians' and nurses' conceptions of the role of the nurse practitioner. American Journal of Public Health, 1978, 60 (11), 1090-1096.
- Burnip, R. Well child care by pediatric nurse practitioners in a large group practice. American Journal of Diseases in Children, 1976, 130, 51-55.
- Burosh, P. Physicians attitudes toward nurse-midwives. Nursing Outlook, 1975, 23, 453-456.
- Chenoy, N., Spitzer, W., & Anderson, G. Nurse practitioners in primary care II. Prior attitudes of a rural population. Canadian Medical Association Journal, 1973, 108, 998-1003.
- Conat, L., Robertson, L.S., Kosa, J., Alpert, J.J. Anticipated patient acceptance of new nursing roles and physician assistants. American Journal of Diseases in Children, 1971, 22 202-205.
- Coye, R. & Hanson, M. The doctors assistant - a survey of physician's expectations. Journal of the American Medical Association, 1968, 209, 529-533.
- Counte, M.A. & Kimberly, J.R. Organizational innovation in a professionally dominated system: Responses of physicians to a new program in medical education. Journal of Health and Social Behavior, 1974, 15, 188-198.
- Dunn, M.G. & Von Ruden, J. A study of physicians' attitudes toward the utilization of nurse practitioners in primary care settings. Military Medicine, 1975, 417-420.
- Egeberg, B.L. A survey of attitudes of physicians on proper use of physician's assistants. Health Service Reports, 1972, 87, 467-472.

- Fein, R. Doctors shortage: An economic diagnosis. New Health Practitioners, 1975, 1, 168-179.
- Ford, A. Two New Health Professions: The Physician's Assistant and the Nurse Practitioner. Office of Manpower Planning, Department of Community Affairs, State of Florida, Tallahassee, 1977.
- Flynn, B.C. The effectiveness of nurse clinicians service delivery. American Journal of Public Health, 1974, 64, 604-611.
- Greenfield, S., Komaroff, A.L., Pass, T.M., Anderson, H. & Nissim, S. Efficiency and cost of primary care by nurses and physician assistants. New England Journal of Medicine, 1978, 305-309.
- Goldsmith, S.G. & Johnson, J.W.C. & Lerner, M. Obstetricians' attitudes toward nurse-midwives. American Journal of Obstetrics and Gynecology, 1971, 11-117.
- Hoff, W. Resolving the health manpower crisis, a systems approach to utilization of personnel. American Journal of Public Health, 1971, 61, 2491-2501.
- Holzman, W.L., Weston, W. & Jeanes, K. Pediatricians attitudes toward pediatric nurse practitioners in South Carolina. Clinical Journal of Medical Education, 1978, 53, 773-775.
- Lawrence, R.S., DeFriese, G.H., Putnam, S.M., Pickard, C.G., Cegr, A.B., & Whiteside, S.H. Physician receptivity to nurse practitioners: a study of the correlates of the delegation of clinical responsibility. Medical Care, 1977, 15 (4), 298-309.
- Lewis, C., & Resnik, B. Nurse-clinics and progressive ambulatory patient care. New England Journal of Medicine, 1967, 277, 1236-1241.
- Linn, L.D. et al. Patient acceptance of the family nurse practitioner. Medical Care, 1976, 14 (4),
- Lohrenz, T.J. Public perceptions of the physician's assistant - a survey of attitudes and opinions. American Journal of Public Health, 1972, 62, 62-69.
- McCormack, R.C., Allen, H. & Livers, E.L. Family doctor's use of physician's assistants and opinions regarding nurses in primary care. Southern Medical Journal, 1971, 64, 415-418.
- Merenstein, J.H., Wolfe, H. & Barker, K. The use of nurse practitioners in a general practice. Medical Care, 1974, 11, 445-452.
- O'Dell, M.L. Physicians' perceptions of an extended role for the nurse. Nursing Research, 1974, 23, 348-351.

- Pesznecker, B.J. & Draye, M.A. Family nurse practitioner in primary care: A study of practice and patients. American Journal of Public Health, 1978, 68 (10), 977-980.
- Pinchoff, D.M. Physician's attitudes toward the nurse practitioner. Journal of Health and Social Behavior, 1978, 19, 303-311.
- Polit, D., & Hungler, B. Nursing research: Principles and methods Philadelphia: J.B. Lippincott Co., New York, San Jose, Toronto, 1978.
- Reed, D.E. & Roghmann, K.J. Acceptability of an expanded nurse role to nurses and physicians. Medical Care, 1979, 372-377.
- Schoen, E.J., Erickson, R.J., Barr, G., & Allen, H. The role of pediatric nurse practitioners as viewed by California pediatricians. Canadian Medical Journal, 1973, (1), 62-68.
- Schultz, P.R., & McGlone, F.B. Primary health care provided to the elderly by a nurse practitioner/physician team: Analysis of cost effectiveness. Journal of the American Geriatric Society, 1977, 10, 443-446.
- Shively, J.P. Role of the nurse practitioner. American Journal of Obstetrics and Gynecology, 1975, 122, 502-507.
- Spector, R., McGrath, P., Alpert, J., Cohen, P., & Aikens, H. Medical care by nurses in an internal medicine clinic. Journal of the American Medical Association, 1975, 232, 1234-1237.
- Spitzer, W.E., Sackett, D., Sibley, J., Roberts, R., Gent, M., Kergin, D., Hackett, B. & Olynich, A. The Burlington randomized trial of the nurse practitioner. New England Journal of Medicine, 1974, 290, 251-256.
- Storms, D. Training of the nurse practitioner - a clinical and statistical analysis. Connecticut Health Services Research Series, (4), 1973.
- Sullivan, J.A., Dachalet, C.Z., Sultz, H.A. Henry, M., & Carroll, H.D. Overcoming barriers to the employment and utilization of the nurse practitioner. American Journal of Public Health, 68 (11), 1097-1103.
- Sultz, H.W., & Carroll, H. An overview of nurses in the expanded role. New Health Professionals, A.A. Bliss and E.D. Cohen (Eds.), Germantown, M.D. Aspen Systems Corp., 1977.

Systems Science, Inc. Nurse Practitioners and Physicians Assistants Training and Development Study: Executive Summary of the Final Report, 1976. National Center for Health Service Research, Washington, D.C.

Treece, E.W., & Treece, J.W. Jr. Elements of research in nursing. St. Louis: The C.V. Mosby Co., 1973.

Wise, H. Social problems facing medicine. Archives of Internal Medicine, 1971, 127, 76-79.

Yankauer, A., Tripp, S., Andrews, P., & Connelly, J. The costs of training and income generation potential of pediatric nurse practitioners. Pediatrics, 1972, 49, 878-887.

Yankauer, A., Tripp, S., Andrews, P., & Connelly, J. The outcomes and service impact of a pediatric nurse practitioner training program: Nurse practitioner training outcomes. American Journal of Public Health, 1972, 62, 237-253.

APPENDICES

APPENDIX A
LETTER OF INTRODUCTION



UNIVERSITY OF OREGON
HEALTH SCIENCES CENTER

GRADUATE STUDIES DEPARTMENT
SCHOOL OF NURSING

Area Code 503 225-7838

53
3181 S.W. Sam Jackson Park Road

Portland, Oregon 97201

Letter of Introduction

Dear Doctor _____:

I am a graduate nursing student currently working on a research project as part of the required course work at the University of Oregon Health Sciences Center, School of Nursing. My study involves a survey of attitudes currently held by practicing physicians toward nurses in the expanded role.

I have chosen to examine the attitudes in question by means of a mailed questionnaire. I have randomly selected a sample of physicians currently licensed in the State of Oregon. Your name is one of those included in the sample.

Completion of the survey will take approximately 15 minutes. I will appreciate your cooperation very much. Please be assured that all responses will remain confidential. A statement of informed consent is attached to the questionnaire. Please sign the statement of consent and return it with the questionnaire. The results of the study will be available should you desire to have them.

Sincerely,

(Ms) Mary Schleining, R.N., B.S.N.

APPENDIX B
INFORMED CONSENT



UNIVERSITY OF OREGON
HEALTH SCIENCES CENTER

GRADUATE STUDIES DEPARTMENT
SCHOOL OF NURSING

Area Code 503 225-7838

54

3181 S.W. Sam Jackson Park Road

Portland, Oregon 97201

Informed Consent

I, _____, here-
(First Name) (Middle Name) (Last Name)
with agree to serve as a subject in the Master's Thesis entitled, "A
Survey of Physicians Attitudes Toward the Nurse in the Expanded Role",
by Mary Schleining, R.N.,B.S.N., under the supervision of Marie Berger,
R.N.,M.S.

The procedure which I will be involved in is filling out a question-
naire. There is no risk for me from this procedure. The information will
be kept confidential. My name will not appear on the records and anony-
mity will be insured by the use of code numbers.

Mary Schleining has offered to answer any questions that I might
have about my participation in this survey. I understand I am free to
refuse to participate or to withdraw from participation in the survey
at any time without effect on my relationship with the University of
Oregon Health Sciences Center.

I have read the preceding information.

(Date)

(Subject's Signature)

APPENDIX C
QUESTIONNAIRE

Questionnaire

The term "Nurse Practitioner" is defined by the Oregon State Board of Nursing, based on the Oregon Nurse Practice Act (ORS Chapter 678) is: a registered nurse who has had "specialized education" and is prepared to "...provide management of mental and physical health care in the applicable specialty area...in collaboration with physicians and other health care professions."

PLEASE READ EACH STATEMENT AND CIRCLE YOUR RESPONSE ON THE RIGHT.

	Strongly Agree	Agree	No Opinion	Disagree	Disagree Strongly
	1	2	3	4	5
				STRONGLY AGREE	STRONGLY DISAGREE
1. Utilization of the nurse practitioner will extend the overall effectiveness of the physician by allowing him more time for patients with complex and acute needs.	1	2	3	4	5
2. It is more practical to create new categories of health workers than to extend the role of nursing.	1	2	3	4	5
3. Nurse practitioners cannot be relied upon to give long term personal care to patients as their careers are secondary to marriage and child-bearing.	1	2	3	4	5
4. Nurse practitioners possess the judgement and decision making abilities necessary to function without constant supervision by a physician.	1	2	3	4	5
5. The use of nurse practitioners will lead to a reduction in the quality of health care delivery.	1	2	3	4	5

	STRONGLY AGREE					STRONGLY DISAGREE				
6. Nurses have special expertise in meeting patients psychosocial and educational needs.	1	2	3	4	5					
7. Patients will not be as receptive to medical advice given by a nurse as they would advice given by a physician.	1	2	3	4	5					
8. Delegation of responsibilities to the nurse practitioner will lead to a disruption of the doctor-patient relationship.	1	2	3	4	5					
9. Patients feel more freedom in expressing personal concerns to a nurse than to a physician.	1	2	3	4	5					
10. The nurse practitioner in an emergency room or clinic is capable of screening patients to determine the necessity for a physician's consultation.	1	2	3	4	5					
11. A nurse practitioner, acting on her own judgement is qualified to administer emergency medications covered by standing orders.	1	2	3	4	5					
12. A nurse practitioner is capable of assessing the necessity for lab work and interpreting the results to determine the need for physician intervention.	1	2	3	4	5					
13. Physical examinations performed by nurse practitioners are as complete as those performed by physicians.	1	2	3	4	5					
14. The nurse practitioner is capable of treating chronically ill patients over long periods of time with minimal supervision.	1	2	3	4	5					

DEMOGRAPHIC INFORMATION

Age: _____ Sex: _____

Year of graduation from medical school: _____

Area of Practice: (please circle)

General Practice	Internal Medicine	Ear, Nose & Throat
Family Practice	General Surgery	Cardiology
OB/Gyn	Psychiatry	Dermatology
Anesthesiology	Orthopedics	Urology
Neurology	Pediatrics	Other: _____

Type of Practice: (please circle) Location of Practice: (please circle)

Solo	Urban
Partnership	Rural
Group	
Institutional Teaching or Staff Position	

Have you ever had any contact with a nurse who fits the description of a Nurse Practitioner? _____

Would you consider hiring a Nurse Practitioner? _____

APPENDIX D
SOURCES OF QUESTIONNAIRE ITEMS
PERTAINING TO THE CONCEPT OF THE NURSE PRACTITIONER

SOURCES OF QUESTIONNAIRE ITEMS
PERTAINING TO THE CONCEPT OF THE NURSE PRACTITIONER

Item	Rationale for Inclusion in Questionnaire	Source(s)
1. Utilization of the nurse practitioner will extend the overall effectiveness of the physician by allowing him more time for patients with complex and acute needs.	A general question to promote interest. Response will indicate basic realization of one of the reasons for expanding nursing roles.	Fein, 1967; Hoff, 1971; Lohrenz, 1971; Engberg, 1972; Schoen et al. 1973; Dunn & Von Ruden, 1975; Bullough, 1976; Theis, 1976; Lawrence et al. 1977.
2. It is more practical to create new categories of health workers than to extend the role of nursing.	The response to this question will indicate general attitude toward nursings' ability to take on an expanded role as opposed to training of other groups to be physician assistants.	O'Hara-Devereau et al. 1971; Yankauer et al. 1972; Spitzer, 1974; Merenstein et al. 1974; Spector et al 1975; Burnip, 1976; Burkett et al. 1978; Greenfield et al. 1978.
3. Nurse practitioners cannot be relied upon to give long term personal care to patients as their careers are secondary to marriage and child-bearing.	The response to this question will indicate the prevalence of this objection to the practicability of advanced education of nurses.	Bergman, 1971; Burosh, 1975; Lawrence et al. 1977; Pinchoff, 1978. Author
4. Nurse practitioners possess the judgement and decision making abilities necessary to function without constant supervision by a physician.	The response to this question will indicate confidence or lack of confidence in a nurse's ability to function in an expanded role with some degree of independence.	Dunn et al. 1975; Holzman et al. 1978; Author

Item	Rationale for Inclusion in Questionnaire	Source(s)
5. The use of nurse practitioners will lead to a reduction in the quality of health care delivery.	This question was included to determine the prevalence of this attitude.	Conat et al. 1971; Allen 1973; Merenstein et al. 1974; Greenfield et al. 1978; Levine, 1978.
6. Nurses have special expertise in meeting patients psychosocial and educational needs.	This is a more specific question to determine realization that nurses have a unique contribution to make to the patient.	Dunn et al. 1975; Holzman et al. 1978; and Author
7. Patients will not be as receptive to medical advice given by a nurse as they would advice given by a physician.	This question was included to determine attitude toward the nurses' effectiveness in dealing with patients and how the physician feels patients will respond to primary care by a nurse.	Lewis & Resnik, 1967; Cheney, 1973; Dunn, 1978.
8. Delegation of responsibilities to the nurse practitioner will lead to a disruption of the doctor-patient relationship.	The response to this question will indicate the degree to which physicians agree or disagree with this objection.	Reed & Roghman, 1971; Schoen et al. 1973; Counte & Kimberly, 1974.
9. Patients feel more freedom in expressing personal concerns to a nurse than to a physician.	This question is a follow-up to Item 6, to determine realization of the unique contribution of nurses.	Conat et al. 1971; Schoen et al. 1973; Spitzer et al. 1974; Shively, 1975; Levine et al. 1978.
10. The nurse practitioner in an emergency room or clinic is capable of screening patients to determine the necessity for a physician's consultation.	This is a specific question related to nursing skills which will indicate the willingness of physicians to relegate responsibilities to a nurse.	McCormack, Allen & Livers, 1971; Author.

Item	Rationale for Inclusion in Questionnaire	Source(s)
11. A nurse practitioner, acting on her own judgement is qualified to administer emergency medications covered by standing orders.	This question serves to identify a specific situation to determine willingness to extend responsibilities of a nurse with indirect supervision by a physician.	Coy & Hanson, 1968; McCormack et al. 1971; O'Dell, 1974; Dunn & Von Ruden, 1975; Holzman et al. 1978; Sullivan et al. 1978.
12. A nurse practitioner is capable of assessing the necessity for lab work and interpreting the results to determine the need for physician intervention.	This question was designed to indicate the physician's willingness to give up some of his traditional responsibilities.	Coy & Hanson, 1968; Goldsmith, 1971; O'Dell, 1974; Dunn & Von Ruden, 1975; Kahn, 1976; Levine, 1978.
13. Physical examinations performed by nurse practitioners are as complete as those performed by physicians.	The response to this question will indicate attitudes toward the nurses' abilities to assume a traditional physician's function effectively.	Lewis et al. 1967; O'Dell, 1974; Shively, 1975; Dunn & Von Ruden, 1975; Bullough, 1976; Theis, 1976; Sullivan et al. 1978; Holzman et al. 1978.
14. The nurse practitioner is capable of treating chronically ill patients over long periods of time with minimal supervision.	This is a more specific question to determine willingness to give up some responsibilities for specific types of patients.	Lewis et al. 1967; Coy & Hanson, 1968; O'Dell, 1974; Dunn & Von Ruden, 1975; Holzman et al. 1978.

APPENDIX E

PERCENTAGE RESPONSE TO INDIVIDUAL QUESTIONNAIRE ITEMS

PERCENTAGE RESPONSE TO INDIVIDUAL QUESTIONNAIRE ITEMS

			<u>N</u>
Item 1	1 - strongly agree	21.5%	N = 144
	2 - agree	45.8%	
	3 - no opinion	22.2%	
	4 - disagree	3.8%	
	5 - strongly disagree	2.2%	
Item 2	1 - strongly agree	2.8%	N = 145
	2 - agree	5.5%	
	3 - no opinion	22.1%	
	4 - disagree	43.4%	
	5 - strongly disagree		
Item 3	1 - strongly agree	1.4%	N = 144
	2 - agree	7.6%	
	3 - no opinion	23.6%	
	4 - disagree	41.0%	
	5 - strongly disagree	26.4%	
Item 4	1 - strongly agree	10.6%	N = 142
	2 - agree	38.0%	
	3 - no opinion	13.4%	
	4 - disagree	26.0%	
	5 - strongly disagree		
Item 5	1 - strongly agree	7.6%	N = 145
	2 - agree	9.7%	
	3 - no opinion	13.8%	
	4 - disagree	44.8%	
	5 - strongly disagree	24.1%	
Item 6	1 - strongly agree	7.6%	N = 145
	2 - agree	43.4%	
	3 - no opinion	22.1%	
	4 - disagree	22.1%	
	5 - strongly disagree	4.8%	
Item 7	1 - strongly agree	7.6%	N = 144
	2 - agree	36.2%	
	3 - no opinion	19.4%	
	4 - disagree	27.1%	
	5 - strongly disagree	9.7%	

			<u>N</u>
Item 8	1 - strongly agree	5.6%	N = 144
	2 - agree	14.6%	
	3 - no opinion	11.8%	
	4 - disagree	52.0%	
	5 - strongly disagree	16.0%	
Item 9	1 - strongly agree	2.1%	N = 144
	2 - agree	20.8%	
	3 - no opinion	30.6%	
	4 - disagree	35.4%	
	5 - strongly disagree	11.1%	
Item 10	1 - strongly agree	20.7%	N = 145
	2 - agree	54.6%	
	3 - no opinion	11.0%	
	4 - disagree	10.3%	
	5 - strongly disagree	3.4%	
Item 11	1 - strongly agree	21.5%	N = 144
	2 - agree	56.3%	
	3 - no opinion	9.0%	
	4 - disagree	8.3%	
	5 - strongly disagree	4.9%	
Item 12	1 - strongly agree	9.7%	N = 145
	2 - agree	32.4%	
	3 - no opinion	21.4%	
	4 - disagree	27.5%	
	5 - strongly disagree	9.0%	
Item 13	1 - strongly agree	7.6%	N = 144
	2 - agree	22.3%	
	3 - no opinion	19.4%	
	4 - disagree	29.9%	
	5 - strongly disagree	20.8%	
Item 14	1 - strongly agree	7.3%	N = 139
	2 - agree	53.2%	
	3 - no opinion	16.5%	
	4 - disagree	15.1%	
	5 - strongly disagree	7.9%	

ABSTRACT

AN ABSTRACT OF THE THESIS OF
MARY LOU SCHLEINING

For the MASTER OF NURSING

Date Receiving this Degree:

Title: A SURVEY OF PHYSICIAN'S ATTITUDES TOWARD THE CONCEPT OF THE
NURSE PRACTITIONER

Approved: _____

May

The purpose of this study was to examine attitudes held by physicians toward the concept of the nurse practitioner and their willingness to delegate traditional physician functions to the nurse practitioner.

Three hypotheses were tested by this study. The first hypothesis predicted that physicians graduating from medical school after 1965 would be more accepting of the concept of the nurse practitioner than physicians graduating before 1965. The results did not support this hypothesis. However, results did indicate more acceptance of the nurse practitioner by physicians having had previous experience with a nurse practitioner, either in their medical school education or in their practice settings.

The second hypothesis tested was that physicians in solo practice settings would be more accepting of the concept of the nurse practitioner than physicians in group, partnership, or institutional teaching settings. Chi square computation failed to demonstrate a significant difference;

the hypothesis was therefore rejected.

The third hypothesis stated that physicians practicing in an urban area would be more accepting of the concept of the nurse practitioner than physicians practicing in a rural area. The third hypothesis was also rejected due to lack of statistical significance.

Overall, however, the physicians in this study responded favorably to the concept of the nurse practitioner with additional education practicing in an expanded role. The physicians also indicated confidence in the nurse practitioner's ability to take on the expanded role.

The response of the physicians was favorable concerning the delegation of some traditional physician functions to the nurse practitioner. The area of most divergent response related to questions of the nurse's skill in meeting psychosocial and educational needs of the patient. One-third of the responses were negative, another one-third expressed "no opinion".

There was indication that the nurse practitioner's role and abilities must be more clearly defined and accepted if the nurse practitioner is to be utilized at full potential.