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Patients' Attitudes Toward the Use of Nurse Practitioners

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PATIENTS’ ATTITUDES TOWARD THE USE OF NURSE PRACTITIONERS

A Thesis

Presented to

the Faculty of the Department of Nursing

Western Kentucky University

Bowling Green, Kentucky

In Partial Fulfillment

of the Requirements for the Degree

Master of Science in Nursing

By

Laurie Maxwell

December 1997
PATIENTS' ATTITUDES TOWARD THE USE OF NURSE PRACTITIONERS

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Since the advent of the role of nurse practitioner in the mid 1960s, nurse practitioners have practiced in traditional settings such as health departments, clinics, and physicians’ offices. More recently, nurse practitioners have been utilized in non-traditional settings such as the emergency department. Some studies have been done that support the theory that nurse practitioners can function effectively in this setting; however additional studies are needed on this topic.

The purpose of this study was to explore patients’ attitudes toward the use of nurse practitioners and to determine what patient variables were related to these attitudes. More specifically, this study focused on patients’ attitudes about nurse practitioners working in the emergency department, a nontraditional practice setting for nurse practitioners. Two research questions were answered: (1) What are patients’ attitudes about nurse practitioners? and (2) What subject variables are related to positive and negative attitudes about nurse practitioners?

A telephone survey was conducted to adult patients who presented to the emergency room for treatment of conditions that were classified as “non-emergent” during the triage process. Patients were asked to answer questions concerning their visit
to the emergency department. They were then asked to respond to 12 items on the *Kviz Acceptance Questionnaire*, which measured attitudes about nurse practitioners.

Demographic data were collected from the medical record following the interview.

The most significant finding of this study was that the role of nurse practitioner was generally accepted by patients presenting for treatment of non-emergent conditions in the emergency department. This finding is significant since the emergency department is not a traditional practice setting for nurse practitioners. Correlation coefficients showed that patients who had seen a nurse practitioner before were more accepting than those who had not seen a nurse practitioner. Patients who were younger, female, and who perceived their health as good or excellent had the most positive attitudes about nurse practitioners.

Additional studies are needed to support the belief that nurse practitioners can function efficiently in the emergency department and other nontraditional settings. Information is also needed on the financial feasibility of such a plan. This time is one of great opportunity and challenge for advanced practice nurses to expand their roles in a rapidly changing health care environment.
CHAPTER I

INTRODUCTION

The idea for nurse practitioner programs had its beginning during the mid 1960s when the shortage of primary care physicians, unequal distribution of health care resources, and the increasing cost of medical care created barriers to primary care. The Secretary of the United States Department of Health, Education, and Welfare’s Committee to Study the Extended Roles for Nursing was appointed in an effort to improve the availability of health care services. The recommendation of this study in 1971 was that states redefine the roles of nurses and physicians to give greater responsibility for the delivery of primary health care to nurses. As a result, the nurse practitioner role originated (Wilbur, Zoeller, Taleashek, & Sullivan, 1990).

Since many nurse practitioner programs were being developed simultaneously, there was no accepted standard of content or length of training. As a result, the early nurse practitioner programs took diverse paths causing the programs to be of unequal quality and producing graduates of unequal quality. Most of the first nurse practitioner programs were based in teaching hospitals due to the lack of funding for such programs in university settings. These early programs lasted from a few months to a year, and completion of the program usually resulted in the awarding of a certificate. It is not surprising that other health care personnel and patients are confused about what nurse
practitioners are and what they do because the nursing profession has had difficulty defining the role of and training for nurse practitioners. By the mid 1970s, efforts were being made to set standards for the education of nurse practitioners. By the late 1970s, the National League for Nursing declared that a nurse practitioner should be prepared at the Master’s level. Today, with the advent of health care reform and an increase in available funding, more university schools of nursing offer nurse practitioner tracks leading to a Master’s degree in nursing (Huch, 1995).

Purpose

The purpose of this study was to explore patients’ attitudes about nurse practitioners and to determine what patient variables were related to these attitudes. More specifically, this study focused on patients’ attitudes about nurse practitioners working in the emergency department, a nontraditional practice setting for nurse practitioners.

Frame of Reference

To help understand the phenomenon of attitudes, the Health Belief Model was chosen as a frame of reference. A review of relevant theoretical literature about the Health Belief Model as well as an explanation of how the Model may be applied to the concept of patient attitudes will be discussed.

Framework

The Health Belief Model was developed between 1950 and 1960 by Hochbaum, Kegeles, Leventhal, and Rosenstock. These developers of the Model were trained as social psychologists and were heavily influenced by the works of Kurt Lewin. Based on a
phenomenological orientation, the theory suggests that it is the world of the perceiver that determines what he will do and not the physical environment, except as the physical environment is represented in the mind of the individual (Rosenstock, 1974).

The implicit conception of the Model was developed following the works of Lewin and describes the individual existing in a life space composed of regions which are positively valued, negatively valued, or neutral. The Health Belief Model was first used to predict an individual’s likelihood to take action to avoid a disease. The concepts of perceived susceptibility and seriousness were cited as predictors of actions, as well as perceived benefits, and barriers to seeking preventive treatments. An additional variable of cue to action was believed to be necessary to trigger appropriate action (Rosenstock, 1974).

The Model was later modified by Becker to include individual perceptions, modifying factors, and variables affecting the likelihood of initiating action. Demographic, sociopsychological, and structural variables acted as modifying factors that only indirectly affected action tendencies. An individual’s perceptions directly affected his/her predisposition to take action. The critical individual perceptions in Becker’s Model were beliefs about the seriousness of a specific disease and personal susceptibility which combine to provide a measure of the threat or negative valence to the life-space region known as the area of positive valence (Pender, 1987).

The original Health Belief Model developed by Hochbaum, Kegeles, Leventhal, and Rosenstock may be expanded to incorporate provider-patient interactions by altering the perceptions and beliefs (Pender, 1987). A modification of the original Health Belief
Model was used to examine patients’ attitudes about nurse practitioners, specifically those of patients who come to the emergency department for problems that are classified as non-emergent, and to determine which— if any—demographic and structural variables influence these attitudes.

Modifications made in applying this model include the demographic variables of age, gender, and type of health insurance coverage the patients have. The structural variables were identified as how much time the visit to the emergency department required and their general satisfaction level with their recent emergency department experience. Individual perceptions included whether or not they had a regular primary care provider, how long they had been with the provider, if they did not have a primary care provider why they did not, and previous experiences with nurse practitioners. Likelihood of action was assessed by measuring which of the twelve procedures included in the interview the subjects would be willing to have the nurse practitioner perform. The perceptions that patients have about their emergency department visit, their primary health care provider, and nurse practitioners will be influenced by their past experiences. Based on these experiences and perceptions, patients make decisions about whether or not they are willing to seek primary care from a nurse practitioner.

Research Questions

Two research questions were answered during this study:

1. What are patients’ attitudes about nurse practitioners?
2. What patient variables are related to positive and negative attitudes about nurse practitioners?
Major Variables and Concepts

In this study the major variable was patient attitudes. Since this variable could not be measured using a concrete method, it was considered a concept and was measured by the patients’ responses to the twelve items on Kviz’s Questionnaire indicating what procedures they would allow a nurse practitioner to perform. Attitudes also were measured by asking the patients whether they would be willing to see a nurse practitioner rather than a physician for the health care problem for which they came to the emergency department seeking treatment.

Attribute Variables

Some attribute variables were collected from the patient’s medical record after the telephone interview. These included age, gender, type of health insurance, time of entry into the emergency department, time of discharge, and total number of minutes spent in the emergency department. Data for other attribute variables were gathered during the telephone interview. These included how long they perceived their visit to the emergency department took, how long they waited before being seen by a nurse, how long they waited before being seen by the physician, what things were most important to them when they visited the emergency department, whether they were satisfied with the service and treatment they received, whether they have a regular primary care provider, how long they have been with the provider, if they don’t have a regular primary care provider why they don’t have one, their general health status, whether they have seen a nurse practitioner before, and if they would have been willing to see a nurse practitioner rather than a physician during their visit to the emergency department.
Definition of Relevant Terms and Concepts

1. Patient-An adult, beginning at age 18 years, seeking treatment at the emergency department of a 100-bed medical center in middle Tennessee.

2. Nurse Practitioner-A registered nurse who has a master’s degree in nursing, has met advanced educational and clinical practice requirements, is licensed to practice in the state of Tennessee, holds national certification as a family nurse practitioner, and who delivers care beyond the scope of those with a basic nursing education.

3. “Non-emergent”-A classification used in the triage of patient conditions to denote those problems that do not require immediate attention. The presenting problem of the person seeking treatment must have been evaluated by a registered nurse and classified as “non-emergent.”

4. “Fast-track”-A special area of the emergency department where patients with non-emergent conditions may be seen in order to move these patients through the system more quickly.

Assumptions

1. The emergency department at the medical center treats patients with conditions that are “non-emergent.”

2. Registered nurses will accurately classify patients’ conditions as “non-emergent.”

3. Patients will be willing to participate in telephone interviews and will respond honestly and to the best of their ability and knowledge.

4. Patients’ attitudes are held strongly enough to be measured.
Summary

In this study of patients' attitudes about nurse practitioners the researcher examined the attitudes of patients who came to the emergency department for treatment of "non-emergent" problems. The study results are particularly interesting since the emergency department is not a traditional practice setting for nurse practitioners. The Health Belief Model was applied to help understand why certain variables were related to positive and negative attitudes. The model was also used as a guide to plan strategies to counteract negative attitudes and to reinforce positive attitudes.
CHAPTER II

REVIEW OF LITERATURE

A review of the literature relevant to patients' attitudes about nurse practitioners was done to determine what information was known about the phenomenon of attitudes and to identify gaps in the knowledge base. Sources were identified which discussed the history of the nurse practitioner role and the evolution of patients' perceptions of and attitudes about nurse practitioners. This chapter contains information discovered during the literature review and includes a summary of related information and relevant research.

Background

Role of the Nurse Practitioner

To begin to understand patients' attitudes about nurse practitioners, one must examine the role and evolution of the history of the nurse practitioner. The role of the nurse practitioner was first introduced in the mid 1960s in an effort to improve the availability of health care services to rural and under served areas (Wilbur, Zoeller, Talashek, & Sullivan, 1990). In December 1986, the U. S. Congressional Office of Technology Assessment reported the results of a study, done at the request of the Senate Committee on Appropriations, to provide a review and update on the quality and cost of care provided by nurse practitioners. The results of this study revealed that nurse practitioners do improve geographical access to primary care. In addition, researchers found this information particularly true in rural areas and in areas with high populations of
the poor, minorities, and those without health insurance (U. S. Office of Congressional Technology Assessment, 1986).

In the past, the emergency department has not been a traditional practice setting for nurse practitioners; however, some emergency departments have used them successfully for several years (Walrath, Levitt, & Styka, 1984). Studies have shown that many patients who come to the emergency department for treatment have low-acuity problems that are easily assessed and quickly treated (Hooker & McCaig, 1995). Since acutely ill patients must be treated first, the patients with low-acuity problems experience long waits and untimely care. As a result, there is a growing need for non-urgent ambulatory care in emergency departments which may be managed feasibly by nurse practitioners (Covington, Erwin, & Sellers, 1992).

History

Studies have historically shown that the overall quality of care that is provided by nurse practitioners in their area of expertise is comparable with the service provided by physicians (Jacox, 1987). The Office of Technology Assessment study reported that nurse practitioners and physicians are comparable in their abilities to resolve patients’ acute problems and to prescribe drugs appropriately. The study also revealed that physicians outperformed nurses in some areas, but more often nurses outperformed the physicians. For example, nurse practitioners exhibited better communication, counseling, and interviewing skills while physicians are better at managing problems requiring technical solutions (U. S. Office of Congressional Technology Assessment, 1986).
Patient Satisfaction and Perceptions of Nurse Practitioners

Satisfaction

Although many studies have been conducted on measuring patient satisfaction with nurse practitioners, very little information was found in the literature dealing specifically with patients’ attitudes about nurse practitioners. Some feel that patient satisfaction levels with nurse practitioners can be considered an indirect measurement of patients’ attitudes about nurse practitioners (Kviz, Misener, & Vinson, 1983).

The Office of Technology Assessment (OTA) studied patient satisfaction with nurse practitioners and physicians through patient surveys and by examining malpractice lawsuits (Jacox, 1987). Findings indicated that patients were more satisfied with care provided by nurse practitioners than care given by physicians—especially in the areas of personal interest exhibited, reduction of the professional mystique of health care delivery, amount of information that was conveyed, and the cost of care. Patient satisfaction was also measured through an evaluation of malpractice lawsuits filed. The results showed that successful malpractice suits against nurse practitioners are extremely rare and that most of the estimated $1.4 billion paid in 1984 resulted from suits filed against physicians.

Conclusions of the OTA study were that 50-90% of primary care which had traditionally been provided by physicians could be delivered by nurse practitioners and physicians’ assistants. Physicians’ assistants tend to function primarily as physician extenders or substitutes, while nurse practitioners provide services that are usually provided by physicians as well as services provided by nurses (U. S. Office of Congressional Technology Assessment, 1986).
Another study of patient satisfaction with nurse practitioners (Powers, Jalowiec, & Reichelt, 1984) compared knowledge, satisfaction, and compliance in 62 non-urgent emergency department patients based on whether they were cared for by a nurse practitioner or a physician. Data was collected by structured interviews during the emergency department visit, at two weeks and three months by telephone, and through mail and chart review. No significant differences were found between the two groups in overall compliance scores, appointment keeping, number of health recommendations recalled, resolution of health problem, or satisfaction ratings of emergency department care. These findings confirm that nurse practitioners provide care that is comparable to the care provided by physicians. In addition, it was found that 77% of patients cared for by nurse practitioners were completely satisfied with care as compared to only 48% of the patients cared for by physicians. Reasons for satisfaction were related to the quality of care, while reasons for dissatisfaction focused on unresolved problems and slow care.

In 1992, a study was done measuring patient satisfaction with nurse practitioners working in a fast track in the emergency department of Vanderbilt University Hospital in Nashville, Tennessee (Covington, Erwin, & Sellers, 1992). In a survey of 117 fast-track patients, 96% rated the care provided by the nurse practitioner as excellent or very good. Ninety-four percent believed that the discharge instructions given by the nurse practitioner were excellent or very good, and 98% would recommend the service to others.

A study done at the University of Nebraska Medical Center in Omaha measured satisfaction of patients seen in the emergency department by nurse practitioners and physicians (Rhee & Dermeyer, 1995). A group of 30 patients seen by nurse practitioners
were contacted by telephone during the survey. A control group of the same number of patients who were seen by physicians were contacted. The groups were similar in age and sex. Overall satisfaction levels were good for both groups. The results of this study indicate that emergency department patients are as satisfied with the care provided by a nurse practitioner as care provided by a physician. The data suggests that nurse practitioners will be well accepted by patients in emergency department settings today.

**Perceptions**

Three studies were found that addressed patient acceptance or perceptions of nurse practitioners. The first study examined elders’ satisfaction with a family nurse practitioner model of health care in which the nurse practitioner was the sole practitioner in a health care clinic in a rural village (Murphy & Ericson, 1995). Physicians were available in a small town nearby. Specialized care was available in a large metropolitan area approximately 100 miles away. Results of the study confirmed that subjects showed acceptance of the concept of the advanced practice nurse.

Kviz, Misener, and Vinson (1983) conducted a study of rural health care consumers’ perceptions of the nurse practitioner role; study results revealed that several patient variables were related to acceptance of nurse practitioners. Three thousand fifty-six subjects were given a 12-item questionnaire on which they were asked which functions a nurse practitioner should be allowed to perform. The study sample was described as coming from low to middle income households with a median income of $12,810. More than 50% were identified as rural according to the U. S. Census, however 79.9% did not live on a farm. Households consisted primarily of two adults aged eighteen to sixty-four
years with a median size of 2.6, and most contained no children under the age of eighteen. Respondents were characterized as being middle-aged, at least high school graduates, married, heads of households, white, and having lived at the present address for at least five years. Eighty-nine percent reported having a usual source of health care described as a private general practitioner. Ninety percent reported a distance of 30 miles or less to their usual health care provider, a distance that could be traveled in 30 minutes or less. Seventy-one percent reported that they were generally satisfied or very satisfied with their health care provider. Most perceived their personal health as fair (53.4%) or good (40.6%). Only 6% rated their health as poor.

In this study, males indicated a slightly greater acceptance of nurse practitioners than did females. Acceptance was least among respondents whose household income was less than $10,000 annually and greatest among those whose household income was $10,000 to $19,999 annually. Acceptance was negatively related with age and positively related with education.

The results of this study indicated that the role of nurse practitioner is generally accepted. Only two functions were not acceptable to a majority of subjects: performing a complete routine physical exam and prescribing medication and treatment for a minor illness or injury. Both of these functions represented tasks that were not traditionally performed by nurses. It was found that acceptance of a nurse practitioner was the greatest among subjects who were relatively young, male, of low income, dissatisfied with the explanation of diagnosis and treatment they received at their usual source of health care,
and generally dissatisfied with their usual source of health care; however none of these relationships were found to be strong (Kviz, Misener, & Vinson, 1983).

A comparable study exploring the acceptance of the nurse practitioner role by consumers in a rural community in Northeast Mississippi was done by Wiseman and Hill in 1994 using an adaptation of the *Kviz Acceptance Questionnaire* and a researcher-developed demographic questionnaire. The majority of participants were white (96%), male (52%), married (73%), and with no children in the home (59%). Over 50% of the respondents said they would allow a nurse practitioner to perform all 12 functions listed on the Kviz Questionnaire. Acceptance by the rural consumer of the nurse practitioner was found to be 56.4% in this study compared to 64.4% acceptance found by Kviz, Misener, and Vinson (1983) in the Midwestern United States. The implication is that patients’ perceptions and acceptance of nurse practitioners may differ depending on their geographical location.

**Barriers to Practice**

The studies mentioned in this text report high levels of patient satisfaction with nurse practitioners. However, nurse practitioners continue to experience barriers to practice related to some patients’ preferences to see a physician rather than a nurse practitioner. Possible reasons for this preference may relate to cultural traditions of physicians as primary care providers, public lack of knowledge about nurse practitioners, and limited experience of patients with nurse practitioners (Kviz, Misener, & Vinson, 1983). If nurse practitioners are to move into the next century as effective primary care providers, we must discover why this barrier to practice persists. Since experiences and
attitudes impact patient behaviors, we must learn why negative attitudes exist and plan strategies to break down barriers to practice. The need is for a study that more specifically explores patients’ attitudes about nurse practitioners in the emergency department and what patient variables affect those attitudes. That information will provide new insights into possible causes of negative and positive attitudes about nurse practitioners and will give nurse practitioners direction to actions needed to break through these barriers to practice.
CHAPTER III

METHODS AND PROCEDURES

This chapter includes a description of the research design, sample, setting, procedure, data collection, analysis methods, and protection of human subjects for this study. Supporting documents for this section are included in the appendices. A simple descriptive design was used to explore the phenomena of patient attitudes about nurse practitioners. Although several studies have been done on patient satisfaction with nurse practitioners, limited research has been done dealing specifically with patients’ attitudes and acceptance of nurse practitioners.

Methodology

Sample

The sample for this study was all adult patients competent to give consent who presented at the emergency department of a 100-bed not for profit hospital in middle Tennessee during May 1997 and who were classified as “non-emergent” by a registered nurse during the triage process. The emergency department at this facility sees an average of 1400 patients each month. It was estimated that 30-40% of these patients had non-emergent problems. If this estimation was correct, approximately 420 to 560 patients met the criteria for possible inclusion in this study. Data collection was accomplished by telephone interviews conducted during May and June of 1997 by the researcher and one
other registered nurse who was trained by the researcher. Telephone calls were made using a copy of the emergency department log as a guide until 200 patients were contacted. Since no treatment was done to the group, a power analysis was not done. A review of relevant statistical tables indicated that a sample size of 200 provided an adequate number of subjects for reliable analysis of individuals and groups.

Setting

The setting for this study was the emergency department of a 100-bed community not-for-profit hospital in middle Tennessee. The area is primarily agricultural; however a significant amount of industrial growth has occurred over the past five years. Two urgent care centers are located in the city. These centers are open on weekdays until 7 p.m. and have limited hours on Saturdays. The medical center is located approximately 30 miles north of Nashville where several major medical centers are located.

The emergency department at this facility had 17,600 emergency department visits during the 1995-96 fiscal year. Thirty to forty percent of these visits were classified as non-emergent. The medical center contracts with an emergency physicians’ group to provide emergency room physician services. The group staffs one physician in the department 24-hours a day. Physicians’ assistants are staffed from 1 p.m. until 10 p.m. on Saturday, Sunday, and holidays.

The population of the county where the medical center is located is 43,000. The medical center is the only hospital in the county. Medical services are provided to residents of the county as well as residents of several other surrounding counties by the facility.
Nine family practice physicians and two pediatricians provide care for the patients in the community. Several of these physicians employ nurse practitioners and physicians’ assistants who see patients in the offices. Some of the nurse practitioners and physicians’ assistants are also credentialed by the medical center and are allowed to make rounds on patients who are admitted to the hospital by the physicians.

Measurement Methods

For this study, the data collection instrument used was a questionnaire developed by Kviz, Misener, and Vinson for use in their 1983 study. The questionnaire consisted of 12 items answerable by yes or no and pertaining to patient willingness to allow a nurse practitioner to perform twelve different functions covering a broad range of activities and services. The instrument was modified for the present study by changing the yes or no responses to a 1 to 4 response Likert Scale. A section was also added for collection of demographic data about the patient to help describe the sample. Questions about the patients’ satisfaction with their recent visit to the emergency department were added to gain cooperation from the subjects and to provide useful information to the cooperating institution. Verbal consent for use of the questionnaire was obtained during a telephone conversation with Dr. Kviz on November 10, 1996.

Dr. Kviz’s questionnaire was constructed with the intent that it be a Guttman cumulative scale; however the coefficient of reproducibility of the questionnaire is 0.87. Since the coefficient of reproducibility must be at least 0.90 to qualify as a reliable Guttman scale, this questionnaire does not meet criteria for that classification. The questionnaire does have a rather high coefficient of reproducibility at 0.87 and may be
considered for that reason to measure a single dimension. The alpha coefficient of reliability for the 12-item questionnaire was established at 0.82 (Kviz, Misener, & Vinson, 1983). Validity of the items used from Dr. Kviz’s study as well as the items that were added for this study was established by having a group of nurse practitioners, registered nurses, and physicians review the data collection tool for relevance. A few minor changes were made after the review.

Procedure

All staff working in the emergency department were informed that a study was being done, the nature of the study, and their role in the study. Staff members were instructed to give a letter of explanation to patients who met criteria for the study at the time of discharge. The letter of explanation contained information about the study and informed the patients that they might be contacted during the four-week period following their visit to ask that they participate in the study.

Telephone interviews were done by the researcher and one registered nurse who was trained by the researcher during the months of May and June 1997 until 200 patients were contacted who agreed to participate in the study. A data collection tool was used to facilitate data collection. The callers had access to the patient’s emergency department record at the time of the call to collect demographic data and to have necessary information to answer any questions the patients might have. To ensure that all patients had basic information about nurse practitioners, the patients were read a short statement about who nurse practitioners are and what they do before any questions relating to attitudes toward the use of nurse practitioners were asked.
Identification numbers were assigned to the subjects at the time they were contacted. This number was listed on the copy of the emergency department log and on the data collection tool. The names of patients were not placed on data collection tools. The emergency department log was kept in a locked file in the nursing administration office. The completed data collection tools were kept in a locked file in the researcher's office. After completion of the study the patient log and data collection tools will be kept in a locked file in the nursing department at Western Kentucky University for three years and will then be destroyed.

Ethical Considerations

To ensure that the rights of the human subjects involved were protected, the proposal for this study was reviewed by a committee of three faculty members at Western Kentucky University. It was then submitted to the Human Subjects Review Board at Western Kentucky University and the ethics committee at the medical center for approval.

In order to minimize the risks to the patients, their names, addresses, or dates of service were not placed on the data collection tool. The study was conducted by telephone on a date after the patient had received treatment and was hopefully feeling better. Service received during any future visits to the emergency department will in no way be affected by opinions shared during this survey or a decision not to participate in the study.

A benefit to the patient for participating in this study was that patients' attitudes about allowing a nurse practitioner to perform certain tasks that relate to their presenting problem were discovered. Knowledge of these attitudes may help to develop more
efficient systems within the emergency department to improve management of the non-emergent problems of these patients, improve the quality of care provided, and increase patient satisfaction levels.

**Communication of Findings**

The results of this study were shared with the emergency department staff and administrative team of the medical center. This study is also appropriate for presentation for publication in nurse practitioner, emergency nursing, or nursing management journals.
CHAPTER IV

RESULTS

This study was conducted to explore patient attitudes about nurse practitioners. More specifically, the researcher explored the attitudes of emergency department patients with non-urgent problems. The researcher also explored what patient variables were associated with positive and negative attitudes about nurse practitioners. The research questions that were answered were as follows:

(1) What are patient's attitudes about nurse practitioners?

(2) What subject variables are related to positive and negative attitudes about nurse practitioners?

Sample Characteristics

Selection Process

The sample for this study was chosen based on the following criteria: the patients must (a) have presented for treatment at the emergency department of the medical center during May 1997, (b) have a presenting problem that was classified as “non-urgent” by a registered nurse during the triage process, and (c) be an adult 18 years or older who was able to give consent.

One thousand four hundred eighty-four patients were treated in the emergency department during May 1997. Of the patients treated, 462 patients (31%) were classified
as having non-urgent problems. One hundred forty of these were eliminated because they were either minors or adults who were not able to consent for themselves. Remaining were three hundred twenty-two patients who formed the pool of possible candidates for the study. Telephone calls were made until two hundred patients had been contacted who agreed to participate in the study.

Sample Demographics

The sample was made up of 122 females (61%) and 78 males (39%). The mean age was 37.7 years. Subjects ranged in age from 18 to 88 years old. Eighty percent perceived their health to be good or excellent.

Eighty-eight (44%) of the patients stated that they had seen a nurse practitioner before. Thirty-five percent stated that they had no regular physician. The reasons most given for not having a regular physician were that (a) they had no insurance and could not afford to go to the doctor, (b) they had not looked for a physician, and (c) that they had not needed a physician. In contrast, one hundred twenty-nine (65%) patients said that they had a regular physician. Of this 65%, 110 (85%) had been with their present physician for five years or less. Only 19 patients (14%) reported having been with their present physician for more than five years.

Eighty percent of the patients had some type of third party payer coverage for medical services. Twenty-nine percent were covered by Tenn Care, 9% by Medicare, 3% by medicare with a secondary insurance, and 38% by private insurance. Only 20% had no health care insurance.
How Patients Felt About their Visit to the Emergency Department

Questions about the patients’ visit to the emergency department were added to the questionnaire in order to gain the patients’ cooperation. The possibility that an unpleasant experience in the emergency department might alter the patients’ responses to the questions on the Kviz Questionnaire was also considered.

The patients generally felt positive about their visit to the emergency department. Eighty-five percent rated their overall experience as good or excellent. Eleven percent rated their experience as fair, and only four percent rated their experience as poor.

Patients were asked to choose three items from a list of six which were most important to them when they visited the emergency department. One hundred sixty-five patients said that the most important thing to them was that the staff was caring and helpful. One hundred sixty-three said that the quality of service that they received was most important. One hundred thirty-seven said that it was important to them that they are told what is wrong with them. One hundred six patients said that the length of time it takes to get treated was one of the most important things to them.

Forty-four patients were able to give suggestions about what could have made their visit to the emergency department better. Similar responses were grouped together. The suggestions most frequently given were that they would have liked faster service, and they would like the physician to have spent more time explaining what was wrong with them and answering their questions.
The first research question was “What are patients’ attitudes about nurse practitioners?” Patients’ responses to the items on the Kviz Questionnaire were used to answer this question.

Patients were generally accepting of the role of nurse practitioner. A nurse practitioner acceptance score was calculated for each patient based on their responses to the twelve items on the Kviz Acceptance Questionnaire. The 12 items were on a Likert scale ranging from 1 to 4. The minimum score possible was 12 and the maximum score possible was 48. The mean nurse practitioner acceptance score for the group was 46.53, median 48, and mode 48. The standard deviation was 3.078. The minimum score calculated was 29, and the maximum score calculated was 48.

When asked whether they would have been willing to see a nurse practitioner rather than a physician when they visited the emergency department, 64% (127) of the patients said that they would have been willing to see a nurse practitioner rather than a physician. Four percent (8) said that they would not have been willing to see a nurse practitioner, and 32% (65) said that they were not sure.

Responses of the group to the items on the Kviz Acceptance Questionnaire were also calculated. Table 1 represents a calculation of patients’ responses to the twelve items on the Kviz Acceptance Questionnaire. Acceptance was greatest for those items which are traditional functions of the nurse such as recording the health history, taking blood pressure and pulse, taking laboratory samples, and giving shots and vaccinations. Although acceptance was high in all areas, the items with which some patients disagreed
TABLE 1

PATIENTS' RESPONSES TO ITEMS ON THE KVIZ ACCEPTANCE QUESTIONNAIRE

<table>
<thead>
<tr>
<th>A-Agree</th>
<th>SA-Somewhat Agree</th>
<th>SD-Somewhat Disagree</th>
<th>D-Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>SA</td>
<td>SD</td>
<td>D</td>
</tr>
<tr>
<td>1. I would be willing to let a nurse practitioner...</td>
<td>(4)</td>
<td>(3)</td>
<td>(2)</td>
</tr>
<tr>
<td>2. Record my health history</td>
<td>198</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3. Take routine measures such as blood pressure and pulse</td>
<td>197</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. Perform a complete routine physical examination</td>
<td>140</td>
<td>36</td>
<td>18</td>
</tr>
<tr>
<td>5. Decide whether or not I need to see a doctor when I go to the doctor's office or clinic</td>
<td>196</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>6. Take laboratory samples such as blood samples and throat cultures</td>
<td>188</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>7. Decide whether or not I need to see a doctor when I go to the doctor's office or clinic</td>
<td>190</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>8. Diagnose minor illnesses, such as an upset stomach or sore throat</td>
<td>190</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>9. Diagnose minor injuries, such as sprains and bruises</td>
<td>195</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>10. Give shots and vaccinations</td>
<td>134</td>
<td>41</td>
<td>19</td>
</tr>
<tr>
<td>11. Perform minor surgical procedures, such as putting in stitches and removing warts</td>
<td>187</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>12. Prescribe medication and treatment for a minor illness or injury</td>
<td>197</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>13. Explain the doctor's diagnosis to you</td>
<td>198</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>14. Make follow-up house calls after treatment by a doctor</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N=200
were performing minor surgical procedures, and performing a complete routine physical examination.

**Correlation of Patient Variables to Acceptance of Nurse Practitioners**

In order to answer the second research question, "What patient variables are related to positive and negative attitudes about nurse practitioners?", correlation coefficients were calculated for patient variables, responses to items on the Kviz Questionnaire, and the patients' total acceptance score (Table 2). Relationships were found between some of the items on the Kviz Questionnaire and the variables of age, gender, general health, whether the patients had seen a nurse practitioner before, if the patients would have been willing to see a nurse practitioner rather than a physician, how they rated their overall experience in the emergency department, and the total time they spent in the emergency department. No relationships were found between any of the items on the Kviz Questionnaire and the variable of insurance.

The relationship between patient age and total nurse practitioner acceptance score indicated that the younger the patient the greater the nurse practitioner acceptance score. The correlations also indicated that as the level of perceived patient health increased, the nurse practitioner acceptance score also increased. Females were found to have higher acceptance scores than males. Those patients who had seen a nurse practitioner before had higher acceptance scores than those who had never seen a nurse practitioner. Patients who said that they would have been willing to see a nurse practitioner rather than a physician had higher acceptance scores than those who were not sure or would not have been willing to see a nurse practitioner rather than a physician. No relationship was found between the
Table 2
Correlation of Items on Kviz Questionnaire and Patient Variables

<table>
<thead>
<tr>
<th>I would be willing to let a nurse practitioner...</th>
<th>Age</th>
<th>Gender</th>
<th>General Health</th>
<th>Insurance</th>
<th>Ever Seen A NP Before</th>
<th>Willing to See A NP Rather Than MD</th>
<th>Overall Experience in ER</th>
<th>Total Time in ER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record my health history</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.1417</td>
<td>0.1548</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Take routine measures such as blood pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.2247</td>
<td></td>
<td>0.0045</td>
</tr>
<tr>
<td>Take laboratory samples such as blood samples and throat cultures</td>
<td></td>
<td>0.0278</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decide whether or not I need to see a doctor</td>
<td>0.2263</td>
<td>0.1855</td>
<td></td>
<td></td>
<td>-0.3438</td>
<td>-0.5860</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnose minor illnesses, such as an upset stomach or sore throat</td>
<td>-0.2892</td>
<td>0.2220</td>
<td>0.2421</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnose minor injuries, such as sprains and bruises</td>
<td>-0.2833</td>
<td>0.1592</td>
<td>0.2224</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Give shots and vaccinations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.1483</td>
<td></td>
<td>-0.3380</td>
</tr>
<tr>
<td>Perform minor surgical procedures, such as putting in stitches and removing warts</td>
<td></td>
<td>0.1585</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescribe medication and treatment for a minor illness or injury</td>
<td>-0.2570</td>
<td>0.1875</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain the doctor's diagnosis to you</td>
<td>-0.2518</td>
<td>0.1543</td>
<td>0.2492</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make follow-up house calls after treatment by a doctor</td>
<td>-0.1774</td>
<td>0.1847</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Acceptance Score</td>
<td>-0.2073</td>
<td>0.7055</td>
<td>0.1889</td>
<td></td>
<td>-0.2177</td>
<td>-0.3962</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Only statistically significant values are reported
In all values reported p < or = .05
total nurse practitioner score and the patients' overall experience in the emergency department; however patients who spent the shortest times in the emergency department had higher nurse practitioner acceptance scores.

Summary

The results of this study indicate that patients presenting to the emergency department for treatment of non-emergent problems have positive attitudes about nurse practitioners. This finding is a significant one since utilizing nurse practitioners in this nontraditional role would help deliver more timely care to these patients. In addition, nurse practitioners have the necessary communication and clinical skills to deliver high quality care which will result in increased satisfaction levels for patients.
CHAPTER V
DISCUSSION

The most significant finding of this study was that the role of nurse practitioner was generally accepted by patients presenting for treatment of non-emergent conditions in the emergency department. This finding is important since the emergency department has not been considered a traditional setting for nurse practitioners in the past. Patient variables that were related to acceptance of nurse practitioners were age, gender, general health, having been seen by a nurse practitioner before, willingness to see a nurse practitioner rather than a physician, and total time spent in the emergency department during their visit.

Interpretation of Findings

Correlation coefficients showed that the younger the patient the greater the acceptance of the nurse practitioner. This greater acceptance may be attributed to younger patients not having pre-conceived ideas and beliefs about what the traditional roles of physicians and nurses are. Kviz, Misener, and Vinson (1983) also found that younger patients were more accepting of nurse practitioners.

In contrast to the study by Kviz, Misener, and Vinson (1983), the results of this study indicated that females were more accepting of the role of nurse practitioners than were males. A possible explanation for this difference may be that the role of nurse practitioner has traditionally been associated with the female. Female patients may be more
comfortable with a health care provider of the same sex. It may be important to remember also that 61% of the patients in this study were females.

As the patients’ perception of their general health increased, their nurse practitioner acceptance score also increased. Eighty percent of the patients perceived their general health to be good or excellent, yet they came to the emergency department for problems which were classified as non-emergent. This trend may be the result of several factors. These patients may have a knowledge deficit regarding when and for which problems they need to come to the emergency department. Thirty-five percent of the patients stated that they had no regular health care provider. Without a primary care provider to advise them, these patients do not know which problems should be of concern. Since they perceive their health to be good or excellent, they see no need to establish a relationship with a primary care provider until a need arises. When that need surfaces, they are often left with no alternative except to come to the emergency department for treatment.

Although insurance coverage may be an indirect indicator of income and social class, no information about these areas was collected. No significant relationships were found between any items on the Kviz Questionnaire and the variable of insurance indicating that insurance coverage is not related to patients’ acceptance of nurse practitioners.

Those patients who had seen a nurse practitioner before had higher acceptance scores than those who had not seen a nurse practitioner. The patients who had seen a nurse practitioner were also more willing to see a nurse practitioner rather than a physician for their emergency room visit. The implication is that prior experiences with a nurse practitioner had a positive influence on the patients’ attitudes about other nurse
practitioners. This finding is supported by the Health Belief Model assumption that an individual's perceptions directly affects his/her predisposition to take action.

How the patients rated their experience in the emergency department was not related to their nurse practitioner acceptance score; however acceptance scores were higher on those patients who had shorter visits in the emergency department.

Conclusions

Based on the results of this study, patients who come to the emergency department for treatment of non-emergent conditions have positive attitudes about nurse practitioners and are accepting of the role of the nurse practitioner in the emergency department setting. Utilizing nurse practitioners in this previously nontraditional role will potentially benefit all patients in the emergency department. Those patients who are seriously or critically ill or injured could be cared for in a timely manner by a physician as always, while patients like those in this study could also receive care and treatment by a nurse practitioner for non-emergent problems in a timely manner.

Implications for Nursing

Since the advent of the nurse practitioner role over three decades ago, nursing has attempted to promote advanced practice nursing by standardization of training programs and requirements for certification and licensure, educating patients about the nurse practitioner role, and conducting research to support the belief that nurse practitioners can provide quality primary care to patients in many different settings. Nurse practitioners have gained the confidence of the patients they have cared for and rate high in patient satisfaction surveys.
The patients in this survey were accepting of the nurse practitioner in a non-traditional setting, the emergency department. Advanced practice nurses are particularly challenged at this time, while acceptance levels are high, to demonstrate that they can provide high quality care in settings such as this as well as in other nontraditional settings.

Patients in this study identified the three most important things to them when they came to the emergency department for treatment: (1) that the staff were caring and helpful, (2) that the quality of service provided was good, and (3) that they were told what was wrong with them. The two areas mentioned for improvement of services were (1) faster service and (2) for the physician to spend more time explaining what was wrong with them and answering their questions. All of these needs represent areas that have been identified as strengths for nurse practitioners.

Recommendations for Further Research

Additional studies are needed to support the belief that nurse practitioners can function efficiently in emergency departments and other nontraditional settings. Patient satisfaction studies are needed comparing patient satisfaction before nurse practitioners were placed in emergency departments and after nurse practitioners were placed in emergency departments.

Studies are also needed to help determine whether it is financially feasible to place nurse practitioners in these roles. More information is needed on costs of implementing “fast-track” programs in emergency departments, reimbursement, and additional markets that might be serviced by such programs.
Continued studies are needed on quality of care provided by nurse practitioners and patient outcomes. These issues will become even more important as managed care organizations seek providers who can provide the best care at the lowest cost. This time is one of great opportunity and challenge for advanced practice nurses to expand their roles in a rapidly changing health care environment.
References


Your research topic "Patient's Attitudes About Nurse Practitioners," has undergone review by the Western Kentucky University IRB for human subjects of research and it has been determined that risks to subjects are: (1) minimized and reasonable; and that (2) research procedures are consistent with a sound research design and do not expose the subjects to unnecessary risk. Reviewers determined that: (1) benefits to subjects are considered along with the importance of the topic and that outcomes are reasonable; (2) selection of subjects is equitable; and (3) the purposes of the research and the research setting is amenable to subjects' welfare and producing desired outcomes; that indications of coercion or prejudice are absent, and that participation is clearly voluntary.

In addition, the IRB found that: (1) informed consent will be sought and documented from each prospective subject; (2) provision is made for collecting, using and storing data in a manner that protects the safety and privacy of the subjects and the confidentiality of the data; and (3) that appropriate safeguards are included to protect the rights and welfare of the subjects. Please store all data securely at an on campus location for a minimum of three years.

Your research therefore meets the criteria of Expedited review under the institutional human subjects protocol and is approved. Copies of your request for human subjects review, your application, and this approval, are maintained in the Office Sponsored Programs at the above address.

Kindest regards.

Sincerely,

[Signature]

Phillip E. Myers, Ph.D.
Director, Office of Sponsored Programs and
Human Subjects Coordinator

c: Human Subjects File

HSApprovalLeMaxwell
Appendix B

May 1, 1997

Dear Patient,

I am a graduate student in Nursing at Western Kentucky University and the Emergency Department Director here at the medical center. As part of my education, I am conducting a research study to determine what changes can be made to improve the services delivered in our emergency department for patients like yourself. During the next four weeks, you may be contacted by telephone by a registered nurse who will request that you participate in this study. The survey should take no more than 5-10 minutes of your time. Participation is strictly voluntary. If you agree, you will be asked to answer questions about your visit to the emergency department. You will also be asked to answer questions about your feelings about nurse practitioners. A nurse practitioner is a registered nurse who has received advanced education and clinical experience to prepare him/her to provide some of the care to patients that is usually provided by physicians. Some examples of things nurse practitioners may do is perform physical examinations, take health histories, and diagnose and treat minor illnesses such as upset stomachs, sore throats, urinary tract infections, and ear infections. They also diagnose and treat minor injuries such as cuts, sprains, strains, and bruises, and perform minor procedures such as putting in stitches and removing warts.

You are being asked to take part in this survey because the nature of the health problem which brought you to the emergency department is non-emergent. This means that your problem is one that needs attention, but is not a life-threatening condition at this moment.

There are no risks involved in participating in this survey. If you choose to participate, your answers will remain anonymous. One benefit of participating in this study is that information collected from this questionnaire may help to improve services in the emergency department for patients like yourself with conditions that are not life-threatening. You may also learn what a nurse practitioner is and what they do from the information that is given, if you do not know already.

If you have any questions about the survey, you may contact me at the number listed below. Verbal agreement at the time of the telephone contact implies that you agree to take part in this study. Thank you in advance for your cooperation to help us improve services for our patients.

Sincerely,

Laurie Maxwell, RN, BSN, RNC
Emergency Department Director
Phone 615-384-1557
### Data Collection Tool

#### Part I

1. **How long did you wait before being seen by a nurse?**
   - [ ] 5 minutes or less
   - [ ] 6-15 minutes
   - [ ] 16-30 minutes
   - [ ] over 30 minutes

2. **How long did you wait before being seen by a doctor?**
   - [ ] 15 minutes or less
   - [ ] 16-30 minutes
   - [ ] 31 minutes-1 hour
   - [ ] 61-90 minutes
   - [ ] over 91 minutes

3. **How long did your visit to the emergency department take?**
   - [ ] 30 minutes or less
   - [ ] 31-60 minutes
   - [ ] 61-90 minutes
   - [ ] 91-120 minutes
   - [ ] over 120 minutes

4. **What is most important to you when you come to the emergency department?**
   (Please choose the three most important)
   - [ ] Quality of services provided
   - [ ] How long it takes to get treated
   - [ ] The staff is caring and helpful
   - [ ] I am told what is wrong with me
   - [ ] I understand what to do to care for myself when I go home
   - [ ] Cost

5. **How would you rate your overall experience in the emergency department?**
   - [ ] Poor
   - [ ] Fair
   - [ ] Good
   - [ ] Excellent

6. **What could have made your experience better?**

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
7. How long have you been with your present physician?
   — I don’t have a regular physician
   — 2 years or less
   — 2-5 years
   — 5-10 years
   — More than 10 years

*Ask question 8 only if the patient has no regular physician

8. The reason that I don’t have a regular physician is:
   — Can’t find one who is taking new patients
   — Can’t find one who will take my insurance
   — I have no health care coverage and cannot find a physician
   — I haven’t looked for one
   — I haven’t needed a physician
   — I can’t find one that I am satisfied with

9. Would you say that your general health is:
   — Poor
   — Fair
   — Good
   — Excellent

10. Have you ever seen a nurse practitioner for your health care needs?
    — Yes
    — No

11. Would you have been willing to see a nurse practitioner rather than a physician for the problem that you came to the emergency department for?
    — Yes
    — No
    — I’m not sure
Some people say that one way to provide more medical care at a reasonable cost is to allow some tasks now done by doctors to be done by a specially trained nurse, called a nurse practitioner. Others feel that allowing some of these tasks to be done by people who are not doctors, even if they are specially trained, will lower the quality of medical care.

<table>
<thead>
<tr>
<th>A-Agree</th>
<th>SA-Somewhat Agree</th>
<th>SD-Somewhat Disagree</th>
<th>D-Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
<td>SA</td>
</tr>
<tr>
<td>I would be willing to let a nurse practitioner...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Record my health history</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2. Take routine measures such as blood pressure and pulse</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>3. Perform a complete routine physical examination</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
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<td>4</td>
<td>3</td>
<td>2</td>
</tr>
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<td>4</td>
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<td>2</td>
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<td>2</td>
</tr>
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</tr>
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<td>2</td>
</tr>
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<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>12. Make follow-up house calls after treatment by a doctor</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>
Part III

*To be collected from the medical record by the researcher.

1. Patient's age
   
2. Patient's gender
   ___ Male
   ___ Female

3. Patient's insurance
   ___ No medical insurance
   ___ TennCare or Kentucky Medicaid
   ___ Medicare
   ___ Medicare with secondary private coverage
   ___ Private or group coverage

4. Time of triage

5. Time of discharge

6. Total time in emergency department