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Acceptance Of The Nurse Practitioner Role By Consumers In A Rural Community

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ACCEPTANCE OF THE NURSE PRACTITIONER ROLE BY CONSUMERS IN A RURAL COMMUNITY

by

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by Consumers in a Rural Community

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Abstract

In accepting the role of the nurse practitioner, a preliminary step is the assessment of the target population for the acceptance of this health care provider. This nonexperimental descriptive study was designed to explore the question, what is the level of acceptance of the nurse practitioner role by the consumer in a rural community located in Northeast Mississippi. King's (1981) conceptual framework was used in this descriptive study to provide direction and structure. The investigation was conducted using the Kviz Acceptance Questionnaire. The instrument was mailed to 300 randomly selected nonbusiness addresses chosen from the local September 1992-1993 telephone book, of which 71 were returned. The head of the household or the person responsible for the medical care of the family was asked to complete and return the questionnaire to the investigator in an enclosed, self-addressed, stamped envelope. Analysis of data included descriptive statistics to describe the participants, and analysis of variance (ANOVA) and multiple regression were used to analyze the scores. The findings indicated acceptance of the nurse practitioner role by the rural consumer. A larger percentage (70-87%) indicated acceptance of the nurse practitioner performing functions

that were considered to be nontraditional nursing functions. Implications and recommendations for further research were included.

Dedication

to

Kay and Rebekah

Because

A husband couldn't ask for a more perfect wife,

A father couldn't ask for a more perfect daughter.

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Chapter I

The Research Problem

The role of the nurse practitioner has evolved and expanded since the role was introduced and the first program begun at the University of Colorado in 1965. Since that time, one contributing factor for this expansion has been the acceptance of the nurse practitioner role by the consumer. Enggist and Hatcher (1983) reported that health care services can be made more available through a more rational allocation of medical/health care functions and tasks, normally performed by physicians, to a new category of health professionals, which are called nurse practitioners.

The nurse practitioner can significantly increase access to health care in rural areas. Studies related to acceptance of the nurse practitioner role in rural areas, however, are limited. In Mississippi, where there is observational data, no empirical studies related to acceptance by the rural consumer have been conducted. Therefore, the focus of this research was to explore the acceptance of the nurse practitioner role by the consumer in a rural community.

The nurse practitioner is an important resource for providing primary health care in rural areas where availability and accessibility to health care services are often lacking. The nurse practitioner can play a significant role in changing the distribution of primary care providers in rural areas by providing health care in underserved areas. In 1989, Shanks-Meile, Shipley, Collins, and Tacker reported that between 1975 and 1986 the demand for nurse practitioners accelerated with an increase toward the provision of primary care services.

Introduction to the Problem

Mississippi is classified as a rural, medically underserved area. According to the July 1991 Mississippi Doctors census, the statewide physician/population ratio is 1:755, while the primary care physician/population is 1:1576 (R. Shinard, personal communication, March 1993). The Mississippi Board of Nursing reports that the nurse practitioner can help correct the problem by providing health care services to rural areas. It is reported that 78 nurse practitioners in the state of Mississippi are in family practice (personal communication, March 1993). McGrath (1990) reports that nurse practitioners can significantly increase the availability and accessibility to health care services of individuals in areas in which there is a physician shortage. Benefits for the client will be the expansion and availability of comprehensive health care

services and the prevention and early detection of medical problems through wellness care.

The Office of Technology Assessment (OTA) investigated the practice of the nurse practitioner (U.S. Congress, Office of Technology Assessment [OTA], 1986). The OTA reported that patients are very acceptive of the nurse practitioner role. The researchers also reported some possible reasons why the nurse practitioner is accepted; some of these are services focused on health promotion and client education, as well as the communication with clients. The OTA (1986), Kviz, Misener, and Vinson (1983), and Shamansky and St. Germain (1987) reported that consumers of nurse practitioners' services are primarily individuals who are elderly, have low socioeconomic status, or have become dissatisfied with traditional health care services.

The ability to provide services and to be compensated by reimbursement systems for those services has been a critical element for American health care. Mississippi is one of the 26 states having legislation allowing for reimbursement of nurse practitioners' services by insurance companies, including Medicare, Medicaid, and Champus (Scott & Harrison, 1990). Nurse practitioner services, then, are acceptable to clients because of reimbursement policies.

Significance to Nursing

Acceptance by the consumer is the foundation of the nurse practitioner practice. Knowledge of the rural health

care consumer's acceptance of the role of the nurse practitioner and related critical elements will assist the nurse practitioner in establishing a practice in a rural area. This study will stimulate further nursing research by identifying the type of clients who may likely utilize the services of a nurse practitioner in the rural community. By increasing the knowledge base regarding consumers' acceptance of nurse practitioner functions, appropriate strategies for marketing the role in rural areas can be designed.

Theoretical Framework

King's (1981) theoretical framework has been chosen to guide this research endeavor. King's framework includes three systems: personal system (individual), interpersonal system (group), and social system (society). Each individual is a personal system, which interacts with other individuals to form interpersonal systems. These interpersonal systems form social systems. Social systems are comprehensive levels of activities of humans which directly influence behavior. The social system is the area of King's framework to be emphasized in this research.

King (1981) suggests that there are social forces in constant motion in the social system. This system has been defined as the supra-system where relationships between individuals and attitudes directly influence outcomes. The concepts of the social system include authority, power,

rank, and decision making. According to King, all these concepts have a significant impact on personal human behavior/interaction. The impact on the social system and personal attitudes translates into how communities influence behavior, interactions, acceptance, or rejection of health care provider practice.

This research sought to examine a rural community's (personal/interpersonal/social systems) acceptance (attitudes) of a nurse practitioner. The results would influence the probability of establishing a practice in this community (outcomes). The findings will indicate the degree of acceptance by the residents of this rural community and will also indicate perceptions of nurse practitioner roles and those residents most likely to utilize the nurse practitioner. The community is the social system in which the nurse practitioner wishes to practice. The nurse practitioner must be accepted and work together with the citizens of the community to form the bond necessary for a healthy relationship.

Assumptions

The assumptions for this study include the following:

1. Knowledge affects/influences decision making related to health care.

2. Knowledge about health-care providers influences decisions of individuals seeking health care.

3. Acceptance of a health-care provider influences the health-seeking behaviors of the individuals.

4. "Persons have the right to either accept or reject any aspect of health care" (King, 1981, p. 144).

Purpose of Study

The purpose of this study was to determine the level of acceptance by the rural health care consumer of the nurse practitioner role.

Statement of the Problem

Increasingly, the nurse practitioner is becoming an important health care provider for the rural community. Mississippi is categorized as a rural state, as much of the population is medically underserved. No empirical data are available concerning acceptance by rural consumers of health care services of the nurse practitioner. Therefore, this study answers the question, what was the response of the rural health care consumer regarding acceptance of the role of the nurse practitioner?

Research Question

What is the level of acceptance for the nurse practitioner role by the health care consumer in a rural community?

Definition of Terms

For the purpose of this research, the following terms will be defined:

Health care consumer: The head of the household or the person who is responsible for the medical care of the family in a rural community.

Level of acceptance: Agreeing to or approving of the the nurse practitioner role as measured by the Kviz Acceptance Questionnaire.

Nurse practitioner role: A master's prepared registered nurse who, according to a Mississippi Board of Nursing approved protocol, can diagnose and treat minor injuries as well as acute and chronic diseases across the age span.

Rural community: A rural community in Northeast Mississippi, with a population of less than 23,000 persons.

Chapter II

Review of Literature

Acceptance of the nurse practitioner role by the rural consumer has not been fully explored in the literature. This review of literature will focus on three related issues: acceptance of the nurse practitioner, quality and cost of care by the nurse practitioner, and marketing the role of the nurse practitioner.

Acceptance

Acceptance by the consumer is a concept impacting the role of the nurse practitioner. Early studies, such as Adamson and Watts (1976), Breslau (1977), and Dutton (1978) have shown acceptance of the nurse practitioner role.

In 1983, Kviz et al. did a large scale study of 3,056 consumers. This research was conducted in several states in the Midwest. The consumers were asked if they would allow a nurse practitioner to perform 12 functions routinely performed by the nurse practitioner. The results showed acceptance of the nurse practitioner role. Ninety percent of the consumers would allow a nurse practitioner to take routine measures, give shots and vaccinations, take laboratory samples, and record health history. Over 50% of the consumers would allow a nurse practitioner to make

follow-up house calls after treatment by a doctor, interpret the doctor's diagnosis, diagnose minor injuries, diagnose minor illnesses, and decide whether patients should see a doctor. Less than half (45.4%) said they would allow a nurse practitioner to prescribe medication and treatment for a minor illness or injury, and 43.8% would allow a nurse practitioner to perform a complete routine physical examination. Only 0.6% of the respondents would not allow the nurse practitioner to perform any of the functions on the questionnaire (Kviz et al., 1983).

Males showed slightly more acceptance of the nurse practitioner role than the female respondents. Households with income less than $10,000 were less accepting of the role, and greatest acceptance occurred in the household with an income range of $10,000 to $19,999. Age was the best single predictor of acceptance of the nurse practitioner role. It was reported that acceptance was greatest among the respondents who were young, male, and with a household income which was relatively low (Kviz et al., 1983). Aversion to the nurse practitioner role might be associated with lack of public awareness of the capability and skills of the nurse practitioner to perform functions that traditionally have been viewed as being performed only by physicians. According to Kviz et al. (1983), this could be alleviated by educating the public regarding the role of the nurse practitioner in health care.

Other findings revealed that acceptance of the nurse practitioner role was greatest among the respondents who were relatively young, well educated, and dissatisfied with the explanation of diagnosis and treatment they received at their usual source of health care. The respondents were not satisfied with their usual source of health care. Males were more receptive of the role of the nurse practitioner than females, especially regarding a complete physical examination.

The nurse practitioner was not very well accepted among the respondents in the income group of less than $10,000, because they may not have been concerned with cost if they were already receiving low-cost health services through Medicaid or Medicare. Respondents in the upper income groups may have favored the concept in anticipation of receiving health care at a reduced rate. Respondents were accepting of the nurse practitioner role even if they were satisfied with the health care services that were available and received. The respondents may have seen the nurse practitioner as supplementing the physician's services and/or extending the nurse's traditional role (Kviz et al., 1983).

Enggist and Hatcher (1983) conducted a study in a large inner-city general hospital ambulatory care clinic. The clinic was staffed by attending physicians, full-time medical nurse practitioners, part-time medical nurse

practitioners, and a full-time registered nurse. The data were collected using an on-site interview questionnaire from 156 consumers, before and after the introduction of the medical nurse practitioner. The sample was selected via systematic sampling as the consumers arrived at the clinic at predetermined set times. The population, from which the sample was chosen, were mostly elderly and indigent.
For the interview, two groups were chosen. The first group included clients never examined and/or treated by a nurse practitioner. The second group included clients examined and/or treated by a nurse practitioner. The second group indicated higher consumer acceptance than the first group on the four indicators of the medical nurse practitioner role: receptivity to the medical nurse practitioner, independent medical nurse practitioner role, interdependent medical nurse practitioner role, and perception as to the effectiveness of the medical nurse practitioner. Seventy percent of the second group perceived the medical nurse practitioner to be as effective as a physician when dealing with most common health problems. About 33% of both groups would allow the nurse practitioner to make decisions independently from the physicians and without their supervision (Enggist & Hatcher, 1983).

Another major study was conducted by Hogan and Hogan (1982) with 2,690 employees of the Illinois State University, which included all strata of employment and

society. A 28-item questionnaire was constructed based on Roger's theory of innovation and upon descriptions of the responsibilities and advantages of the nurse practitioner. The questionnaire was mailed to the employees of the Illinois State University.

Ninety-eight percent of the respondents stated they would allow a nurse practitioner to take a health history, and 50% stated they would allow a nurse practitioner to perform a complete physical exam. Thirty-seven percent stated they would allow a nurse practitioner to prescribe medicine, 37% would not, and 25% of the subjects were undecided. Ninety-eight percent of the sample indicated that teaching of health care is a part of the role of the nurse practitioner. Seventy-eight percent would allow a nurse practitioner to order routine tests, such as x-rays, throat cultures, and electrocardiograms (Hogan & Hogan, 1982).

Eighty-one percent of the sample stated that they had never used a nurse practitioner's service. Of the ones who had used nurse practitioner's services, 90% were pleased or very pleased. When asked if the respondents had prior knowledge of the role of the nurse practitioner, 55% said "yes." These respondents were the better educated respondents (Hogan & Hogan, 1982).

When surveyed, 65% of the respondents said they would use a nurse practitioner if one was available. Thirty-three

percent reported acceptance of an unsupervised nurse practitioner, while 31% would not accept an unsupervised nurse practitioner and 35% were undecided. The persons who had the lowest level of education, 9 years or less, and those who had the highest level of education, 3 or more years of graduate school, were the persons who were least likely to accept the nurse practitioner in private practice. The respondents who were most likely to accept the nurse practitioner in private practice were the ones in the lower income bracket. As an individual's salary increased, so did the rate of rejection of independent nursing practice. Hogan and Hogan (1982) reported a very positive atmosphere of acceptance for the nurse practitioner model in the general population. There was no complete acceptance of the nurse practitioner role, but like Kviz et al. (1983), Hogan and Hogan (1982) stated that public relations could influence and alter the consumer's opinion about the nurse practitioner model.

In a review study, Facione and Facione (1985) sought to define what was meant by "acceptance" as it applied to nurse practitioners and also to determine how acceptance could be objectively observed and measured. The goal was to define acceptance in terms of patient behavior, i.e., behavior either verbal or nonverbal, presented by the client receiving treatment from the nurse practitioner. Acceptance was initially defined as receiving what is offered with a

consenting mind, agreeing and approving of that which is given (Facione & Facione, 1985).

Nurse practitioners (N = 65) were invited to participate in the study. Of these, 34 agreed to participate in the Delphi process. This process included responding to two written questionnaires and follow-up phone calls. The panel of nurse practitioners was able to achieve consensus regarding 20 verbal and 16 nonverbal behaviors that indicated patient acceptance. Facione and Facione (1985) suggest that the behaviors identified are not unique to nurse practitioners and recommend comparing behaviors identified in their study with behaviors identified by other professionals. The comparable lists would be a significant step toward articulating a more general operational definition of acceptance as applied to professional health care and social welfare providers.

Zikmund and Miller (1979) conducted a major study in Oklahoma in which the attitudes of 205 rural health care consumers toward the nurse practitioner were measured. A factor analysis with orthogonal rotation was applied to 15 attitudinal variables. Three major factors about consumers' attitudes toward the nurse practitioner were identified:

1. Competence: There appeared to be strong agreement that the nurse practitioner would be qualified to care for minor health problems.

2. Personal qualifications: There was agreement that the nurse practitioner would spend more time with the patient.

3. Cost and convenience: There was agreement that the nurse practitioner would be convenient and available when needed and that the patient would save on medical bills. Education of the public was found as being necessary to assure acceptance of this innovative delivery system.

Quality and Cost of Care

The nurse practitioner role can be very cost effective. It has been determined that approximately 50% to 90% of the primary care duties provided by the physician could be provided by the nurse practitioner. Nurse practitioners work for about one third the salary of physicians. For this salary, the nurse practitioner spends approximately 65% more time per patient. Patients state that on physical examinations the nurse practitioner spends more time, and they are more comprehensive than the physicians' (McGrath, 1990). Safriet (1992) reported that the cost of educating the nurse practitioner was one fifth of the physician's cost. Once the physician's education was completed, his/her salary was approximately four times that of the nurse practitioner. The addition of a cost effective nurse practitioner to a physician's staff can increase the patient volume.

A report by physicians who had association with the nurse practitioner role gave four benefits of the nurse practitioner: increased accessibility, quality of care, physician satisfaction, and economic benefits (McGrath, 1990). Also, physicians and nurse practitioners were comparable in resolving patients' acute problems and in prescribing practices, and nurse practitioners were better in the areas of communication, counseling, and interviewing.

Nurse practitioners provide effective treatment in the primary care facility, along with providing effective health maintenance and illness prevention. Research indicates that nurse practitioners are very well accepted by the consumers who have utilized them (Hogan & Hogan, 1982). Scott and Harrison (1990) report nurse practitioners work well with client education, encouraging self-care, illness prevention, and health maintenance in the care they offered. In addition, the nurse practitioner is a seriously needed link between the client and the health care system (Scott & Harrison, 1990).

Marketing

Marketing is a powerful tool to promote the role of the nurse practitioner. The nurse practitioner must market the model to the consumer in order to gain acceptance in the community. The concept of marketing the nurse practitioner is new, and the literature is minimal (Martin, 1988).

Included in the role of the nurse practitioner is assessment of the health of the client and the health of the community. This assessment will inform the nurse practitioner of the negative and positive features of the community. The process aids the practitioner in assessment, planning, implementing, and evaluating the health care goals and strategies for the entire community. Since the population is living longer, has more chronic and debilitation sicknesses, and is generally poorer, marketing strategies should be employed to be cost efficient in dealing with complicated community health problems (Martin, 1988).

Assessing the community will provide the nurse practitioner with the information needed to be competitive in the growing health care field. A strategy of the nurse practitioner is to provide cost effective and comprehensive health care, which the consumer, federal government, and insurance companies expect. The nurse practitioner must assess the community's health status before the consumer's health status can improve (Martin, 1988). Gardner and Weinrauch (1988) suggest that marketing helps avoid costly errors, which helps better serve the health care client. Many nurse practitioners do not understand marketing techniques.

For marketing nurse practitioner services, Martin (1988) states there are four advantages to assessing the community:

1. Identify areas and populations that need additional services. This can help establish marketing objectives.

2. Identify sources for possible funding of needed health programs. Knowing what the community needs will help build credibility within the consumer.

3. Identify priority needs before formulation of a plan.

4. Draft a plan for services before going into practice.

In reviewing the literature for the study in question, much information of a supportive nature was found. Kviz et al. (1983), Enggist and Hatcher (1983), and Hogan and Hogan (1982) lay a foundation for the acceptance of the nurse practitioner. McGrath (1990) and Safriet (1992) provide information for quality and cost of care, while Gardner and Weinrauch (1988) and Martin (1988) are very informative about marketing the nurse practitioner role.

The focus of this research was on the acceptance of the role of the nurse practitioner by the consumer in a rural community. The literature in this area is limited. It is the goal of this research to add to the body of knowledge regarding education and marketing of nurse practitioner services by determining the degree of acceptance by the residents in the rural community and the residents who are most likely to utilize the nurse practitioner.

Chapter III

The Method

The nurse practitioner is an important resource for providing primary health care in rural areas where availability of and accessibility to health care services are lacking. Mississippi is categorized as a rural state and as such is medically underserved (R. Shinard, personal communication, March 1993). The research question guiding this endeavor was what is the level of acceptance for the nurse practitioner by rural health care consumer? This chapter will describe the design, the sample, methods of data collection, and data analysis.

Design of Study

A nonexperimental, descriptive correlational study was initiated to ascertain the level of acceptance of the nurse practitioner role by the rural health care consumer. The goal of descriptive correlational research is to describe and document the relationship among variables (Polit & Hungler, 1987). Through the use of a descriptive correlational study, the researcher can ascertain, describe, and predict the relationships between variables in a particular population of subjects (Polit & Hungler, 1987). Such a design is appropriate for this study because the

researcher described the variables and the relationships between the demographic characteristics and the data obtained from the administration of the Kviz Acceptance Questionnaire.

Setting, Population, and Sample

The setting for this research study was a rural county located in Northeast Mississippi. The total population of this rural county is 22,090 persons. The county has 16 physicians and 7 dentists. There is one hospital that has 157 beds. No nurse practitioner was currently practicing in this rural county. There are 8,357 households in this county which covers 417 square miles (G. Duckworth, personal communication, October 15, 1992). The sample consisted of 300 randomly selected nonbusiness households which represents 3.60% of the total number of households in this rural county.

Methods of Data Collection

The instrument used was an adaptation of the Kviz Acceptance Questionnaire and a researcher-developed demographic data questionnaire (see Appendix A). The first section of the Kviz Acceptance Questionnaire is a 12-item questionnaire developed in 1983, designed to measure acceptance of the nurse practitioner role by the general population. A letter of permission was obtained to use the

Kviz Acceptance Questionnaire (see Appendix B). The alpha coefficient of reliability for the Kviz Acceptance Questionnaire was reported as 0.82. Kviz gave no related explanation about the validity of the questionnaire.

Individual items on the 12-item questionnaire were answered with a yes or no response. A "yes" response indicated that the respondent would allow a nurse practitioner to carry out the duties and was given the score of 1. A "no" response indicated the respondent would not allow the nurse practitioner to carry out the duties and was given the score of 0.

The scores were summed for the 12 functions indicating the acceptance of the nurse practitioner role ranging from 0, that is, not allowing the nurse practitioner to carry out any of the duties, to 12 allowing the nurse practitioner to carry out all of the duties on the questionnaire. The higher the scores of the numbers of "yes" responses, the higher the level of acceptance (Kviz et al., 1983).

The second section of the instrument was a researcher-developed demographic data questionnaire (see Appendix B). These nine questions defined some demographic characteristics of the sample. The respondents marked the appropriate response. This part of the questionnaire was correlated with the acceptance questionnaire to determine the type of person who was mostly likely to accept and/or utilize the nurse practitioner.

After permission was granted by the Committee on Use of Human Subjects in Experimentation at Mississippi University for Women (see Appendix C), the following procedures were followed. The researcher randomly selected 300 nonbusiness households from the local September 1992-1993 telephone directory. In order to select this sample, the researcher started with the letter A, then counted down 10 names, and selected that household. If the 10th listing was a business, the researcher then chose the next nonbusiness listing. The researcher continued this process until the predetermined number of names needed were obtained (N = 300).

The instrument was mailed to each of the randomly selected nonbusiness addresses. A cover letter with complete instructions, explanation of the study, and assurance of anonymity were included (see Appendix D). The participants were asked to return the questionnaire to the researcher within 2 weeks of receipt in the enclosed self-addressed, stamped envelope. Respondents were informed that returning of the questionnaire signified consent to participate in the study. A follow-up postcard was mailed to each participant 7 days after the initial mail-out to remind participants of the need to return the questionnaire (see Appendix E).

Methods of Analysis

Descriptive statistics, such as mean and percentages, were used to describe the sample based upon the responses from the demographic questionnaire. In addition, descriptive statistics were used to describe the distribution of nurse practitioner acceptance scores.

To analyze the acceptance scores, variance and multiple regression were used to explain the correlation between respondent characteristics and the level of acceptance. Analysis of variance tests the significance of differences between means (Polit & Hungler, 1987); therefore, this test was appropriate because more than two groups were analyzed. In particular, this test was used to explore the relationship between the five nontraditional nursing roles. Multiple regression is a test that is used to gain understanding of two or more variables simultaneously (Polit & Hungler, 1987). Using multiple regression, the researcher was able to predict acceptance of the nurse practitioner from the respondents' characteristics, as well as to compare the demographic variables and the results of the Kviz Questionnaire.

Limitations

The following limitations were identified for this study.

1. The small sample size limited the number of responses.

2. The possibility of the "halo effect" if neighbors or friends discussed the study.

3. The inability to generalize to other regions.

4. Returns from mail survey traditionally have low cooperative rate.

Chapter IV

The Findings

The nurse practitioner is an important resource for providing primary health care in rural areas where availability of and accessibility to health-care services are usually lacking. Acceptance of the nurse practitioner role by the rural consumer has not been fully explored in the literature. The research question guiding this endeavor was what is the level of acceptance of the nurse practitioner by the rural health-care consumer? A nonexperimental, descriptive correlational study was initiated to ascertain the level of acceptance of the nurse practitioner role by the rural health care consumer.

Description of the Sample

The sample consisted of 300 nonbusiness households randomly selected from the local telephone directory, to which a questionnaire was mailed. A total of 71 (23.6%) questionnaires were returned. There were 56.4% (n = 169) not returned, and 20% (n = 60) were returned by the post office as undeliverable.

Sample Profile. There were 10 questions related to demographics. A summary of the demographics follows. The majority of the participants were male (53.1%) and married

(73.2%). There were 59.2% (n = 42) who reported that no children lived in the home. Fourteen respondents had 1 child in the home, 6 respondents had 2 children in the home, and 3 respondents had 3 children in the home. The age of the respondents ranged from under 20 to over 66 years. The largest group was represented by the 51- to 65-year-old group (n = 23 or 32.4%); there were 28.2% (n = 20) in the 31- to 40-year-old group and 26.8% (n = 19) in the over 65 age group.

Only 18% of the participants had less than a high school education. The racial distribution of this sample was 95.8% (n = 68) of the participants were white, and 4.2% (n = 3) were African-Americans. There were no Hispanics or other nationalities represented. Family income was fairly well distributed with the largest (23.9%, n = 17) within the $10,000 to $20,000 range. A majority of the participants (n = 48 or 67.6%) lived outside the city limits, and 23 (32.4%) lived within the city limits. When queried about their source of health care, private, general practitioner, or specialist was listed as being used 93% (n = 66) of the time. Ninety percent (n = 64) had never used a nurse practitioner, and only 7% (n = 5) had used a nurse practitioner in the past.

Data Analysis

The research question for this research was what is the level of acceptance for the nurse practitioner role by the health care consumer in a rural community? To explore which nurse practitioner functions were acceptable to the consumer, the Kviz Acceptance Questionnaire (1983) was used.

Data analysis included descriptive statistics as well as analysis of variance and multiple regression. Descriptive statistics were used to described the relationship among the demographic variables. Analysis of variance was used to explain the relationship among the five nontraditional functions. Multiple regression was used to predict acceptance of the nurse practitioner role.

Table 1 presents the percentage of respondents who reported they would allow a nurse practitioner to perform each of the 12 functions. These findings indicated that the respondents generally accepted a broadly defined role for the nurse practitioner. All of the respondents (100%) would allow a nurse practitioner to take routine measures, such as blood pressure, pulse, and laboratory samples.

There were five functions that between 90.1% and 97.2% of the respondents would allow a nurse practitioner to perform. These were giving shots and vaccinations, recording a health history, making follow-up house calls after treatment by a doctor, and explaining a doctor's diagnosis.

Table 1

Percentage of Respondents Who Would Allow a Nurse Practitioner to Perform Each of 12 Functions

Rank	Function	Percent
1	Take routine measures, such as blood pressure and pulse	100.0
1	Take lab samples	100.0
2	Give shots and vaccinations	97.2
3	Record health history	95.8
4	Make follow-up house calls after treatment by doctor	91.4
5	Explain doctor's diagnosis	90.1
6	Diagnose minor illnesses	87.3
7	Diagnose minor injuries	84.5
8	Decide whether should see a doctor	78.9
9	Perform complete physical examination	76.1
10	Prescribe medication	73.2
11	Perform minor surgery	70.4

Note. N = 71.

The first six ranked functions on the survey are considered traditional nursing functions. The final six functions, diagnose minor illnesses and minor injuries, decide whether should see a doctor, perform complete physical exam, prescribe medications, and perform minor surgery, were approved by 70.4% to 87.3% of the respondents.

Because these functions are primarily part of the traditional physician's role rather than the role of the nurse, these are considered nontraditional nursing functions.

The distribution of nurse practitioner acceptance scale scores for the survey respondents is presented in Table 2. Overall, the scores indicated good acceptance of the nurse practitioner, as evidenced by a median score of 7.5 and a mean score of 8. The single score with the largest frequency (n = 40) was 12, which indicated that 56.4% of the respondents would allow the nurse practitioner to perform all 12 functions based on the scoring of 1 equals "yes."

Using analysis of variance (ANOVA), five of the six functions rated as nontraditional were examined for possible differences. The function, "decide whether should see a doctor," was not included in the analysis. Statistically significant values were found to exist at p = .05. This means the rural consumer will accept the nurse practitioner performing these five non-traditional nursing functions (see Table 3).

Using multiple regression, four respondent characteristics were analyzed. The findings enabled the researcher to predict positive acceptance of the nurse practitioner role (see Table 4). Therefore, the results of data analysis support the premise that individuals in a

rural community are accepting of the role of nurse practitioner.

Table 2

Distribution of Nurse Practitioner Acceptance Scale Scores

Score	F	%
0	0	0.0
1	0	0.0
2	0	0.0
3	0	0.0
4	2	2.8
5	2	2.8
6	3	4.2
7	4	5.6
8	4	5.6
9	1	1.5
10	5	7.0
11	10	14.1
12	40	56.4
Total	71	100.0

Note. Mode = 12. Mean = 8. Median = 7.5. Standard Deviation = 2.58.

Table 3

Analysis of Variance of Selected Nontraditional Functions

Source	df	SS	MS	F	p
Between groups[a]	4	15.4197	3.8549	1.9747	.0979
Within groups	350	683.2394	1.9521		
Total	354	698.6591			

Note. CV = 2.45.

[a]Group includes: V4 = Complete physical exam. V7 = Diagnose minor illness. V8 = Diagnose minor injuries. V10 = Perform minor surgical procedures. V11 = Prescribe medication.

Table 4

Multiple Regression of Acceptance of Nontraditional Functions by Respondents' Characteristics

Characteristic	Multiple *R*	R^2	Adjusted R^2	*F*	Significant *F*
Age	.25256	.06379	-.00823	.88572	.4959*
Education	.32644	.10656	.03784	1.55058	.1867*
Income	.24651	.06077	-.01148	.84106	.5255*
Resident type	.23134	.05352	-.01929	.73505	.5999*

Note. *N* = 71.

*$p < .05$.

Chapter V

The Outcomes

The purpose of this study was to assess acceptance by the rural health consumer of the nurse practitioner role. King's (1981) conceptual framework for nursing provided the direction and structure for this nonexperimental descriptive study. The research question for this study was what is the level of acceptance of the nurse practitioner role by the consumer in a rural community located in Northeast Mississippi? This chapter presents the summary of the findings and a discussion of these findings. Implications for future nursing are given along with recommendations for further research.

Summary of Findings

The sample (N = 71) consisted of respondents from 300 non-business households randomly selected from the local telephone directory. The mail-out survey included the Kviz Acceptance Questionnaire and a researcher-developed demographic questionnaire. Data were analyzed using descriptive statistics, ANOVA, and multiple regression.

Descriptive statistics indicated that the majority of the participants were white (96%), male (52%), married (73%), and with no children in the home (59%). The average

age, 51-65 years, was representative (32.4%) of those with an income between $10,000 and $20,000. Over 80% of the sample had a high school or greater education. Most of the respondents lived outside the city limits and had never used a nurse practitioner. A greater number (93%) of the participants used a private, general practitioner, or a specialist as their usual source of health care.

Over 50% of the respondents stated they would allow the nurse practitioner to perform all 12 functions of the Kviz Acceptance Questionnaire. A large percentage of the respondents (70-87%) would allow the nurse practitioner to perform the six nontraditional functions of prescribing medications, completing physical exams, diagnosing minor illnesses and injuries, and performing minor surgical procedures. ANOVA of five of the nontraditional nurse functions revealed acceptance of these functions ($p = .0979$).

Four respondent characteristics were analyzed using multiple regression. The results showed that the rural consumer, regardless of age, education, income, or resident type, will accept the nurse practitioner role.

Discussion

Acceptance of the nurse practitioner role by the rural consumer has not been fully explored in the literature. Previous studies have explored acceptance of the nurse practitioner role among consumers and physicians, but few

have examined the consumers' acceptance of the advanced practice role.

In this study, using the Kviz Acceptance Questionnaire, acceptance by the rural consumer of the nurse practitioner was found to be 56.4%. These findings are supported by Kviz et al. (1983) who found an acceptance rate of 64.4% among consumers in the midwestern United States. In addition, Hogan and Hogan (1982) reported that 65% of the respondents would use the services of the nurse practitioner. Similar findings were reported by Enggist and Hatcher (1983) who stated 33% would utilize the nurse practitioner role. Also, Facione and Facione (1979), Shamansky and St. Germain (1987), and McGrath (1990) found favorable acceptance of the nurse practitioner role among consumers.

The Kviz Acceptance Questionnaire was composed of two sections: traditional and nontraditional nursing functions. The acceptance rate on the five traditional nursing functions was between 90% and 97%, while the six nontraditional nursing functions received 70% to 87%. Kviz et al. (1983) reported between 98% and 72% acceptance rate on the traditional nursing functions and between 43% and 69% acceptance on the nontraditional role. Perhaps the differences in the scores can be related to the researcher's small sample size (N = 71) and the rural community in Northeast Mississippi that was chosen. This limits the results from being generalized to other areas. Further

research needs to be done with a larger sample and a larger community, so that the results can be more generalized to other populations.

Conclusions

The findings of this study revealed that the consumers (N = 71) in the rural community expressed moderate acceptance of the nurse practitioner role. The typical consumer was male, white, married with no children in the home, and between the ages of 51 and 65 years. The consumer had at least a high school education, an income between $10,000 and $20,000, and lived outside the city limits. Therefore, the general population in the rural community will accept the role of the nurse practitioner.

Implications for Nursing

Implications derived from this research were examined in four general areas. These areas are nursing theory, research, practice, and education.

Nursing theory. This study was conducted using King's (1981) conceptual framework for nursing. The social system component of King's framework provided the structure and direction for the research. This system is described as one in which relationships between individuals and attitudes directly influence outcomes. The concepts of the social system include authority, power, rank, and decision making. The rural consumer has all of these concepts included in

his/her personal environment. All of these concepts have a significant impact on personal human behavior/interaction. The impact on the social system and personal attitudes translates into how communities influence behavior, interactions, acceptance, and rejection of health-care providers' practice. The results of this study demonstrate that the rural consumer has a positive attitude toward the nurse practitioner and will accept the nurse practitioner role without regard to his/her status in the community.

Nursing research. The significance to nursing research has repeatedly been demonstrated through this study's conclusions supporting past research and through stimulation of further research. Studies have reported that the most common strategy used by nurse practitioners was verbal identification of oneself as a nurse practitioner. More education is needed regarding the scope of the expanded role.

Nursing practice. The success or failure of a nurse practitioner's practice may depend on the marketing strategies put into practice. Marketing activities are not a panacea for the nurse practitioner, but if properly implemented can strengthen patient satisfaction. For the nurse practitioner, patient satisfaction can be one of the most effective methods of marketing the expanded role. Most rural consumers are unaware of the functions of the nurse practitioner. Education and marketing the expanded role of

the nurse practitioner to the rural consumer are of great importance. The findings of this study revealed that the nurse practitioner role was accepted in the rural community, thus marketing activities could be directed toward this segment of the population.

Nursing education. The significance of this research to nursing education is that, although the rural consumer appears to be accepting of the nurse practitioner role, more education of the nontraditional functions performed by the nurse practitioner is needed. Curriculum in schools of nursing should provide community experiences in which students become aware of the differences in attitudes between urban and rural communities, particularly relating to nursing and different nursing roles.

Recommendations for Future Research

Recommendations for future research include

1. Replication of the study using a larger sample size to determine if results are applicable to larger and more diverse groups.

2. Replication of the study using a different data collection technique to have a larger response rate.

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REFERENCES

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APPENDIX A

KVIZ ACCEPTANCE QUESTIONNAIRE AND DEMOGRAPHIC DATA QUESTIONNAIRE

Kviz Acceptance Questionnaire

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.

Would you be willing to allow a specially trained nurse practitioner to . . .

		Yes	No
a.	Record your health history?	_____	_____
b.	Take routine measures, such as blood pressure and pulse?	_____	_____
c.	Perform a complete routine physical examination?	_____	_____
d.	Take laboratory samples, such as blood samples and throat culture?	_____	_____
e.	Decide whether or not you need to see a doctor when you go to a doctor's office or clinic?	_____	_____
f.	Diagnose minor illnesses, such as an upset stomach or a sore throat?	_____	_____
g.	Diagnose minor injuries, such as sprains and bruise?	_____	_____
h.	Give shots and vaccinations?	_____	_____
i.	Perform minor surgical procedures, such as putting in stitches and removing warts?	_____	_____
j.	Prescribe medication and treatment for a minor illness or injury?	_____	_____
k.	Explain the doctor's diagnosis to you?	_____	_____
l.	Make follow-up house calls after treatment by a doctor?	_____	_____

Demographic Questionnaire

Please (✓) your appropriate response.

1. Participant's Sex
   ____ a. Male
   ____ b. Female

2. Participant's Marital Status
   ____ a. Married
   ____ b. Single
   ____ c. Divorced
   ____ d. Widowed

3. Participant's Age
   ____ a. Under 20 years
   ____ b. 21 to 30 years
   ____ c. 31 to 40 years
   ____ d. 41 to 50 years
   ____ e. 51 to 65 years
   ____ f. Over 66

4. Participant's Education
   ____ a. Less than high school graduate
   ____ b. High school graduate
   ____ c. Some college or college grad

5. Participant's Race
   ____ a. White
   ____ b. Black
   ____ c. Hispanic
   ____ d. Other

6. Participant's Family Income
   ____ a. Less than $10,000
   ____ b. $10,001 to $20,000
   ____ c. $20,001 to $30,000
   ____ d. $30,001 to $40,000
   ____ e. $40,001 to $60,000
   ____ f. Over $60,001

7. Number of children who live with participant?_____

8. Usual source of care
   ____ a. Private, general practitioner, or specialist
   ____ b. Other_____
   ____ c. None

9. Resident type
   ____ a. Within the city limits
   ____ b. Outside the city limits

10. Have you ever used a nurse practitioner?
    ____ Yes If so, where?_____
    ____ No

APPENDIX B

PERMISSION TO USE TOOL

UIC
The University of Illinois at Chicago

Community Health Sciences (M/C 923)
School of Public Health
2035 West Taylor Street
Chicago, Illinois 60612
(312) 996-8866

January 3, 1991

Richard G. Wiseman, R.N., B.S.N.
503 Hillcrest Cove
New Albany, MS 38652

Dear Mr. Wiseman:

Please feel free to use the instrument to measure attitudes toward the nurse practitioner role from my research reported in Journal of Community Health. I have enclosed a copy of the relevant part of the questionnaire for your reference. The published article describes the essential psychometric characteristics of the scale.

Thank you for your interest in my work. I hope your research goes well.

Sincerely yours,

Frederick J. Kviz

Frederick J. Kviz, Ph.D.
Associate Professor

Encl.

APPENDIX C

APPROVAL OF COMMITTEE ON USE OF HUMAN SUBJECTS IN EXPERIMENTATION

MISSISSIPPI UNIVERSITY FOR WOMEN
Columbus, MS 39701

Office of the Vice President for Academic Affairs
Eudora Welty Hall
P.O. Box W-1603
(601) 329-7142

March 22, 1993

Mr. Richard Wiseman
c/o Graduate Nursing Program
Campus

Dear Mr. Wiseman:

I am pleased to inform you that the members of the Committee on Human Subjects in Experimentation have approved your proposed research with the stipulation that your consent form be modified in the following manner: (a) add more confidentiality in the consent; (b) include a statement that the participant may voluntarily withdraw at any time; (c) state that there will be no effect on the standard of care in the event of withdrawal; and (d) state that participation is entirely voluntary.

I wish you much success in your research.

Sincerely,

Thomas C. Richardson
Vice President
for Academic Affairs

TR:wr

cc: Mr. Jim Davidson
Ms. Jeri England
Dr. Nancy Hill
Dr. Rent

APPENDIX D

COVER LETTER TO PARTICIPANTS

503 Hillcrest Cove
New Albany, MS 38652

Dear Participant:

I am a graduate nursing student at Mississippi University for Women in Columbus, Mississippi. Presently, I am conducting a study on the consumer's acceptance toward the nurse practitioner. The title of my study is Acceptance of the Nurse Practitioner Role by Consumers in a Rural Community.

Participation in this study is voluntary. Participants in this study will not be identified in any way and only group data will be reported. You may withdraw from this study at any time up to data analysis. Participation in this project will in no way affect your present health care services.

You are being asked to assist me in this project by completing the enclosed questionnaire and returning it to me in the enclosed stamped, self-addressed envelope by May 28, 1993. Returning the questionnaire will give permission to participate in the study and complete anonymity will be enforced.

Sincerely,

Richard Wiseman, RN, BSN

APPENDIX E

FOLLOW-UP POSTCARD

Follow-Up Postcard

Just a friendly reminder, if you have already returned the questionnaire, thank you for your support. If you have not returned the questionnaire, your return as soon as possible would be appreciated.

Sincerely,

Richard Wiseman, RN, BSN