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RURAL ELDERS' KNOWLEDGE OF NURSE
PRACTITIONERS AS HEALTH
CARE PROVIDERS

by

TIM WATSON

A Thesis
Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Science in Nursing
in the Division of Nursing
Mississippi University for Women

COLUMBUS, MISSISSIPPI

August 2001

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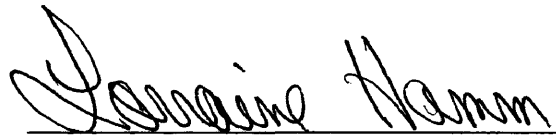
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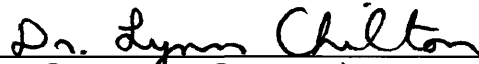
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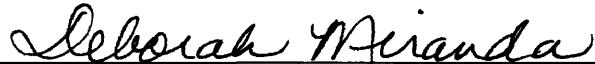
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Abstract

The population of America is growing older every year. Thirteen percent of the population is at least 65 years old. Many elders have limited health care choices because fewer physicians are locating their practices in rural areas. Nurse practitioners are now practicing in underserved areas such as rural communities. The purpose of this descriptive exploratory study was to explore baseline knowledge of rural elders concerning the role of nurse practitioners as health care providers. Becker's Health Belief Model was used to guide the research. The research question was as follows: What is rural elders' knowledge of nurse practitioners as health care providers? A convenience sample of 53 elders from Sunday school classes in northeast Mississippi was utilized. Data were obtained using the Davis Acceptance Survey (Revised). Descriptive statistics were used to analyze data. Findings indicated that 77.4% of rural elders in the study were knowledgeable regarding the nurse practitioner role in general. Respondents were more likely to believe that nurse practitioners could provide health maintenance

services, such as history taking and referral to physician, and less likely to know that nurse practitioners could treat more serious illnesses, such as high blood pressure and kidney infections. These results indicate that rural elders need additional education about the functional role of the nurse practitioner in primary care. Recommendations for future research include replication of the study using a larger sample size excluding those already studied, including more minorities, using a different a geographical location, and using different data collection instruments.

Dedication

I dedicate this research to my father,

Bodine Watson,

1937 - 2001

Acknowledgments

First, I would like to thank my research committee. Thanks to Lorraine Hamm who put in a lot of time and effort into my research and served as my advisor and chair. Thanks to Dr. Lynn Chilton who served on my research committee and as my advisor and chair during one semester. Thanks to Deborah Miranda for your professional influence and for serving on my committee and providing guidance.

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Chapter I

The Research Problem

The population of America is growing older every year, a phenomenon that labeled the "graying of America" (Star, 1999). Of all the people who have lived to the age of 65 years, it is speculated that one half are living today (Rowe & Kahn, 1998). In 1900, 4% of the population in the United States was 65 years old or older. Today 13% of the population in the United States is 65 years old or older. Life expectancy, currently 65 years, is longer than it has ever been and has increased 47 years in the last century. In 1982 there were 32,000 people over the age of 100, and by 1999 that number had risen to 61,000. It is predicted by 2050 there will be 600,000 people in the United States over the age of 100 years (Rowe & Kahn, 1998).

With these changes in population growth, more elders than ever before are seeking health care. Due to the lack of primary health care providers, there is an increased burden on the health care delivery system leading to an inability to meet the health care needs of people. One

possible solution to this growing problem is the utilization of nurse practitioners as primary health care providers for elders. Nurse practitioners have been accepted by their clients as competent health care providers (Edmunds, 1978). However, rural elders may be reluctant to see nurse practitioners if they have misconceptions or simply do not understand the nurse practitioner role (Davis et al., 1991). Research has demonstrated that rural areas lack the number of primary health care providers per capita that can be found in metropolitan areas and that persons 65 years of age and older are less likely to live in metropolitan areas when compared with persons under the age of 65 (American Association of Nurse Practitioners, 2000). Therefore, the purpose of this study was to evaluate rural elders' knowledge of the nurse practitioner role in primary care.

Establishment of the Problem

Many rural elders have trouble finding health care that they can access. Discrepancies in reimbursement between small and large hospitals and medical centers by Medicare and insurance companies have caused many rural hospitals to close. Fewer physicians are entering family medicine, an area where elders have traditionally sought health care. Rural elders in particular are impacted

because physicians cannot afford to practice in a small clinical setting (Murphy & Ericson, 1995). Doctors often choose to locate their practice in a large hospital or medical center setting. Rural elders tend to be medically underserved, as rural communities are unappealing to many primary care providers (Murphy & Ericson, 1995).

To achieve a viable practice in the rural community nurse practitioners must be able to attract clients from a population that is underserved. The nurse practitioner who can market himself or herself to elders will have the potential for an increasing client population. Nurse practitioners can be a new source of health teaching and an advocate for elders and their ability to function in society. Nurse practitioners emphasize prevention and early detection by educating their patients (Flanagan, 1998). Therefore, research about rural elders' health beliefs and practices is important to nurse practitioners.

Because of changes in health care dynamics, elders are being forced to change health care choices due to limitations in providers. They must take responsibility for getting the benefits and treatments they need within the limitations of their insurance. Today's elders must be open to new resources for health care, such as obtaining primary care from nurse practitioners. Nurse practitioners

traditionally take the time needed to address special concerns of the older clients. Venning et al. (2000) found that nurse practitioners spend almost 60% more time with their patients when compared with general practitioners. Nurse practitioners do not focus merely on diagnosing and treating illnesses. The patient's whole environment is taken into consideration by the nurse practitioner (Flanagan, 1998).

It has been reported that nurse practitioners would be accepted by the rural community, but certain conditions would have to be met (Baldwin et al., 1998). One such condition is that nurse practitioners work in collaboration with primary or referral physicians. Members of the rural community also expect the nurse practitioners to be involved within their community. In fact, community involvement has been cited as the most effective marketing strategy for the nurse practitioner (Baldwin et al., 1998).

The most important element for patients in choosing a health care provider appears to be what treatment the provider can or cannot offer. Most nurse practitioners work in collaboration with a physician, but nurse practitioners are capable of managing at least 80% of primary care office visits (Flanagan, 1998). Leininger

(1991) asserted that cultures placing importance on curing behaviors and treatment processes have a propensity to have more male curers than female curers. However, there are more female nurse practitioners than male nurse practitioners. It is not known if the age or sex of these nurse practitioners is a barrier or facilitator for the rural elder seeking primary health care.

There is an acute need for more primary health care providers and alternatives to traditional primary health care providers in the rural community. Venning et al. (2000) compared nurse practitioners and general practitioners. These researchers found that there was little difference in clinical care and found no difference in clinical outcomes. Nurse practitioners stand ready to fill the gap caused by the shortage of health care providers for the rural elder. In order to adequately market themselves, nurse practitioners need to be aware of what elders know and believe about the role of nurse practitioners as primary health care providers. Thus, the focus of the current study evolved.

Theoretical Framework

The theoretical framework for this study was the Health Belief Model (Becker, 1974). The Health Belief Model provides a theoretical framework for understanding

health behaviors. The model can be used to gather information about clients' perceptions regarding their state of health and what contributing factors would cause them to alter their behavior. For the current study, the model served as a framework for data gathering about how elders' knowledge of the role of the nurse practitioner might affect their health based on whether that knowledge caused the elder to view the nurse practitioner provider as a benefit or barrier to health.

The Health Belief Model is a method of explaining and predicting health related behavior. According to Becker (1974), the perception of five factors will cause change in behavior. Changes in behavior depend on the comprehension of perceived severity, threat, benefit, barrier, and self-efficacy.

Perceived severity is the belief that a health problem is serious. An individual's perceived severity is the perceived consequences of contracting a disease. Perceived threat is the belief that one is at risk to a problem or a disease state. An individual's perceived threat is a good indicator of motivation to change behavior. For example, if an elder is of the belief that a health problem is serious and if the elder believes that he or she is at risk for contracting that disease, then

the elder will be motivated to change personal behaviors, such a motivator might drive an elder to access a new type of primary care provider such as the nurse practitioner.

Perceived benefit is the belief that by changing behavior the threat to the individual will be reduced. Benefits are conceptualized by the individual according to his or her beliefs of the usefulness of preventive measures. Nurse practitioners can provide benefits to elders such as health promotion and disease treatment in local rural communities. Perceived barriers are an individual's perception of the obstacles to changing his behavior (Becker, 1974). Again, if the rural elder is acquainted with the role of the nurse practitioner in the primary care setting, the elder may have increased options for access to health care providers.

Self-efficacy is the belief that an individual has the ability to change his behavior. Today's elders have more options for changing their health-related behaviors than before, but it is unknown if elders are aware of their options regarding primary care providers. Understanding elders' knowledge about the nurse practitioner role will enable nurse practitioners to better serve this population. The use of Becker's (1974) Health Belief Model will help nurse practitioners

understand how elders view nurse practitioners in terms of ability to treat illnesses based on elders' perceptions of severity, susceptibility to illness, benefits, and barriers to health.

Significance to Nursing

Promoting the role of the nurse practitioner to the rural elder can have a substantial impact on the practitioner's practice. Many elders have misperceptions concerning nurse practitioners. Elders will not utilize nurse practitioners for primary care unless they are aware of the role of the nurse practitioner. Findings from this study contribute to determining educational needs of the rural elder concerning nurse practitioners as health care providers. Rural elders might not access the nurse practitioner's services if unaware of the role of the nurse practitioner.

This study may be useful for nursing and nurse practitioner educators as they prepare prospective or new nurse practitioners who are considering practicing in a rural community. The prospective student or the new nurse practitioner will be made aware of some of the barriers to the care of the elder population. By identifying the educational needs of rural elders, the nurse practitioner

students will be able to widen the scope of practice when they graduate and assume the role of nurse practitioner.

Limited research has been done on the subject of rural elders' knowledge of nurse practitioners as health care providers. Conduction of the current study provided a baseline understanding of the knowledge of rural elders concerning the role of nurse practitioners in primary care. This study could be used as a foundation for future studies related to rural elders' knowledge concerning nurse practitioners.

Assumptions

This descriptive exploratory study regarding rural elders' knowledge of nurse practitioners as health care providers is based on the following assumptions:

1. Elders are consumers of primary health care.
2. Elders' knowledge of nurse practitioners as health care providers is a measurable concept.
3. Elders are able to accurately self report knowledge of the nurse practitioner role.
4. Elders make decisions/choices concerning their health care providers based on perceived severity, perceived threat, perceived benefit, perceived barriers, and self-efficacy as described by the Health Belief Model (Becker, 1974).

Statement of the Problem

Nurse practitioners provide health care in rural communities. Elders may not understand the nurse practitioner role as a primary health care provider and therefore may not access them. Including the elderly population in the nurse practitioner's client base can have a major impact on practice. Nurse practitioners may not articulate their role to this group of clients unless they have an understanding concerning elders' knowledge level about their ability to provide care. Therefore, the problem addressed in the current study was rural elders' knowledge of nurse practitioners as health care providers.

Research Question

For the purpose of this study, one research question was asked. The question for this study was as follows: What is rural elders' knowledge level of nurse practitioners as health care providers?

Definition of Terms

For the purpose of this study, the following terms were defined:

Rural elders: Theoretical: a body of people 65 years or older living in a relatively sparsely populated area.

Operational: a body of people 65 years old or older living

in a relatively sparsely populated area with a population of approximately 8,000 people in a rural area of a southeastern state.

Knowledge. Theoretical: the amount of awareness, familiarity, or information understood about a topic. Operational: An overall score of 72% or greater on the Davis Acceptance Survey (Revised) was determined to indicate a satisfactory knowledge level of nurse practitioners. A score of less than 72% indicated a knowledge deficit concerning nurse practitioners.

Nurse practitioners. Theoretical: registered nurses who have advanced education and clinical training in health care with the entry level being a master's degree. Operational: Nurse practitioners diagnose and treat acute and chronic diseases according to protocol approved by the Board of Nursing. Nurse practitioners serve as the primary care provider for all ages during health and illness (American Association of Nurse Practitioners, 2000).

Summary

This chapter established the problem under investigation. The Health Belief Model was the theoretical framework that guided the study. Significance of the study

to nursing was explained. Additionally, assumptions, the statement of the problem, and the research question were presented.

Chapter II

Review of the Literature

In reviewing the literature related to rural elders' knowledge of nurse practitioners as health care providers, the author discovered that this subject had been modestly researched. This chapter presents a review of the literature with a focus on the following issues: health beliefs and practices of rural elders, nurse practitioners as primary care providers, and nurse practitioners in the rural setting. Few studies were found relevant to the current endeavor emphasizing the need for more research in this area.

Health Beliefs and Practices of Rural Elders

Davis et al. (1991) conducted a qualitative study to determine the health beliefs and practices of rural elders. The researchers noted that elders have been the focus of studies concerning their health beliefs and practices. However, elders who resided in rural areas had not been studied as a subgroup.

The participants in the study were aged 65 years or older, had no cognitive impairments, and were not institutionalized. The study took place in six rural Alabama counties that had health care resources. Some participants resided within the limits of small towns while the others lived in more rural parts of the county. Of the 31 subjects interviewed, 25 were women. The ages of the subjects ranged from 65 to 94 years with a mean of 75 years. Fifty-eight percent of the subjects were Caucasian, and 42% were African American. Some of the subjects were known by the researchers, and others were recruited through senior citizen groups. The subjects were interviewed using a 9-item questionnaire and using a rotation method. Each interview was recorded on tape. Thirty- to 60-minute interviews were conducted either at participants' homes or at senior citizen centers.

Davis et al. (1991) determined that subjects believed the most significant gauge of health was being able to do what they wanted or needed to do. Health was very valuable to the subjects. For example, one subject stated, "One thing I want is to live. To me health means feeling good, being able to do your work everyday, get a good night's rest, and live as long as you can" (p. 13). Subjects rated their state of health according to how they felt and

believed they were healthy if they felt good and were not healthy if they felt bad. Some subjects believed that health was being pain free.

Identified health behaviors included "a balanced diet, exercising, taking medications, and staying busy" (Davis et al., 1991, p. 13). Having a positive attitude also was noted as a health-promoting behavior. Subjects usually tried to take care of health deficits independently before seeking assistance. For example, one subject stated, "I like to feel that I'm saving on my insurance by not making so many trips to the doctor. If I feel like I can do a good job with it and treat it myself, I do" (Davis et al., 1991, p. 13). When feeling ill, subjects most often tried rest as a first response to sickness. Other self-care methods included prescription medications, home remedies, or doing nothing.

Davis et al. (1991) concluded the main theme for health was feeling good. A secondary theme related to cognitive appraisal of health as "being able to function" (p. 14) was a secondary theme. As a whole the elders believed health to be extremely valuable. Loss of health was feared, dreaded, and believed to be associated with dependency.

The Davis et al. (1991) study provided valuable background information on health beliefs of elders, which was the focus of the current study. The information was particularly pertinent since both studies were conducted among rural elders of similar culture in the southeastern United States.

Another study which focused on elders' health beliefs and practices were conducted by Scott and Jacks (2000). The researchers designed a descriptive correlational study to determine differences in urban and rural elders and to examine their perceived and functional health, health-related activities, perceived level of social support, and demographics. A convenience sample of 244 males and females who were at least 65 years old was used. Half of the sample consisted of urban elders in an area with a population range of 40,000 to 80,000 and half of rural elders who lived in an area with a population range of 1,500 to 20,000.

The researchers used the Personal Lifestyle Questionnaire to determine how often the elders participated in health-promoting activities. The Self-Rated Health Test was used to measure the elders' perceived health. Elders' ability to achieve their activities of daily living was measured by the Self-

Evaluation of Life Function Test. Social support was measured using the Personal Resource Questionnaire 85. A demographic questionnaire was used to obtain data concerning the elders' age, gender, race, marital status, educational level, income, and living arrangements.

The results of this study indicated that rural elders had higher educational levels than the urban elders who were studied. The rural elders' perceived health was higher than the urban elders; however, the rural elders showed a greater use of substances such as alcohol. Urban elders perceived more positive supportive relationships and practiced more health-promoting activities daily. Urban elders also practiced more safety activities than the rural elders in the study. Conversely, rural elders reported a higher level of functional health. All of the rural elders frequently attended a nutritional center and received nutritional food and education.

Scott and Jackson (2000) asserted that there were interventions needed to strengthen the elders' current health-promoting activities. The authors recommended a comprehensive health assessment of each elder to identify health-promoting activities, perceived level of social support, functional ability, and existing health problems. It was further recommended that elders should be taught to

focus on their strengths and should be encouraged to start or continue positive health-related activities, such as exercising, eating a low-fat diet, and using seatbelts.

The Scott and Jacks (2000) research was relevant to the current research because it investigated rural elders' health-promoting activities. The present study focused on rural elders' knowledge about nurse practitioners, whose major role as a health care provider is health promotion. The Scott and Jacks (2000) research included participants from urban and rural elders while the current study included only rural elders.

Nurse Practitioners as Primary Care Providers

Venning, Durie, Roland, Lesse, and Roberts (2000) investigated nurse practitioners as primary care providers. The researchers designed the study to determine the process, outcome, and cost effectiveness of nurse practitioners when compared with general practitioners. The study was a randomized controlled trial of patients who requested a same day appointment. The setting of the study was 20 general practices in England and Wales. The nurse practitioners had been practicing in the role for at least 2 years, with the median length of time of being qualified as a nurse practitioner was 3 years.

Data were analyzed on 1,292 patients; 651 were seen by general practitioners and 641 were seen by nurse practitioners. The nurse practitioners and general practitioners scheduled their appointments at their normal intervals. The patients completed health status questionnaires before initial consultation and 2 weeks after. Nurse practitioners and general practitioners were scored according to how the patients rated their medical interview satisfaction, the practitioners' communication skills, the practitioners' behavior, and their distress relief. When the patient was a child, the nurse practitioners and general practitioners were scored according to how the parent rated the satisfaction of the medical interview, the communication with the parent, the communication with the child, and the distress relief.

The researchers found that the nurse practitioners spent a mean of 11.57 minutes with their patients compared to 7.28 minutes the general practitioners spent with their patients. The nurse practitioners wrote fewer prescriptions than the general practitioners, but the difference was statistically insignificant. The general practitioners ordered fewer tests than the nurse practitioners, and the nurse practitioners were more likely to ask the patients to return to the clinic.

The researchers concluded that patient satisfaction was an important component in almost all studies regarding the role of the nurse practitioner in primary care. The results of the study demonstrated that the patients reported a high level of satisfaction with their nurse practitioner care. Nurse practitioners generally spent more time with their patients than general practitioners, which may have played a role in nurse practitioner satisfaction ratings. Overall, the study demonstrated that there were few differences in clinical care and no differences in clinical outcome of the patients who were treated by nurse practitioners and patients who were treated by general practitioners. Additionally, the costs to the patients seen by the nurse practitioners were 12.5% lower than those seen by general practitioners.

The Venning et al. (2000) study was germane to the current study because it demonstrates the competency of nurse practitioners, which was the focus of the study under investigation. However, the study was conducted among a variety of age groups in urban and rural areas in England and Wales while the current researcher focused on rural elders in the United States. The more focused study served to provide much-needed information about an underserved population in the southeastern United States.

McGrath (1990) conducted a meta-analysis on the cost effectiveness of the nurse practitioner by performing a review of literature in nursing journals, medical journals, and U.S. governmental reports and found four studies that were pertinent to the research subject. McGrath (1990) found that the cost effectiveness of nurse practitioners had been studied by the Carle Clinic Association in Illinois, the U.S. Congressional Office of Technology Assessment, San Juan Veterans Administration Cardiology Clinic, and a consumer-owned health-managed organization (HMO) in Washington state.

McGrath (1990) found that it had been demonstrated that nurse practitioners perform approximately 50% to 90% of the duties performed by physicians, and physicians routinely earn about three to four times the salary of nurse practitioners. Therefore, it cost more to see a physician. The researcher also found that nurse practitioners spend more time with their patients and are more thorough.

McGrath (1990) noted that physicians who had associations with nurse practitioners had added benefits for patient care. These benefits included increased accessibility of health care for patients, quality care for patients, economic benefits, and physician

satisfaction. The study demonstrated that nurse practitioners and physicians were comparable in resolving acute illnesses and prescribing practices, but nurse practitioners were superior in the areas of communication, counseling, and interviewing. McGrath (1990) concluded that nurse practitioners were effective primary health care providers who also attended to illness prevention and health education.

The McGrath study was relevant to the current research because both studies focused on nurse practitioners. While the McGrath (1990) study reinforced the cost effectiveness of the nurse practitioner, the current study investigated knowledge of elders about nurse practitioners. The McGrath (1990) study also demonstrated the accessibility of the nurse practitioner for the rural elder client.

Nurse Practitioners in the Rural Setting

Kviz, Misener, and Vinson (1983) studied rural health care consumers' perceptions of nurse practitioners. The study examined 30 midwestern United States counties identified as at least 50% rural, and 3,056 consumers ages 18 and over participated. The participants were asked if they would allow a nurse practitioner to do 12 common functions that were normally performed by nurse

practitioners. The Kviz Questionnaire included 12 yes or no questions, such as "Would you allow a nurse practitioner to record your health history, take routine measures, perform a complete physical exam, diagnose minor injuries, and diagnose minor illness?"

The researchers used a systematic random sample from telephone directories. Data were collected using questionnaires that were mailed. The questionnaires were addressed to the person listed in the telephone directory. However, the questionnaire could be completed by any adult over 18 years who was familiar with the household's current health practices. Data were also collected from 100 face-to-face interviews. The interviews were conducted with one adult of the household who was familiar with the household's current health practices. The wording of the items in the mailed questionnaires and interviews was identical.

Participants included mainly lower-middle income persons who were not living on a farm. Almost 73% of the households surveyed consisted of two adults aged 18 to 64 years. The median age of the participants was 51 years old. The sample was not racially diverse, as evidenced by the 96.1% of White participants. There were 1,675 females and 1,381 males in the study.

Males showed more acceptance of the nurse practitioner role than did females. Households with incomes less than \$10,000 were least accepting of the nurse practitioners. The highest acceptance came from households with incomes in the \$10,000 to \$19,999 range. Thus, participants who were young, male, and with a relatively low household income were found to be the most accepting of the nurse practitioner.

Kviz et al. (1983) discovered an acceptance of the nurse practitioner role when the activities performed by the nurse practitioner were functions normally performed by nurses. Ninety percent of the participants would allow a nurse practitioner to record their health history, take laboratory samples, give injections, and take routine measures. One half of the participants would allow a nurse practitioner to make follow-up house calls after treatment by a physician, interpret the physician's diagnosis, diagnose minor injuries and illnesses, and decide whether a patient should see a physician.

When the nurse practitioner performed duties that have traditionally been performed by physicians, the participants were not as approving. Only 45% of the participants would allow a nurse practitioner to prescribe medications and treat minor illnesses or injuries. Forty-

four percent would allow a nurse practitioner to perform a complete physical examination. Kviz et al. (1983) suggested that this could be corrected by educating the public concerning the nurse practitioner as health care provider.

While this study is dated, this research is germane to the current study because it demonstrates the need for educating the public concerning the role of the nurse practitioner as a primary health care provider. The participants of the Kviz et al. (1983) study were 96.1% White while the current study was conducted with a more racially diverse population. The Kviz et al. (1983) study measured rural health care consumers' perceptions of nurse practitioners. The current study focused on rural elders' knowledge about the role of the nurse practitioner, thus expanding the Kviz et al. (1983) study and allowing for comparisons in findings over two decades of time.

In another study, Baldwin et al. (1998) conducted research to evaluate nurse practitioners and physician assistants in meeting the needs of underserved medically rural communities. The researchers investigated the satisfaction and support of the nurse practitioners and physician assistants by community members in a midwestern state. Five towns within one county with populations

ranging from 230 to 1,500 residents were included. Poverty was a problem in this county with the per capita income being \$9,875 (Baldwin et al., 1998).

The researchers used a qualitative design using five focus groups to garner input. The research was conducted by faculty members from two universities plus a graduate student. The leaders and data collectors of the focus groups included two nurses, one health educator, and the community health graduate student.

The sample of 30 subjects was obtained through purposeful selection. Each focus group was composed of four to nine members from each community. No participants were less than 18 years old. Each group had a nurse, pharmacist, or paramedic representative. Community leaders also were involved. Community leaders called each focus group together with men and women being equally represented.

Two major themes emerged from content analysis of the focus group data. The first theme was lack of exposure to nurse practitioners and physician assistants; the second theme was conditional acceptance of these health care providers. The subjects desired more information on the education level of nurse practitioners and physician assistants and information on the services provided by

these health care providers. The other finding of the research demonstrated confidence in the nurse practitioners and physician assistants being accepted by the rural community if specific conditions were met. Acceptance depended on the individual serving as the nurse practitioner or physician assistant and the individuals' involvement with their community. The nurse practitioner/physician assistant also was expected to offer services at a cost that was much lower than physicians in nearby towns.

Baldwin et al. (1998) concluded that nurse practitioners and physician assistants would be accepted by the rural community sample, but certain conditions would have to be met. The rural community would accept nurse practitioners and physician assistants who worked in collaboration with primary or referral physicians. The rural sample also expected the nurse practitioners and physician assistants to be involved in the community. Community involvement emerged as the most effective marketing for the nurse practitioner and physician assistant.

Baldwin et al. (1998) provided rich background information for the current study which investigated rural elders' knowledge about nurse practitioners. The previous

and current studies differed in the sample surveyed, as the Baldwin et al. (1998) participants were of all ages while the participants in the current study sample were elders. Both studies surveyed rural residents from low income areas. The Baldwin et al. (1998) study supported the current study because the participants desired more information on nurse practitioners. The current researcher examined the knowledge base of the rural elders concerning nurse practitioners.

Murphy and Ericson (1995) researched the acceptance of nurse practitioner services by rural elders. The purpose of this study was to analyze elders' satisfaction with a family nurse practitioner in which the family nurse practitioner was the only primary care provider in a health care clinic located in a rural community. The people of the community had been traveling 15 miles to a nearby small town to see a family physician. Specialty medical providers were located in a distant urban center 100 miles away.

The study was set in a small community in which over 30% of the residents were 65 years old or older. A large urban health corporation had established the clinic. Primary care in the rural clinic had been provided by several physicians, but the physicians would only stay at

the clinic for short periods of time before leaving for medical practices in larger settings. A certified family nurse practitioner lived in the area and was employed by the rural clinic to provide primary health care to the village in collaboration with a physician who lived in the small town 15 miles away (Murphy & Ericson, 1995).

During the 6 months prior to data collection, 200 community residents 65 years old or older had sought health care from the family nurse practitioner at the rural clinic. From these 200 elders, a sample of 60 was randomly chosen. A final sample of 34 elders agreed to participate in the study.

The participants' ages ranged from 65 to 88 years with a mean of 72.4 years. Over half of the participants reported having post-secondary schooling. All participants were either married or widowed. Most participants were Medicare recipients and had household incomes higher than \$1,000 per month. Females accounted for 62% of the research subjects.

Nurse practitioner services were scored on a satisfaction scale of 1 to 3 by the study participants. A score of 1 was given for dissatisfaction while a score of 2 was given if the participant rated the nurse practitioner service as "OK." The nurse practitioner was

given a 3 if the participant was satisfied with the service. The family nurse practitioner services in the clinic rated an average score of 2.91 with a standard deviation of 0.3. None of the participants were dissatisfied with the family nurse practitioner. The results of the study were positive for the family nurse practitioner as the major finding was the high satisfaction rating of the family nurse practitioner services that were available in the rural community.

Murphy and Ericson (1995) discussed three convergent factors that have impeded the availability and accessibility of health care services for rural elders. First, the growth in population of individuals 65 years old and older increased the incidence of individuals with chronic illnesses and disabilities. Second, there was an increase in the number of retired persons who have moved from urban to rural areas since 1970. Third, Medicare and private insurance cutbacks led to decreased access to health care for all ages due to the closing of small rural hospitals.

According to the researchers, consequences of these three factors were as follows: "limited access to services; differential entry into long-term care institutions; limited supply of available physicians;

differential morbidity and mortality rates between rural and urban residents; fewer protective and public services; and unmet long-term care needs" (Murphy & Ericson, 1995, p. 72). The outcome realized by the researchers was rural communities have tremendous hardships in appealing to and retaining physicians and other health care workers such as nurse practitioners. Recommendations included further studies on rural elders' satisfaction with nurse practitioners.

The Murphy and Erikson (1995) research, which investigated rural elders' satisfaction with nurse practitioners as primary care providers, laid a foundation for the current study which also studied rural elders' knowledge about nurse practitioners. However, the research instruments differed as Murphy and Erikson (1995) used a satisfaction scale while the current researcher utilized a questionnaire to determine knowledge level. The Murphy and Ericson (1995) study demonstrated that alternative health care providers were essential and available. Further, the Murphy and Erikson (1995) study was relevant to the current research because rural elders who are affected by the shortage of primary health care providers were surveyed in both studies, and family nurse practitioners

are able to fill that void satisfactorily. Therefore, the focus of the proposed study emerged.

Chapter II provided a review of the current literature in the areas of health beliefs and practices of rural elders, nurse practitioners as primary care providers, and nurse practitioners in the rural setting. After searching for related studies to the current research, it is noted that there has been modest research in the area of nurse practitioners as the primary care provider for the rural elder client suggesting that more research is needed in this area.

Chapter III

The Method

This researcher sought an understanding of rural elders' knowledge about nurse practitioners as primary health care providers. In an underserved population these elders have limited access to primary care providers. In many rural areas the only health care provider in the community is a nurse practitioner. Therefore, it is important for nurse practitioners to understand rural elders' perceptions of them. This chapter will explain the design of the study along with the procedures for data collection and analysis.

Design of the Study

The design of this study was descriptive exploratory. This choice was appropriate because descriptive research describes and documents phenomenon as it naturally occurs. Descriptive exploratory research lays the foundation for further research (Polit & Hungler, 1999). The current researcher sought to collect and describe data specific to issues concerning rural elders' knowledge level of nurse practitioners as health care providers.

Variables

For this study the variable of interest was rural elders' knowledge of nurse practitioners as health care providers. Controlled variables included the geographic location of the study, age of participants, and number of participants. Age was controlled by requiring eligible participants to be 65 years old or older. Intervening variables included honesty in answering the questions, understanding of the questions, and any biases participants had based on previous knowledge or experiences.

Limitations

There were several limitations identified for this research study. The sample came from four rural Sunday school classes in Mississippi. The use of a convenience sample weakens the overall design since it is more likely to produce a biased sample compared with random samples. For instance, elders who attended the selected Sunday school classes had access to transportation and were ambulatory. Therefore, the more vulnerable elders were not questioned. Although the Davis Acceptance Survey has been used before by researchers with health care providers, it has never been used before with elders. Therefore, no established reliability or validity has been established.

However, the Davis Acceptance Survey (Revised) is assumed to have face value within the confines of this study.

Setting, Population, and Sample

The setting for the study was a rural area in Mississippi with a population of approximately 8,000. Sampling design was one of convenience. Four Sunday school classes from three different denominations in a rural community were studied. The Sunday school classes were within a 10-mile radius of one another. Two Sunday school classes with memberships consisting of Caucasians and two Sunday school classes with memberships consisting of African Americans were utilized. Although no church in this study excluded anyone due to his or her race, traditionally in the South, church memberships are generally made up of one race. All subjects 65 years old or older who were willing to be in the study and attended one of the selected Sunday school classes were asked to participate in the study. A final sample of 53 rural elders was acquired.

Instrumentation

The researcher utilized two instruments to collect data for this study. The demographic instrument was a researcher-developed tool (see Appendix A). The

demographic instrument obtained demographic data on the participants of the study. The Davis Acceptance Survey (Revised) (see Appendix B) is an instrument that was adapted for the current study. The Davis Acceptance Survey (Revised) was utilized to collect data related to acceptance of the nurse practitioner.

The demographic survey was comprised of seven questions developed by the researcher. The demographic instrument sought information from the subjects pertaining to age, race, and sex. Additionally, questions pertaining to past experiences with nurse practitioners and the preferred sex and age of their nurse practitioner of choice were included.

The Davis Acceptance Survey (Revised) consisted of 25 yes or no questions. The survey contained questions relating to various components of the nurse practitioner role. Examples included whether a nurse practitioner could take a health history, order diabetic diets for newly diagnosed diabetics, adjust insulin for insulin-dependent diabetics, perform complete physical exams, suture lacerations, remove sutures, adjust blood pressure medications, adjust blood thinner medication based on lab results and clinical signs and symptoms, order lab work, or prescribe medications. The Davis Acceptance Survey

(Revised) was adapted to a reading level appropriate for the participants. The printing font was enlarged to account for possible decreased visual acuity of the participants. Additionally, the survey was printed on beige-colored paper to decrease reflection or glare. The 25 yes or no questions regarding nurse practitioners as health care providers were scored on the percentage of correctly answered questions. It was predetermined that 18 correctly answered questions equaled a minimum passing score of 72% or a demonstrated knowledge of nurse practitioners as health care providers. Although the Davis Acceptance Survey had been used before by researchers with health care providers, it had never been used with the elder population. Therefore, no established reliability or validity had been established. However, the Davis Acceptance Survey (Revised) was reviewed by a panel of experts and was assumed to have face value within the confines of this study.

Procedures

Permission to conduct the study was first obtained from Mississippi University for Women's Committee on Use of Human Subjects in Experimentation (see Appendix C), and permission to utilize the Davis Acceptance Survey (Revised) was obtained from the author (see Appendix D).

The purpose of the study and the rights of the participants were explained to the pastors and Sunday school teachers of the four selected Sunday school classes. Written permission to collect data was obtained from the pastor of each selected church (see Appendix E).

On the dates agreed upon by the pastors, the researcher personally went into the identified Sunday School classes to solicit participants and collect data. The purpose of the study and the rights of the participants were then explained to the participants in each class. Once verbal consent was obtained from the participants, the informed consent form (see Appendix F) and questionnaire were distributed. The researcher led participants through the questionnaire on an item-by-item basis to ensure clarity of the instrument to participants and consistency in their understanding of response choices. As the questionnaires were collected, written informed consents were separated from the questionnaires. The research was conducted during the months of April and May 2001.

Method of Data Analysis

Demographic data were analyzed utilizing descriptive statistics. Measures of central tendency including mean, median, and mode were utilized. Descriptive statistics

also were used to analyze data from the Davis Acceptance Survey (Revised). An item-by-item analysis was performed for each question of the Davis Acceptance Survey (Revised) to determine which items were answered correctly. A total score was calculated based on the percentage of questions answered correctly. A predetermined score of 72% or higher indicated an acceptance level of knowledge about nurse practitioners as health care providers among the surveyed group of elders. Conversely, a score of less than 72% indicated a knowledge deficit concerning nurse practitioners as health care providers among the surveyed group of elders.

Chapter III described the design of the study and the procedures for data collection and analysis. Chapter IV will explain the findings of the study including knowledge level of the surveyed group of elders about the nurse practitioner role.

Chapter IV

The Findings

Many rural elders have trouble finding health care that they can access. For a viable practice in the rural community, the nurse practitioner must be able to attract clients from a population that is underserved. The nurse practitioner who can market himself or herself to elders will have the potential for an increasing client population. Nurse practitioners can be a new source of health teaching and an advocate for elders and their ability to function in society. The purpose of this study was to explore rural elders' knowledge of nurse practitioners as health care providers. The design of this study was descriptive exploratory. This chapter includes a description of the sample, data analysis, and other findings.

Description of the Sample

The sample consisted of 53 rural elders, 65 years and older, who attended one of the selected Sunday school classes from four different churches. Two churches with African American memberships and two with Caucasian

memberships were utilized for this study. Caucasian females accounted for 68% of the sample. Caucasian males made up 15% of the sample. African American females were 11% of the sample population while African American males made up only 6% of the sample.

The demographic survey revealed that the youngest participant was 65 years, and the oldest participant was 93 years old. Seventy-nine percent of the participants were female, and 21% of the participants were male. Fifty-one percent ($\underline{n} = 27$) of the study participants had utilized a nurse practitioner in the past, and 49% ($\underline{n} = 26$) had not utilized the services of a nurse practitioner. Fifty percent of the women in the study had been seen by a nurse practitioner, while 55% of the males in the study had been to a nurse practitioner. Of the participants who had utilized the services of a nurse practitioner, 67% of those participants had been seen by a female nurse practitioner and 33% of those participants had been seen by a male nurse practitioner. If the participants could choose the sex of their nurse practitioner, 51% ($\underline{n} = 23$) of the respondents would utilize the services of a female nurse practitioner and 49% ($\underline{n} = 22$) would prefer a male nurse practitioner. Of the participants who expressed a preferred age of their nurse practitioner, 43% ($\underline{n} = 20$)

preferred a practitioner in his or her 40s, 40% ($\underline{n} = 19$)
preferred a practitioner in his or her 30s, 9% ($\underline{n} = 4$)
preferred a practitioner in his or her 60s, 6% ($\underline{n} = 3$)
preferred a practitioner in his or her 50s, and 2% ($\underline{n} = 1$)
of the participants preferred a practitioner in his or her
20s.

Results of Data Analysis

The research question for this study was as follows:
What is rural elders' knowledge level of nurse
practitioners as health care providers? To explore rural
elders' knowledge of nurse practitioners as health care
providers, the Davis Acceptance Survey (Revised) was
utilized. This research instrument was revised to measure
rural elders' knowledge of nurse practitioners as health
care providers. The instrument consisted of 25 questions
that were to be answered with yes or no.

Table 1 presents the number and percentage of
questions answered correctly and incorrectly by the study
participants.

Table 1

Number and Percentage of Questions Answered Correctly and Incorrectly on the Davis Acceptance Survey (Revised)

Question	Correct		Incorrect	
	<u>n</u> ^a	% ^b	<u>n</u> ^c	% ^d
1 Take health history	48	91.6	5	8.4
2 Order diabetic diet	45	84.9	8	15.1
3 Perform complete physical exams	43	81.1	10	18.9
4 Adjust insulin	42	79.2	11	20.8
5 Stitch a small cut	45	84.9	8	15.1
6 Remove stitches	50	94.3	3	5.7
7 Adjust high blood pressure medication	43	81.1	10	18.9
8 Diagnose croup and bronchitis	43	81.1	10	18.9
9 Provide health education	46	86.8	7	13.2
10 Begin treatment for high blood pressure	42	79.2	11	20.8
11 Monitor patients in office after surgery	46	86.8	7	13.2
12 Prescribe medications for nasal, eye, and skin problems	44	83.0	9	17.0
13 Diagnose and treat kidney/bladder infections	40	75.5	13	24.5

(table continues)

Table 1 (continued)

Question	Correct		Incorrect	
	<u>n</u> ^a	% ^b	<u>n</u> ^c	% ^d
14 Adjust blood thinner medication	36	67.9	17	32.1
15 Order lab work	47	88.7	6	11.3
16 Interpret lab work and treat based on results	45	84.9	8	15.1
17 Prescribe medications	42	79.2	11	20.8
18 Refer patients to physical, occupational, and speech therapy	46	86.8	7	13.2
19 Refer patients to a physician	51	96.2	2	3.8
20 Order and administer vaccinations	50	94.3	3	5.7
21 Bill insurance companies/Medicare	46	86.8	7	13.2
22 Send patients to medical specialists	48	91.6	5	8.4
23 Order EKG	46	86.8	7	13.2
24 Interpret EKG and treat based on findings	43	81.1	10	18.9
25 Order procedures such as x-rays	48	91.6	5	8.4

^an = 41. ^bPercentages were rounded to the nearest tenth place. ^cn = 12. ^dPercentages were rounded to the nearest tenth place.

These findings indicated that 41 or 77.4% of the rural elders in this study were knowledgeable of the nurse practitioner role as a health care provider while 12 or 22.6% of the participants were found to have a knowledge deficit concerning nurse practitioners as health care providers. Surprisingly, five of the participants answered that a nurse practitioner could not take a health history which is a function of basic nursing. The question that was missed most often was answered incorrectly by 17 of the 53 participants. They answered that a nurse practitioner could not adjust blood thinner medication based on lab results and signs and symptoms. There were six questions that over 90% of the participants answered correctly, and there were five questions that over 20% of the participants answered incorrectly. The highest scores on the survey had 100% of the questions answered correctly, while the survey with the lowest score had only 12% of the questions answered correctly. Overall, the average score of the participants was 84%.

Chapter V

The Outcomes

The population of America is growing older every year. Thirteen percent of the population is at least 65 years old. Many elders have limited health care choices because fewer physicians are locating their practices in rural areas. Nurse practitioners are now practicing in underserved areas, such as rural communities where many elders reside.

The purpose of this descriptive exploratory study was to explore the baseline understanding of the knowledge of rural elders concerning the role of nurse practitioners as health care providers. Understanding the knowledge of rural elders regarding nurse practitioners as health care providers will be beneficial to the nurse practitioner considering locating in a rural area. Becker's (1974) Health Belief Model provided the direction and structure for this descriptive study. The research question was as follows: What is rural elders' knowledge level of nurse practitioners as health care providers? Descriptive statistics were used to analyze the data. This chapter

presents a summary and discussion of these findings. Implications for nursing are given along with recommendations for further research.

Summary of Findings

Rural elders ($N = 53$) from four Sunday school classes were selected to participate in this research. Two churches with African American memberships, and two churches with Caucasian memberships were utilized. Two surveys were used to collect data. The Davis Acceptance Survey (Revised) measured knowledge of rural elders regarding nurse practitioners as health care providers. A demographic survey was utilized to record age, gender, race, and information pertaining to preferences and prior experiences with nurse practitioners. Findings indicated a fairly high overall knowledge level of nurse practitioners by the rural elders (84%). Forty-one or 77.4% of the rural elders scored 72% or better, which indicated an acceptable knowledge level of nurse practitioners as health care providers by rural elders. Twelve or 22.6% of the rural elders scored below 72% which indicated a knowledge deficit.

Discussion and Conclusions

Rural elders' knowledge of nurse practitioners as health care providers has rarely been examined. Previous studies have examined the acceptance of the nurse practitioner role by consumers and physicians, nurse practitioner effectiveness, cost effectiveness of the nurse practitioner, and patient satisfaction. Nurse practitioners have generally been accepted by clients as competent health care providers (Edmunds, 1978). However, rural elders may be reluctant to see nurse practitioners if they have misconceptions or simply do not understand the nurse practitioner role (Davis et al., 1991). Rural elders tend to be medically underserved, as rural communities are unappealing to many primary care providers (Murphy & Ericson, 1995).

As long ago as 1978, Edmunds found that nurse practitioners were accepted by their clients. Kviz et al. (1983) likewise noted a favorable rate of acceptance and satisfactory knowledge level about nurse practitioners among consumers in the Midwest. Murphy and Ericson (1995) also explored nurse practitioner services to rural elders and found a high satisfaction rating of family nurse practitioner services by residents of the rural community. While the current study explored knowledge level and not

acceptance levels, current findings are both comparable and promising as the mean knowledge level regarding the nurse practitioner role among the current sample was 84%.

Davis et al. (1991) and Scott and Jacks (2000) examined elders' health beliefs as they related to health-seeking behaviors. Both studies found that rural elders placed a high value on health, feared losing their health, and regularly practiced some form of health promotion activities. The current researcher asserts that nature of nurse practitioner practice is to focus on health maintenance as well as treatment of illness. Findings from the current study indicate that elders believe nurse practitioners can competently provide health promotion services, such as physical exams, health education, and screening tests. Therefore, rural elders may feel comfortable seeking health maintenance oriented services from nurse practitioners.

Venning et al. (2000) concluded that patient satisfaction was a component that was important in almost all studies regarding the role of the nurse practitioner in primary care. Similarly, the McGrath (1990) study demonstrated that nurse practitioners were effective primary health care providers and were comparable to physicians in resolving acute illnesses and prescribing

practices. Additionally, nurse practitioners were superior in the areas of communication, counseling, and interviewing. However, Baldwin et al. (1998) concluded that the nurse practitioner would only be accepted by the rural community if certain conditions were met, demonstrating that the rural community would accept nurse practitioners who worked in collaboration with their primary or referral physicians. Nurse practitioners who work in the rural community where the current study was conducted generally practice in the same office or department as their collaborating physician. Therefore, the nurse practitioner might be more likely to be accepted by the rural elder. This assertion is substantiated by the fact that a small majority (51%) of the current sample had actually been treated by a nurse practitioner. Additional findings from the current study indicate that some hesitation or misunderstanding about the nurse practitioner role existed among the current sample as well.

Analysis of the Davis Acceptance Survey (Revised) indicated that the rural elders had an overall acceptable knowledge level of nurse practitioners as health care providers. This finding means that rural elders have a general understanding of nurse practitioners as health

care providers. However, specific findings on the research instrument indicate that some elders lack awareness regarding the scope of nurse practitioner practice. For example, over 32% ($n = 17$) of the participants were not aware that nurse practitioners could adjust blood thinner medication based on lab results and patient signs and symptoms. Thirteen (24.5%) of the participants did not know that nurse practitioners diagnose and treat kidney or bladder infections. Eleven (20.8%) of the participants were not aware that a nurse practitioner can adjust insulin for insulin dependent diabetics, begin initial treatment for patients with high blood pressure, or prescribe medications. These findings indicate the public's lack of comprehension of the nurse practitioner's role and function as a primary health care provider. These outcomes demonstrate the need for more public education regarding the nurse practitioner role to increase public awareness.

A small majority (51%) of the rural elders had seen a nurse practitioner for primary care. Of those participants, 67% had visited a female nurse practitioner while 9 (33%) had been to a male nurse practitioner. Of those respondents expressing a preferred gender of nurse practitioner, 51% of participants preferred a female nurse

practitioner while 49% expressed the desire to see a male nurse practitioner. This finding was unexpected because the participants were women and men made up only 21% of the sample. Both professional nursing and nurse practitioner practices continue to be dominated by females in the United States. This finding may indicate the need for recruitment of more male nurses into advanced practice nursing.

The findings of this study can be utilized by nurse researchers, nurse practitioner educators, nurse practitioners, and nurse practitioner students when developing educational and marketing plans. Rural elders are consumers of health care and need more education pertaining to nurse practitioners as health care providers. Rural elders would benefit from having more information concerning nurse practitioners as health care providers.

Implications for Nursing

Implications were derived for four general areas of nursing science. These areas are nursing theory, research, education, and practice.

Nursing theory. Becker's (1974) Health Belief Model provided a theoretical framework for understanding health-related behaviors. According to Becker (1974), perceptions

of severity, threat, benefit, barriers, and self-efficacy will cause a change in a health-related behavior. For the current study, the model served as an appropriate framework for data gathering about how elders' knowledge of the role of the nurse practitioner might affect his or her health based on whether that knowledge caused the elder to view the nurse practitioner provider as a benefit or barrier to health.

Nursing research. The significance to nursing research of the current study is demonstrated by the lack of research that has been done on rural elders' knowledge of nurse practitioners as health care providers. This research demonstrated that overall the population sample was knowledgeable regarding nurse practitioners as health care providers. However, many had limited knowledge concerning specific roles of the nurse practitioner. Findings from this study laid the foundation for further research in this area and imply that additional research is needed to gain a more complete understanding of elders' knowledge and beliefs about the nurse practitioner role in primary health care, especially in rural areas.

Nursing education. Curricula in nurse practitioner education programs should address the public's perceptions and awareness of the nurse practitioner role. Nurse

practitioner educators should make the new graduate aware of the marketing strategies needed to promote one's practice to all available clients.

Nursing practice. Promoting the role of the nurse practitioner to the rural elder has tremendous implications for the nurse practitioner practice. Many elders have misconceptions regarding nurse practitioners as evidenced by the findings of past and current studies. Elders will not utilize nurse practitioners for primary care unless they are aware of the role of the nurse practitioner. The current researcher found that rural clients need additional education regarding specific functions of nurse practitioners in managing acute and chronic illnesses in primary care. The nurse practitioner can provide such education by speaking to senior citizen groups and the population at large about the role of the nurse practitioner. Additional community outreach can be accomplished through news media and by placing educational materials in clinics, health departments, and other sites frequented by elders. Finally, by consistently providing holistic, competent, and compassionate services, nurse practitioners hold the potential to develop a reputation in the rural community that will be the most powerful

marketing tool for themselves and their colleagues everywhere.

Limitations

The findings of this study should be viewed cautiously due to the number of participants and the rural geographic location of the study. A convenience sample was utilized which contributed to a weaker design than if a random sample had been used. Forty-four (83%) of the participants were Caucasian, and 9 (17%) of the participants were African American. The researcher was unaware of the lack of Sunday school classes for the rural African American elder. It was discovered in the rural community under investigation that while churches with Caucasian memberships had Sunday school classes designated for their members who are elders, the churches with African American memberships did not. No other minorities were included in this study.

The research instrument was originally designed to evaluate nurse practitioner acceptance. This was the first time it was adapted to evaluate knowledge. Therefore, the survey had no established reliability or validity for the purpose for which it was used in this study. These factors limit the generalization of the findings.

Recommendations for Further Study

Recommendations for future research include the following:

1. Replication of the study using a larger sample size excluding those already studied to determine if findings are applicable to larger groups.

2. Replication of the study with the inclusion of more minorities to determine if findings are applicable to more diverse groups.

3. Replication of the study using a different geographical location.

4. Replication of the study using different data collection instruments.

5. Replication of the study to establish reliability and validity of the Davis Acceptance Survey (Revised) to evaluate knowledge as well as acceptance of the nurse practitioner role.

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APPENDIX A
DEMOGRAPHIC DATA

Demographic Data

Please fill in the blank with the correct answer.

1. Age: _____
2. Sex
 - a. Male
 - b. Female
3. Race
 - a. Black
 - b. White
 - c. Other. Please specify: _____
4. Have you ever been treated by a nurse practitioner?
 - a. Yes
 - b. No

If "yes," was your nurse practitioner

 - a. Male
 - b. Female
5. Preferred age of a nurse practitioner
 - a. 20s
 - b. 30s
 - c. 40s
 - d. 50s
 - e. Over 60
6. Preferred sex of a nurse practitioner
 - a. Male
 - b. Female

APPENDIX B
DAVIS ACCEPTANCE SURVEY (REVISED)

Davis Acceptance Survey (Revised)

Please mark the correct answer for each question listed.
 If the answer is "Yes," place an "X" in the "Yes" column.
 If the answer is "No," place an "X" in the "No" column.

<u>Function</u>	Yes	No
1. Take health history.	_____	_____
2. Order diabetic diet for newly diagnosed diabetics.	_____	_____
3. Perform complete physical examinations or checkups.	_____	_____
4. Adjust insulin for insulin-dependent diabetics.	_____	_____
5. Stitch a small cut.	_____	_____
6. Remove stitches.	_____	_____
7. Adjust high blood pressure medication.	_____	_____
8. Diagnose and treat problems of the lungs such as croup and bronchitis.	_____	_____
9. Provide health education.	_____	_____
10. Begin initial treatment for patients with high blood pressure.	_____	_____
11. Monitor patients in the office after surgery.	_____	_____
12. Prescribe medications for problems such as nasal congestion and diseases of skin and eyes.	_____	_____
13. Diagnose and treat kidney/bladder infections.	_____	_____

<u>Function</u>	Yes	No
14. Adjust blood thinner medication based on lab results and clinical signs and symptoms.	_____	_____
15. Order needed lab work.	_____	_____
16. Interpret lab work results and treat patient based on the results of the lab work.	_____	_____
17. Prescribe medications for patients.	_____	_____
18. Refer patients to physical therapy, occupational therapy, speech therapy, social work, and home health.	_____	_____
19. Refer patients to a physician.	_____	_____
20. Order/administer vaccines such as flu shots as needed.	_____	_____
21. Bill insurance companies/Medicare.	_____	_____
22. Send patients to medical specialists such as a heart doctor.	_____	_____
23. Order EKG and other heart tests.	_____	_____
24. Interpret EKG and treat based on findings.	_____	_____
25. Order procedures such as x-rays needed.	_____	_____

APPENDIX C

APPROVAL OF MISSISSIPPI UNIVERSITY FOR
WOMEN'S COMMITTEE ON USE OF HUMAN
SUBJECTS IN EXPERIMENTATION



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March 30, 2001

Mr. Tim Watson
P. O. Box W-910
Campus

Dear Mr. Watson:

I am pleased to inform you that the members of the Committee on Human Subjects in Experimentation have approved your proposed research as submitted with the recommendation that the title of the survey or study be placed on the survey form. The Committee requires that the results of any questionnaire or survey be kept under lock and key to ensure confidentiality and that they be kept for a sufficient length of time to protect both participant and researcher.

I wish you much success in your research.

Sincerely,

Vagn K. Hansen, Ph.D.
Vice President
for Academic Affairs

VH:wr

cc: Mr. Jim Davidson
Dr. Lynn Chilton
Graduate Nursing Program

APPENDIX D
PERMISSION TO USE TOOL

October 27, 2000

Mr. Tim Watson, R.N.
809 Rose Lane
Amory , Mississippi 38821

Dear Tim:

As per our conversation on October 25, 2000, you have my full permission to adapt and use my research instrument , "The Davis Acceptance Survey". I wish you much success in your educational endeavors.

Sincerely,

A handwritten signature in cursive script that reads "Lori Davis". The signature is written in black ink and is positioned below the word "Sincerely,".

Lori C. Davis, R.N., M.S.N.

APPENDIX E
CONSENT TO CONDUCT STUDY

Pastor,

My name is Tim Watson. I am a registered nurse and a graduate student in the Master of Science in Nursing Program at Mississippi University for Women in Columbus, Mississippi. As partial fulfillment for graduation, I am conducting research concerning rural elders' knowledge of nurse practitioners as health care providers.

I am asking anyone 65 years old or older who is willing to be in the study and attends one of the selected Sunday school classes to participate in this study. The time needed to answer the questions will vary from person to person. On average, the questions will take about 15 minutes to complete. The findings of the study, from the elder's point of view, can assist nurse practitioners in gaining a better understanding of the elder client.

Test subjects' identities will be protected, as no names will appear on the questions. Informed consent will be separated from the questions. Information gained from questions will be reported as group data.

Test subjects may drop out of this study at any time before turning the questions in. Once the questions are turned in, they cannot be taken out of the study because they cannot be identified due to having no name on them.

I understand the purpose of this study and give my permission for members of my church to be included in the research study entitled Rural Elders' Knowledge of Nurse Practitioners as Health Care Providers.

Name: _____

Church: _____ Date: _____

APPENDIX F
INFORMED CONSENT

Informed Consent

My name is Tim Watson. I am a registered nurse and a graduate student in the Master of Science in Nursing Program at Mississippi University for Women in Columbus, Mississippi. As partial fulfillment for graduation, I am conducting research concerning rural elders' knowledge of nurse practitioners as health care providers.

I am asking anyone 65 years old or older who is willing to be in the study and attends one of the selected Sunday school classes to participate in this study. The time needed to answer the questions will vary from person to person. On average the questions will take about 15 minutes to complete. The findings of the study, from the elder's point of view, can assist nurse practitioners in gaining a better understanding of the elder client.

Your identity will be protected, as no names will appear on the questions. Informed consent will be separated from the questions. Information gained from questions will be reported as group data.

You may drop out of this study at any time before turning the questions in. Once the questions are turned in, they cannot be taken out of the study because they cannot be identified due to having no name on them.

I understand the purpose of this study and give my permission to be included in the research study entitled Rural Elders' Knowledge of Nurse Practitioners as Health Care Providers.

Name: _____

Date: _____