8-1-1997

Rural Acceptance of the Nurse Practitioner

Mary Branstetter
Western Kentucky University

Follow this and additional works at: http://digitalcommons.wku.edu/theses

Part of the Nursing Commons

Recommended Citation
http://digitalcommons.wku.edu/theses/768

This Thesis is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Masters Theses & Specialist Projects by an authorized administrator of TopSCHOLAR®. For more information, please contact topscholar@wku.edu.
RURAL ACCEPTANCE OF THE
NURSE PRACTITIONER

A Thesis
Presented to
the Faculty of the Department of Nursing
Western Kentucky University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Nursing

by
Mary Moore Branstetter
August 1997
RURAL ACCEPTANCE OF THE NURSE PRACTITIONER

Date Recommended 9/16/97

Kay Carr
Director of Thesis

Mary E. Hazel
Eileen R. Williams

Edward Gay 10/29/97
Dean, Graduate Studies and Research Date
ACKNOWLEDGMENTS

I wish to thank the staff and administration of the community hospital for their cooperation and encouragement in the design and implementation of this study. The support of the social service staff was instrumental in the identification of the data base, distribution, and collection of the questionnaires that were used in this study.
TABLE OF CONTENTS

Acknowledgments ................................................................. iii
Illustrations and Tables .......................................................... vi
Abstract .................................................................................. vii

Chapter I Introduction .............................................................. 1
Purpose and Significance ......................................................... 2
Summary .................................................................................. 3

Chapter II Review of Relevant Literature ..................................... 4
Characteristics of Healthcare in Rural Communities ...................... 5
Applied Studies of Nurse Practitioner Functions ......................... 7

Chapter III Framework ............................................................... 11
Definition of Relevant Terms .................................................... 13
Objectives ........................................................................... 15
Essential Assumptions .............................................................. 15

Chapter IV Methods and Procedures ........................................... 17
Sample ................................................................................ 17
Setting ............................................................................. 18
Ethical Considerations ........................................................... 18
Instrumentation .................................................................... 19
Procedures .......................................................................... 20
Summary ............................................................................. 22
ILLUSTRATIONS AND TABLES

Table 1  Age and Economic Referral Base Distribution  .................................................. 12

Figure 1 General Systems Theory ................................................................. 14

Table 2  Analysis of Demographics ................................................................. 25

Table 3 Willing Respondents of Traditional Nursing Functions ......................... 27

Table 4 Scaled Score for Traditional Nursing Function Acceptance ................. 28

Table 5 Willing Respondents to Nontraditional Nursing Functions ................. 29

Table 6 Scaled Score for Nontraditional Nursing Function Acceptance .......... 30
The rural community has lacked adequate healthcare providers for the past thirty years. Collaboration between physician and family nurse practitioner is an option for meeting the need for delivery of primary healthcare in the rural community. A descriptive design was used to describe the acceptance of the nurse practitioner by patients living in rural southcentral Kentucky who utilize the services of the community hospital. Every fifth inpatient and outpatient discharge was mailed the Kviz Assessment Questionnaire and a demographic survey. The questionnaires (N = 842) were mailed over a four week survey period with reminder postcards mailed to each survey recipient one week after the initial mailing. The return rate was 32% (N = 267). Respondents were asked if they would allow a specially trained nurse practitioner to perform 12 specific functions, of which 4 were traditional and 8 were nontraditional. The majority of the respondents indicated acceptance of the traditional and nontraditional functions. Use of chi-square analysis identified a statistically significant relationship between the willingness to accept nontraditional nursing functions and (a) respondents who were satisfied with their usual source of care \( \chi^2 (4, N = 230) = 5.93, p = .01 \); (b) respondents who obtained regular check-ups \( \chi^2 (4, N = 239) = 6.53, p = .01 \); (c) respondent age \( \chi^2 (6, N = 238) = 7.27, p = .03 \); and (d) respondents who felt there is an insufficient quantity of physicians available \( \chi^2 (6, N = 225) = 10.83, p = .01 \).
CHAPTER I

INTRODUCTION

The rural community has lacked adequate healthcare providers for the last three decades (Bachus, 1995; Brush & Carpezuti, 1996; DeAngelis, 1994). Many solutions have been proposed to meet the health care needs of the rural community, the nurse practitioner being one of them. The nurse practitioner, in the rural setting, has the opportunity to provide cost-effective competent primary healthcare with positive outcomes in collaboration with the medical staff in the community in which the nurse practices (Schmidt, Brandt, & Norris, 1995).

The rural population age distribution is concentrated in the very young and the very old groups, with the sixty-five and over group increasing rapidly (Bigbee, 1993; Murphy & Ericson, 1995). Explanations for the growth in these groups include technologic advances to support the premature infant, disease management in the elderly resulting in a longer lifespan, and rural influx of retired elderly migrating from the urban areas. Murphy and Johnson (1995) have identified three trends that intensify the need for availability and accessibility of rural health care for the elderly: increased longevity, rural flux of retired persons, and cost containment efforts of third party insurers.
Southcentral Kentucky is experiencing the frustration of the shortage of primary care providers. Collaborative practice between the physician and the family nurse practitioner is an option for the delivery of primary care to decrease the shortage. Acceptance of the family nurse practitioner, by the rural population, has not been explored by the current healthcare providers in the community. The increased availability of a primary healthcare provider, by utilization of the nurse practitioner, would potentially reduce the incidence of emergency room over utilization for episodic primary care, reduce cost, increase patient satisfaction, and provide the opportunity for education resulting in a proactive approach to health management. These potential benefits would depend on acceptance of the nurse practitioner performing nontraditional functions.

Purpose and Significance

The purpose of this study was to identify the level of acceptance of the nurse practitioner by the population who utilizes a rural community hospital in southcentral Kentucky. The literature that investigates criteria-based acceptance levels of the nurse practitioner is limited. The information in and the results of this study can increase the available knowledge of the rural community acceptance of the nurse practitioner.

The significance of this study would be the ability to anticipate areas of acceptance of the nurse practitioner in this rural community and identification of those areas in which education of the community would be necessary to provide a smooth transition to provision of primary healthcare. This study could be utilized by health planners of the rural community who wish to increase accessibility of the rural community to primary healthcare through collaborative practice with a nurse practitioner (Murphy & Ericson, 1995).
Summary

Rural community acceptance of the nurse practitioner as a primary care provider is the first step in establishing a trusting relationship on which a proactive approach to health maintenance is built. A proactive approach produces a healthier community through education, prevention of illness and or injury, monitoring of chronic disease states, and early intervention and treatment of conditions when necessary (Bigbee, 1993). The purpose of this study was to identify the level of acceptance of the nurse practitioner in southcentral Kentucky by a population who utilizes a rural community hospital. The ability to anticipate areas of acceptance of the nurse practitioner in this rural community and identification of areas in which education would facilitate a smooth transition to primary healthcare provision by a nurse practitioner reflects the significance of this study. Review of the literature will focus on research that relates to patient satisfaction and criteria-based function acceptance in the following chapter.
CHAPTER II

REVIEW OF RELEVANT LITERATURE

The role of the nurse as a practitioner began in 1965 at the University of Colorado as a joint development between nurse Loretta Ford and physician Henry Silver. They identified the need for accessible, affordable, and competent medical care for a pediatric population and developed the collaborative role of the pediatric nurse practitioner. Simultaneously, physician specialization and urban and suburban clustering occurred while nursing expanded its scope of practice to include the provision of direct care to underserved populations (Bachus, 1995; Brush & Carpezuti, 1996; DeAngelis, 1994). "Consequently, nurses 'specialized' toward primary health care roles while physicians 'specialized' away from them" (Brush & Carpezuti, 1996, p. 6).

The uniqueness of the rural setting can be described by the characteristics of rural people and of the rural nurse. The role of the nurse practitioner in the rural setting is not static, but dynamic. It is changing with the needs of the community and with organized healthcare provision. The majority of nurse practitioner role research is related to role performance: job satisfaction, utilization, role adjustment, practice trends, and role facilitators and inhibitors (Hupcey, 1993). Research that explores the perceptions of rural
populations about the nurse practitioner relates to patient satisfaction and a limited number of criteria-based function studies.

**Characteristics of Healthcare in Rural Communities**

The underserved populations have traditionally been in rural areas (Bachus, 1995; Brush & Carpezuti, 1996; DeAngelis, 1994). According to the 1990 United States Census of Population, approximately sixty-one million of the nation’s one hundred fifty-eight million residents reside in a rural community.

**Rural Populations**

The rural culture, according to Bigbee (1993), reflects the Gemeinschaft concept of social organization. This concept refers to “a community in which the primary unit of interaction is bound by close personal long-term relationships with family and friends…” (p. 133). Professionally, this concept implies that health information presented by “native” professionals is better received (Lee, 1993; Schmidt, Brandt, & Norris, 1995).

The rural population is aging, poor, at risk for health problems, and often delay healthcare until socioeconomic obligations are met (Bigbee, 1993; Lee, 1993). Thus, care of an aging population requires a caring and nurturant personality (Lookinland & Anson, 1995). The elderly value professional attitudes of caregivers, treatment of individuals with respect, and adequate information using open communication and negotiation (Ballard-Reisch, 1990; Ford, 1995; Lookinland & Anson, 1995).

**Rural Nurses**

Bigbee (1993) has identified five characteristics of rural nursing. These characteristics apply to the hospital and nonhospital setting and reflect both the positive and negative aspects of rural nursing. Each of these characteristics lends itself easily to
the advanced practice role of the nurse practitioner. The characteristics of rural nurses are being “on-duty” at all times, being a “jack of all trades” and the “all purpose nurse,” being increasingly independent and self-directed, increasing staff cohesiveness and camaraderie, and achieving a high degree of positive community visibility.

Close community ties demand being “on-duty” at all times. Dealing with friends, family, and acquaintances makes confidentiality a challenge while a holistic approach to care is facilitated by this closeness. The rural nurse has limited “anonymity” and true time off which can lead to “burn-out.”

The rural nurse has a multiplicity of functions and a generalist orientation, while being a “jack of all trades” or an “all purpose nurse.” The small size of the rural health care provider system demands that the rural nurse be able to perform a diversity of roles (e.g., clinical, administrative, and educational for the patient and staff).

Increased independence and self-direction is a result of multiplicity of functions. Perceived autonomy and control in patient care is a predictor of job satisfaction in rural nursing (Bigbee, 1993). Professional isolation and limited consultation opportunities in the rural setting promotes self-evaluation with self-direction of personal and professional education needs.

Increased staff cohesiveness and camaraderie is attributed to close personal relationships within the community. This culture may influence the generally low levels of “burn-out” despite high demands placed on rural nurses.

A high degree of positive visibility in the community is associated with rural nurses. The opinion and education of the nurse is valued and respected by the rural community. The positive opinion builds self-esteem and professional pride in the rural
nurse. The combination of close community ties and a high positive visibility places personal anonymity at risk due to the lack of “off” time with a potential for “burn-out.”

Applied Studies of Nurse Practitioner Functions

The majority of nurse practitioner role research is related to role performance: job satisfaction, utilization, role adjustment, practice trends, and role facilitators and inhibitors (Hupcey, 1993). These issues will not be addressed in this review because the purpose of this study is to look at nursing functions with the nurse practitioner role. Current research using rural populations explores the perceptions of patient satisfaction. A limited number of criteria-based function studies are available.

Patient Satisfaction

Linn (1976) found that patient satisfaction, with a family nurse practitioner, was equal to or more favorable in levels of satisfaction as compared to physician and R.N. providers in four of five measures (general visit satisfaction, rapport, comparison to physician services, and comparison to other nurses). Situations that were perceived as “worry-inducing,” (persistent cough, fever and diarrhea in infants, children with convulsions, and adolescents with unexplained weight loss) chose nurse practitioners as their second choice as a care provider (Batchelor, Spitzer, Comley, & Anderson, 1975; Drury, Greenfield, Stilwell, & Hull, 1988). In a 1978 study by Levine, Orr, Sheatsley, Lohr, and Brodie, ninety-five percent of patients evaluated the services of the nurse practitioner as very good or good and seventy-one percent felt comfortable being treated by them.

Chenoy, Spitzer, and Anderson (1973) and Zikmund and Miller (1979) studied the general acceptance of the nurse practitioner by the public using perceived preference, and
perceived competency and trust, respectively. Trust emerged as a precursor to acceptance involving nurse practitioner diagnosis.

Greater acceptance is observed among patients with prior exposure to the nurse practitioner (Batchelor et al., 1975; Drury et al., 1988; Enggist & Hatcher, 1983). Patients cite increased personal interest, less professional distancing, increased information exchange, and a decrease in the cost of care in nurse practitioner preference (Lewis & Cheyovich, 1976; Stone, 1994). The reasons for nurse practitioner preference reflects the rural population characteristics of being poorer, less educated, conservative and self-directed and the characteristics of rural nurses having multiplicity of function and high positive community visibility with the Gemeinschaft concept of social organization.

Criteria-Based Nursing Functions

Little research has been published addressing the patient perceptions of specific functions that define the nurse practitioner role (Kviz, Mariner, & Vinson, 1983). In a 1978 study by Levine et al., nurse practitioners performed ninety-five percent of the routine physical examinations in an urban clinic setting. Physicians evaluated ninety-three percent of the nurse practitioner performance as satisfactory or excellent. The nurse practitioner, in this study, obtained historical data, performed diagnostic activities (ordering laboratory, radiological, and EKG studies) with indirect and direct supervision, and performed patient teaching with no unsatisfactory evaluation from the physician. Unsatisfactory evaluations ranged from 11 percent (independent reading of electrocardiograms) to 2 percent (family counseling activities). Levine et al. (1978) states these results can be applied to medically underserved areas, implying that these results can
be generalized to the rural population. There is no discussion of the differences in urban and rural population characteristics.

Kviz, et al. (1983) surveyed a large rural population using specific traditional and nontraditional nursing functions. The traditional nursing functions included obtaining routine measures (such as blood pressure and pulse), administration of injections, obtaining laboratory specimens, and recording a health history. The nontraditional functions included performance of a complete physical examination, prescribing medication and treatment for minor illness or injury, performing minor surgery, deciding physician referral, diagnosing of minor illness, diagnosing of minor injuries, explaining the physician’s diagnosis, and making follow-up house calls after treatment by a physician. Almost all of the respondents accepted the nurse practitioner performing traditional nursing functions. In contrast, the nontraditional nursing functions (historically physician functions) were accepted by fifty percent or more of the respondents with the exception of diagnosis and pharmacologic treatment of minor illness and performance of a complete routine physical examination. Acceptance was slightly greater in males less than thirty years old with a post secondary education. Wiseman and Hill (1994) surveyed a small rural population (N= 71) using the Kviz Acceptance Questionnaire. The acceptance rate for traditional nursing functions ranged from ninety to ninety-seven percent, while the nontraditional nursing functions ranged from seventy to eighty-seven percent. The least accepted nontraditional function was performance of minor surgery preceded by the prescribing of medication. There was no reported age or gender difference.

Kviz et al. (1983) and Wiseman and Hill (1994) utilized a criteria-based acceptance questionnaire developed by the investigator of the 1983 study. The traditional and
nontraditional functions utilized continue to reflect the scope of practice of the rural nurse practitioner. Age and gender (males under thirty years old) differences were initially reported but not replicated in the second smaller study. The rank order of the top nine most accepted functions was almost identical in both studies.

There have been no studies of patient satisfaction with nurse practitioners of rural Kentucky populations. In this study, I explore the rural population acceptance of nurse practitioner function in southcentral Kentucky.
CHAPTER III
FRAMEWORK

The open system aspect of Bertalanffy’s General System Theory is utilized as the conceptual framework for this study. The major concept to be utilized is the interrelatedness of systems and subsystems. For example, the individual is a subsystem of the healthcare system and the healthcare system is a subsystem to the rural community system (Bertalanffy, 1968). The living system is capable of receiving information (input) from the environment and responding to it (output). The system maintains organization by “dynamic, rhythmic interaction among the elements of the system (self-regulation)” (Hazzard, 1971, p. 385). The terms to be understood are living system, input, thurput, output, and self-regulation.

For this study, the environment (*the living system*) is the service area of a rural southcentral Kentucky community hospital. This area is defined by the geographic locations in which the inpatient and outpatient population reside and covers an eight county referral base. Table 1 describes the age distribution, economic status, and the primary care physician (PCP) ratio per ten thousand population of the environment within the eight counties. The community hospital is licensed for one hundred ninety-six acute care beds. Services provided include inpatient and outpatient medical and surgical care,
level II emergency care, an eighteen bed skilled nursing unit, and home health nursing services, respiratory care, and physical therapy. The emergency room averages two thousand visits a month. Population demographics of importance to this study include a service area with a higher percentage of elderly, persons below the poverty level, and significantly fewer primary care physicians than the state average.

Table 1
Survey County Age, Economic, and Primary Care Physician Referral Base

<table>
<thead>
<tr>
<th>County</th>
<th>Population</th>
<th>&lt;18 yrs</th>
<th>&gt;65 yrs</th>
<th>Below Poverty</th>
<th>PCP/10,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>15,360</td>
<td>24.6</td>
<td>15.7</td>
<td>25.1</td>
<td>5.2</td>
</tr>
<tr>
<td>B</td>
<td>34,001</td>
<td>24.9</td>
<td>15.9</td>
<td>21.5</td>
<td>5.3</td>
</tr>
<tr>
<td>C</td>
<td>6,784</td>
<td>23.8</td>
<td>18.4</td>
<td>31.6</td>
<td>4.4</td>
</tr>
<tr>
<td>E</td>
<td>10,357</td>
<td>26.3</td>
<td>13.6</td>
<td>27</td>
<td>2.9</td>
</tr>
<tr>
<td>G</td>
<td>10,371</td>
<td>23.2</td>
<td>17.9</td>
<td>21.6</td>
<td>8.7</td>
</tr>
<tr>
<td>H</td>
<td>14,890</td>
<td>26.1</td>
<td>15.2</td>
<td>27.1</td>
<td>4</td>
</tr>
<tr>
<td>M</td>
<td>8,963</td>
<td>24.7</td>
<td>15.7</td>
<td>27.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Mo</td>
<td>11,401</td>
<td>24.8</td>
<td>16.1</td>
<td>26.9</td>
<td>6.1</td>
</tr>
<tr>
<td>Kentucky</td>
<td>3,687,000</td>
<td>26</td>
<td>12.6</td>
<td>19</td>
<td>17</td>
</tr>
</tbody>
</table>

PCP: primary care physician per 10,000 population.

For this study, input is measured by the responses of the persons in the environment for which the level of nurse practitioner acceptance is unknown. Those selected for the sample are mailed a questionnaire focusing on acceptance of the nurse practitioner performing traditional and nontraditional nursing functions. The survey process describes the ability of the system to receive information from the environment.
The *thruput concept* involves the introduction of the research process to analyze the responses of the sample. The response of the sample is organized into data. The data is interpreted by the researcher as a level of acceptance.

The *output concept* is defined as the level of acceptance. The level of acceptance represents the response of the sample to the input.

The conceptual definition of acceptance is the approval and willing agreement of the individual to be provided traditional and nontraditional nursing care by a nurse practitioner. The operational definition of acceptance is an affirmative response on the *Kviz Acceptance Questionnaire* to allow a nurse practitioner to perform specific functions.

After the analysis of the level of acceptance by the community, feedback would be formulated to respond to that level, *self-regulation*. If the level of acceptance is high, it would encourage nurse practitioners to enter the community as primary care providers. If the acceptance is low, education would need to be provided to the community to support the role of the nurse practitioner. Thus, the output affects the environment to change the environment (Leddy & Pepper, 1989). See Figure 1.

**Definition of Relevant Terms**

For the purpose of this study the definition of the following terms will be utilized in the text. They are as follows:

*Rural*: Territory, population, and housing units not classified as urban (U. S. Census, 1990).

*Urban*: The census designated places of 2,500 or more persons, excluding the rural portions of extended cities, including incorporated and unincorporated urbanized areas (U. S. Census, 1990).
Figure 1. General systems theory interrelatedness of systems and subsystems to affect environmental change.

*Nurse practitioner*: A registered nurse who meets the license criteria as an advanced registered nurse practitioner in the state in which the nurse practices specific for the population the nurse serves.

*Traditional nursing functions*: The functions of obtaining routine measures (such as blood pressure and pulse), administration of injections, obtaining laboratory specimens, and recording a health history.

*Nontraditional nursing functions*: The functions of performing a complete physical examination, prescribing medication and treatment for minor illness or injury, performing minor surgery, deciding physician referral, diagnosing of minor illness, diagnosing of minor injuries, explaining the physician’s diagnosis, and making follow-up house calls after treatment by a physician.
Objectives

The objectives of this study will be the following:

1. To determine if a rural community in southcentral Kentucky will accept performance of traditional nursing functions by a nurse practitioner;
2. To determine if a rural community in southcentral Kentucky will accept performance of nontraditional nursing functions by a nurse practitioner; and
3. To identify demographic characteristics within the selected population that are related to acceptance and non-acceptance of the nurse practitioner function.

Essential Assumptions

Essential assumptions used in this study are the following:

1. There is a need to explore the level of acceptance of the nurse practitioner in the rural setting;
2. The nurse practitioner can competently perform the stated traditional and nontraditional nursing functions;
3. A primary healthcare provider is desired among the rural population;
4. Respondents will be truthful, but not necessarily consistent;
5. Members of the community are knowledgeable of the traditional and nontraditional functions of the nurse practitioner; and
6. Questionnaires and surveys are completed by an adult, parent, or guardian of a minor child as requested in the cover letter.

The following three questions are derived from these objectives and assumptions:

Will a southcentral Kentucky rural community accept performance of traditional nursing functions by a nurse practitioner? Will a southcentral Kentucky rural community accept
performance of nontraditional nursing functions by a nurse practitioner? Which
demographic characteristics within the selected population are related to acceptance and
non-acceptance of nurse practitioner function? The next chapter will describe the methods
and procedures for answering these questions.
CHAPTER IV

METHODS AND PROCEDURES

Procedures used to determine the acceptance of the nurse practitioner in a rural area of Kentucky were based on several objectives. These objectives were (a) to determine if a rural community in southcentral Kentucky will accept performance of traditional nursing functions by a nurse practitioner, (b) to determine if a rural community in southcentral Kentucky will accept performance of nontraditional nursing functions by a nurse practitioner, and (c) to identify demographic characteristics within the selected population that are related to acceptance and non-acceptance of the nurse practitioner function. A descriptive design was used to determine criteria-based acceptance of the nurse practitioner by patients who utilized the services of the community hospital.

Sample

The target population for this study consisted of the discharged patients, both inpatient and outpatient, of a rural south central Kentucky community hospital. Every fifth discharge was predetermined for opinion survey in accordance with established hospital protocol. The discharge list was computer generated by the social service department for distribution of the facility's *Patient Opinion Form*. Historically, the facility's *Patient Opinion Form* has a return rate of ten to fifteen percent. Eight hundred
fifty to one thousand *Kviz Acceptance Questionnaires* were estimated to produce a minimum of one hundred completed surveys. The facility averages three to four thousand discharges per month. A systematic sample of every fifth discharge for a four week period, $N = 842$, was selected as the accessible population in accordance with established facility survey protocol. The *Kviz Acceptance Questionnaire* was mailed to the survey population with the facility’s *Patient Opinion Form* as this was the mechanism already in place to survey opinion for the facility. At the end of the four week period there had been 842 surveys distributed with 267 completed surveys returned, the distribution of the *Kviz Acceptance Questionnaire* was stopped.

Setting

The setting for this study was the service area of a rural southcentral Kentucky community hospital. The area contains an eight county referral base in which the inpatient and outpatient population resides. The community hospital is licensed for one hundred ninety-six acute care beds. Services provided include inpatient and outpatient medical and surgical care, level II emergency care, an eighteen bed skilled nursing unit, and home health nursing services, respiratory care, and physical therapy. The area has a higher percentage of elderly and poor and a lower percentage of primary care physicians.

Ethical Considerations

This study was reviewed and approved in accordance with the policies and procedures of Western Kentucky University for studies that involve human subjects and a three member doctorally prepared thesis committee. Facility review and approval, by the Director of Social Services and the Hospital Administrator, of the study was obtained (See Appendix A). Consent to use the instrument was obtained from the author by phone.
Instrumentation

Kviz Acceptance Questionnaire

The Kviz Acceptance Questionnaire covers a broad range of activities and services. The Kviz Acceptance Questionnaire is a yes/no criteria-based instrument that asks the respondent to indicate his/her willingness to allow a nurse practitioner to perform each of twelve nursing functions, eight nontraditional and four traditional (see Appendix B). The traditional nursing functions included obtaining routine measures (such as blood pressure and pulse), administration of injections, obtaining laboratory specimens, and recording a health history. The nontraditional functions included performance of a complete physical examination, prescribing medication and treatment for minor illness or injury, performing minor surgery, deciding physician referral, diagnosing of minor illness, diagnosing of minor injuries, explaining the physician’s diagnosis, and making follow-up house calls after treatment by a physician.

The items were developed with the intention of attempting to construct a Guttman cumulative scale (Kviz et al., 1983). The alpha coefficient of reliability for the 12 items is 0.82 indicating good internal consistency. Instruments are assumed to have face validity, and a panel of three medical professionals agreed the instruments had content validity.

Demographic Survey

The demographic survey contained four questions relating to the patients’ usual source of care, four questions relating to their satisfaction with health care, three health status questions, and general demographics (see Appendix C). Respondents were asked if they had a usual source of care, what that source was, a reason if there was no usual source of care, and quantity of available physicians. Satisfaction questions related to
medical provider, explanations of diagnosis and treatment, and health services. Health status questions were perceived health status, presence of symptoms, and use of regular check-ups. General demographic questions included age, gender, education, and residence.

Procedures

The procedures for conducting this study involved selecting the sample, collecting the data, and developing the procedures for determining the acceptance score. Each will be discussed.

Sample Selection

Data for this study was collected in conjunction with the facility’s Patient Opinion Form. Potential respondents were selected from a computer generated discharge log for a four consecutive week period during the months of February and March 1997 for inpatient and outpatient care. Every fifth discharge (N = 842) was predetermined by the facility for survey. Patients did not receive duplicate surveys within the survey period.

Data Collection

The social service department of the community hospital generated the discharge log. Each of the mailed questionnaires was addressed to the person whose name appeared on the computer generated discharge log. A cover letter requested that if the recipient is a minor child, a parent or guardian completes the questionnaire (see Appendix D). Each mailing contained a cover letter, the facility’s Patient Opinion Form, Kviz Acceptance Questionnaire, a demographic survey, and a preaddressed, stamped return envelope by first class mail. A reminder postcard was mailed to each of the survey recipients one week following the mailing of the questionnaire (see Appendix E).
Recipients were informed, in the cover letter (see Appendix D), of the purpose of the study, that participation was voluntary, of benefits and risks, and maintenance of confidentiality. The cover letter explicitly states that consent to participate is given by returning the completed questionnaire and survey. It is assumed that all questionnaires and surveys are completed by an adult, parent, or guardian of a minor child as requested in the cover letter.

The survey was placed in the envelope by this researcher or a member of the facility staff usually responsible for the origination of these mailings. Raw data were secured in the locked office of the social service department during data collection and will be retained for three years following completion of the survey.

Completion of the facility's Patient Opinion Form, Kwiz Acceptance Questionnaire, and demographic survey required approximately twenty minutes. There was a one month response period following the mailing of the reminder post card for the return of completed surveys and questionnaires. Facility's Patient Opinion Form data was not addressed by this study.

Acceptance Score

A nurse practitioner acceptance score was calculated for each respondent for each of the 12 nursing functions. A “no” response, indicating an unwillingness of the respondent to allow a nurse practitioner to perform the function, was given a value of 1. A “yes” response, indicating a willingness of the respondent to allow a nurse practitioner to perform the function, was given a value of 2. A maximum score for traditional functions was 8 (4 functions multiplied by 2) and nontraditional functions was 16 (8 functions multiplied by 2). A scaled score was then calculated by obtaining the sum of
each respondent’s response to the traditional functions divided by 4 (the number of functions). A scaled score was calculated for the nontraditional functions by obtaining the sum of the respondent responses divided by 8 (the number of functions). Failure of the respondent to answer a variable was treated as a missing value and excluded on a variable by variable basis from analysis. A scaled score of greater than 1.50 indicated acceptance of the function.

Summary

The selected population, for this study, utilized the services of a community hospital in southcentral Kentucky. This researcher surveyed every fifth inpatient and outpatient discharge as predetermined by institution protocol for patient satisfaction survey and comments. Every fifth discharge was mailed a cover letter, the facility’s Patient Opinion Form, Kviz Acceptance Questionnaire, a demographic survey, and a preaddressed, stamped return envelope by first class mail. A reminder postcard was mailed to each of the survey recipients one week following the initial mailing. The cover letter requested that if the recipient is a minor child, a parent or guardian completes the questionnaire. An acceptance score was calculated for each respondent for each of the 12 nursing functions. A scaled score of greater than 1.5 indicated acceptance of the function. The methods and procedures section outlined a step-by-step process for replication of this study. The following chapter will present the results of this study.
CHAPTER V

RESULTS

The investigator in this study, conducted in a rural southcentral Kentucky community, used a descriptive design to determine criteria-based acceptance of the nurse practitioner by the patient who utilized the services of the community hospital. There were three research questions. Will a southcentral Kentucky rural community accept performance of traditional nursing functions by a nurse practitioner? Will a southcentral Kentucky rural community accept performance of nontraditional nursing functions by a nurse practitioner? Which demographic characteristics within the selected population are related to acceptance and non-acceptance of nurse practitioner function? Answers to each of these questions will be discussed.

Sample Characteristics

There were 842 questionnaires distributed to every fifth discharge, both inpatient and outpatient, from a rural community hospital over a four week period of time with 267 completed questionnaires returned. The Kviz Acceptance Questionnaire was mailed with the facility’s Patient Opinion Form according to established protocol. Historically, the return rate for the facility’s Patient Opinion Form varied from ten to fifteen percent. It was anticipated that the return rate for the Kviz Acceptance Questionnaire would reflect
the same rate or be slightly increased. The actual return rate was 32% indicating an interest of the respondents in nurse practitioners.

The majority of respondents were female (67%), age 31-64 (58%), have health insurance (86%), and did not live on a farm (67%). Twenty-seven percent of the respondents were over the age of 65. Sixty-five percent of the respondents had a high school education or higher. See Table 2.

Eighty-five percent reported a usual source of medical care. Usual sources were general practitioner (84%), specialist (4%), health department (3%), and nurse practitioner (1%). The reason 72% of the respondents cited for no usual source of medical care was availability of M.D. (insufficient quantity 54%). Respondents were satisfied with their usual source of medical care (89%) and satisfied with the health services provided (94%) with a medium to high level of overall satisfaction (97%), but dissatisfied with the explanation of their diagnosis and treatment from their usual source of medical care (88%). Regular check-ups were reported by 65% of the respondents with a perceived general health status of poor (12%), fair (51%), and good (37%) (see Table 2).
<table>
<thead>
<tr>
<th>Demographic Area</th>
<th>N</th>
<th>$\chi^2$</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have a usual source of care?</td>
<td></td>
<td>0.26</td>
<td>1</td>
<td>0.61</td>
</tr>
<tr>
<td>Yes</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>221</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Usual Source of Care</td>
<td></td>
<td>5.24</td>
<td>4</td>
<td>0.263</td>
</tr>
<tr>
<td>Private M.D.</td>
<td>182</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialist</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Department</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main Reason for No Usual Source of Care</td>
<td></td>
<td>0.609</td>
<td>1</td>
<td>0.435</td>
</tr>
<tr>
<td>Availability of M.D.</td>
<td>47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity of Available M.D.</td>
<td></td>
<td>10.83</td>
<td>2</td>
<td>.004*</td>
</tr>
<tr>
<td>Not Enough</td>
<td>136</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>About Right</td>
<td>111</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too Many</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Usual Source of Care</td>
<td></td>
<td>5.93</td>
<td>1</td>
<td>.015*</td>
</tr>
<tr>
<td>Satisfied</td>
<td>226</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfied with Explanation of Diagnosis and Treatment</td>
<td></td>
<td>2.97</td>
<td>1</td>
<td>0.084</td>
</tr>
<tr>
<td>Satisfied</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>226</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Satisfaction with Usual Source of Care</td>
<td></td>
<td>3.93</td>
<td>2</td>
<td>0.139</td>
</tr>
<tr>
<td>Low</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>116</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Health Services Provided</td>
<td></td>
<td>3.31</td>
<td>1</td>
<td>0.069</td>
</tr>
<tr>
<td>Satisfied</td>
<td>234</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continued …
Table 2 (continued)

<table>
<thead>
<tr>
<th>Demographic Area</th>
<th>N</th>
<th>$X^2$</th>
<th>df</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms When Seeking Care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>9</td>
<td>0.27</td>
<td>1</td>
<td>0.601</td>
</tr>
<tr>
<td>One or More</td>
<td>253</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular Check-Up</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>171</td>
<td>6.53</td>
<td>1</td>
<td>.010*</td>
</tr>
<tr>
<td>No</td>
<td>94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Health Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>31</td>
<td>0.117</td>
<td>2</td>
<td>0.943</td>
</tr>
<tr>
<td>Fair</td>
<td>133</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>87</td>
<td>0.00003</td>
<td>1</td>
<td>0.996</td>
</tr>
<tr>
<td>Female</td>
<td>177</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16-30</td>
<td>38</td>
<td>7.27</td>
<td>2</td>
<td>.026*</td>
</tr>
<tr>
<td>31-64</td>
<td>154</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 or Older</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not a High School Grad</td>
<td>90</td>
<td>1.26</td>
<td>3</td>
<td>0.738</td>
</tr>
<tr>
<td>High School Grad</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some College or College Grad</td>
<td>73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farm</td>
<td>85</td>
<td>0.419</td>
<td>1</td>
<td>0.517</td>
</tr>
<tr>
<td>Not a Farm</td>
<td>169</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Insurance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>227</td>
<td>0.166</td>
<td>1</td>
<td>0.684</td>
</tr>
<tr>
<td>No</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N = 267

Note: Questionnaires with missing data were excluded from analysis on a variable by variable basis
* Statistically Significant
Acceptance of Traditional Nursing Functions

The first research question was Will a southcentral Kentucky rural community accept performance of traditional nursing functions by a nurse practitioner? In order to determine the level of acceptance, a nurse practitioner acceptance score was calculated for each respondent for each of the twelve nursing functions as described in Chapter 4. There were four traditional and eight nontraditional nursing functions used in this study. The traditional nursing functions were obtaining routine measures (such as blood pressure and pulse), administrating injections, obtaining laboratory specimens, and recording a health history. Table 3 depicts the rank order and the percentage of respondents willing to allow a nurse practitioner to perform traditional nursing functions. Over 93% of respondents were willing to allow a nurse practitioner to perform traditional functions. All respondents were comfortable with the nurse practitioner taking routine measures.

Ninety-eight percent of the respondents (N = 258) had a scaled score of 1.75 to 2.0 (M = 1.961) indicating acceptance of the nurse practitioner in traditional nursing functions. Table 4 illustrates the score distribution.

Table 3
Percentage of Respondents Who Would be Willing to Allow a Nurse Practitioner to Perform Each of the Traditional Nursing Functions

<table>
<thead>
<tr>
<th>Rank</th>
<th>Yes</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Take routine measures, B/P and pulse</td>
<td>267</td>
<td>100%</td>
</tr>
<tr>
<td>2 Record the health history</td>
<td>256</td>
<td>97%</td>
</tr>
<tr>
<td>3 Give shots and vaccinations</td>
<td>253</td>
<td>95%</td>
</tr>
<tr>
<td>4 Take laboratory samples</td>
<td>248</td>
<td>93%</td>
</tr>
</tbody>
</table>

N = 267
Note: Questionnaires with missing data were excluded from analysis on a variable by variable basis. Percentage calculations were rounded to the nearest whole number.
Table 4  
Scaled Score for Traditional Nursing Function Acceptance

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.25</td>
<td>4</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>1.50</td>
<td>3</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>1.75</td>
<td>23</td>
<td>8.6</td>
<td>8.7</td>
</tr>
<tr>
<td>2.00</td>
<td>235</td>
<td>88.0</td>
<td>88.7</td>
</tr>
<tr>
<td>2</td>
<td>0.7</td>
<td>Missing</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>267</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean = 1.961  Median = 2.000  Mode = 2.00  Standard Deviation = .124
Value of 1.00 = All non-accepting responses to four traditional nursing functions  
Value of 2.00 = All accepting responses to four traditional nursing functions

Acceptance of Nontraditional Nursing Functions

The second research question was Will a southcentral Kentucky rural community accept performance of nontraditional nursing functions by a nurse practitioner? The eight nontraditional nursing functions were performing a complete physical examination, prescribing medication and treatment for minor illness or injury, performing minor surgery, deciding physician referral, diagnosing minor illness, diagnosing minor injuries, explaining the physician’s diagnosis, and making follow-up house calls after treatment by a physician. Table 5 depicts rank order and percentage of respondents willing to allow a nurse practitioner to perform nontraditional nursing functions. Making follow-up phone calls after physician treatment was the most accepted nontraditional function. The least accepted nontraditional function was performing minor surgical procedures.
Table 5
Percentage of Respondents Who Would be Willing to Allow a Nurse Practitioner to Perform Each of the Nontraditional Nursing Functions

<table>
<thead>
<tr>
<th>Rank</th>
<th>Function</th>
<th>Yes</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Make follow-up calls after treatment by a doctor</td>
<td>229</td>
<td>88%</td>
</tr>
<tr>
<td>6</td>
<td>Explain the doctor's diagnosis</td>
<td>224</td>
<td>85%</td>
</tr>
<tr>
<td>7</td>
<td>Diagnose minor injuries</td>
<td>208</td>
<td>79%</td>
</tr>
<tr>
<td>8</td>
<td>Diagnose minor illnesses</td>
<td>210</td>
<td>79%</td>
</tr>
<tr>
<td>9</td>
<td>Perform a complete routine physical exam</td>
<td>189</td>
<td>73%</td>
</tr>
<tr>
<td>10</td>
<td>Decide whether or not you need to see a doctor</td>
<td>173</td>
<td>67%</td>
</tr>
<tr>
<td>11</td>
<td>Prescribe medication and treatment</td>
<td>165</td>
<td>64%</td>
</tr>
<tr>
<td>12</td>
<td>Perform minor surgical procedures</td>
<td>155</td>
<td>60%</td>
</tr>
</tbody>
</table>

N = 267
Note: Questionnaires with missing data were excluded from analysis on a variable by variable basis.
Percentage calculations were rounded to the nearest whole number.

Acceptance of the nurse practitioner in nontraditional functions is evidenced by the median scores of 2.0 and 1.875, respectively. Seven of the respondents (3%) did not accept any of the nontraditional functions, all other respondents accepted at least one of the nontraditional functions. At least half of the nontraditional functions were accepted by 26% of the respondents. All of the nontraditional functions were accepted by 42% of the respondents, with three-fourths or more of the functions being accepted by 63% of the respondents. Sixty-three percent of the respondents (N = 205) had a scaled score of 1.63 to 2.0 (M = 1.735) indicating acceptance of the nurse practitioner in nontraditional functions (see Table 6).
Table 6

Scaled Score for Nontraditional Nursing Function Acceptance

<table>
<thead>
<tr>
<th>Value</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>7</td>
<td>2.6</td>
<td>2.9</td>
</tr>
<tr>
<td>1.13</td>
<td>12</td>
<td>4.5</td>
<td>5</td>
</tr>
<tr>
<td>1.25</td>
<td>16</td>
<td>6.0</td>
<td>6.6</td>
</tr>
<tr>
<td>1.38</td>
<td>14</td>
<td>5.2</td>
<td>5.8</td>
</tr>
<tr>
<td>1.50</td>
<td>13</td>
<td>4.9</td>
<td>5.4</td>
</tr>
<tr>
<td>1.63</td>
<td>27</td>
<td>10.1</td>
<td>11.2</td>
</tr>
<tr>
<td>1.75</td>
<td>21</td>
<td>7.9</td>
<td>8.7</td>
</tr>
<tr>
<td>1.88</td>
<td>30</td>
<td>11.2</td>
<td>12.4</td>
</tr>
<tr>
<td>2.00</td>
<td>101</td>
<td>37.8</td>
<td>41.9</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>9.7</td>
<td>Missing</td>
</tr>
<tr>
<td>Total</td>
<td>267</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Mean = 1.75  Median = 1.875  Mode = 2.00
Standard Deviation = .307
Value of 1.00 = All non-accepting responses to eight nontraditional nursing functions
Value of 2.00 = All accepting responses to eight nontraditional nursing functions.

Demographic Characteristics Related to Acceptance

The third research question was Which demographic characteristics within the selected population are related to acceptance and non-acceptance of nurse practitioner function? Demographic variables included patient’s usual source of care, satisfaction with healthcare, health status, and general characteristics (age, gender, education, and residence).

Eighty-five percent reported a usual source of medical care. Usual sources were general practitioner (84%), specialist (4%), health department (3%), and nurse practitioner (1%). Seventy-two percent stated availability of M.D. (insufficient quantity 54%) as reason for no usual source of medical care. Respondents were satisfied with their usual source of medical care (89%) and satisfied with the health services provided (94%) with a medium to high level of overall satisfaction (97%), but dissatisfied with the explanation of
their diagnosis and treatment from their usual source of medical care (88%). Sixty-five percent reported obtaining regular check-ups with a perceived general health status of poor (12%), fair (51%), and good (37%).

See Table 2.

Chi-square analysis identified a statistically significant relationship between the willingness to accept nontraditional nursing functions and the following: (a) respondents who were satisfied with their usual source of care \( [X^2 (4, N = 230) = 5.93, p = .01] \); (b) respondents who obtained regular check-ups \( [X^2 (4 N = 239) = 6.53, p = .01] \); (c) respondent age \( [X^2 (6, N = 238) = 7.27, p = .03] \); and (d) respondents who felt there is an insufficient quantity of physicians available \( [X^2 (6, N = 225) = 10.83, p = .01] \). Chi-square analysis of traditional nursing functions was not calculated due to the overwhelming percentage (>93%) who accepted those functions.

Summary

The majority of the respondents accepted the traditional and nontraditional functions of the nurse practitioner. There were no specific functions of the nurse practitioner that were not accepted by greater than 50% of the respondents. The demographic characteristics which were statistically significant to accepting nontraditional nursing function were (a) respondents who were satisfied with their usual source of care; (b) respondents who obtained regular check-ups; (c) respondents who felt there was an insufficient quantity of physicians available; and (d) respondent age. There were no statistically significant gender differences in this study, in contrast to the literature reporting male acceptance of nontraditional functions of the nurse practitioner over female acceptance. The next chapter will discuss the implications of these findings.
CHAPTER VI
DISCUSSION

The study setting is a southcentral rural Kentucky community that is experiencing a shortage of primary care providers. Collaborative practice between the physician and the family nurse practitioner is an option to improve the availability of primary care providers. This study began as a way to evaluate the rural community acceptance of a nurse practitioner using specific nursing functions as the basis for evaluation of acceptance.

For this study, conducted in a rural southcentral Kentucky community, the researcher used a descriptive design to determine criteria-based acceptance of the nurse practitioner by the patient who utilizes the services of the community hospital. There were three research questions. Will a southcentral Kentucky rural community accept performance of traditional nursing functions by a nurse practitioner? Will a southcentral Kentucky rural community accept performance of nontraditional nursing functions by a nurse practitioner? Which demographic characteristics within the selected population are related to acceptance and non-acceptance of nurse practitioner function? Pertinent points will be discussed for each question.
Southcentral Kentucky Rural Community Acceptance

of Traditional Nursing Functions

Acceptance of the nurse practitioner in traditional nursing functions was almost universal. This community was accepting of the nurse practitioner in the traditional role of nursing functions (see Table 3). This finding is consistent with the literature findings of Kviz et al. (1983) and Wiseman and Hill (1994).

Southcentral Kentucky Rural Acceptance

of Nontraditional Nursing Functions

Acceptance of the nontraditional nursing functions was noted to be greater than 60% for the lowest ranked function (see Table 5). This acceptance level result was a 16% increase in acceptance over the Kviz et al. (1983) study of 44% for the lowest ranked function. Kviz et al. (1983) reported the least accepted nontraditional function was that of performing a complete routine physical examination. The nontraditional function least accepted by the respondents of this survey was the performing of minor surgery. The confidence level of the respondents in the ability of the nurse practitioner to diagnose health problems and evaluate health status with no specific complaints has increased.

A small number of the respondents (3%) would not accept any of the nontraditional functions. All of the nontraditional functions were accepted by 42%, with three-fourths or more of the functions being accepted by 63% of the respondents. The three least accepted nontraditional functions were to decide whether or not you need to see a doctor, prescribe medication and treatment, and to perform minor surgical procedures. The respondents appear to be confident in the ability of the nurse practitioner to diagnose a problem, but not quite as confident in their ability to prescribe medication.
and treatment for the condition. Ultimately, it is the patient who decides what they will allow a practitioner, nurse or physician, to perform in the course of their healthcare. Confidence and trust in the practitioner is earned and built over time on an individual patient basis. The implication of this tenet is for the nurse practitioner to establish a professional relationship that fosters trust, to be well informed of current treatment modalities, and to establish treatment plans that are mutually agreeable. Rural populations are more accepting of "native" professionals. The study population had minimal exposure to nurse practitioners, native or otherwise, which means confidence, trust, and acceptance of the nurse practitioner must continue to be developed as the nurse practitioner is introduced to rural primary care. The absence of a "native" nurse practitioner may have been an influence (Lee, 1993; Schmidt et al., 1995).

Demographic Characteristics Related to Acceptance and Non-Acceptance of Nurse Practitioner Function

The majority of the respondents of this study are accepting of the traditional and nontraditional functions of the nurse practitioner. In contrast to the Kviz et al. (1983) findings of a slightly greater acceptance, by males, of nurse practitioner performance of nontraditional functions, the results in this study showed gender was not an issue. Four statistically significant characteristics of acceptance identified in this study were (a) source of care satisfaction; (b) regular check-ups; (c) age; and (d) physicians availability.

Age of the respondent was statistically significant in this study as well as in the Kviz et al. (1983) study. The under 30 year old respondent continues to be the most accepting (92%), followed by the 65 and over group (75%), and then the 31 to 64 year old (70%). Community education to enhance nontraditional nursing function acceptance
would be aimed at the over 30 age groups. The nurse practitioner, new to the community, would be aware of the majority of acceptance, but with the potential for resistance to nontraditional functions in the middle and older age groups.

There is a significant statistical relationship between respondents who are satisfied with their medical care providers and who obtain regular check-ups with the acceptance of nontraditional functions of the nurse practitioner. The addition of the nurse practitioner to the established medical care provider practice in which the patients already are satisfied with the care they receive and receive care on a regular basis could anticipate being accepted by those patients more readily than those who are not satisfied with their care or who do not receive care on a regular basis.

Eighty-five percent of the respondents reported a usual source of medical care, leaving 15% of the respondents (which are utilizing hospital services) with no routine care provider; the implication is that these respondents are receiving episodic treatment for acute illness or injury through the emergency room with service call physician assignment. Of those who reported a usual source of medical care, 84% indicated a general practitioner as provider. Nearly one third of the respondents (15% with no usual source of care and 16% which cited other sources) were left with no primary care provider to coordinate healthcare and to provide a proactive approach. Insufficient quantity of physicians was cited by 54% of the respondents, indicating a perceived lack of primary care providers by the community.

The respondents were satisfied with their usual source of medical care and satisfied with the health services provided with a medium to high level of satisfaction, but 

dissatisfied with the explanation of their diagnosis and treatment. Thus, the respondents
were willing to accept the nurse practitioner explaining the physician’s diagnosis. The need for more patient information and education about their diagnosis and treatment is evidenced by the majority dissatisfaction with explanations provided through their usual source of care. This perceived need for information presents an opportunity for the advanced practice nurse to assess the educational needs of the patient and to respond to those needs. It may also present an opportunity to promote confidence and trust necessary for the nurse practitioner to perform maximally within the scope of advanced practice.

Application of Theory

The open system aspect of Bertalanffy’s General System Theory was utilized for this study. The components of General System Theory involve a living system, input, thruput, and output to produce self-regulation of the system. The living system (environment) is influenced by the response to output (research results) through input (survey of the sample) and thruput (application of the research process) resulting in self-regulation (interaction of the elements of the system). The results of this study suggest that the community is willing to accept change in primary healthcare provision. The addition of the nurse practitioner can be anticipated to produce a high level of acceptance by the respondents among community members who are similar to the respondents in the survey.

Respondent Comments

Although comments were not requested, several of the surveys were returned with hand written comments. Written comments could be categorized by concerns about (a) applicability of the question (age, education, gender, and residence), (b) cost of services
(as expensive as physicians or more expensive than staff nurses), (c) accessibility of services (waiting times too long), and (d) differentiation of staff nurse and advanced practice roles. An example of respondent difficulty in understanding nursing roles is illustrated by the following comment. “Why do we need high priced nurses to do the job the nurses we have already do?” The survey did not mention the cost of a visit with a nurse practitioner, it was assumed by this respondent to cost more. This comment also supports the characteristics of rural nurses being independent, self-directed, highly visible, and “jack of all trades”-- the “all purpose nurse” (Bigbee, 1993). Thus, the respondent already perceived the rural staff nurse as functioning in nontraditional roles.

The literature supports the independent characteristic of the rural nurse, but the perception of the patient that the rural staff nurse is functioning in advanced practice roles leads to question whether the scope of practice is being observed. The educational background of the nurse(s) being referred to is not known. Licensed practical nurses, diploma, associate, baccalaureate, and masters prepared nurses function in the rural setting, although the majority have undergraduate educational preparation. The rural nurse practicing beyond the scope of practice for the license holds significant legal ramifications.

Limitations of the Study

Limitations of this study include a sample which was not randomized. Conclusions would have limited generalization beyond the sample and geographic area studied. In addition, conclusions must be considered tentative because the sample differed from the geographic population as being younger, more educated, and non farm residents.
A bias, either positive or negative, resulting from prior experience with nurse practitioners cannot be determined by the scope of this study. The addition of questions to determine prior nurse practitioner exposure and satisfaction would be beneficial. This sample is reflective of the opinions of the persons in the community who utilize the services of the community hospital. The current market share for this facility is less than 100%. Those persons in the community that choose to seek healthcare elsewhere are not addressed.

This sample is experiencing a deviation in health status, otherwise they would not be utilizing the services of the community hospital. The opinion of the community in which there is no deviation in health status or those persons not seeking intervention are not included. A stated willingness of the respondent to allow nursing functions to be performed by a nurse practitioner cannot be interpreted that the same person would utilize the services of a nurse practitioner if one was available. The use of a Likert scale would give the degree of acceptance and would be necessary in order to predict acceptance.

Further Research

Further research is needed to explore specific functions which define the nurse practitioner role and to predict acceptance. Further research exploring the role and characteristics of the rural nurse with regard to scope of practice and community perception is warranted by this study. More than a quarter of the respondents were over the age of sixty-five. The aging rural population have acute on chronic conditions, multiple chronic conditions, and habits which have a negative impact on health status. The needs of the aging rural community related to nurse practitioner role and function (such as
in adult daycare, senior citizen groups, or the homebound) would benefit from additional research.

Summary

The rural community has lacked adequate healthcare providers for the past thirty years. Collaboration between physician and family nurse practitioner is an option for meeting the need for delivery of primary healthcare in the rural community. A descriptive design was used to assess the acceptance of the nurse practitioner by patients living in rural southcentral Kentucky who utilize the services of the community hospital. Based on the results of this study, the nurse practitioner would be accepted by the majority of the community. The nurse practitioner would be aware of the potential for resistance to nontraditional functions in the middle and older age groups, of the desire of the community to understand their illness through explanation, and of the wide and varied opportunities for research of the advanced practice role in the rural setting.
REFERENCES


APPENDIX A
APPROVAL FOR HUMAN SUBJECT STUDY

Sample letter for facility approval

Date

Name of Researcher
Address
City, State Zip Code

Facility Administrator
Facility Name
Address
City, State Zip Code

Dear Mr. Administrator:

I am pursuing a master of Science in Nursing degree at Western Kentucky University. My thesis topic is community acceptance of the nurse practitioner. I am requesting permission to distribute a cover letter, questionnaire, and demographic survey to the population chosen by the hospital that currently receive the patient opinion form for one month. I feel this study has the potential to benefit the community and hospital by exploring the level of acceptance of a nurse practitioner by the patients who utilize the services of (facility name).

Approval by an institutional review board, at Western Kentucky University, will be obtained prior to implementation. The study procedures involve no foreseeable risks or harm to the respondents. The procedures include: (1) responding to a questionnaire about willingness of the individual to be provided traditional and nontraditional nursing care by a nurse practitioner and (2) completing a demographic data sheet. Participation in the study will take approximately twenty minutes. Respondents will be provided information to contact me directly for question regarding the questionnaire or the study.

Participation in the study is voluntary. Respondents will have the right to withdraw at any time and the relationship with the hospital will not be affected.

The study data will be coded so that it will not be linked with a name. Respondent identity will not be revealed while the study is being conducted or when the study is reported or published. All study data will be collected by me, stored in a secure place, and will be shared only with (person’s name) on an as needed basis for technical support.
I have read this letter and voluntarily consent for the (Facility Name) to participate in the study described above.

<table>
<thead>
<tr>
<th>Facility Administrator’s Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title, Facility Name</td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your consideration and cooperation in the completion of my graduate studies.

Sincerely,

Full Name and Credentials
KVIZ ASSESSMENT QUESTIONNAIRE

Some people say that one way to provide more medical care 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.

Please Circle the Appropriate Response

Would you be willing to allow a specially trained nurse practitioner to:
1. Record your health history?
   YES   NO

2. Take routine measures, such as blood pressure and pulse?
   YES   NO

3. Perform a complete routine physical examination?
   YES   NO

4. Take laboratory samples, such as blood samples and throat cultures?
   YES   NO

5. Decide whether or not you need to see a doctor when you go to a doctor’s office or clinic?
   YES   NO

6. Diagnose minor illnesses, such as an upset stomach or sore throat?
   YES   NO

7. Diagnose minor injuries, such as sprains and bruises?
   YES   NO

8. Give shots and vaccinations?
   YES   NO

9. Perform minor surgical procedures, such as putting in stitches and removing warts?
   YES   NO

10. Prescribe medication and treatment for a minor illness or injury?
    YES   NO

11. Explain the doctor’s diagnosis to you?
    YES   NO

12. Make follow-up house calls after treatment by a doctor?
    YES   NO
APPENDIX C
DEMOGRAPHIC SURVEY

PLEASE CIRCLE THE APPROPRIATE ANSWER TO THE FOLLOWING GENERAL INFORMATION QUESTIONS.

13. Do you have a usual source of medical care?
   YES   NO

14. What is the usual source of medical care?
   Private M.D.  Specialist  Health Department  None
   Other(specify)____________________

15. What is the main reason for no usual source of medical care?
   Availability of M.D.  Other(specify)____________________

16. How would you rate the quantity of doctors available?
   Not enough  About right  Too many

17. How satisfied are you with your usual source of medical care?
   Satisfied  Dissatisfied

18. How satisfied are you with the explanation of your diagnosis and treatment at your usual source of medical care?
   Satisfied  Dissatisfied

19. How would you rate your overall satisfaction with your usual source of medical care?
   Low  Medium  High

20. How satisfied are you with your health services provided?
   Satisfied  Dissatisfied

21. When you seek healthcare, how many symptoms do you usually have?
   None  One or more

22. Do you have a regular check-up?
   YES  NO

23. How would you describe your general health?
   Poor  Fair  Good

24. What is your sex?
   Male  Female
25. What is your age?
   16-30    31-64    65 or older

26. What is your education background?
   Not a high school graduate    High school graduate    Some college or college graduate

27. What is your residence type?
   Farm    Not a farm

28. Do you currently have health insurance?
   YES    NO
APPENDIX D
COVER LETTER

Hello.

My name is Mary Branstetter. I am a registered nurse studying the opinion of our community about the nurse practitioner. This study will allow you to voice your opinion on this specially trained nurse.

This study has been approved by the appropriate people and review board at Western Kentucky University and the community hospital. The study procedures involve no foreseeable risks or harm to you or your family. The procedures include: (1) responding to a questionnaire about your willingness to be provided certain services by a nurse practitioner and (2) completing a general information data sheet. Participation in this study will take approximately twenty minutes. You are free to ask any questions about the study or about being a part of the study and you may call me, Mary Branstetter, at (502) 678-6488 (home) after 7:00 p.m. if you have questions.

Your participation in this study is voluntary; you are under no obligation to participate. You may withdraw at any time. If this questionnaire is addressed to a minor child, a parent or guardian is requested to complete it.

The study data will be coded so it will not be linked to your name. Your identity will not be revealed while the study being conducted or when the study is reported or published. All study data will be collected by myself, stored in a secure place, and not shared with any other person without your permission.

By returning the completed questionnaire and survey, you give your consent to participate in this study.

Thank you for your time and assistance.

Mary Branstetter, R.N.
APPENDIX E
FOLLOW-UP POSTCARD

The reminder postcard will contain the following text, typed and signed by the researcher.

PATIENT OPINION QUESTIONNAIRE

Last week, I mailed you a questionnaire concerning your opinion of the nurse practitioner and a general question survey. If you have already returned the questionnaire, "Thank You." Your opinion is important.

If you have not had a chance to do so, please take a few minutes to complete and return the questionnaire in the postage-paid envelope supplied.

Your response is important, and I appreciate your time and cooperation.

Sincerely,

Mary Branstetter, R.N.