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Physician Perceptions of Behaviors Associated with the Nurse Practitioner Role

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**PHYSICIAN PERCEPTIONS OF BEHAVIORS
ASSOCIATED WITH THE NURSE
PRACTITIONER ROLE**

By

Elizabeth J. Sperry, R.N., B.S.N.

A THESIS

**Submitted to
Grand Valley State University
In partial fulfillment of the requirements for the
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Thesis Committee Members:

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ABSTRACT

PHYSICIAN PERCEPTIONS OF BEHAVIORS ASSOCIATED WITH THE NURSE PRACTITIONER ROLE

By

Elizabeth J. Sperry R.N., B.S.N.

While the number of nurse practitioners (NPs) continues to grow, their role and scope of practice can be misunderstood. King's interacting systems framework was the theoretical basis for this study. This descriptive study asked a convenience sample of physicians (n=128) to indicate their agreement with 37 behaviors for the NP role. The sample was 74.2% male, 49.2% ages 41-50, and 63.2% practiced primarily in an office setting. Bambini's (1995) modification of Hupcey's (1994) instrument was used and internal consistency was measured using Cronbach's alpha .97. Behaviors perceived as most appropriate for NPs were those that related to education. A Kruskal-Wallis revealed significant differences in clinical research as it related to physician age ($p = .03$), and years of practice ($p = .00$). Statistical significance occurred most frequently with practice site and NP level of practice. A Mann-Whitney U revealed significance in 29 behaviors relating to physician practice site and 26 behaviors to NP level of practice.

DEDICATION

I would like to dedicate this to my mother, Jane M. Bird whom as a nurse and mother exemplified dedication and professionalism.

Acknowledgments

I would like to express my sincere thanks to my chairperson, Kay Setter Kline, R.N., Ph.D., for her encouragement and in assisting me with this project to its' completion. To my other committee members I also extend appreciation, to Linda Scott, Ph.D.,R.N., for her patience and guidance in data analysis and to Susan Dalrymple, M.S.N, A.C.N.P., for being a role model as a Nurse Practitioner. A special acknowledgment goes to my husband Lanny, who started a new life with me in the midst of this program, and has had more patience and understanding than I could ever ask for.

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CHAPTER 1

INTRODUCTION

The role of the nurse practitioner was established in the United States in 1965, and was welcomed by the public due to the social, political, and professional environments which they were experiencing (Ford, 1997). Medicine was rapidly changing with an emphasis on technology and specialization, which led to a shortage of primary care physicians (King, 1996). The shortage of physicians in primary care allowed nurse practitioners to enter the arena and develop their role. Now, consumer demands are high for easy access to high quality, affordable healthcare. Nurse practitioners have demonstrated the ability to provide comprehensive, affordable care (Ackerman, 1996).

Although development of the nurse practitioner role has been evolving for 30 years, confusion regarding appropriate behaviors of the nurse practitioner remains. The nurse practitioner role varies depending on state regulations and protocols established within each institution (McGrath, 1990). This allows the nurse practitioner to practice in various settings, which may lead to the role being defined by the environment in which the practice occurs, rather than by the role itself.

Educational requirements for the nurse practitioner also have been inconsistent, causing additional confusion about the role. Continuing education programs, rather than advanced degrees, was initially the additional education the nurse practitioner received.

This progressed to more formal classes and certification, and then to graduate level programs which is the present trend (Hupcey, 1994). Various specialties also require different certification exams.

With an increase in the number of nurse practitioners comes the need to identify and clearly define the role and expanding scope of practice. Professional nurses, physicians and other health care providers, as well as the public would benefit from understanding the defined role of the nurse practitioner. Nurse practitioners are registered nurses, who after additional formal education, use advanced skills and knowledge to provide care in an expanded role. This role emphasizes health promotion, disease prevention, and management of acute and chronic illness (Schaffner, 1995). The scope of practice for nurse practitioners varies from state to state, and in some cases requires collaboration with a physician to allow the nurse practitioner to have prescriptive authority (McGrath, 1990).

A collaborative practice with a physician becomes necessary where consultative or prescriptive authority is required. Instituting a collaborative practice agreement between physicians and nurse practitioners (NPs) may help to define the level of care that the NP provides. Clarification of the nurse practitioner role may help eliminate the focus on differences in practice and shift the focus to promotion of positive patient outcomes and improved health care (Cairo, 1996).

Since the development of the nurse practitioner role in the 1960s, published studies have shown that the care delivered by nurse practitioners is cost effective and results in positive outcomes (Hupcey, 1994). In 1986, the Office of Technology and

Assessment, released a report that stated that nurse practitioners provided competent care, provided greater accessibility to care, and a reduction in healthcare costs (McGrath, 1990). Many of the services that are presently provided by physicians can be provided by nurse practitioners, at lower costs.

Future challenges within the health care field will necessitate a combination of physician and non-physician providers (Schaffner, 1995). Utilization of nurse practitioners will depend on understanding and perceptions of their roles. One barrier that has been identified for the nurse practitioner is physician resistance related to perceptions of the role (Martin, 1999). Physician attitudes toward the role of the nurse practitioner may explain the low numbers of positions available at hospitals or areas where physicians are influential in hiring practices (Cairo, 1996). With the growing number of nurse practitioners entering the work force, it is imperative that other health care professionals have accurate perceptions of the role, allowing effective utilization of the nurse practitioner.

The purpose of this study was to determine what are appropriate behaviors of the nurse practitioner role as perceived by physicians in a local health care system. Additionally, this study has evaluated how perceptions are affected by demographic variables such as, age, gender, physician specialty, practice setting, the number of years in practice, and experience with a nurse practitioner. Understanding these perceptions may be beneficial as nurse practitioners attempt to integrate into a new role or a new health care system.

CHAPTER 2

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Conceptual Framework

Imogene King's interacting systems framework (King, 1981) furnishes the framework utilized for the study involving perceptions of the nurse practitioner role. The systems framework emphasizes the process of interactions, perceptions, and expectations in meeting needs, which has relevance in attempting to define quality in a changing health care environment (Sowell, 1994). Defining person, perception, interaction, role, and nursing supports the need to evaluate perceptions when implementing a new role within a previously existing system.

Person or individual constitutes the personal system, which is considered a total system (Woods, 1994). Human beings are dynamic, open systems interacting within their environment. According to King (1981), a person perceives, thinks, desires, imagines, decides, and identifies goals, and can choose methods of achieving those goals. A person is perceived in relationship to others and to objects in the environment. This perception affects present and future behaviors of the person.

Perceptions represent each persons' representation of reality (King, 1981). Perception is defined as importing and transforming information, and then processing, storing, and exporting the information. This is an essential concept in King's framework

(1981) and is essential in understanding the person and the influence perceptions have on interactions.

Perceptions are related to past experiences, to concept of self, to biological inheritance, educational background, and to socioeconomic groups (King, 1981). Current needs and future goals of the individual, also affect perceptions. This leads to the assumption that perceptions are unique to each individual. What one knows influences one's perception, and how one perceives things, affects one's learning (King, 1981). So perceptions can be innate as well as learned.

Human beings are constantly interacting with other people and the environment. King as cited in Marriner (1986), defines interaction as a process of perception and communication between the individual and the environment, and the individual and other individuals. Each individual brings their perceptions, experiences, knowledge, needs, and goals to an interaction, which will affect the outcome. Thus, interaction is an important concept when contemplating implementation of the nurse practitioner role.

King (1981) defined the concept of role as a set of behaviors expected of persons who occupy a given position in a social system. Roles involve interactions between one or more persons who communicate and collaborate to achieve a common goal. If role expectations are not clearly defined, conflict may be the result, which will lead to decreased effectiveness. If roles are clearly defined and expectations are met, a purposeful interaction or transaction has taken place.

According to Marriner (1986), King views nursing as an interpersonal process of action, reaction, interaction and transaction (see Figure 1). Nursing is conducted within a

social system and focuses on the interaction of humans with the environment. The nursing process within each organization may differ in relation to the needs and requirements of that system. In nursing, the primary purpose of interactions is transaction leading to health promotion, disease prevention, and restoration of a person's health.

As stated by Marriner (1986), King's theory is based on the overall assumption that nursing focuses on a human being's interaction with the environment. This leads to a state of wellness for a person, which allows the person to function in society. Interactions are based on perceptions and communication, which are both essential in the implementation of the nurse practitioner role. If perceptions of the nurse practitioner role are not congruent within a social system, there may be role conflict within that system. Because behaviors are influenced by perceptions, it is important to measure how others in the same social system perceive the behaviors that constitute the nurse practitioner role. Initial clarification of possible misperceptions of behaviors within the nurse practitioner role will ease the process of implementing the role.

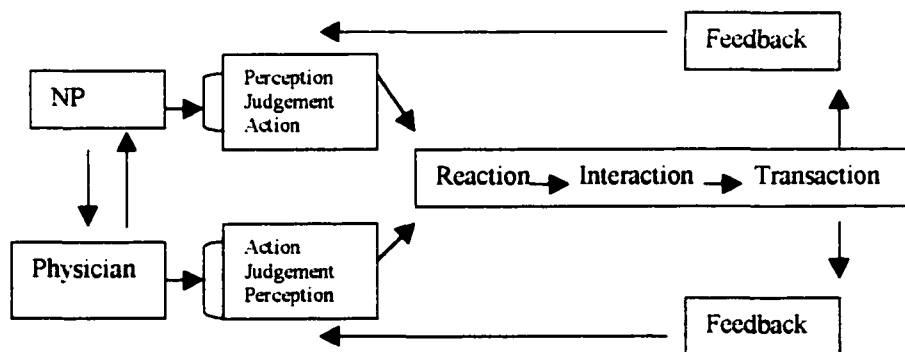


Figure 1. King's Process of Human Interaction

Review of Literature

The American Association of Colleges of Nursing (AACN) published a position statement regarding education, certification and regulation of advanced practice nurses (AACN, 1994). Nurse practitioners, nurse-midwives, nurse anesthetists, and clinical nurse specialists fall under the umbrella term of advanced practice nurse. These nurses have advanced education and clinical experience beyond the requirements of registered nurses. The AACN has proposed that the minimum requirements will include a graduate degree and certification from an approved credentialing body. This would provide consistency throughout the United States and the discipline of nursing.

The United States Congressional Office of Technology Assessment (OTA) published a report in 1986, assessing delivery of care, reimbursement, and cost of nurse practitioners. Extensive literature review was the method of study utilized. They described contributions made, quality of care, effect of access, productivity, costs, and employment of the nurse practitioner, nurse-midwife, and physician assistant. The Office of Technology found that the quality of care and communication skills that were utilized by nurse practitioners within their scope of practice were equally competent to that of physicians (OTA, 1986).

Shanks-Meile et al. (1989) investigated the economic viability of the nurse practitioner in medicine as the health care system became more rationalized. Quantitative content analysis was used to examine 1,022 job advertisements that were published in The Nurse Practitioner: The American Journal of Primary Health Care. The authors examined the advertised market demand for nurse practitioners and predicted that

overall growth in demand may be due to restructuring of the health care system in the United States. Unstandardized regression analysis was used to compare changes in the demand for nurse practitioners by reviewing advertising trends. The variables used in this analysis were region, employment setting, job duties, specialty, employment time (full or part-time), degree required or preferred for the position, and whether the advertisement specified a collaborative practice agreement.

After data analysis, Shanks-Meile et al. (1989) determined that there was an increased market demand in the 1980s. The data demonstrated that there was growth in the use of nurse practitioners in all geographic areas. The areas were divided into east, mid-west, and west coast. The most significant growth with a $p < .01$ occurred between 1975 to 1986. Employment settings also proved to have increase demand for nurse practitioners, especially in women's health and rural health care. Duties for the nurse practitioner grew in the areas of clinical settings, teaching, and patient education. The specialty that demonstrated continued growth in the employment of nurse practitioners was primary care. This included family practice, adult care, pediatrics, and geriatrics. Full time positions were in high demand as were nurses with a degree as a nurse practitioner.

Shank-Meile et al. (1989) found that contrary to previous research, the demands for the nurse practitioner were continuing to grow. There was an increase in demands for the nurse practitioner in private practice as well, which was not an expected finding. The research supports the belief of the authors that using the nurse practitioner in providing health care is economical and is continuing to grow.

Limitations of the Shank-Meile et al. (1989) study included using advertisements from only one journal, not evaluating the unemployment rate, and not including the hidden job market, or career opportunities that were not posted. Strengths included the sample size and the nation wide coverage. It would be beneficial to replicate this study in the current health care climate and evaluate the job market for the next decade.

Schaffner, Ludwig-Beymer, and Wiggins (1995) investigated the utilization of nurse practitioners and physician assistants in major health care systems across the United States. Thirty well-known health care organizations were contacted and 26 agreed to participate in this study. The method of data collection was a telephone survey using open-ended questions and then content analysis was performed. The results indicated that nurse practitioners are used in a variety of settings including obstetrics and gynecology (n=12), pediatrics (n=12), gerontology (n=8), management of chronic illness (n=3), and rural health settings (n=4). Expansion of the nurse practitioner role was in process in the majority of these healthcare systems.

The respondents cited two obstacles to expansion of the role, insurance reimbursement and legal constraints. Almost half of these institutions had some issues or turf battles between the nurse practitioner and other healthcare providers, but reported that these were alleviated when directly addressed. Results of this study found that nurse practitioners were being widely used in a variety of settings, and that clearly defining the role helped to abate conflict among health care providers.

Woods (1998) reported findings from a study that related to factors that facilitate or inhibit the implementation of the nurse practitioner role. The research design involved

longitudinal, multiple case studies, and the population for study was 16 nurses who were enrolled in a masters degree program. The methods of data collection were interviews, direct observation, self-completed role development diaries and documentation such as nursing and medical records.

The findings resulted in 50 factors being identified as facilitative and 68 factors as inhibiting. The facilitative factors included support of medical staff, increased knowledge, and having increase autonomy to develop the nurse practitioner role. The inhibiting factors included returning to a previous work site and not being able to function in the new role, lack of resources, and colleagues feeling threatened and not accepting the role. This study demonstrated that many factors (n=118) affected the implementation of a new role which remains the case today. Limitations of this study included the use of one geographical area.

Ferraro and Southerlands' (1989) topic for investigation was physicians' receptivity to the employment of physician extenders. The question under study was what physician characteristics are associated with the belief that physician extenders will improve the quality of care. This study was based on interviews of physicians in two separate samples. Sample one was a nationwide cross-section of 1,430 physicians and sample two was 191 physicians who practice in either a staff model health maintenance organization or an independent practice.

The analysis was conducted in three stages. First, the relationships for each dependent variable were estimated with logistic regression. Cross-classification analysis, Cronbach's alpha reliability estimates, and a confirmatory factor analysis were used for

the four remaining dependent variables. A full-information, maximum likelihood program was used to determine the relationship between the major variables (Ferraro & Southerland, 1989).

The results of Ferraro and Southerland's (1989) study show that physicians perceive the roles of nurse practitioners and physician assistants as useful but limited by certain conditions. Physicians have been able to maintain control and autonomy over their work, and desire to continue to do so. If the roles of the physician extenders are recognized without threatening the autonomy of the physician, the boundaries of the role may be extended. Therefore, the roles of the physician extenders are affected by the perceptions of physicians.

Hupcey (1993) conducted a descriptive, two group, comparison study that compared actual and ideal role behaviors of the nurse practitioner. The tool evaluated behaviors that are associated with the certificate-educated nurse practitioner and the masters' level nurse practitioner. Hupcey's (1993) study describes traditional technical behaviors as being part of a certificate prepared nurse practitioner. The master's level behaviors as described include researcher; being a change agent; leader/manager; teacher; evaluator of peers; nursing and health care, and theory based nursing practice.

A random sample of 200 nurse practitioners was taken from a list of 1,400 nurse practitioners that were providing direct patient care in Pennsylvania. A questionnaire was used to ask the nurse practitioners to evaluate on a 1-5 scale, how important each behavior was in their actual practice, and how important they felt the behavior should be in an ideal practice.

Participation in Hupcey's (1993) study was voluntary and the return yielded a sample size of 80 (40%). Descriptive analysis and t-tests were used with significance defined as a $p < .01$. The study results suggested that there were no differences between the role of the master's and non-master's prepared nurse practitioner. This is of concern if the trend is to require a master's degree for all nurse practitioners. The participants in this study ranked the technical behaviors higher than the master's level behaviors, which may indicate that this is what is utilized most frequently in their present role. Limitations of the study include restriction to one state, and no uniformity in the educational standards of the nurse practitioner.

Martin and Hutchinson (1999) examined the effects of negative behaviors or perceptions on nurse practitioners. Twenty-three nurse practitioners from the state of Florida volunteered to participate in this qualitative study. Data collection was done using open-ended interviews, and analyzed using constant comparative methods and theoretical sampling. The barriers identified from the study were labeled as discounting, which refers to behaviors towards nurse practitioners that they perceive as negative. Discounting was present to some degree in every setting in which the nurse practitioners encountered. While the sample size in this study is not large, it is adequate for a qualitative study. Martin and Hutchinson's (1999) study addresses the relevance of the effect of perceptions on behaviors.

Cairo (1996) interviewed a convenience sample of four emergency room physicians to examine the attitudes of emergency room physicians toward collaborative practice with nurse practitioners. Analysis was done using the method of constant

comparative analysis, which allowed concurrent data collection. The results identified acceptance as well as some reluctance with the nurse practitioner role.

Cairo (1996) stated that the physicians would accept a model of collaborative practice with the nurse practitioners in a dependent role. This was not collaborative practice as the nurse practitioners had envisioned. This sample size of four emergency room physicians was a small sample size and was of specialty physicians who are less likely to have exposure to nurse practitioners. Educating physicians about the role of nurse practitioners may lead to increased utilization and decreased role strain.

Buchanan (1996) describes development and evaluation of an alternative service based on a collaborative practice model. The assumption was that physicians would learn more about the nurse practitioner role and that all staff involved would learn how to build interdependent collaborative relationships. Three tools were used for data collection, a patient care tool, a clinical log, and a collaborative practice scale. A paired t-test was applied and only demonstrated statistical significance ($p < .05$) in the nurses' total scores over time. This indicates that the nurses reported higher collaborative practice scores at the end of the project. There was no significant difference for the physicians.

Despite no significant differences in the physicians' collaborative practice scores, the interaction with the nurse practitioner may lead to an increased appreciation for the role of the nurse practitioner as well as improve patient outcomes. A collaborative practice approach to decision making, problem solving, and care planning improves the quality of care because providers utilize their specific practice knowledge which increases the therapeutic options for patients (Buchanan, 1996).

Bambini (1995), in an unpublished master's thesis, described in a three group comparative study, perceptions of the nurse practitioner role. The groups included in the study were physicians, nurse practitioners, and registered nurses (RNs). Bambini modified an instrument that was used by Hupcey (1994) which measured appropriateness of behaviors associated with the nurse practitioner role. Significant results were found among the three groups in every behavior, with the largest difference occurring in perceptions of the scope of practice for the nurse practitioner role. Fifty three percent of physicians and 32% of RNs' thought that nurse practitioners should practice only under direct supervision. Seventy three percent of the nurse practitioners that responded felt that a collaborative practice was the best option.

Summary

As indicated in the literature, the role of the nurse practitioner has continued to grow over the past 20 years. The review also indicates that defining the role of the nurse practitioner and the scope of practice remains equivocal. Physicians, nurses, society, and nurse practitioners remain uncertain of the scope of practice as this varies from state to state. Utilization of nurse practitioners is dependent upon the organization, the setting, and other health care workers' perception of the role. Despite the variety of positions held currently by nurse practitioners, it has been shown that they improve access to care, provide quality care, and are cost effective.

As stated in the literature, perception has direct effects on behavior. The most influential perceptions affecting the nurse practitioner role appear to be that of physicians. Hence, the need for further development of physician/nurse practitioner

interactions that would lead to transaction as described by King (1981). If the current disparities in perception can be identified, they could be utilized to educate healthcare professionals and decrease the inequality between role expectations and actual performance.

Research Questions

The research questions identified for this study included: What are the appropriate behaviors of the nurse practitioner role as perceived by physicians? Secondly, how do these perceptions differ based on demographic variables, such as age, gender, specialty, practice setting, years in practice, and experience with a nurse practitioner? The third question addressed was which of the listed behaviors do physicians feel are the most appropriate for the nurse practitioner role?

CHAPTER 3

METHODOLOGY

Design

This study was a nonexperimental design, using a convenience sample of physicians. It was a descriptive study that measured the perceptions of the nurse practitioner role by asking physicians via a questionnaire, the degree of appropriateness for items in a list of 37 behaviors. Demographic factors that may have influenced physicians' perceptions of the role included past experience with a nurse practitioner, desire to hire a nurse practitioner, years in practice, age, gender, specialty, and practice setting. These variables were in the demographic portion of the mailed survey.

Using an anonymous survey that was mailed to the physicians' offices minimized threats to internal validity. Internal validity may have been affected by self-selection, as those physicians who were interested in the nurse practitioner role might have been more likely to return the survey.

Sample

The method of convenience sampling was utilized in this study. Questionnaires were mailed to the offices of 387 physicians that were active staff at a local hospital. This number was chosen to ensure an adequate sample size with a minimum goal of a 10% return rate. The only inclusion criterion was physicians who are on the active staff at a

local community hospital. Of the 387 questionnaires distributed, 128 were returned for a response rate of 33%.

The 128 physicians who responded were primarily males (74.2%). Only 25 (19.5%) of the respondents were female physicians. The majority of the respondents were 50 years or younger (75.8%), with 29.7% (n=38) between the ages of 30 and 40 years and 46.1% (n=59) between the ages of 41 and 50 years. Twenty-three physicians were 51 years of age or more, with seven (5.5%) past the age of 60 years. Eight physicians (6.3%) did not report their gender or age.

Table 1

Age of Respondents

Age Groups	Number	Percentage
30-40	38	29.7 %
41-50	59	46.1 %
>50	30	17.9 %

Area of specialty in which the physicians practiced, varied among the eight options provided on the instrument. The specialty with the highest response was classified as other (n=30), with the medical subspecialty being the second most frequently selected (n=27). There was only one respondent in the specialty of psychiatry. For a complete listing of the respondent's area of specialty, see (table 2).

Private offices were the primary practice settings for 63.2% of the physicians who responded. This was not an unexpected finding from the sample used in this study. The second largest percentage was 23.9%, and that was for the hospital as primary practice

setting. Collectively, clinics, HMOs, and educational settings were the primary practice settings for 12.9% of the physicians who responded (see Table 3)

Table 2

Area of Specialty of Respondents

Specialty	Number	Percentage
OB / GYN	13	10.8 %
Family Practice	17	14.2 %
Medical Subspecialty	27	22.5 %
Pediatrics	13	10.8 %
General Surgery	6	5.0 %
Surgical Subspecialty	13	10.8 %
Psychiatry	1	.8 %
Other	30	25.0 %

Table 3

Primary Practice Setting

Setting	Number	Percentage
Hospital	28	23.9 %
Clinic	12	10.3 %
Private Office	74	63.2 %
HMO	1	.9 %
Education	2	1.7 %

Instruments

In this study, the survey tool that was used was Gambini's (1995) modification of a questionnaire developed by Hupcey (1994). Perceptions of behaviors associated with the nurse practitioner role were measured in this study. The tool being used was chosen because it includes 30 behaviors of nurse practitioners that were educated at the master's level. These behaviors are divided into 12 technical, and 18 behaviors that were previously described as master level behaviors by a panel of experts in Hucepys' study. These behaviors involved research, teaching, leadership, theory based nursing practice, being a change agent, and doing evaluation. The behaviors were selected from a list of 65 behaviors by a group of ten master's prepared nurses, thus establishing content validity. The split-half method was used for the original tool to establish reliability. The Spearman-Brown formula was used which resulted in a reliability coefficient of 0.96.

Respondents were asked to rate each behavior they felt was appropriate for the nurse practitioner role, on a forced 1-4 scale with 1 being strongly disagree and 4 being strongly agree. Internal consistency was measured using a Cronbach's alpha which was .96.

Procedure

Permission was received from Hupcey and Bambini to use the modified tool (Appendix A & B). Approval was also received from the Grand Valley State University Human Subjects Review Committee.

A cover letter (see Appendix D) was included with each questionnaire to explain the study and encourage participation. The questionnaires (see Appendix E) were mailed

to 387 physician offices with self-addressed stamped envelopes for return of the surveys.

There were no risks identified for the human subjects involved in this study, as there was no direct contact with the researcher. The surveys were anonymous and had no identifying characteristics listed. The return of the survey indicated implied consent.

CHAPTER 4

RESULTS /DATA ANALYSIS

The purpose of this study was to assess physician perceptions of behaviors associated with the nurse practitioner role. The first of the research questions posed for this study were, what are the appropriate behaviors of the nurse practitioner role as perceived by physicians. The second research question was which variables do physicians perceive as the most appropriate? The final question included was, how do these perceptions differ based on the demographic variables age, gender, specialty, practice setting, years in practice, and experience with a nurse practitioner?

Statistical Techniques

Descriptive statistics were used to characterize the sample participants. Statistical analysis was done using the Statistical Package for the Social Sciences (SPSS). The level of significance was $p < .05$ for all statistical procedures.

The initial order of perceived appropriateness was established using median values. The final order was determined using the statistical mean of each behavior. A Mann-Whitney U procedure was used to identify differences in perceptions concerning nurse practitioner behaviors by previous experience with a nurse practitioner, and by gender. Differences on perceptions by years in practice, practice settings, age, and specialty were analyzed using a Kruskal-Wallis procedure.

Data Analysis

Question One

The first research question to be addressed was which behaviors did physicians perceive as appropriate for the nurse practitioner role. The behaviors were divided into categories such as those that involve theory based nursing practice and those that involve education, research, and leadership. The behaviors included in theory based nursing were labeled as, performing a health care assessment, completion of a physical exam, order and perform diagnostic tests, analyze data, formulate problem list, develop, evaluate, and modify the plan of care. Additional behaviors include, prescribe medications according to protocol, prescribe narcotics, manage complex problems, take call, carry out inpatient rounds and orders, and referral to a specialist.

Of the physicians who responded, most respondents felt that it would be appropriate for nurse practitioners to perform the history and physical, order tests, analyze the data and formulate a plan. However the results indicate that they were less frequently approving of behaviors such as prescribing of medications, caring for complex patients, and managing inpatients (see Table 4). It may be that physicians feel that these behaviors are unique to their discipline and are not able to share this responsibility with nurse practitioners.

The behaviors that involved education, management, and research have long been associated with nursing and may explain the overall acceptance by physicians. The education related behaviors include collaboration with community agencies, public speaking, community education, teaching health maintenance, instruction of nursing and

medical students, and acting as a resource for peers and staff. Of those physicians who responded, 84% to 100% approved of these behaviors for the nurse practitioner role with one exception. Only 64% of the physicians who responded felt that it was appropriate for nurse practitioners to be involved in the instruction of medical students (see Table 5).

Table 4

Behaviors Related to Theory Based Nursing Practice

Behavior	Number	Percentage
Complete Health Assessment	116	91.3%
Formulate Problem List	103	83.1%
Evaluate Plan of Care	103	81.8%
Complete Physical Exam	97	78.2%
Order Diagnostic Tests	96	76.2%
Analyze Data Collected	91	73.4%
Perform Diagnostic Tests	85	70.3%
Prescribe Meds According to Protocol	88	69.8%
Develop & Implement Plan of Care	84	68.8%
Modify Plan of Care	81	65.4%
Inpatient Rounds & Orders	64	51.6%
Take Call	60	48.4%
Referral to Specialist	52	41.6%
Prescribe Narcotics	30	23.8%
Manage Complex Problems	29	23.3%

Table 5

Education Related Behaviors

Behavior	Number	Percent who agree & strongly agree
Teach Health Maintenance	126	100 %
Community Education	124	99.2%
Instruction of Nursing Students	124	98.4%
Resource Peers & Staff	122	97.6%
Public Speaking	115	94.2%
Supervise Nursing Staff	118	93.6%
Collaboration with Community Agencies	117	92.8%
Instruction of Medical Students	80	64.0%

Research behaviors include doing clinical research, critique and implementation of research, development of protocols and strategies for the nurse practitioner role, and defining the scope of practice for the nurse practitioner. Modifying health care for the population, evaluating issues and trends, developing quality care tools, and evaluating standards of practice, also fall under the umbrella of the research behaviors. The percent of physicians who approved of these behaviors, ranged from 67.4% for defining scope of practice, to a high of 93.6% for evaluating issues and trends that effect health care delivery (see Table 6).

Three remaining behaviors can be classified as counseling they include evaluating psychosocial factors, family counseling, and creating interdisciplinary groups to improve

care. In this study, of the physicians who responded 98.4%, 96.8%, and 86.4 respectively, agreed with these behaviors as part of the nurse practitioner role. Nursing has long been in this role, so it would be reasonable that physicians would agree with this as part of the scope of practice for the nurse practitioner.

Table 6

Research Related Behavior

Behavior	Number	Percent
Evaluate Issues & Trends	117	93.6%
Develop Quality Care Tools	117	92.9%
Implement Health Care Outcomes	117	92.8%
Clinical Research	109	88.6%
Critique Research	110	88.0%
Implement Research	108	87.1%
Evaluate Standards of Practice	108	87.1%
Modify Health Care for Population	107	85.0%
Develop Strategies to Develop NP Role	105	84.0%
Develop Protocols for NP	90	71.4%
Define Scope of NP Practice	83	67.4%

Question Two

To identify the perceptions of the physicians' who participated in this study, the behaviors were put in rank order. As previously stated, the initial order of the 37 behaviors was performed using the median value. To further delineate the perceived

appropriateness of these behaviors, a final ranking was done using the statistical mean. For this sample, this indicates which behaviors physicians feel are the most appropriate for the nurse practitioner role, which was the second question posed for this study.

The survey tool used a Likert type scale of 1 to 4, with 1 (strongly disagree), to 4 (strongly agree). The item means ranged from a high of 3.62 to the lowest mean 1.82. Behaviors which physicians in this study listed as the most appropriate were instruction of nursing students, evaluation of psychosocial factors which influence a client's health, teach health maintenance, and participating in community education (see Table 7).

The four behaviors which physicians ranked as the least appropriate for the nurse practitioner are listed in Table 8. These behaviors are taking call, referring patients to a specialist, prescribing narcotics, and managing complex problems. The complete list of 37 behaviors associated with the role of the nurse practitioner in this study, and the ranking of perceived appropriateness are listed in Appendix F.

Table 7

Top Four Ranked Behaviors

Behavior	Number	Mean	Standard Deviation
Instruct nursing students	126	3.62	.52
Evaluate psychosocial factors	126	3.57	.56
Teach health maintenance	126	3.54	.50
Participate in community education	125	3.51	.52

Table 8

Lowest Ranked Perceived Behaviors

Behavior	Number	Mean	Standard Deviation
Take Call	124	2.38	.98
Specialist Referral	125	2.38	.95
Prescribe Narcotics	126	1.88	.91
Manage Complex Problems	125	1.82	.87

Question Three

The third research question addressed was to determine if there was a difference in the perceived appropriateness of behaviors based on demographics. The demographics were age, gender, area of specialty, practice setting, years of experience, and experience with a nurse practitioner.

Physician age as an independent variable was divided into 4 categories. Represented by number 1 were ages 30-40, 2 ages 41-50, 3 ages 51-60, and 4 ages > 60. The results were skewed with 31.7% of those who responded in group 1 and 49.2% in group 2. As a result groups three and four were condensed to form a new group 3 which was ages > 50, and represented 19.1%. A Kruskal-Wallis was run to identify significant differences with each behavior. The only behavior where a significant difference was found was in clinical research ($p = .03$).

As seen in Table 9, a Mann-Whitney U was run to determine if there was a difference between age groups. The results were significant between group 2 ages 41-50

and group 3 ages >51 ($p = .01$). So there was a significant difference in perceived appropriateness of clinical research based on age of physicians responding, with the greatest difference between the physician's age 41-50 and those over 51.

Table 9

Clinical Research by Age

Age	Mean Rank	Z statistic	p
41-50	43.73	-2.53	.01
> 51	30.34		

Gender differences were reported by 120 of the respondents. Of the physicians who responded, 79.2% were male and 20.8% of those who responded were female. Because the sample sizes were so varied, statistical analysis was not performed.

Physician specialty an independent variable, was one of the demographics collected in this study. Responses of 120 physicians were divided among 8 areas of specialty, which resulted in frequencies that were low. Of those who responded, the percentages ranged from a low of .8% to a high of 25%. Because the numbers were so low and widely distributed, this variable was not tested.

A Kruskal-Wallis was used to identify if there was a significant difference in the perceptions of the appropriateness of each behavior related to the years in practice for the physicians. Years of practice was divided into four groups with number 1 representing those in practice from 0-5 years, 2 years 6-10, 3 years 11-15, 4 years 16-20, and 5 years > 20. The highest rating was in the physician group who had been in practice 6 to 10 years

with a mean rank of 69.1 (n = 24). The physicians who had been in practice for the fewest years 0 to 5, provided the lowest rating with a mean rank of 40.6 (n = 17). The only significant difference was found with clinical research (p = .00). A Mann-Whitney U was performed to determine where the differences occurred (see Table 10). Between group 1, those who had been in practice 0 to 5 years, and group 2, those who had been in practice 6 to 10 years, there was a significant difference (Z = .00). Groups 1, 0 to 5 years, and group 3, 11-15 years, also revealed a significant difference (Z = .01). Significance was found between groups 1, 0 to 5 years and group 4, 16-20 years of practice, as well (Z = .01).

Table 10

Clinical Research by Years of Practice

Mean Rank		Z statistic	p
#1(0-5) 14.6	#2(6-10) 25.6	-3.38	.00
#1(0-5) 16.35	#3(11-15) 25.0	-2.51	.01
#1(0-5) 15.88	#4(16-20) 24.6	-2.56	.01

Primary setting of practice was another variable used to identify any difference in perceived appropriateness of behaviors associated with the role of the nurse practitioner. This consisted of five areas initially but the frequencies were small, so the groups were collapsed into two groups. Site #1 was 'other' which was made up of the HMO, clinic, hospital, education and other sites, while site #2 was 'office'. Consistently the sites called 'other' ranked the behaviors as more appropriate for the nurse practitioner role,

then did the site called 'office'. A Mann-Whitney U was used to identify significance and as shown in Table 11, there are significant differences for many of the behaviors.

A Mann-Whitney U test was performed to determine if there existed any significant difference in perceptions of those physicians who have worked with a nurse practitioner versus those who had not. Of those who responded, 83.3% (n = 100) had worked with a nurse practitioner and 16.7% (n = 20) had not. Statistical significance was found with two behaviors, 'completing a health assessment' (Z = .04) and 'formulating a problem list' (Z = .01). The mean rank for completing a health assessment was 62.6 for those who had worked with a nurse practitioner, and 47.1 for those who had not worked with a nurse practitioner. A mean rank of 60.3 was revealed with completing a physical exam in those who had worked with a nurse practitioner as compared to 48.8 for the physicians who had not worked with a nurse practitioner. In both of these cases, the mean ranks were higher in the group of physicians who had worked with a nurse practitioner.

Level of practice for nurse practitioners was initially divided into three groups, but the results yielded only 3 responses in 1 category. Hence, the data were collapsed to form 2 groups. Group 1, was for nurse practitioners who would practice independently or in collaborative practice, and group 2, was the nurse practitioners who were under direct physician supervision. In this study, physicians ranking was higher for a majority of the behaviors in the first group. This may indicate that the physicians who feel that nurse practitioners can practice independently or in collaboration, also are in agreement with the behaviors as listed on the instrument (see Table 12).

Table 11

Perceived Behaviors Related to Practice Site

Behaviors	Mean Rank		Z statistic	p value
	#1 Other	#2 Office		
Completes Health Assessment	69.58	51.97	-3.05	.00
Completes Physical Exam	64.57	52.35	-2.05	.04
Orders Diagnostic Tests	65.19	53.71	-1.93	.05
Perform Diagnostic Tests	64.16	51.22	-2.19	.03
Analyze Data Collected	66.01	51.46	-2.49	.01
Formulate Problem List	69.42	49.37	-3.51	.00
Meds According to Protocol	67.60	52.26	-2.54	.01
Evaluate Plan of Care	67.00	52.63	-2.48	.01
Modify Plan of Care	64.90	52.15	-2.13	.03
Manage Complex Problems	67.26	51.59	-2.62	.01
Inpatient Rounds & Orders	66.42	51.21	-2.51	.01
Take Call	66.69	51.05	-2.56	.01
Collaborate with Community Agencies	66.56	52.89	-2.40	.02
Public Speaking	64.63	50.94	-2.46	.01
Community Education	69.42	50.28	-3.45	.00
Evaluate Psychosocial factors	66.87	52.90	-2.56	.01
Family Counseling	66.05	52.51	-2.41	.02
Teach Health Maintenance	68.79	51.56	-3.12	.00
Resource Peers & Staff	65.02	52.94	-2.17	.03
Instruct Nursing Students	66.53	52.90	-2.57	.01
Instruct Medical Students	65.07	53.08	-1.96	.05
Clinical Research	63.80	52.12	-2.03	.04
Critique Research	64.00	52.96	-2.11	.03
Implement Research	66.72	51.03	-2.75	.01
Implement Health Care Outcomes	65.70	53.40	-2.18	.03
Modify Health Care for Population	65.91	53.41	-2.33	.02
Evaluate Issues & Trends	65.27	52.80	-2.25	.02
Develop Quality tools	65.41	53.58	-2.07	.04
Evaluate Standards of Practice	66.42	51.43	-2.59	.01

Table 12

Nurse Practitioner Level of Practice

Behaviors	Mean Rank		Z statistic	p value
	#1 Off site	#2 On site		
Completes Health Assessment	70.09	54.64	-2.38	.02
Completes Physical Exam	69.22	52.78	-2.49	.01
Orders Diagnostic Tests	69.69	54.06	-2.36	.02
Perform Diagnostic Tests	67.65	52.44	-2.27	.02
Analyze Data Collected	69.98	52.72	-2.62	.01
Formulate Problem List	66.10	53.86	-1.93	.05
Develop Plan of Care	70.48	50.88	-3.01	.00
Meds According to Protocol	70.43	53.81	-2.46	.01
Modify Plan of Care	67.53	53.36	-2.13	.03
Prescribe Narcotics	69.29	54.19	-2.24	.02
Manage Complex Problems	72.05	52.54	-2.95	.00
Inpatient Rounds & Orders	75.28	50.69	-3.64	.00
Take Call	76.91	50.88	-3.18	.00
Specialist Referral	74.46	51.98	-3.28	.00
Evaluate Psychosocial factors	66.86	55.01	-1.94	.05
Define NP Scope of Practice	67.97	52.49	-2.32	.02
Instruct Medical Students	77.21	50.78	-3.98	.00
Clinical Research	65.95	53.20	-2.00	.04
Critique Research	71.90	52.59	-3.06	.00
Strategies to Develop NP Role	67.76	54.00	-2.11	.03
Implement Research	67.17	53.49	-2.15	.03
Implement Health Care Outcomes	69.09	54.26	-2.38	.02
Modify Health Care for Population	67.16	54.21	-2.01	.04
Create Interdisciplinary Groups	70.24	53.15	-2.66	.01
Supervise Nursing Personnel	67.74	54.74	-2.04	.04
Evaluate Standards of Practice	66.71	53.65	-2.04	.04

Knowing a nurse practitioner was reported by 120 of the respondents, with 95.8% (n = 115), indicating that they did know a nurse practitioner, and 4.2% (n = 5), stating that they did not know a nurse practitioner. Because there was a considerable difference in the sample sizes, statistical analysis was deferred.

Statistical analysis was also deferred for the variable, hiring a nurse practitioner. Of the 112 physicians who responded, 33% (n = 37) indicated that they were interested in hiring a nurse practitioner. Sixty seven percent (n = 75) of the physicians were not interested in hiring a nurse practitioner. There were however, several surveys with notes written that they were not hiring because they had nurse practitioners in their practice and did not have available positions at the present time.

Statistical significance occurred the most frequently in two areas, in primary practice setting and with level of practice for nurse practitioners. Practice setting was divided into 2 groups, 'other ' and 'office'. There was a significance difference in perceived appropriateness in 29 of the 37 behaviors. Level of practice for the nurse practitioner was also divided into 2 groups. These were 'physician off site', which represented independent and collaborative practice and 'physician on site', which was direct physician supervision. There was statistical differences in 26 of 37 behaviors with the mean rank for 'physician off site' being consistently higher then 'physician on site'. With practice setting and level of practice, yielding the most significant differences, this may be area that is worthy of further research.

CHAPTER 5

DISCUSSION AND IMPLICATIONS

Discussion

A 33% questionnaire return rate was achieved with 128 physicians responding out of the 387 questionnaires that were mailed. This response may indicate an interest in this subject because the physicians either work with a nurse practitioner or are interested in hiring one. Actually, 33% of the physicians who responded indicated interest in hiring a nurse practitioner. Those who were interested listed their specialties as Emergency care, Family Practice, OB/GYN, and Pediatrics.

The results regarding the perceived appropriateness of the 37 behaviors listed in this study were not unexpected. The behaviors which physicians consistently perceived as the most appropriate for the nurse practitioner involved the behaviors that involved education of patients, staff, and the community. These were considered appropriate by 92-100% of the respondents. Physicians may associate these behaviors with the role of the registered nurse, therefore would expect these behaviors to be included in the scope of practice for the nurse practitioner. This coincides with King's (1981) definition of perception and how perceptions are related to past experience.

To discuss which behaviors physicians perceived as the most appropriate for the nurse practitioner role, the behaviors were placed in order using statistical means. This

did not take in to account the physicians' previous experience or knowledge of the nurse practitioner role. Understanding the physicians' perceptions may assist nurse practitioners to understand the necessity to clearly define their role, thus decreasing conflict between the participants. This is what King (1981) describes in her description of the concept of role. King (1981) also states that if roles are clearly defined and expectations met, purposeful interactions can take place.

Behaviors that were found to be less appropriate for the nurse practitioner role were directly related theory based nursing practice. Those include 'prescribing narcotics' (23.8%), 'managing complex problems' (23.3%), 'taking call' (48.4%), and 'inpatient rounds and orders' (51.6%). These behaviors have traditionally been part of the physician's scope of practice and it may be threatening to see nurse practitioners delivering comparable services. This was discussed by Woods(1998), as a factor that inhibits implementation of the nurse practitioner role.

There were some differences in perceptions when various demographics were considered. The only statistical difference in perceptions related to age, involved clinical research. Physicians between the ages of 41 to 50 were the most incline to feel that clinical research was appropriate for the nurse practitioner role.

Clinical research was also found to be statistically significant when compared to the number of years the physician had been in practice. Those physicians who had been in practice 6 to 10 years felt it most appropriate for nurse practitioners to do clinical research. This may be because they are established in their practice, feel confident, and are willing to accept that other disciplines can make beneficial contributions to health

care.

Schaffner, Ludwig-Beymer, and Wiggins (1995), investigated the utilization of nurse practitioners and found that the nurse practitioners were being used in a variety of settings, but that clarification of roles was necessary. In this study, the physicians that practiced primarily in sites other than an office, perceived behaviors as more appropriate for nurse practitioners than did those who were in offices. This may be affected by set practice standards in institutions that are within the scope of practice for the nurse practitioner, versus physician delegated behaviors seen in offices, which may be prohibitive.

Previous experience working with a nurse practitioner was only statistically significant in two behaviors. Those were 'completing a health assessment' and 'formulating a problem list', both were rated as more appropriate by those physicians had worked with a nurse practitioner. As Buchanan (1996) described, physicians may be more appreciative of the nurse practitioner role if they have had experience with a nurse practitioner.

How nurse practitioners should practice, or level of practice was also compared with the listed behaviors. The data were condensed so the categories were labeled as 'MD offsite' and 'MD onsite'. The physicians who indicated that nurse practitioners could practice independently or collaboratively were the 'off site' group, and consistently rated behaviors as more appropriate than did the physicians who felt they should provide direct supervision. This may indicate that the physicians who feel they should provide direct supervision, are less trusting of the ability of the nurse practitioner, or at a

minimum do not understand the role. This supports the findings of Ferraro and Southerland (1989), which reported that physicians found nurse practitioners as useful but only under certain conditions.

Application to Practice

Practice As stated by the Office of Technology and Assessment (1986), nurse practitioners can make significant contributions to health care. If the nurse practitioner role and scope of practice is clarified within each practice setting, there could be better utilization of services and less conflict. With the high response rate in this study, it could be assumed that there is an interest in the nurse practitioner role. Hiring a nurse practitioner was indicated by 33% of those who responded, this indicates that there is a job market in this community.

Education Role confusion and the variety of responses in the appropriateness of behaviors, indicate the need for further education regarding the nurse practitioner role. Standardization of educational requirements as recommended by the AACN (1994) would help define and clarify the nurse practitioner as well. Nurse practitioners need to be able to articulate what their role is should begin as they enter their new positions.

Research Although a number of studies have been done regarding the role of the nurse practitioner, the studies are limited by numbers, geographic area, and are becoming outdated. This indicates a need for continuing research which involves the role of the nurse practitioner to support the present practice.

Limitations

Using one community of physicians in a limited geographic area makes it more

difficult to utilize the results with another population. Because the nurse practitioner scope of practice varies from state to state, the role behaviors may not be applicable in another area. In addition, the use of nurse practitioners has been limited in this area, so exposure has not been high.

Developing a new tool may have helped clarify some of the behaviors. Some respondents made notes that they did not understand the question, or who the behavior applied to. This made it difficult for the physicians to make appropriate responses.

Self-selection was a limitation as it may be that only those interested in the nurse practitioner role responded. There may have been a higher motivation to respond if the physicians were familiar with the investigator, or because the return address envelopes were returned to the institution were the physicians practice.

Sample sizes were disparate for variables such as gender, area of practice, and if respondents knew a nurse practitioner, which limited the usefulness of statistical analysis. With some independent variables, the samples were small because of the numbers of options that were on the instrument in each category.

Recommendations

Practice As documented in previous studies, physicians are comfortable with nurse practitioners functioning in traditional roles but have some hesitancy about permitting an extended scope of practice. Physicians who have had experience with a nurse practitioner perceive the listed behaviors as more appropriate than those who have not had prior experience with a nurse practitioner. Despite the fact that the role of the nurse practitioner is not new, further education and investigation into the perception of

the role, may benefit those entering the profession and integrating the role into an existing health care system.

Education Education of the nurse practitioner role could be undertaken early in a professional career by introducing the role in both medical and nursing schools. This would increase understanding of the nurse practitioner role and may help to decrease interdisciplinary role strain. Nurse practitioner students must also be sensitive to the effects their role has on other disciplines, as they begin new positions.

Research Using a wide spread geographic area may alter the responses and the demographics of the sample. A larger sample size may allow further analysis and correlation. In future studies, providing the results to the participants at the studies completion might encourage greater participation.

Studies could also be done to compare patient satisfaction after care delivered by a nurse practitioner. Publishing studies of this type in a variety of journals would also help raise awareness with other health professionals. With the growing use of nurse practitioners, further research is indicated to support the theories that nurse practitioners can provide comprehensive, quality care, in a cost effective manner.

APPENDICES

APPENDIX A

Permission for Use of Instrument

APPENDIX A

Permission for Use of Instrument for Master's Thesis

Elizabeth Sperry, R.N., B.S.N. has my permission to:

- | | Yes | No |
|--|-------------------------------------|--------------------------|
| 1. Use the questionnaire used in the thesis entitled <i>Nurse/Physician Perceptions of the Nurse Practitioner Role</i> (1995) by D. Bambini, BSN, WHNP | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Publish a copy of the tool in the appendix of her Master's Thesis | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Signed: _____

APPENDIX B

Permission for Use of Instrument

APPENDIX B

Permission for Use of Instrument for Master's Thesis

Elizabeth Sperry, R.N., B.S.N. has my permission to:

- | | Yes | No |
|--|----------|-----|
| 1. Use the questionnaire used in the study entitled <i>Graduate Education for Nurse Practitioners: Are advanced degrees Needed for practice?</i> (1994) by J.Hupcey, EdD, CRNP | <u>X</u> | ___ |
| 2. Publish a copy of the tool in the appendix of her Master's Thesis | <u>0</u> | ___ |

Signed: Judith A. Hupcey

APPENDIX C

Human Subjects Review

APPENDIX C



GRAND VALLEY
STATE UNIVERSITY

1 CAMPUS DRIVE • ALLENDALE, MICHIGAN 49401-9403 • 616/895-6611

July 21, 1999

Elizabeth Sperry
1750 Sunvale Dr. SW
Wyoming, MI 49509

Dear Elizabeth:

Your proposed project entitled *Physician Perceptions of Behaviors Associated with the Role of the Nurse Practitioner* has been reviewed. It has been approved as a study which is exempt from the regulations by section 46.101 of the Federal Register 46(16):8336, January 26, 1981.

Sincerely,

[Redacted signature]

Paul Huizenga, Chair
Human Research Review Committee

APPENDIX D

Cover Letter

APPENDIX D

Elizabeth J. Sperry, R.N, B.S.N.
Spectrum Health Downtown
100 Michigan N.E. Mail code 37
(616) 391-3431

Dear Dr. _____,

In the rapidly changing world of health care, there are many differences of opinion regarding the components of the nurse practitioner's role. As a graduate student at Grand Valley State University, I have become interested in investigating these differences. I am now conducting a study, as part of the requirements of a master's degree in nursing, exploring the perceptions of the role of the nurse practitioner. This study asks physicians their feelings about the appropriateness of a variety of tasks or behaviors for a nurse practitioner.

By returning your survey, you are consenting to participate in this study. Do not put your name on the questionnaire so that all responses will be anonymous. Your input is very important to this study as I attempt to describe the current perceptions of the nurse practitioner's role. I would be very grateful if you would take the 10-15 minutes required to complete the tool and return it to me in the enclosed self-addressed, stamped envelope.

I would like to have this returned by August 9, 1999. If you have questions regarding this study, you may contact me at the number provided or contact Mr. Paul Huizenga in the Research and Development center at Grand Valley State University at 895-3498.

Thank you very much for your time and assistance with this study.

Sincerely,

Elizabeth J. Sperry, R.N., B.S.N.

APPENDIX E

Questionnaire

APPENDIX E

Please indicate your agreement or disagreement about the appropriateness of each behavior for a Nurse Practitioner by circling the selected response.

This behavior is appropriate for a Nurse Practitioner:

Behavior	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Conduct a complete health assessment interview.	1	2	3	4
2. Perform a complete physical examination.	1	2	3	4
3. Order diagnostic tests.	1	2	3	4
4. Perform diagnostic tests.	1	2	3	4
5. Analyze the data collected to determine the client's health status.	1	2	3	4
6. Formulate a problem list based on the data.	1	2	3	4
7. Develop and implement a plan of care.	1	2	3	4
8. Prescribe +/- or regulate medications according to protocol.	1	2	3	4
9. Evaluate the effectiveness of the plan of care.	1	2	3	4
10. Modify the plan of care as indicated.	1	2	3	4
11. Prescribe narcotic medications.	1	2	3	4
12. Manage complex health care problems.	1	2	3	4
13. Make rounds and write orders on inpatients.	1	2	3	4
14. Take call.	1	2	3	4
15. Collaborate with community agencies to provide care.	1	2	3	4
16. Independently refer to specialists.	1	2	3	4
17. Appear before civic and voluntary health groups.	1	2	3	4
18. Participate in community education.	1	2	3	4
19. Evaluate psychosocial factors, which influence a client's health status.	1	2	3	4
20. Family/relationship counseling	1	2	3	4
21. Define the role/scope of nurse practitioner practice	1	2	3	4
22. Teach +/- or counsel families to assume responsibility for health maintenance.	1	2	3	4
23. Act as resource person for peers and other staff.	1	2	3	4
24. Participate in the instruction of nursing students.	1	2	3	4
25. Participate in the instruction of medical students.	1	2	3	4
26. Refine nursing practice through own clinical research.	1	2	3	4

This behavior is appropriate for a Nurse Practitioner:

27. Question the conclusions of research studies in view of own practice.	1	2	3	4
28. Develop strategies to maximize the role of the nurse practitioner.	1	2	3	4
29. Develop protocols for clinical practice.	1	2	3	4
30. Articulate & investigate own research questions utilizing the appropriate research tools.	1	2	3	4
31. Implement strategies to produce better health care.	1	2	3	4
32. Propose modifications of existing health care services based on population needs.	1	2	3	4
33. Create interdisciplinary groups to provide care to clients.	1	2	3	4
34. Evaluate issues and trends influencing health care delivery.	1	2	3	4
35. Supervise other nursing personnel.	1	2	3	4
36. Develop quality of care audit tools to evaluate self and others.	1	2	3	4
37. Design an organized mechanism for evaluation of standards of practice.	1	2	3	4

Note. Bambini's adaptation of Hupcey's tool from : Bambini, D. (1995).
Nurse/Physician perceptions of the nurse practitioner role. Unpublished thesis,
 Grand Valley State University, Grand Rapids, Michigan.

Please respond to all questions so that this sample can be described:

38. What is your age? 1. 30-40 ___ 2. 41-50 ___ 3. 51-60 ___ 4. >60 ___
39. Gender - 1. Male _____ 2. Female _____
40. What is your area of specialty?
1. OB/GYN ___ 2. Family Practice ___ 3. Medical subspecialty ___
4. Pediatrics ___ 5. General Surgery ___ 6. Surgical subspecialty ___
7. Psychiatry ___ 8. Other _____
41. What is your primary practice setting?
1. Hospital ___ 2. Clinic ___ 3. Private office ___ 4. HMO ___
5. Education ___ 6. Other _____
1. How many years have you been in practice?
1. 0-5yrs ___ 2. 6-10 yrs ___ 3. 11-15yrs ___ 4. 16-20yrs ___
5. >20yrs _____
43. Do you know any nurse practitioners? 1. Yes ___ 2. No ___
44. Have you ever worked with a nurse practitioner? 1. Yes ___ 2. No ___
45. Are you interested in hiring a nurse practitioner? 1. Yes ___ 2. No ___
46. Do you feel nurse practitioners should practice: (choose one)
1. Independent of a physician _____
2. Under a collaborative agreement with a physician for referral _____ (physician off site)
3. Under direct supervision of a physician only _____ (physician on site)

APPENDIX F

Final Rank Order of Perceived Behaviors

APPENDIX F

Final Rank Order of Perceived Behaviors

Behavior	<u>Statistical Mean</u>	Number	Mean
Instruction of Nursing Students		126	3.62
Evaluate Psychosocial Factors		126	3.57
Teach Health Maintenance		126	3.54
Participate in Community Education		125	3.51
Family Counseling		125	3.50
Resource person for staff		125	3.50
Completes Health Assessment		127	3.39
Supervise Nursing Personal		126	3.37
Public Speaking		122	3.32
Develop QI Tools for Self & Others		126	3.31
Collaboration with Community Agencies		126	3.29
Implement Strategies to Improve Health Care		126	3.26
Refine Nursing Through own Research		123	3.26
Evaluate Issues & Trends Affecting Health Care		125	3.25
Evaluate Standards of Practice		124	3.21
Implement Nursing Research		124	3.17
Critique Research		125	3.15
Create Interdisciplinary Groups to Provide Care		125	3.15

Modify Health Care Delivery based on needs	125	3.14
Develop Strategies to Maximize NP Role	125	3.13
Formulate Problem List	124	3.06
Evaluate Plan of Care	126	3.06
Complete Physical Exam	124	3.05
Order Diagnostic Tests	126	2.96
Develop Protocols for NP	126	2.94
Analyze & Collect Data	124	2.89
Define NP Scope of Practice	123	2.86
Develop & Implement Care	122	2.85
Perform Diagnostic Tests	121	2.85
Prescribe Meds According to Protocol	126	2.82
Instruct Medical Students	125	2.78
Modify Plan of Care	124	2.78
Inpatient Rounds & Orders	124	2.48
Take Call	124	2.38
Referral to Specialist	125	2.38
Prescribe Narcotics	126	1.88
Manage Complex Problems	125	1.82

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