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## Evidence-Based Practice Perspective Of The Effects On Intuition On Clinical Practice As Perceived By The Nurse Practitioner

Alice F. Naquin

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PHYSICIAN ACCEPTANCE OF  
MEDICAL PROCEDURES AND INTERPRETIVE  
SKILLS COMPLETED BY NURSE PRACTITIONERS

by

ALICE F. NAQUIN

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

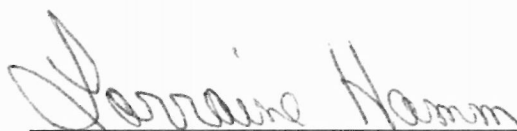
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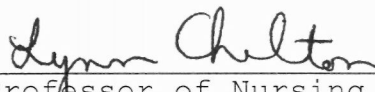
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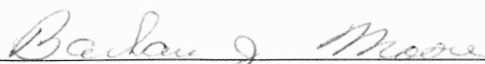
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## Abstract

Physician attitudes and acceptance of the nurse practitioner role have a significant effect on the success of the collaborative relationship and, therefore, impact the quality and cost-effectiveness of primary care. The purpose of the study was to determine the level of physician acceptance of the performance of medical and interpretive procedures by nurse practitioners and to determine which specific procedures physicians find acceptable or unacceptable. Research questions which guided this study were the following: What is the level of physician acceptance of medical procedures and interpretive skills completed by nurse practitioners? What medical procedures and interpretive skills completed by nurse practitioners are acceptable to physicians? And what medical procedures and interpretive skills completed by nurse practitioners are unacceptable to physicians? Erickson, Tomlin, and Swain's (1988) Theory of Modeling and Role-Modeling provided the theoretical framework for the quantitative, descriptive study. The setting was a southeastern state in the United States, and the

population was family practice physicians. Data were collected by mail, using a 20-item, researcher-designed survey and was analyzed using descriptive statistics. Findings of the study revealed that, overall, physicians believe it is not acceptable for nurse practitioners to perform medical procedures and interpretive skills. Among the postulated reasons for this lack of acceptance were lack of trust in the quality of care provided by nurse practitioners, territorial issues, and lack of exposure to and understanding of the nurse practitioner's education, qualifications, and practice. Recommendations included similar studies be conducted and that nurse practitioners strive for excellence in practice, positive patient outcomes, and increased exposure of physicians to the nurse practitioner role in an effort to improve the level of physician acceptance of this aspect of the nurse practitioner role.

## Dedication

This research study is dedicated to my husband, Brick. His love and support helped to make my dream a reality. The unshakable faith he had in me kept me going when times got tough. He was my devout advocate, guarding my study time against intrusion. He was my friend, listening and encouraging when I needed a sounding board. He was my comforter when I was distressed and needed a shoulder on which to cry. He was my cheerleader, urging me to press onward whenever I wavered and never failing to reaffirm his confidence in my abilities. I am blessed to share my life with this man, and I am proud to share this accomplishment with him as well.

## Acknowledgments

The journey to fulfill my dream has been arduous, filled with excitement, new experiences, uncertainty, sacrifice, and hard work. It is now complete, however, and the reward is about to be enjoyed. I could never have attained my goal without the support and assistance of family, friends, and instructors, whom I would like to acknowledge.

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Zeta Rho Chapter, Sigma Theta Tau International, for the faith they showed in my ability by awarding me the 2002 nursing research grant.

My husband, Brick, who has been my ardent supporter and champion. He has made many sacrifices to help me be successful in this endeavor. His love, understanding, and encouragement have kept me going when times were toughest. He is the love of my life and my best friend.

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To all of you, I express my genuinely heartfelt gratitude.



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## Chapter I

### The Research Problem

The nurse practitioner role originated in 1965 as a strategy to improve patient access to primary care in the face of a primary care physician shortage. Nurse practitioners were able to meet this challenge because of their unique training which included comprehensive health assessment aimed at health promotion and disease prevention, as well as diagnosis and management of acute illnesses (Sherwood, Brown, Fay, & Wardell, 1997).

Since the beginning, nurse practitioners have faced a considerable number of barriers to their practice. These barriers included opposition from the medical community, lack of reimbursement, lack of prescriptive authority, and lack of decision-making autonomy. Even though today's nurse practitioners have more favorable laws and regulations to support the role, many of these barriers, and others as well, remain significant. In order for nurse practitioners to function optimally and provide the services society needs, barriers need to be overcome (Boyd, 2000). As the nurse practitioner role has evolved,

the performance of medical procedures, which were once the sole domain of physicians, has become very important.

(Miller, 2000b)

As one might expect, there has been mixed acceptance of the performance of these procedures by nurse practitioners from the medical community (Boyd, 2000). In order to overcome this barrier, nurse practitioners must increase efforts to effect a change in physician understanding of the role, attitudes, and acceptance of the nurse practitioner role in completing these procedures (Boyd, 2000; Miller, 2000a, 2000b). Before this can be accomplished, the precise level of physician acceptance currently existing should be determined.

Minimal research was found regarding physician acceptance of medical procedures and interpretive skills performed by nurse practitioners. Therefore, the purpose of this study was to explore and describe the level of physician acceptance toward this facet of the nurse practitioner role.

#### *Establishment of the Problem*

Since the inception of the nurse practitioner role, it has progressively expanded and evolved to meet the needs of those who seek holistic health care. The nurse practitioner role originally focused on the health care

needs of individuals in underserved, rural areas. Traditionally, most nurse practitioners practiced in either community or hospital-based ambulatory care settings. Today, opportunities for nurse practitioners have expanded to include acute care settings, such as hospitals, inpatient specialty units, and emergency departments. As the role of the nurse practitioner has expanded, so have the skill requirements (Sherwood et al., 1997).

The performance of medical procedures and interpretive skills has become very important to the nurse practitioner role. Increasing numbers of procedures that have historically been the function of physicians are now being performed routinely by nurse practitioners. These procedures include management of minor surgical problems, diagnostic testing, and interpretation of test results (Schroeder & Trehearne, 2000). Some of these procedures, such as the Papanicolaou (Pap) smear collection, have been within the domain of the nurse practitioner role since its inception in the 1960s (Curtis et al., 1999).

The ability to conduct such procedures enables nurse practitioners to deliver more comprehensive, economical, and time-efficient patient care, especially in rural areas of the country (Sherwood et al., 1997). Patient referrals for procedures can result in treatment delays and

increased costs for patients and organizations. In collaborative practices, procedures performed by nurse practitioners can free up the physician's specialty time and also decrease patient waiting time (Schroeder & Trehearne, 2000).

Though individual state boards of nursing are responsible for nurse practitioner regulation, physicians continue to possess considerable power and influence over nurse practitioner practice (Flanagan, 1998). Physician acceptance of the nurse practitioner role is important and could serve as a potent facilitator to the nurse practitioner role. With physician acceptance, the nurse practitioner scope of practice can continue to expand and evolve to more effectively and efficiently meet present and future health care needs.

Many states now support independent practice for nurse practitioners, but others still require physician/nurse practitioner collaboration (Flanagan, 1998). Nurse practitioners working in collaboration with disapproving physicians can be considerably restricted in the type and quality of care they may deliver. Furthermore, without physician acceptance, there may be a reluctance, or unwillingness, on the part of physicians to refer patients to practices in which nurse practitioners perform these skills.

Numerous studies have shown that nurse practitioners can provide care equal to, or superior to, that of physicians, and at one third to one half the cost (Brown & Grimes, 1992; Hupcey, 1993; Mundinger et al., 2000). Therefore, physicians may view nurse practitioners as competition and as a threat to their financial and professional security (Boyd, 2000). Nurse practitioners often face substantial opposition from the American Medical Association (AMA). A recent issue of the *Journal of the American Medical Association* highlighted some of the actions that the AMA intends to take to oppose non-physician providers (Miller, 2000a). These planned actions include the opposition of legislation allowing nurse practitioners to encroach on the practice of medicine without physician training and to use legislative, legal, and regulatory means to oppose the expansion of nurse practitioner practice to include privileges that have traditionally belonged only to physicians (Greene, 2000).

Barriers such as these are not easily overcome. Nurse practitioners of the 1970s and 1980s who faced conflicting attitudes from mainstream nursing, physician opposition, and confusion over role function can attest that breaking down such barriers is a slow and tedious process (Hayes, 1985). The first step in overcoming practice-role barriers is the acquisition of knowledge and insight into physician



perceptions of the nurse practitioner role (Sherwood et al., 1997). Such knowledge and insight can be utilized in planning strategies for minimizing barriers and maximizing facilitators to the continued expansion of nurse practitioner practice. The current study was designed to explore and describe the level of physician acceptance of specific medical procedures and interpretative skills that are routinely performed by nurse practitioners but were once the exclusive territory of physicians.

#### *Significance to Nursing*

By identifying the level of physician acceptance of procedures performed by nurse practitioners, strategies that may effectively reduce barriers to practice can be planned. Elimination of such barriers holds the potential to reduce nurse practitioner stress, improve role satisfaction, and empower nurse practitioners to provide more comprehensive, cost-effective care. Additionally, by learning about expanded skills that are acceptable to physicians, nurse practitioners may discover strategies to enhance support in the primary care practice setting.

Understanding the level of physician acceptance might enable educators to develop curricula that better prepares nurse practitioners for entry into practice and thereby facilitates their transition into the advanced practice

role. Conduction of this study may serve to increase the overall body of knowledge related to physician-nurse practitioner collaborative relationships as well as promote an understanding of the physician perspective through use of the Modeling and Role-Modeling Theory.

#### *Theoretical Framework*

Erickson, Tomlin, and Swain's (1988) Modeling and Role-Modeling Theory served as the theoretical framework for this study. Modeling and Role-Modeling Theory is best described as a grand theory encompassing numerous midrange theories. Tenets of the model can be applied in clinical practice, education, and research. The theory is based on the beliefs that all people are alike in some ways, different in some ways, dependent on support systems, and have a need to attach to objects that meet their needs. *Modeling* is the process of gaining an understanding of the client's world from their perspective. *Role-modeling* is using that understanding to plan interventions to meet the client's perceived needs. The Modeling and Role-Modeling Theory delineates building trust, nurturance of self-esteem, promotion of client control and strength, and setting of mutual goals as strategies for planning interventions with clients.

The Modeling and Role-Modeling Theory is appropriate to this study in that through research nurse practitioners can model or gain understanding of physician perceptions from the physician's perspective. Through this understanding, role-modeling interventions can be accomplished to meet both the physician's and the nurse practitioner's perceived needs. Strategies aimed at building a trustful relationship, nurturing self-esteem, and setting mutually satisfying goals can then be formulated.

#### *Assumptions*

The following assumptions were made as underlying truths for this study:

1. Physician acceptance of the performance of medical procedures and interpretive skills is important to nurse practitioner practice.
2. Nurse practitioners are trained for and can perform medical procedures and interpretive skills as competently as physicians.
3. Physicians have opinions regarding the performance of medical procedures and interpretive skills by nurse practitioners.

4. Physicians possess varying levels of acceptance of the performance of medical procedures and interpretive skills by nurse practitioners.

5. Acceptance is a concept that can be quantified.

6. By gaining an understanding of physician perceptions, nurse practitioners can plan interventions that will meet the needs of both the physicians and the nurse practitioners (Erickson et al., 1983).

#### *Statement of the Problem*

In order for nurse practitioners to function optimally, physician acceptance of the role is important. One aspect of the nurse practitioner role that is particularly reliant on acceptance of the medical community is the performance of medical procedures and interpretive skills. Little research has been done to determine the level of physician acceptance of this nurse practitioner function. The purpose of this study is to determine and describe this level of acceptance and to ascertain if there are some procedures that physicians view as more acceptable or less acceptable for the nurse practitioner to perform.

### *Research Questions*

This study was guided by the following questions:

1. What is the level of acceptance by physicians of the performance of medical procedures and interpretive skills completed by nurse practitioners?

2. What medical procedures and interpretive skills completed by nurse practitioners are acceptable to physicians?

3. What medical procedures and interpretive skills completed by nurse practitioners are not acceptable to physicians?

### *Definition of Terms*

The following terms were defined for the purpose of this study:

#### *1. Level of acceptance*

*Theoretical:* the measurable degree to which there is belief, approval, or agreement regarding a phenomenon.

*Operational:* For the purposes of this study, level of acceptance is the degree to which medical procedures and interpretive skills completed by nurse practitioners meets with physicians' belief, approval, or agreement.

#### *2. Physicians*

*Theoretical:* persons who have successfully completed the prescribed course of studies in a medical school

officially recognized by the country in which it is located and who have acquired the requisite qualifications for licensure in the practice of medicine (Thomas, 1993).

*Operational:* For the purposes of this study, physicians are persons who have acquired the requisite qualifications for the practice of medicine and are licensed in family medicine in the state in which the current study is being conducted.

### 3. *Medical procedures and interpretive skills*

*Theoretical:* health care intervention and evaluation activities and abilities beyond those customarily acquired in basic educational preparation of the registered nurse.

*Operational:* health care intervention and evaluation activities and abilities beyond those customarily acquired in basic educational preparation of the registered nurse as listed on the *Naquin Medical Procedure Acceptance Survey*.

### 4. *Acceptable*

*Theoretical:* favorable reception, belief, approval, or agreement (Costello, 1993).

*Operational:* a medical procedure or interpretive skill which received a response of "acceptable in any setting" or "acceptable in a specialty setting" on the

*Naquin Medical Procedure Acceptance Survey* from 70% or greater of the respondents.

5. *Not Acceptable*

*Theoretical:* unfavorable reception, disbelief, disapproval or disagreement (Costello, 1993).

*Operational:* a medical procedure or interpretive skill which received a response of "unacceptable in any setting" on the *Naquin Medical Procedure Acceptance Survey* from greater than 30% of the respondents.

6. *Nurse practitioners*

*Theoretical:* registered nurses with advanced preparation in the care of particular types of patients with an emphasis on primary care (Thomas, 1993).

*Operational:* registered nurses with advanced education, who practice primary care, and are prepared to perform the specific procedures and possess the ability to perform the interpretive skills listed on the *Naquin Medical Procedure Acceptance Survey*.

*Summary*

In this chapter, the researcher sought to establish that the performance of medical procedures and interpretive skills by nurse practitioners is integral to the delivery of high-quality, cost-efficient health care and that physician acceptance or nonacceptance of this

function can serve as a significant barrier or facilitator to nurse practitioner practice. Chapter II provides a review of similar studies and literature pertinent to this study. Chapter III describes the method of empiricalization of this study. Chapter IV presents the findings of the study and a summary of the data. Finally, Chapter V discusses the interpretation of the data, conclusions, and implications of the study.



## Chapter II

### Review of the Literature

A review of the literature relating to physician acceptance of medical procedures and interpretive skills completed by nurse practitioners was conducted. No research was found which addressed the precise subject. One study was found which evaluated factors related to physician attitudes toward nurse practitioners.

Aquilino, Damiano, Willard, Momany, and Levy (1999) sought to evaluate factors associated with attitudes of primary care physicians toward nurse practitioners. The researchers felt that the shortage of primary care providers in some parts of the United States had increased the demand for more non-physician health care providers, particularly nurse practitioners. They held that this increase would result in more physicians and nurse practitioners working together and that the success of these relationships would affect the quality and cost-effectiveness of the health care that is provided.

The researchers also believed that the physicians' attitudes toward the nurse practitioners were apt to

affect that working relationship. Therefore, they undertook to measure the attitudes and define significant correlations that might exist between the physician and practice attributes and the attitudes. They were especially interested in the differences in attitudes between physicians who had current or previous experience with nurse practitioners and those who had not.

The researchers utilized a descriptive quantitative design. One half of the full-time primary care physicians who were licensed in the state of Iowa were randomly selected from the Iowa Board of Medical Examiners' list of all physicians licensed in the state. The researchers defined *primary care physicians* as physicians in general, family, pediatric, internal medicine, or obstetrics and gynecology practices. They defined *full-time* as working more than 30 weeks per year.

Data were collected via mailed surveys. Of the 616 surveys mailed, 369 responses were received, but only 259 of those were complete and therefore usable. Bivariate analyses were used to evaluate associations between physician characteristics and previous experience working with nurse practitioners, as well as physician attitudes and previous experience working with nurse practitioners. Ordinary least-squares regression was used in the

assessment of factors associated with the composite attitudinal scale score.

Aquilino et al. (1999) determined that of the sample ( $N = 259$ ), 82.6% were male, 61.8% were in family practice, the mean age was 47 years, and the average number of patients seen per day was 30. Forty-two percent had previous experience working with nurse practitioners providing primary care. The pediatric physicians were the most likely to have had experience with a nurse practitioner (78%), and internal medicine physicians had the least previous experience with nurse practitioners (26%).

The researchers found a significant difference in responses on the attitudinal scale between physicians with and without previous experience working with nurse practitioners. Physicians who had previous experience with advanced practice nurses had significantly more positive attitudes toward nurse practitioners ( $p < .05$ ). They were more likely to disagree that nurse practitioners provide lower quality care than physicians. They were also more likely to agree that, if nurse practitioners should be allowed to prescribe common drugs, nurse practitioners would attract new patients to the practice and add a positive dimension to the practice. Variables such as age, gender, type of degree, years in practice, and practice

size were not found to have a significant influence on physician attitude.

Aquilino et al. (1999) concluded that physicians have supportive attitudes toward nurse practitioners and that those physicians who had previous experience working with nurse practitioners had a more positive attitude toward the role and the ability of nurse practitioners to enhance a practice.

The researchers asserted that the results of the study may have implications for the training of both physicians and nurse practitioners as an effective way to begin a process of mutual understanding and respect between the professions. Future studies into educational models that enhance collaboration and understanding among professions were recommended.

The study was germane to this study in that inter-professional collaboration between physicians and nurse practitioners can help to contain health care costs and ensure better patient outcomes. Physician attitudes are major components in the acceptance of the nurse practitioner role and the performance of medical procedures and interpretive skills in particular.

In another study, Mundinger et al. (2000) sought to compare outcomes for patients who received care from nurse practitioners or physicians functioning in roles as

primary care providers. The researchers felt that the combination of prescriptive authority, direct reimbursement, and hospital admission privileges for nurse practitioners created a situation in which nurse practitioner's responsibilities are equivalent to physicians. The researchers hypothesized that patient outcomes would not differ between nurse practitioners and physicians.

The quantitative research utilized a randomized trial that was conducted over a 26-month period, from August 1995 to October 1997. The participants ( $N = 1,316$ ) were recruited from one urgent care center and two emergency departments. The mean age of the participants was 45.9 years, 76.8% were female, and 90.3% were Hispanic. After agreeing to participate in the study, the subjects were randomized to either a nurse practitioner ( $n = 806$ ) or physician ( $n = 510$ ). Next available appointments were made and, after the initial visit, all subsequent visits were assigned to the same nurse practitioner or physician.

No attempt was made to differentiate study participants from other patients, but the participants were free to change providers during the study. There were no significant differences in the health status or the demographics of patient groups. The nurse practitioners and physicians in the study had equal authority to

prescribe, refer, consult, and admit patients as well as the same pool of specialists from which to choose.

Mundinger et al. (2000) collected and analyzed data related to the participant's self-reported health status, satisfaction level, physiologic measures, and health care utilization. The researchers found no significant differences in the satisfaction scores between the nurse practitioners and physicians at either the initial or the 6-month interview. However, significance emerged for "provider attributes" where the physicians rated higher than the nurse practitioners ( $p = .05$ ). These "attributes" consisted of technical skill, personal manner, and time spent with patient.

Overall, there was a significant improvement in the participant's health status from baseline to follow-up. Physiologic measurements were taken on asthma, diabetes, and hypertension patients for both groups. No significant differences were found for these chronic illnesses, with one exception. There was a statistically significant lower diastolic blood pressure in the nurse practitioner group ( $n = 137$ ) at 82 mm Hg compared to the physician group ( $n = 139$ ) at 85 mm Hg ( $p = .04$ ). Utilization of health care services was examined for 6 months prior to and 6 months and 1 year after the study began, but no significant difference was found.

Mundinger et al. (2000) concluded that patient outcomes between nurse practitioners and physicians, where both were serving as primary care providers, were comparable and not significantly different. The patient outcome findings are significant to health care because the competence of nurse practitioners has been validated with that of care provided by physicians. The findings of the Mundinger et al. (2000) study support the assumption of the current study that nurse practitioners are capable of performing procedures and interpretive skills as competently as physicians.

In a study by Johnson and Freeborn (1986), the attitudes of primary care physicians in a large HMO toward the use of both nurse practitioners and physician assistants were examined. The study also looked at underlying reasons for those attitudes and whether physicians viewed nurse practitioners as a greater threat to their professional role than physician assistants.

Johnson and Freeborn (1986) believed that both nurse practitioners and physician assistants could provide a substantial percentage of primary care as safely and more economically than physicians without decreasing quality.

The study was of a descriptive quantitative design. The setting was a large HMO in Oregon with enrollment of more than 27,000 people. The population consisted of all

the physicians within a corporate group practice that provided care for the HMO. Internists, obstetrician-gynecologists, and pediatricians were represented by the sample. Data were collected via surveys. The researchers examined physician attitudes by specialty, age, and years of experience in the HMO.

Descriptive analysis was used to evaluate data. The findings revealed that internists and pediatricians generally had a favorable attitude toward the use of both nurse practitioners and physician assistants. Obstetrician-gynecologists were less accepting of nurse practitioners and physician assistants and felt they increased the risk of malpractice suits. Physician preferences between nurse practitioners and physician assistants were generally consistent with their attitudes. Even though results showed that physicians in each specialty were more likely to favor nurse practitioners over physician assistants, the differences were not statistically significant. There were no significant patterns suggesting that the physicians thought nurse practitioners were a greater threat to their professional role than physician assistants, and there was no suggestion that the gender of the nurse practitioner or physician assistant influenced the physicians' attitudes.



The researchers concluded that physician attitudes seemed to be reflective of how they felt about the quality of care nurse practitioners and physician assistants provided. Johnson and Freeborn (1986) also perceived that if behavior is reflective of attitude, then large HMOs might be favorable settings for both nurse practitioners and physician assistants to provide primary care. For the purpose of this study, these results support the assumption that physician acceptance is important to nurse practitioner practice, and acceptance of the nurse practitioner role is directly related to attitudes.

Another study which also supports the assumption that physician acceptance is important to nurse practitioner role performance was done by Hupcey (1993). The purpose of Hupcey's study was to identify factors and work settings that influence nurse practitioner practice. The researcher's primary goal was to gain information that would be useful to nurse practitioners seeking employment and for future education of nurse practitioners. Hupcey selected a random sample of 200 actively employed nurse practitioners with representation of all specialty areas. Forty-six percent of the surveys were returned, and data were analyzed using descriptive statistics.

The results of Hupcey's study did not clearly indicate any setting that had a major negative or positive

influence on nurse practitioner practice, but support of physicians, co-workers and administrators was found to be of utmost importance to almost all the respondents. Eighteen of the respondents felt that independence in the work setting had a positive influence on their ability to practice, and Hupcey postulated that this independence allowed them the necessary autonomy to perform the skills they felt were appropriate to their practice. One of the implications of Hupcey's (1993) study was the need for nurse practitioners to focus their attention on obtaining support from physicians. Hupcey suggested that nurse practitioners should enlist the assistance of other nurse practitioners, nurses, and administrators in educating physicians about the roles that nurse practitioners can play in the provision of primary care. The researcher concluded that if physicians understood how the nurse practitioner role differs from and complements the medical role, they would be more supportive.

Curtis et al. (1999) conducted a study to identify the patterns and proficiency of cervical cancer screening among different primary care specialties. Clinical and cytologic data from 21,833 Pap smears, submitted to a single laboratory by 176 clinicians over a 7-month period, were examined for quality and correlated with individual clinicians and specialty characteristics. The clinicians

in the sample consisted of family physicians, general practitioners, obstetrician-gynecologists, internists, nurse practitioners, and physician assistants, all of whom had submitted at least 30 Pap smears during the past 12 months. The overall quality of each smear was determined using criteria from the new Bethesda system. Prior to data collection, all participants received a description of the Bethesda terminology and criteria for Pap smear adequacy as well as instructions on optimal sampling techniques. Overall, 71.8% of the submitted smears were determined to be satisfactory. Nurse practitioners showed the highest percentage of satisfactory smears (77.8%) while general practitioners had the lowest proportion (61.6%). Obstetrician-gynecologists obtained more satisfactory smears than family physicians, who, in turn, performed somewhat better than internists.

Curtis et al. (1999) concluded that results of this and other such studies may be valuable in developing performance profiles, but it must be done carefully and with a clear sense of the various factors that can confound the findings. For the purpose of this study, the Curtis et al. study supports the assumption that nurse practitioners are trained and capable of performing medical procedures, such as the Pap smear, as competently as physicians.

In a study by Kinnersley et al. (2000) differences between care provided by nurse practitioners and care provided by general practitioners for patients seeking same-day consultations in primary care were studied. There were 1,368 patients and 10 different practices included in the study. The researchers noted that the number of patients requesting same-day care is increasing, and nurse practitioners are being assigned a large percentage of these cases. Their aim was to determine whether nurse practitioner care differs from general practitioner care for these patients.

Prior to receiving care from the provider, patients were asked to record their level of discomfort and concern on a Likert-type scale, then after receiving care they completed a satisfaction survey. The survey addressed information they had been provided such as the cause of the illness, what they could do to relieve their symptoms, likely duration, how to reduce chances of recurrence, and what to do if symptoms did not resolve. Two weeks after the visit, a second survey asking about the resolution of symptoms and their current level of concern was sent to each patient.

The results of the Kinnersley et al. (2000) study showed that, in all but one practice, nurse practitioner visits were significantly longer. More patients who

visited nurse practitioners reported that they had been told the cause of their illness, how to relieve their symptoms, and what to do if the problem persisted. Also, more patients reported that the nurse practitioner had told them the likely duration of their illness and ways to prevent recurrences. The study revealed no notable differences between the groups in terms of prescriptions issued, diagnostic tests ordered, or referrals to secondary care. Significantly higher satisfaction scores were observed in three practices, but no significant differences were found in the remaining seven. Satisfaction levels of children were significantly higher for nurse practitioners than for general practitioners.

Kinnersley et al. (2000) concluded that patients who consult nurse practitioners are generally more satisfied with their care. The positive outcome of this study suggests that nurse practitioners provide high-quality care and supports their extended role in primary care. This study is germane to the current study in that it shows that nurse practitioners are capable of providing care at least equivalent to that provided by physicians.

In summary, the review of the literature supported the assumption that physician acceptance of the nurse practitioner role is important to nurse practitioner practice and that care provided by nurse practitioners is

comparable to that provided by physicians. Physician concerns regarding the quality of care provided by nurse practitioners can be a significant barrier to acceptance of the nurse practitioner role and that barrier seems to be minimized by participation in a collaborative relationship with a nurse practitioner.

## Chapter III

### The Method

The purpose of this study was to explore and describe the level of physician acceptance of the performance of medical procedures and interpretive skills by nurse practitioners. In this chapter, the design of the study, the population, sample, setting, and methods of data collection and analysis are described.

#### *Design of the Study*

The study employed a quantitative, descriptive design. This type design was deemed appropriate because the purpose of the study was to describe and document the level of acceptance of physicians and which specific procedures they find more or less acceptable. No variables were manipulated. Data were collected via a voluntary, self-report mailed survey (Polit & Hungler, 1999).

#### *Variables*

Controlled variables included the geographic location of the study, the area of practice of the participants, and the number of participants surveyed. Intervening

variables may have included the honesty and biases of the participants.

*Setting, Population, and Sample*

The setting for the study was a state in the southeastern region of the United States. According to the 2000 United States National Census, the population of the state was 2,844,658. It is a predominantly rural state with only 47% of the population living in urban areas ("Mississippi," 2002). The state currently has 4,536 licensed physicians (T. Pasko, personal communication, January 24, 2002) of which 716 are family practitioners (R. Fleming, personal communication, October 23, 2001). There are also 1,234 advanced practice nurses in the state (M. Rachel, personal communication, January 24, 2002).

Currently in the setting state, nurse practitioner practice is jointly promulgated by the Board of Nursing and the Board of Medicine. Nurse practitioners in the state must practice in collaboration with a licensed physician whose practice is compatible with that of the nurse practitioner. Diagnostic and therapeutic procedures performed by the nurse practitioner must be outlined in a protocol that has been agreed upon by the nurse practitioner and the collaborating physician. The protocol must be Nursing Board and National Certification Board-



approved and documentation of review of the protocol must be submitted every 2 years (State Board of Nursing, 1998). Training for medical procedures and interpretive skills may be included as part of a Board-approved nurse practitioner preparation program, other approved formal education program, or by direct instruction and supervision.

The population for the study consisted of the 716 licensed physicians who specialize in family practice. A final sample of 66 was obtained for the study.

#### *Instrumentation*

A 20-item, researcher-designed survey (see Appendix A) was used for data collection. The items on the survey listed skills and procedures such as suturing, EKG interpretation, lumbar puncture, and shallow lesion biopsy.

Physician respondents were asked to place a check (✓) in the blank corresponding with the responses that indicated how acceptable they found the performance of the procedure or skill by a nurse practitioner. Response options included (a) acceptable in any setting, (b) acceptable only in a specialty setting, or (c) unacceptable in any setting. Both "acceptable in any setting" and "acceptable in specialty setting" responses

were considered to be acceptance when calculating the overall score. The number of "acceptable in any setting" and "acceptable in specialty setting" responses on each survey were tallied and then divided by the total number of responses. The resultant percentage was assigned as the score. It was predetermined that a score of 70% or greater signified overall acceptance. Next, an item-by-item analysis was performed in a similar fashion. Each item was examined individually and the number of "acceptable in any setting" and "acceptable in specialty setting" responses were tallied. The sums were then divided by the total number of responses, and the resultant percentage was assigned as the score for the item. Any survey or item receiving a score of less than 70% was considered to be not acceptable. In addition, subjects were given an opportunity to add any additional comments at the end of the survey.

The tool was designed by the researcher and had never been used; therefore, it had not been determined to have validity and reliability. However, it was deemed to have face validity by a team of expert researchers.

#### *Data Collection*

The Mississippi University for Women Committee on the Use of Human Subjects in Experimentation first granted

permission for the conduction of the study (see Appendix B). A list of family practice physicians in the selected southeastern state was then obtained from the American Medical Association. Of the 716 family practice physicians practicing in the state at the time study was conducted, 200 received a survey packet by mail. The 200 subjects were selected systematically by choosing every third physician on the list.

The survey packets consisted of a cover letter (see Appendix C), a demographic data form (Appendix D), the *Naquin Medical Procedure Acceptance Survey*, and a stamped, self-addressed return envelope. A reminder postcard (see Appendix E) was mailed to each subject 2 weeks after the packet.

In order to maintain total anonymity of subjects, no identifying data were added to the packets, and subjects were asked not to place return addresses, signatures, or other identifying information on the surveys. Subjects were advised that participation was strictly voluntary and that they could withdraw from the study at any time prior to analysis of data.

#### *Data Analysis*

The researcher calculated and reported the frequency and percentage of physicians who found the performance of

given procedures or skills by nurse practitioners to be acceptable or not acceptable. An overall acceptance score was calculated for each survey. These scores were then compiled and reported as levels of physician acceptance of procedures and skills performed by nurse practitioners. Next, an item-by-item analysis was completed. Demographic data were subjected to descriptive analysis and reported by frequency distribution and percentages. Responses to the open-ended item were analyzed for content and categorized.

#### *Summary*

In Chapter III, the empiricalization of the problem of physician acceptance of the performance of medical procedures and interpretive skills by nurse practitioners was described. The study's design, setting, population, sample, and data collection and analysis have been explained.

## Chapter IV

### The Findings

The purpose of this study was to determine the level of physician acceptance of the performance of advanced clinical procedures and interpretive skills by nurse practitioners and to determine which specific procedures they find acceptable or unacceptable. A descriptive exploratory study was implemented to describe the level of acceptance among family practice physicians in a southeastern state. Findings from the study are presented in this chapter.

#### *Description of the Sample*

The population for the study consisted of family practice physicians who were listed as members of the medical association in a southeastern state (2002). The sample consisted of 66 family practice physicians. Three of the recipients completed the demographic information and made additional comments but did not complete enough of the survey for them to be calculated into the total scores for the study.

Table 1 presents demographic characteristics of the respondents. The majority of the respondents were male with medical doctorate degrees. Seventy-nine ( $n = 52$ ) percent of the respondents had previous experience in collaborative relationships with a nurse practitioner.

Table 1

*Characteristics and Demographic Data of Respondents by Frequency and Percentages*

Characteristic	$f^a$	%
Gender		
Male	55	83
Female	11	17
Age (years)		
25 to 35	6	9
36 to 45	11	17
46 to 55	25	38
56 to 65	12	18
> 65	12	18
Education		
MD	64	97
DO	2	3
No. years experience as MD/DO		
0 to 5	7	11
6 to 15	14	21
16 to 25	22	33
> 26	23	35

(table continues)

Table 1 (continued)

Characteristic	f <sup>a</sup>	%
Previous experience with NP		
Yes	52	79
No. years experience with NP		
< 1	5	10
1 to 2	11	21
2 to 3	10	19
3 to 4	3	6
4 to 5	3	6
> 5	20	38
No	14	21
Overall opinion of NP role		
Very positive	26	39
Somewhat positive	28	43
Somewhat negative	10	15
Very negative	1	2

Note. NP = nurse practitioner.

<sup>a</sup>N = 66.

#### *Results of Data Analysis*

The first research question that guided this study was as follows: What is the level of physician acceptance of the performance of medical procedures and interpretive skills by nurse practitioners? Individual scores ranged from 10% to 100%. The overall mean score was 60%, and the mode was 60%. The researcher set the level of acceptance at 70%. Thirty-two (51%) of the individual scores were

equal to or greater than 70%. The researcher, therefore, determined that physicians were not accepting of the performance of medical procedures and interpretive skills by nurse practitioners.

The second research question for the study was as follows: What medical procedures and interpretive skills do physicians find acceptable for nurse practitioners to perform? The third research question was as follows: What medical procedures and interpretive skills do physicians find it is not acceptable for nurse practitioners to perform? An item-by-item analysis was performed on the *Naquin Medical Procedure Acceptance Survey* to determine the answer to these questions. Item-by-item analysis results are shown in Table 2.

Table 2

*Physician Acceptance of Procedures and Skills Performed by Nurse Practitioners by Frequency and Percentages*

Procedure/skill	Acceptable in any setting		Acceptable only in a specialty setting		Unacceptable in any setting	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Suturing	27	43.5	28	45.1	7	11.2
Remove foreign body/eye	20	31.7	23	36.5	20	31.7
Insertion of IUD	9	14.5	33	53.2	20	32.2

(table continues)



Table 2 (continued)

Procedure/skill	Acceptable in any setting		Acceptable only in a specialty setting		Unacceptable in any setting	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Culposcopy	2	3.2	22	36.0	37	60.0
Skin biopsy	33	54.2	16	26.2	12	19.6
X-ray interpretation	9	14.0	28	43.7	27	42.1
EKG interpretation	11	17.1	25	39.0	28	43.7
Lumbar puncture	1	1.5	10	15.8	52	82.5
Wound debridement	30	47.6	29	46.0	4	6.3
I & D of cyst	31	50.0	23	37.0	8	12.9
Cast and splint	11	17.7	22	35.4	29	46.7
Bone marrow biopsy	1	1.5	8	12.6	54	85.7
Basic microscopy	37	57.8	22	34.3	5	7.8
Sigmoidoscopy	2	3.2	16	25.8	44	70.9
Treadmill stress test	1	1.6	23	37.0	38	61.2
Nail removal	24	38.0	26	41.2	13	20.6
Inject trigger point	21	33.8	27	43.5	14	22.5
Digital nerve block	19	30.1	23	36.5	21	33.3
Hemorrhoid removal	17	27.4	19	30.6	26	41.9
Pap smear	52	81.2	12	18.7	0	0.0

Note. Percentages were rounded to the nearest tenth.

Respondents were given a choice of selecting either "acceptable in any setting" or "acceptable only in specialty setting." Pap smear was the only procedure

determined to be acceptable in any setting. Eight items (40%), including Pap smear, wound debridement, basic microscopy, suturing, incision and drainage of cysts, skin and shallow lesion biopsy, nail removal, and trigger point injection, received individual scores greater than 70% and were thus determined to be acceptable in specialty settings. All other procedures and skills were determined to be not acceptable to physicians for nurse practitioner performance. Bone marrow biopsy was the least acceptable with a score of 14%, followed closely by lumbar puncture at 17%.

#### *Additional Findings*

When comparing demographic data to responses, it was noted that of those respondents with scores of 70% or greater, 64% were female and 45% were male. In age comparison, all age groups had between 50% and 58% acceptance scores with the exception of the over 65 group which only had 18% acceptance scores. Neither of the two DOs in the study reflected acceptance of nurse practitioner performance of medical procedures and interpretive skills.

Acceptance scores ranged from 25% to 31% for physicians in practice from 6 to over 26 years, but for physicians in practice less than 5 years, the acceptance

score was only 9%. Of the physicians having previous nurse practitioner collaborative experience, 83% had positive overall opinion of the nurse practitioner role and 52% had scores of acceptance. Seventy-nine percent of physicians without previous nurse practitioner collaborative experience had a positive opinion of the role, and 35.7% had scores consistent with acceptance.

Finally, responses to the open-ended question were analyzed for content. Findings reflected three basic categories of comments. The first category indicated that physicians were concerned about the nurse practitioner's preparation, qualifications, and supervision. Comments in this category were such as "The answer to each of these is entirely dependent on education, experience, training and current competence" and "I doubt that 13 months of classes by a non-MD trains nurse practitioner for any procedure." The majority of the comments fit into this category, and a complete list of responses may be seen in Appendix F.

The second category revealed that some physicians are supportive of the nurse practitioner role and the performance of medical procedures and interpretive skills. Such comments as "Nurse practitioners are great" and "A trained nurse practitioner can do any of these procedures well in my opinion" were received. See Appendix G for complete list of responses in this category.

The third category disclosed strong opposition to the nurse practitioner role and the performance of medical procedures. Some of the comments were "If anyone wishes to practice medicine, they should be required to go to medical school" and "I am opposed to independent nurse practitioner practice." Complete transcript of responses to the third category can be seen in Appendix H.

Chapter IV presented the results of the data analysis. The sample demographics and the results of an item-by-item analysis were presented. The results revealed that family practice physicians generally find it not acceptable for nurse practitioners to perform medical procedures and interpretive skills. Item-by-item analysis revealed that physicians deemed it acceptable for nurse practitioners to perform only 40% of the procedures and skills listed.

## Chapter V

### The Outcomes

As the role of the nurse practitioner continues to expand in response to the needs of society, the performance of medical procedures and interpretive skills becomes an increasingly important function. The ability to perform these procedures enables nurse practitioners to deliver the cost-effective, efficient health care that is imperative today (Miller, 2000b). In most states, a collaborative practice structure with a physician is necessary for the nurse practitioner to be able to practice, and good collaboration is always important for the provision of good health care. Therefore, physician acceptance of all aspects of the nurse practitioner role is important, and lack of acceptance of nurse practitioner performance of medical procedures and interpretive skills can serve as a significant barrier to nurse practitioner practice (Boyd, 2000).

Little research has been conducted to examine the level of physician acceptance of the performance of medical procedures and interpretive skills by nurse

practitioners. Therefore, the purpose of this study was to perform an inquiry as to the level of this acceptance. Chapter V includes a discussion of the findings of the study as well as conclusions and recommendations that evolved from the study.

#### *Summary of Significant Findings*

A sample of 66 family practice physicians provided data for the study. Only 51% of respondents returned surveys with 70% or greater acceptable responses. It was, therefore, determined that physicians do not find it acceptable for nurse practitioners to perform medical procedures and interpretive skills. Of the 20 procedures and skills listed on the survey, only 8 (40%) were acceptable to 70% or more of the respondents for nurse practitioner performance. The skills which physicians found acceptable included the following: (a) suturing, (b) biopsy of skin and shallow lesions, (c) wound debridement, (d) incision and drainage of cysts, (e) basic microscopy, (f) nail removal, (g) trigger point injection, and (h) Pap smear. Of the respondents who returned surveys that had scores of acceptance, 52% had previous experience in collaborative relationships with nurse practitioners.

## Discussion

Overall, 51% of the respondents believed it was acceptable for nurse practitioners to perform the procedures and skills listed on the *Naquin Medical Procedure Acceptance Survey*. Although this number is substantially lower than the 70% score that was set as the level of acceptance, it still reveals that slightly more than half of the respondents felt positively about nurse practitioner performance of advanced procedures. Item analysis showed that 40% of the procedures and skills were acceptable to 70% or more of the physicians.

Boyd (2000) stated that mixed acceptance of the performance of these skills is to be expected. One explanation for physician's lack of acceptance of this aspect of the nurse practitioner's role might be that physicians view nurse practitioners as a threat to the medical profession. Mundinger et al. (2000) surmised that physicians are reluctant to support advanced practice nurses because they worry about displacement of physicians or an excess of health care providers. Greene (2000) and Miller (2000a) described the concerted effort that the American Medical Association has initiated to staunchly oppose the expansion of nurse practitioner practice to include privileges that have traditionally belonged solely to physicians. The researcher postulates that physicians

who perceive the nurse practitioner performance of medical procedures and interpretive skills as a threat or competition are less likely to approve of them.

The researcher noted that Pap smear, which is a procedure that has been performed by nurse practitioners practically since the role's inception (Curtis et al., 1999) was found to be overall acceptable by 100% and the only procedure found to be "acceptable in any setting" by more than 70% of the respondents. This suggests to the researcher that perhaps acceptance has developed as a result of experience and exposure. Therefore, perhaps, some of the nonacceptance is the result of inexperience and non-exposure to the nurse practitioner role. This idea also is supported by the fact that of the 52 respondents who had prior experience in a collaborative relationship with a nurse practitioner, 43 (83%) had positive opinions of the nurse practitioner role. This finding is consistent with that of prior researchers such as Aquilino et al. (1999) who found that physicians with previous experience with nurse practitioners had significantly more positive attitudes toward the role and were more likely to disagree that nurse practitioners provide lower quality care.

Of the 11 procedures and skills found to be unacceptable to the respondents, it was noted that lumbar puncture (17%) and bone marrow biopsy (14%) were the least



acceptable. Perhaps, the invasive nature of these two procedures has a bearing on the findings. The researcher also noted that many of the procedures and skills that were found to be unacceptable are those not often performed by family practice physicians but are usually referred to specialists. The researcher speculates that physicians who do not feel comfortable performing certain procedures themselves would be less inclined to believe that it would be acceptable for a nurse practitioner to perform those procedures.

A finding of interest to the researcher was that 82% of the respondents had an overall "very positive" or "somewhat positive" opinion of the nurse practitioner role, but only 51% found it acceptable for nurse practitioners to perform the procedures and skills that are becoming increasingly essential to the nurse practitioner role. The researcher speculates that this disparity may be because physicians are generally supportive of the nursing role, but when nurse practitioners perform procedures which have previously been the domain of the physician, this action may be perceived as an encroachment upon their territory and may stimulate feelings of defensiveness and resentment. This speculation is supported by some of the responses to the open-ended item, such as, "If anyone wants to practice

medicine, they should be required to go to medical school."

The open-ended item on the survey further suggests that at least some of the physicians' failure to accept procedures performed by nurse practitioners may be due to their concern that nurse practitioners are not properly trained or supervised. This concern is evident in responses, such as "My basic concern is lack of basic anatomy (practical dissection) and over-extension beyond qualifications in practice." Contrarily, other physicians responded with comments such as "The answer to each of these is entirely dependent on education, training and current competence" and "The experience of the nurse practitioner and her ability would determine what she could do." These responses underscore a legitimate concern that can perhaps be alleviated by educating the physicians as to nurse practitioners' preparation and qualifications. Johnson and Freeborn (1986) also found that physicians' attitudes seemed to be reflective of how they felt about the quality of care delivered by nurse practitioners.

These findings provide a model of physicians' views regarding nurse practitioner performance of medical procedures and interpretive skills. Such an understanding of physicians' views may enable nurse practitioners to

develop strategies aimed at building trustful relationships and establishing mutually satisfying goals.

### *Limitations*

External validity of the study was limited due to the fact that the study was conducted in a single state in the southeastern region of the United States; the results, therefore, could not be generalized to other areas. Family practice physicians were deemed to be the most likely to refer patients to practices where nurse practitioners might potentially perform medical procedures; however, population validity was limited because the results could not be generalized to all medical specialties. Even though the data collection instrument had been deemed to have face validity, no validity and reliability studies were done; therefore, internal validity may have been limited. The researcher believed that, perhaps, a clearer explanation to respondents as to the meanings of "acceptable in any setting" and "acceptable only in specialty setting" might have resulted in different answers.

Other limitations that should be considered include the facts that mail-out surveys have a poor completion rate, that information obtained in surveys tends to be superficial, and that with mail-out surveys the researcher

lacks the ability to encourage participation or clarify information (Polit & Hungler, 1999).

### *Conclusions*

This researcher determined that overall physicians find it not acceptable for nurse practitioners to perform medical procedures and interpretive skills in any setting. Findings also revealed that only 40% of the specified procedures and skills were acceptable to more than 70% of the respondents. The procedures and skills found to be acceptable were those that nurse practitioners have been performing for the longest periods of time. This suggests that experience and exposure are factors contributing to physicians' levels of acceptance of these procedures. With experience and exposure to the nurse practitioner role, physicians are reassured of the high quality of care that nurse practitioners deliver. Experience also helps to allay concerns of nurse practitioners posing a threat to the medical profession. Even though experience and time may seem to be the answer to the dilemma, health care needs of our society are demanding attention now. The researcher, therefore, asserts that education of physicians is the best approach to the problem of nonacceptance of the nurse practitioner role.

### *Implications for Nursing*

As the need for primary health care providers continues to grow, the need for physician approval of the nurse practitioner role becomes more urgent. According to the findings of this study, there is an insufficient level of physician acceptance of the performance of medical procedures and interpretive skills by nurse practitioners. Physician approval is essential for the physician and nurse practitioner collaborative relationship to be effective.

Unfortunately, trust and approval by physicians appear to be slow in coming. More research must be done to determine reasons for physician reluctance to accept the nurse practitioner role. This could be accomplished by conduction of qualitative research exploring physician experiences with nurse practitioners performing medical procedures and interpretive skills. Additionally, outcomes research focusing on the performance of medical procedures and interpretive skills by nurse practitioners could be beneficial in convincing physicians that the quality of nurse practitioner preparation is satisfactory, and the care provided is competent.

Programs should be instituted in schools of medicine to educate new physicians about the nurse practitioner role and to encourage their support of the role.

Established physicians should be exposed to educational materials, literature, and positive personal experiences that will help them to understand and embrace the nurse practitioner role. Nurse practitioners may be able to induce increased acceptance by striving to achieve and maintain excellence of performance, positive patient outcomes, and additional physician exposure to the nurse practitioner role. Perhaps, the most certain route physician acceptance can be accomplished is through appropriate role-modeling by nurse practitioners.

Finally, nurse practitioners must support their profession and strive to ensure high-quality standards of education and practice for all nurse practitioners by developing standards and protocols for medical procedures and interpretive skills. High standards must then be upheld by a model of excellence in clinical practice. Nurse practitioners must be politically active in order to ensure that such protocols are implemented and to expand the perception and comprehension of the nurse practitioner role in today's health care arena.

#### *Recommendations*

Based on the findings of this study, the following recommendations are made for nursing research and nursing practice:

1. Replication of this study with a broader population and larger sample size.
2. Conduction of qualitative research to determine reasons for physician reluctance to support nurse practitioner performance of medical procedures and interpretive skills.
3. Conduction of research to study the effect of education on physician acceptance of the nurse practitioner role.
4. Conduction of outcomes research focused on nurse practitioner performance of medical procedures and interpretive skills.
5. Development of educational programs aimed at increasing awareness of the purpose of the nurse practitioner role, the preparation and qualifications of nurse practitioners, and the impact nurse practitioners have on health care.
6. Modeling and role-modeling standards of excellence in the nurse practitioner's education and practice.

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APPENDIX A  
NAQUIN CLINICAL PROCEDURE  
ACCEPTANCE SURVEY

Naquin Clinical Procedure  
Acceptance Survey

Below is a list of procedures that nurse practitioners perform routinely in many areas. Please indicate your level of acceptance for each procedure.

	Procedure	Acceptable in any setting	Acceptable only in a specialty setting	Unacceptable in any setting
1	Suturing			
2	Removal of foreign body-eye			
3	Insertion of intrauterine device			
4	Culposcopy			
5	Biopsy skin and shallow lesions			
6	X-ray interpretation			
7	EKG interpretation			
8	Lumbar puncture			
9	Wound debridement			
10	Incision and drainage of cysts			
11	Cast/splint simple fracture			
12	Bone marrow aspiration			
13	Basic microscopy			
14	Sigmoidoscopy			
15	Exercise stress testing			
16	Nail removal			
17	Trigger point injection			
18	Digital nerve block			
19	Thrombosed hemorrhoid removal			
20	Papanicolaou smear			

Please add any comments you would like to make here or on back.

APPENDIX B

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



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December 19, 2001

Ms. Alice F. Naquin  
c/o Graduate Nursing Program  
P. O. Box W-910  
Campus

Dear Ms. Naquin:

I am pleased to inform you that the members of the Committee on Human Subjects in Experimentation have approved your proposed research with the requirement that you include a statement indicating how the principal investigator should be contacted.

The committee reminds you that the results of any questionnaire or survey must be kept under lock and key to ensure confidentiality and be kept for a sufficient length of time to protect the participant and the researcher.

I wish you much success in your research.

Sincerely,

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

VH:wr

cc: Mr. Jim Davidson  
Ms. Lorraine Hamm  
Dr. Sheila Adams

APPENDIX C  
COVER LETTER TO PHYSICIAN



July 20, 2002

Dear Physician,

I am currently a student in the Master of Science in Nursing program at Mississippi University for Women with a clinical specialty of Family Nurse Practitioner. For my thesis, I have chosen to study the level of physician acceptance of advanced clinical procedures being performed by nurse practitioners. Findings from this study may be useful to primary health care providers in making decisions about physician/nurse practitioner collaborative relationships. I am requesting your assistance with this study.

Enclosed you will find a short demographic data form, a survey, and a self-addressed, stamped envelope. Your participation is strictly voluntary, and you may withdraw from the study at any time prior to returning your survey. Your response will be anonymous. Please do not place your signature or other identifying information on any of the forms. Your consent will be implied by the return of the enclosed survey.

I realize that your time is valuable and I sincerely appreciate your assistance. It should take approximately 10 minutes to complete the entire survey. Should you have any questions, please feel free to phone me at (662)574-5977.

Sincerely,

Alice Naquin, RN, BSN

APPENDIX D  
DEMOGRAPHIC DATA FORM

## Demographic Data Form

**Directions:** Please answer the following questions by placing a check (✓) by your response or filling in the blanks.

## 1. Gender

- a. Male                       b. Female

## 2. Age

- a. 25 to 35  
 b. 36 to 45  
 c. 46 to 55  
 d. 56 to 65  
 e. Over 65

## 3. Type educational preparation

- a. MD  
 b. DO  
 c. Other. Please specify: \_\_\_\_\_

## 4. Number of years in practice

- a. 0 to 5                       c. 16 to 25  
 b. 6 to 15                       d. Over 26

## 5. Have you ever worked in a collaborative relationship with a nurse practitioner?

- a. Yes                       b. No

If "Yes" to this question, for how long?

- a. < 1 year                       d. 3 to 4 years  
 b. 1 to 2 years                       e. 4 to 5 years  
 c. 2 to 3 years                       f. > 5 years

## 6. Size of your practice

- a. < 100 patients  
 b. 100 to 200 patients  
 c. 200 to 300 patients  
 d. 300 to 400 patients  
 e. 400 to 500 patients  
 b. > 500 patients

## 7. Please rate your overall opinion of the nurse practitioner role.

- a. Very positive  
 b. Somewhat positive  
 c. Somewhat negative  
 d. Very negative

APPENDIX E  
POSTCARD REMINDER

## Reminder

Dear Physician,

Thank you for assisting me with my study and completing and returning the Naquin Medical Clinic Procedure Acceptance Survey.

If you have not returned the survey, please take a few minutes at this time to complete and return it in the postage-paid envelope provided.

Thank you again,

Alice F. Naquin

APPENDIX F  
"CONCERNED" RAW DATA

"Concerned" Raw Data

1. "I see much variability in nurse practitioner skill levels. Some are simply excellent. Others scare me with what they are doing."
2. "All depends on training and being signed off by the doctor where they work."
3. "Doubt that 13 months of classes by a non-MD trains nurse practitioner for any procedure."
4. "The answer to each of these is entirely dependent on education, training and current competence."
5. "The experience of the nurse practitioner and her ability would determine what she could do. Some physicians cannot do all of these procedures well. I believe certain nurse practitioners with training and experience could do some of them."
6. "My basic concern is lack of basic anatomy (practical dissection) and over-extension beyond qualifications in practice."
7. "Nurse practitioners' training in general needs a better foundation and fund of knowledge."
8. "Depends on the individual nurse practitioner."
9. "This list greatly depends on the competence of the nurse practitioner."
10. "Many depend on level of physician supervision and whether on site or not."

APPENDIX G  
"SUPPORTIVE" RAW DATA



"Supportive" Raw Data

1. "My experience has been positive. Recently a nurse practitioner diagnosed a ruptured baker's cyst on me that the doctors had missed."
2. "I was a nurse before I was a doctor. Nurses are GREAT! In history doctors took BPs. Now they don't even know how. Nurses will always advance in their professions. It is fate. Yea Nurses!"
3. "A trained nurse practitioner can do any of these procedures well in my opinion."
4. "Best wishes nurse practitioners!"
5. "Nurse practitioners are great as long as they understand and accept their limitations and are properly supervised. I have worked with them for 25 years."
6. "The training and licensure of nurse practitioners does not qualify him/her to do any of these procedures except under the supervision of her controlling physician and then only when the practitioner has been proven capable under the observation of the physician. Only then can the physician give approval for a given procedure. Using this philosophy we have had a very satisfactory experience with our nurse practitioners."

APPENDIX H  
"OPPOSED" RAW DATA

"Opposed" Raw Data

1. "If anyone wants to practice medicine they should be required to go to medical school."
2. "Have seen significant and frequent problems with care provided; regarding standard of care; ability to appreciate that something more was going on."
3. "Nurse practitioners are not adequately supervised. Positive role as adjunct to MD. On the other hand, if they want to practice medicine, they need to go to medical school."
4. "If nurses or anyone chose to practice medicine they should first go to medical school and second they should be responsible to the State Board of Medical Licensure. The practice of medicine should not be relegated to cookbook procedures and practice under the guise of actually taking care of the whole person."
5. "Nurse practitioners were meant to assist in patient care. They should not have a solo practice or work in ERs. They have just enough training to get the patient in trouble."
6. "I am opposed to independent nurse practitioner practice."