Comparisons Of Outcomes In A Pediatric Primary Care Clinic In Patients Treated By A Physician Or A Nurse Practitioner

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COMPARISONS OF OUTCOMES IN A PEDIATRIC PRIMARY CARE CLINIC IN PATIENTS TREATED BY A PHYSICIAN OR A NURSE PRACTITIONER

by

KEN BURNETTE

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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Comparisons of Outcomes in a Pediatric Primary Care Clinic in Patients Treated by a Physician or a Nurse Practitioner

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Abstract

Physician availability during the 20th century has waxed and waned. During periods of physician shortage and surplus, there have always been underserved segments of our society. Nurse practitioners (NPs) have provided care for these underserved populations. Unfortunately, 30 years after the first NPs began to practice there remain underserved populations and underutilized practitioners. The purpose of this study was to compare outcomes between physicians and practitioners. The research questions are the following: Is there a difference in patient’s satisfaction between care provided by a physician and a nurse practitioner? Does care differ when initiated by a physician or a nurse practitioner? Does parent satisfaction correlate compliance to prescribed medications and other interventions? Pender’s Health Promotion Model was selected to guide this research. A researcher-developed tool was used to collect demographic data and information indicating patient satisfaction and if the patient was compliant with this treatment. For both
satisfaction and compliance there was no significant
difference between the physician- and nurse practitioner-
treated group. In addition, there was no significant
correlation between satisfaction and compliance in either
group.
Acknowledgments

I would like to thank Dr. Mary Pat Curtis, Dr. Lynn Chilton, and Melinda Rush for their assistance.

This study dealt with nurse practitioners and kids. Therefore, I would like to dedicate this work to Susie Burnette, my favorite nurse practitioner, and Kelsey Burnette, my favorite kid.
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Chapter I

The Research Problem

The current health system in the United States has produced a milieu in which rural, poor, children, and elder populations often have the least access to care, thus, those who need healthcare are the least served (Koch, Pazaki, & Brown, 1992; Umrigar, 1996). One method of extending the care to these populations has been through nurse practitioners (NPs) who have been noted as health providers for the last 30 years (Koch et al., 1992). However, they have not been utilized to the fullest extent as primary care providers and are often overlooked by consumers and policymakers as legitimate members of the health care system. This dilemma is in part due to the established recognition of physicians as the source of primary care. Information reflecting the role of NPs and efficacy of care they provide need to be continuously documented and disseminated to other health care professionals, legislators, and the general public. This effort could alter access to health care for all consumers
and the recognition of NPs as a source of primary health care (Califano, 1995).

Several approaches have demonstrated the efficacy of NPs and the care they provide. Two important components have emerged, evaluation of patient satisfaction and compliance to suggested treatment guidelines (Garcia et al., 1995). These outcome measures are common to both NPs and physician practice. This research focused on treatment outcomes to further compare NPs and physician practice. The further exploitation of the care provided by NPs will lend credence to the role.

Establishment of the Problem

In spite of tremendous scientific and cultural advancements the United States has made during the 20th century, there remains a lack of efficacious healthcare available to a portion of the population. Yet consumers’ purchasing decisions concerning healthcare are complicated. To further confuse the decision process, the consumer is not always the individual making the purchasing decisions. Decisions regarding who will provide the care are now often made by industry (the contracted health maintenance organization or insurance company) and government (via Medicare and Medicaid). Not surprisingly,
physicians are called upon to provide information as to how decisions should be made. The information that physicians provided created a healthcare delivery system that relied heavily, and in some cases solely, on physician providers (Pearson, 1996). Unintentionally or by design, NPs have often been excluded. NPs are able to provide the cost effective and quality care needed in a primary care center (U.S. Congress Office of Technology Assessment, 1996). However, in spite of this documented proficiency, subpopulations of patients remain underserved and NPs remain underutilized. Why has society, industry, and the government not accepted this group as an appropriate force to render primary care? Detractors suggest there is insufficient proof of the NP’s competencies.

Care provided by NPs and the resultant outcomes have been compared to the outcomes of physicians for many years (Brown & Grimes, 1995; Day, Egli, & Silver, 1970; Powers, Jalowiec, & Reichelt, 1984). Koch et al. (1992) found a consistent theme as early as 1975 when reviewing the literature: “NPs and MDs possess comparable clinical abilities and that using NPs in primary care saved physicians time and reduced health care costs” (p. 65).
A number of studies have compared physician and NP outcomes. Hall (1990) looked at follow-up care of low hematocrit, breast examinations, and monitoring of serum glucose, among other entities. In Hall’s research a study was made of how well providers prescribed follow-up measures for abnormal findings. Hall found that NPs’ follow-up care was equal or superior to that of the physicians. According to Hall (1990), a higher rate of follow-up (as seen in the practitioner group) correlated with better care.

Another study compared physician and NP treatment of otitis media and sore throat (Salkever, 1992). The researcher contacted patients and inquired as to the severity of symptoms and the speed in which the patients returned to normal as an outcome measure. The NP group had a recovery time equal to that of the physician group. A quicker recovery is a measurable outcome and generally accepted to represent higher quality care (Salkever, 1992).

Brown and Grimes (1995), in a meta-analysis of practitioners and midwives in primary care, found in randomized studies nonphysicians provided care equal to that of physicians. Reports of patient satisfaction and
resolution of pathology were actually better for the NP’s patients. Brown and Grimes’ research also concluded that NPs provide the same care as physicians and, when outcomes are measured, the care is equivalent, if not better. Prior to Brown and Grimes’ study, detractors of NP care argued that studies did not compare patients of comparable acuity. These researchers were careful to avoid this bias by assuring that there were no inequities in patient practice or any other variables (Brown & Grimes, 1995).

If patient outcomes are the measure of proficiency, then experience suggests that NPs are able to provide care that is equal to, if not superior to, the care rendered by physicians. An outcome indicator not extensively studied is patient satisfaction. Satisfaction is an important component of the selection process related to healthcare. Patients have high expectations of their healthcare provider, but quantification of these expectations is difficult (Day et al., 1970). Ware and Davies-Avery (1978) noted multiple sources of satisfaction and dissatisfaction in association with the delivery of health care. The sources included the art of care, technical quality of care, accessibility and convenience, finances, physical environment, availability, continuity, and efficacy and
outcomes of care. These findings were supported by Vera (1993) who found that patients of a family planning clinic in Chili wanted a clean exam area, prompt care, availability of appropriate services, time for consultation, learning opportunities for themselves and their partners, and cordial treatment. The women in Vera’s study defined high quality or satisfying care as being treated with human dignity.

Several researchers have concluded that in primary care clinics patient education was the most important component of satisfaction (Schauffler, Rodriguez, & Milstein, 1996; Zeff, 1995). Specifically, patients who acknowledged having some discussion of an educational topic with their primary care provider over the past 3 years judged the care more positively (Phillips, 1996). Phillips (1996) correlated poor satisfaction with medical dominance in Trinidad and Tobago. If patients felt personally or professionally dominated, they were more inclined to indicate dissatisfaction with the care.

Another important outcome indicator is compliance. If the patient will not do what is prescribed by the care provider, the speed of recovery, if not the likelihood of recovery, is diminished (Ramsay, McKenzie, & Fish, 1982).
Ramsay et al. looked at a provider’s ability to influence a patient to lose weight. The researchers found that NPs were superior to physicians in obtaining return visits to the clinic, and, more importantly, a significantly greater weight reduction was seen in patients treated by an NP.

In order to survive, NPs must enlighten the consumer and policymakers about the practitioner’s ability to provide efficacious health care (McGrath, 1990). More importantly, the information that NPs are meeting the patient’s needs must be disseminated to the public, and specifically to those in decision-making positions. Practitioners must provide superior care and the information that the care is superior must be widely disseminated to the consumer, more importantly, to the decision makers who are choosing healthcare for patients, both federal and private (Brown & Grimes, 1995). Joseph Califano, President Carter’s Secretary of Health Education and Welfare, has addressed the physician monopoly in healthcare. He suggested, “It is time to ask whether perpetuating this monopoly serves the patient’s need for excellent, affordable, and compassionate care, or whether it simply protects the interest of the monopolist” (Califano, 1995, p. 16B).
Significance to Nursing

NPs have not been fully integrated into the health care system, thus medically underserved populations still exist (Califano, 1995). Nursing can provide health care to these patients, if they are considered to be a viable health care alternative by the policymakers and consumers. Further evidence is needed that NP practice is equivalent to physician practice in terms of outcome. When government and industry have needed input regarding the health care system, they have relied almost completely on physicians. Not surprisingly, this has resulted in the almost exclusive acceptance of a medical only model of health care. Efficacious health care can be provided by a non-physician. Ongoing study is required to disseminate this information to the policymakers and consumers. Once this is accomplished, practitioners will be able to provide more primary care and thereby better serve the populus and expand the bounds of nursing.

Theoretical Framework

Pender’s Health Promotion Model (HPM) was selected to guide this research.

The HPM is based on the social cognitive theory which identifies the reciprocal determinants of
behavior as cognitions and other personal factors, prior behavior, and environment. The HPM proposes three domains of influence on health-promoting behaviors: general background factors, health-related factors, and behavior-specific factors, with the latter domain proposed as the dominant influence on behavior. (Garcia et al., 1995, p. 214)

According to Pender (1996), patients' participation in health-promoting behaviors are influenced by two types of factors. The first are the cognitive-perceptual factors. These have to do with how important health is to the patient, perceived control of their health, health status, and the perceived benefit of health-promoting behaviors. Although of primary importance, these factors are mitigated by the modifying factors. These have to do with the demographics of the individual, biological, situational, behavioral, and interpersonal components. Components of satisfaction appear in both cognitive-perceptual factors as well as the modifying factors. Perceived control of health, self-efficacy, health status, benefits, and barriers are all improved in an environment in which the patient feels satisfied with the services delivered. In regard to the modifying factors, satisfaction's effects on interpersonal and situational factors should be obvious. In the simplest of terms, the satisfied patient will be more likely to engage in health-
promoting behaviors in general. Specifically, these would involve being more compliant with prescriptions and prescribed activities and behaviors (Garcia et al., 1995). As a result, there should be a correlation between how satisfied the patient or parent was with the care and how compliant they will be with the prescribed activities, which focus of the present research.

Statement of the Problem

Underserved populations exist due to the lack of primary health care providers. In spite of this, practitioner-based primary care is often overlooked by consumers and policymakers. Evidence to the efficacy of practitioners needs to be obtained and distributed to the public which will provide information to make enlightened decisions on who can provide care.

Research Questions

The research questions which were developed to evaluate this problem are as follows:

1. Is there a difference in patient’s satisfaction between care provided by a physician and an NP?

2. Does patient compliance to a prescribed treatment plan differ when initiated by a physician or an NP?
3. Does positive patient satisfaction correlate with compliance to prescribed medications and other interventions?

**Definition of Terms**

For the purpose of this study, the following terms have been defined:

**Patient:**

*Theoretical:* One who is ill or in need of health care.

*Operational:* The individual who is ill or the parent of that individual who is seeking care in a selected clinic, who can read and write English, and who has a telephone.

**Satisfaction:**

*Theoretical:* The gratification of an appetite or the fulfillment of a need or a desire.

*Operational:* Satisfaction is measured by the Burnette questionnaire.

**Compliance:**

*Theoretical:* a willingness to yield to some force.

*Operational:* the number of prescribed activities completed, divided by prescribed activities.
Physician:

Theoretical: an individual who is by virtue of education and licensure a medical doctor.

Operational: a medical doctor who treats patients in the selected clinic.

Nurse practitioner:

Theoretical: an individual who by virtue of education and licensure is an advanced practice nurse.

Operational: an advanced practice nurse who treats patients in the selected clinic.

Prescribed medications and other interventions:

Theoretical: any agent, drug, or activity used to reach a higher state of health.

Operational: whatever is ordered by the physician or NP on the initial clinic visit as documented in the chart.

Assumptions

The assumptions for this study included the following:

1. Patient satisfaction and compliance to prescribed interventions are outcome measurements of primary care efficacy.

2. Patient satisfaction and compliance are measurable.
3. Satisfaction is a component of health-promoting behavior (Pender, 1996).

4. Compliance is a health-promoting behavior (Pender, 1996).
Chapter II

Review of the Literature

The review of the literature revealed studies focused on comparing physician and NP treatment of patients. Initial studies focused on the competence of practitioners in the initial primary care setting. Later studies explored the practitioner’s ability to expand practice to acute care. In all studies, patients’ satisfaction with the care provided and outcomes were comparable for physician and NP care.

An early comparative study was conducted by one of the first physician-practitioner teams (Day et al., 1970). Egli, an NP, performed histories and physicals, provided screening, evaluated hearing, speech, and visual difficulties, and administered various other screening tests. After 18 months of joint practice, a questionnaire was sent to the parents of the patients in the practice. The survey was carried out by the Department of Pediatrics, University of Colorado. The intent of the survey was to gauge the “acceptance, approval and
satisfaction of the parents” (Day et al., 1970, p. 205). Questionnaires were distributed to all parents of patients seen during a 4-week period in the summer of 1968. The replies were divided into two groups. The “old” group was comprised of long-term patients of the practice. The “new” group was comprised of patients who started receiving care after Egli joined the practice. Of the 94 questionnaires mailed, 68 (72.3%) were returned, representing 37 old and 31 new patients.

Day et al. (1970) found that 94% of the parents described the total service to be “as good or better” (Day, 1970, p. 205) than physician only care. When broken down by old and new patients, 48% of the old and 78% of the new patients felt the collaborative nature of the practice made for better care than previously expected or received from their physician. When asked, 91% of the patients felt their ability to communicate with the physician was not compromised. The authors noted that after the addition of the NP, the time the physician spent with each patient was shortened. Ninety-five percent of the parents felt the NP presence in the office improved the parent’s chance of receiving satisfactory answers to questions and satisfactory solutions to problems (Day et
Eighty-one percent of the parents who were visited by both the physician and practitioner while in the hospital as part of the initial neonatal period felt that the infant's care was enhanced. During this same period, 70% of the mothers felt they received information they otherwise would not have received as a result of these visits.

Day et al. (1970) provided the subjects the opportunity to answer open-ended questions. The written comments were almost completely favorable, and some suggested the physician-practitioner dyad was the best manner to provide care. However, some responses indicated displeasure in that it was the physician they were paying the physician they wanted to see, and the nurse was an inappropriate substitute.

Day et al. (1970) cited limitations of the study and suggested that some parents might have been reluctant to complain or indicate negative feelings about the practice out of fear that might compromise the future care of their child. In addition, they felt that it was possible that parents with a negative perspective simply did not bother to return the questionnaire. Finally, the authors noted, patients generally want to have faith in the quality of
the services provided. Satisfaction might not have to do with the actual quality of the care provided. Often a result of a collage of factors with professional competence and interpersonal relationship was examples. This current research studies the differences and similarities in patient satisfaction when comparing physician and practitioner care which may provide further insight on what makes a satisfied patient.

Another study examined the level of satisfaction produced by NPs. Powers et al. (1984) noted that, as a result of the changes in health care, more and more primary care patients were presenting to emergency rooms (ERs) for treatment. Since ERs are set up for acute, not primary care, the end result was that patients were less satisfied with the care they received. One possible solution to this problem was having nonurgent ER patients treated by an NP. For this approach to be feasible, there must be a strong likelihood of equivalency of care between the “fast tracked” patients seen by an NP and the standard of care patients being seen by the ER physicians. The problem was to suggest there was little difference in the care received between practitioners and physicians. To that end, the authors designed the study so that the
patients seen by the NP comprised the experimental group. Patients seen by the MDs served as the control group. The study was constructed to view differences in short- and long-term compliance to treatment, appointment keeping for the 3-month span of the study, number of health recommendations recalled, and resolution of health problem or satisfaction rating of ER care (Powers et al., 1984).

The study was performed in the ER of a midwest university hospital. A practitioner was hired for this study. There was no practitioner care available at this setting prior to the study in this setting. Subjects were selected over a 24-week period. Criteria for selection were "seeking care in the ER for a nonurgent health problem . . . self-initiated visit . . . having a home phone, able to read and speak English, ages 18 to 60, no history of psychiatric illness, and not pregnant" (Powers et al., 1984, p. 43). Patients were approached after they had been triaged by the ER nurse. If they met criteria, as determined by a research assistant, the study was explained to them. They were given the option of participating in the study. Subjects were told that study participation was voluntary and it would not affect their care. Written consent and sociodemographic information
were obtained. If they agreed, patients were assigned to a provider, alternating between physicians and NPs. At the end of the visit, the research assistant interviewed the patients regarding satisfaction with care and knowledge and understanding of recommended health care activities. Two weeks later a telephone call was made to assess compliance with health care activities and, if appropriate, reason for noncompliance. At 3 months, long-term compliance was assessed again via telephone.

All data were collected by structured interview via research assistant. Satisfaction was rated on a 5-point Likert scale. Patients were then asked the reason for this rating. Next, they were asked about the information given by the medical doctor and nurse practitioner regarding the health problems for which they were seen. For each care activity, compliance was determined.

Prior to leaving, the patients were asked to recall what they were taught. Recalled teaching and charted recommendations were compared and a score was derived for each group. When scores were compared for knowledge, satisfaction, and compliance, no significant difference was found between the two groups. The researchers then determined if the patients understood why the prescribed
intervention was necessary. Experimental subjects had better recall of interventions related to diagnostic procedures, activity and exercise, and monitoring for compliance. The control group had slightly better recall of medications.

Satisfaction was measured on a 1 (complete dissatisfaction) to 5 (complete satisfaction) scale, and scores were high for both groups. No significant difference between satisfaction ratings emerged. Reasons for satisfaction in both groups were associated with the staff providing the care. Negative responses related to slow service. There was a significant correlation \((p = < .05)\) in the number of reasons for satisfaction with care given for the experimental group over the control group. The patients in both groups were happy with the care they received. NP care was comparable to that of the physician.

As a result of the study, Powers et al. (1984) concluded that there was no significant difference between care provided by a physician and a practitioner. More specifically, there was no significant difference in terms of satisfaction, compliance, prescribed healthcare actions, or patient knowledge. Since there was no significant difference, the authors concluded that
treatment of nonurgent emergency department patients could be appropriately managed by NPs.

The large amount of primary care provided in emergency departments pales compared to the volume of care given in clinics and physician offices across the land. So the question remains: Can practitioners and physicians reach parity of outcomes in the office or clinic setting? Satisfaction and compliance were used as an outcome measurement in an emergency department. Therefore, this study by Powers et al. lends support to the current study, as both use the same outcome criteria, but in different settings.

Trotter and Danaher (1994) undertook a descriptive study to determine how neonatal nurse practitioners (NNPs) and the care they provided were viewed by physicians, nurses, and parents. The research was undertaken in a St. Louis hospital which had a high-risk delivery service, a 35-bed neonatal intensive care unit (NICU) and, at the time of the study, employed 18 neonatal NPs (NNP), 6 neonatologists, and more than 100 registered nurses. The unit admitted approximately 850 neonates. In that setting, patient care was the primary role of the NNP (90%), with
staff development, research, and administrative functions filling the remaining 10%.

With this study, the researchers attempted to evaluate the attitudes and opinions of the physicians, nurses, and parents who worked directly with or were associated with NPs. Similar questionnaires were provided to physicians, nurses, and parents. The survey consisted of questions which were answered a 5-point Likert scale (5 indicated an excellent rating and 1 indicated a poor rating). All groups were asked about the advantages and disadvantages of the NP role. In addition, information in the form of comments and possible suggestions were requested.

Questionnaires were mailed to 227 physicians and 1,483 parents and hand-delivered to 91 staff nurses. Surveys were returned by 49% of the physicians, 56% of the nurses, and 45% of the parents. Of the physicians responding, 19% employed an NP. Ninety-seven percent of the physicians responding said they were either very or mostly satisfied with the care provided by the NNP. At the time of the survey NNPs were occasionally used to evaluate full-term infants who presented with problems. Eighty-three percent of the physicians felt the practitioners
were very good to excellent at this function. Increasing flexibility for the neonatologist was the most frequent response the physicians gave when asked about the primary advantage of employing an NNP. When asked for the disadvantages of employing NNPs in the NICU, 86% indicated there were none. Of physicians noting disadvantages, the answers were associated with supervision of nonmedical personnel, limiting NNP functions, and problems with communication.

Of the registered nurses who responded, 78% felt the NNPs contributed an above average or significant amount to the patient’s care. Staff nurses’ dissatisfaction seemed to revolve around problems with communications and turf issues, such as who was responsible for what (Trotter & Danaher, 1994).

The parents were very positive in their responses regarding the practitioners. The greatest area of satisfaction had to do with the increase in communication provided by the NPs. Getting a daily update, accessibility, and having the NNPs come to the parents’ rooms to provide information were big satisfiers for the parents. The respondents of the studies indicated a level of satisfaction from practitioner encounters that was
equivalent or better than previously obtained from a physician (Trotter & Danaher, 1994). Trotter and Danaher (1994) concluded NNPs were well received by parents, physicians, and nurses. Parents responded well to the increased information. Physicians respected the level of competence and appreciated the assistance. Staff nurses were overall positive regarding neonatal NPs but also voiced concerns about blurring of roles and turf issues. This study is similar to the present research since both were done in a pediatric care environment. Another difference between Trotter and Danaher and the current study is that they looked at an acute care versus a primary care environment. Also, Trotter and Danaher (1994) did not incorporate an outcome measure, but relied only on satisfaction as a measure of the practitioner's proficiency.

Practitioners are seen with the greatest frequency, not in the emergency room or the neonatal intensive care, but in primary care. A number of studies have looked at satisfaction and outcomes of NPs practicing in primary care. Ramsey et al. (1982) examined outcomes, specifically weight loss and controlling blood pressure. The authors in
this study postulated that NPs would have better outcome than physicians.

According to these authors, not having a worse outcome than physicians does not suggest NPs produce an equal outcome (Ramsey et al., 1982). If nurses saw less patients and spent more time per patient than physicians, an equivalent outcome did not necessarily indicate equal performance. Based on practice differences, NPs must provide superior results to achieve a comparable outcome.

The researchers studied two groups of hypertensive patients. The first group was treated by physicians in a traditional medical practice. The second was treated in a newly established NP clinic. Random assignment was not used, but the populations were similar in demographics, blood pressure, and weight. All hypertensive patients seen by the physicians were included in the study. During the same time, all patients entering the NP's practice were placed in a pool and an equal number of patients (N = 40) were selected.

Clinical records were reviewed for a 15-month period. Appointment scheduling, patient attendance, and blood pressures were all monitored and recorded. Attendance was quantified by documenting number of appointments scheduled
compared to number of appointments kept. There was no significant difference between physician and NP practice in terms of appointments kept.

Ramsey et. al. (1982) did find a significant difference \((p < 0.05)\) in weight loss between the physician and NP group. The mean weight loss from the physician group was negative (gain of) 1.2 kg, whereas the NP clinic had an average weight loss of 2.67 kg. The NP’s patients also showed a significantly greater decrease in blood pressure as compared with the physician’s patients \((p < .05)\). Mean diastolic pressure for the physician group after 15 months was 94.8 and 87.8 for the NP group.

In this study the authors found, not an equivalent, but a superior outcome from the NPs when compared to the physicians regarding these two entities. The authors propose that since NP practice is supervised by a physician, NPs must have better outcomes than physicians to counterbalance the additional physician supervision required for the NP practice.

The fact that NPs had a superior outcome when compared to the physician’s outcome is very positive for NPs. This further strengthens the argument in favor of
using outcome measures as a comparison when studying differences between the two professions.

Primary care is not limited to the hospital or clinic. As demographics change, and perhaps more importantly diseases, the environment of primary care must change as well. A practice consisting of HIV-infected patients in a home health environment is an example of this new setting.

Butz, Stephenson, Hutton, Joyner, and Vogelhut (1992) conducted a study in which NP home visits were provided for infant patients diagnosed as HIV positive. Criteria for entry into the study were delivery in an inner city hospital and positive answers to a questionnaire provided by the researchers. If the patient met the criteria and the mother was willing to take part in the study, they were enrolled. Informed consent was obtained from the mothers, and an HIV antibody was determined from both the mother and infant. Maternal and infant medical records were reviewed. On discharge from the hospital, an appointment was made for the first NP visit. On each visit, the caretaker was asked about feeding problems, other concerns and worries, and other questions regarding the infant’s health. Specifically, they were asked about
rashes, diarrhea, and respiratory track infections. Mothers were asked if they had adequate food and supplies. The house was assessed for cleanliness, heat, and the presence of a refrigerator.

From August 1988 to November 1990, 151 infants were born to HIV at-risk mothers. The infants were divided into the four groups via their HIV status: seronegative (n = 72), seropositive (n = 10), reverter (n = 30), HIV indeterminate (n = 39). There were no significant differences among the groups for race or gender. Home visits totaled 497, with 0 to 9 visits per child and an average of 3.29 visits per child. Not surprisingly, the HIV positive and the reverter groups had the highest number of visits: 5.1 and 4.8, respectively. Children in foster care received a higher number of visits.

Maternal concerns during visits were primarily associated with infectious disease symptoms, skin conditions, and wheezing or breathing problems. The researchers found significant problems in 1 out of 12 visits. The NPs in this study were able to identify disease and conditions that would compromise these fragile infants' health status. Further, the practitioners had the ability to intervene via prescriptions, referrals, or
hospitalization at a much higher level than baccalaureate level home health nurses. In this study there was no physician control group. The practitioners were practicing in new areas not previously covered by physicians. This study suggests a cost efficient approach to infants with an exposure to HIV. On a much grander scale, the study suggests that NPs can expand the envelope of traditional primary care and meet needs in environment previously not served by any provider. Butz et al. (1992), like the current study, provide further credence to the notion that NPs can practice efficacious care in diverse environments.

The literature comparing physicians and NPs continues to accumulate. In spite of the large numbers of studies comparing outcomes, there is still not an universally accepted consensus on the question of comparable care. According to Brown and Grimes (1995), the existing research was criticized because it "lacked acceptable conceptual definitions, measurement of variables and methodological rigor" (p. 332). To determine if these criticisms were valid, the authors undertook a meta-analysis of the literature which addressed NP and nurse midwife competence.
Brown and Grimes (1995) searched for published studies comparing physician outcomes to that of either NPs or nurse midwives. During the one-year study period (June 1991 to May 1992) computer data bases, such as MEDLINE and Dissertation Abstracts, were searched. Letters were sent to all National League of Nursing accredited masters programs to obtain lists of relevant theses. The search continued until no previously identified studies were found. This resulted in a bibliography of over 900 articles. These articles were reviewed to determine if they met inclusion criteria for the study. The criteria consisted of

an intervention produced by a practitioner or midwife, data derived from patient care provided in the United States or Canada, a control group of patient managed care, a measure of outcome, an experimental, quasi-experimental or ex post facto research design, and data that permitted calculation of different sizes and/or determination of direction of effect. (Brown & Grimes, 1995, p. 334)

Of the total number of studies, 210 were selected with a 98% interrater agreement. Studies were then coded for descriptive data, method, research quality, substantive features, and outcome. Each of the studies were coded by each of the authors to ensure accuracy (Brown & Grimes, 1995).
Results were reported in weighted effect-size estimates. “An effect size is a standardized mean difference between the experimental and control groups” (Brown & Grimes, 1995, p. 335). Effect-size was weighted by sample size, such that large studies did not overpower smaller studies. In the studies, NPs or midwives were always listed as the experimental group and physicians as the control group. As a result, a positive effect size indicated that the experimental group (practitioners or midwives) had a higher level of the variable than the control (physician) group.

The meta-analysis showed that NPs ordered slightly more laboratory tests than the physician group. The practitioners and midwives had better outcomes, lowering diastolic blood pressure, blood sugar levels, symptom relief, and resolution of otitis media. NPs did better than physicians regarding patient satisfaction. The NP and physician groups were equivalent on quality of care, prescription of drugs, functional status, number of visits per patient, and use of the emergency room (Brown & Grimes, 1995).

The research indicated that replicable valid studies comparing NPs and physicians in the primary care role can,
and have been, undertaken. This study further validated the assumption that outcomes are the appropriate means of comparison between physician and practitioner-midwife practice.

Since the first NPs began providing care in the late 1960s, the profession has been studied and scrutinized. Parents of pediatric patients were queried regarding their thoughts on having a "nurse" provide the care normally given by a physician. The results were very positive (Day et al., 1970). Studies were undertaken to determine competence outside the normal primary care setting. The results suggested that NPs could provide efficacious care in emergency rooms (Powers et al., 1984), neonatal intensive care units (Trotter & Danaher, 1994), and in the community (Butz et al., 1992). Studies considered the art of medicine by looking at patient satisfaction and the science of medicine by quantifying outcome. Even the studies were examined to determine if they were appropriate in design and rigor. Overwhelmingly, the practitioners were shown to be the physician’s equal in terms of patient satisfaction and outcome. But in spite of this preponderance of evidence populations remain underserved and practitioners remain underutilized.
Chapter III

The Method

The purpose of this study was to determine if the care provided by NPs was comparable to care provided by physicians. This study sought to understand how satisfaction affected compliance in a primary care setting.

Design of the Study

This study used a nonexperimental, ex post facto descriptive design. The data were collected after the patients were seen by either a practitioner or a physician, thus no researcher intervention occurred. (Polit & Hungler, 1995).

Variables

The variables of interest were patient or parent satisfaction and compliance to prescribed activities. Levels of satisfaction and compliance from the practitioner’s patients were compared to satisfaction and compliance from the physician’s patients. Data were
collected in a pediatric primary care clinic which consisted of one physician and one NP who share a divided practice (control variable). The intervening variable was the lack of validity and reliability of the tool.

Limitations

The population for this study was limited to the patients of one pediatric primary care clinic. As a result, findings of this study may not be generalized to primary practices with non-pediatric patients. An additional limitation to this study is the use of an instrument with no established reliability or validity. No instrument was found that would allow for data collection that addressed both satisfaction and compliance. As a result, the researcher was able to establish only face validity for the instrument by submitting it to a panel of experts. A final potential weakness of this study was that the chart was utilized as the “source of truth” regarding what was taught to the patient or parent. If the provider charted patient teaching, but failed to discuss all interventions with the patients (and the patient had perfect recall of what was taught), the score would understate their level of compliance. If the provider told the patient more than what was charted (and the patient
had perfect recall), this would produce a score that was better than perfect, resulting in incorrect data.

Setting, Population, and Sample

In 1993 Mississippi had only 130 nonfederal physicians per 100,000 population. This was lowest in the nation compared with a national average of 225 physicians per 100,000 (Statistical Abstracts of the United States, 1995). A lack of primary care physicians does not make Mississippi unique, but it does provide an ideal setting to examine the efficacy of NPs in a primary care setting.

The setting for this study was a pediatric primary care clinic located in a small rural city with a population of 28,000 in east central Mississippi. The clinic consisted of a physician, a practitioner, and support staff. Patients had a designated primary care provider from within the clinic setting. When the need arose, the providers in this clinic collaborated on treatment. In general, however, patients usually saw the physician or the NP and rarely alternated between the two.

The NP’s patient mix was approximately 85% Medicaid and 15% private pay. The NP reported seeing patients from all socioeconomic groups with the preponderance of patients from lower socioeconomic groups. The physician’s
patient mix was 40% Medicare and 60% private pay. The MD's patients also covered all socioeconomic groups, but the middle class was best represented (personal communication, L. M. Sullivan, April 16, 1997).

The population for this study consisted of patients and their parents who were seen by either the physician or NP in the spring of 1997. Initial contact by the researcher was made at the time of the clinic visit. There was no randomization of patients. Parents were approached by the investigator while waiting to be seen by the provider. They were given a brief description of the study and then asked if they would be interested in participating. If they met the basic criteria (the ability to speak and understand English and had a telephone), they were asked to read and sign the consent. The sample was one of convenience taken from the clinic patients, present on the days of the study, who met criteria, and volunteered for the study. The total number of subjects were 68.

Instrumentation

The instrument used in this study was the Burnette questionnaire (see Appendix A), a tool developed by the researcher. The tool consisted of 15 demographic
questions, a measure of satisfaction, and questions regarding compliance. The demographic data and the satisfaction index were completed by the parent. The instrument also had a space for documentation of information obtained from the interview which consisted of the following: (a) treatments prescribed to the parent, (b) if the treatment was implemented, and (c) if not, why not.

Satisfaction was quantified on a visual analogue scale. The scale was labeled and explained to the patient, and they were asked to indicate their level of satisfaction. The scale was labeled dissatisfied (left margin) and satisfied (right margin). The mark on the 10 cm line was measured to the closest ¼ mm and the distance from the left margin, in millimeters, corresponded to percent satisfied which became the satisfaction index. A mark of 1 cm from the left (unsatisfied) margin became a score of 10. A mark 1 cm from the right (satisfied) margin yielded a score of 90. Prescribed interventions and compliance to these items were simply counted and recorded. There was no qualitative measure of compliance nor determination made on the part of the researcher. The parents were simply asked to give a yes or no answer
regarding whether they did what was prescribed. If there were four interventions prescribed in the clinic and on the telephone interview the patient recalled doing one this became a compliance score of .25 (1/4 = .25). If four interventions were prescribed and four were completed, the score would be 1.0.

Procedure

Permission to conduct the study was obtained from the Mississippi University for Women's Committee on Use of Human Subjects in Experimentation (see Appendix B). The clinic was contacted and written permission was obtained from the practitioner and the physician (see Appendix C). A schedule was determined regarding when the researcher would be in the waiting room of the clinic to enroll patients. An orientation for the staff was provided to answer questions about the research and to solicit support (see Appendix D). This was done without revealing information which might bias the study.

Once the study began, the researcher approached patients at the time of their clinic visits. A brief description of the study was given, and they were then asked if they would participate in the study. If they volunteered, questions were asked regarding admission
criteria for the study (speak English and have a telephone). If these criteria were met, they were then asked to sign an informed consent to participate (see Appendix E). They were then given the Burnette Questionnaire and asked to fill out the demographic data. After the clinic visit the patients were prompted by either the researcher or the office staff to complete the questionnaire. They were thanked for their participation in the survey and reminded that they would be called in 2 weeks to obtain further data. The researcher was careful not to tell the parents the nature of the information to be obtained (recall of teaching and compliance), as this information would bias the results.

The chart was reviewed by the investigator, and prescribed medication and interventions were noted on the instrument. The names of the patients and parents were documented which allowed the researcher to contact the parents to obtain the second part of the data. The subjects were assured of confidentiality, and information was kept confidential.

In 2 weeks, the parents were telephoned and asked if they were compliant with the medications and interventions prescribed during the clinic visit. If they indicated they
were partially compliant or noncompliant, a nonjudgmental query was made as to why they did not follow through with the provider's suggestions. Data collection occurred from April 16, 1997, to May 16, 1997.

Methods of Data Analysis

Descriptive statistics were used to analyze demographic data about the subjects. Frequencies and percentages for the variables of age, gender, race, parental employment, and insurance coverage were obtained. The score was obtained for satisfaction from the visual analogue question. Finally, the compliance score was obtained. The compliance score consisted of the number of medications and interventions initiated by the parents, divided by the number indicated in the patient's chart.

A student's t test was performed comparing satisfaction and compliance scores between the physician and practitioner groups. A Pearson product-moment correlation was used to determine if there was a relationship between satisfaction and compliance.
Chapter IV

The Findings

This study sought to understand the differences and similarities in care provided by a nurse practitioner (NP) and a physician in a primary care setting. More specifically, the purpose was to determine if there were differences in the outcome measures of satisfaction and compliance scores when comparing a physician-treated group of patients and an NP treated group. A nonexperimental, ex post facto or descriptive design was employed to examine the variables. Pender’s (1995) Health Promotion Model was used as the theoretical framework. Data were collected using the Burnette Questionnaire, and statistical analysis was undertaken to determine if there was a difference between the physician and practitioner treated groups.

Description of the Sample

The sample (N = 68) consisted of patients who were residents of a rural southern community with a population of 28,000. Subjects were seen by either the NP or the physician at the clinic. Subjects were equally, though
unintentionally, divided between male (50%) and female (50%). All subjects were either African American (44%) or Caucasian (56%) and ranged in age from newborn to 23 years, with a mean of 3.6 years. The ages of the children were distributed as follows: birth through first birthday (n = 26), greater than a year through second birthday (n = 13), greater than 2 years through 6th birthday (n = 19), and greater than 6 years (n = 10). The majority of the patients sought health care for either routine checkups or for acute care problems.

Employment status of subjects' parents were as follows: 47% of the patients had both parents employed. In 46% of the families, one parent was employed, and in 0.6% of the families neither parent was employed. The sample was equally divided between children covered by Medicaid and private insurance (44% each). Eight percent had Medicare and 3% were uninsured.

Results of Data Analysis

Three research questions guided this study. Data were collected using the Burnette Questionnaire, developed by the author specifically for this study. Subjects rated satisfaction using a visual analogue scale and a compliance score was derived from treatments prescribed
and treatments completed. Data were analyzed using the Pearson product-moment correlation, and the Student's t-test analysis.

Research question 1. Is there a difference in parent's satisfaction between care provided by a physician and an NP? The mean satisfaction score for the physician-treated group was 95.3%, with a range of 68% to 100%. The mean score for the NP treated group was 94.9%, with a range of 40% to 100%. Since t (68) = 0.87, p > .05, the researcher concluded that there is no difference in satisfaction between the parents of the children cared for by a physician and the satisfaction of the parents of the children cared for by an NP.

Research question 2. Does patient compliance to a prescribed treatment plan differ when initiated by a
physician or an NP? A compliance score was derived by dividing the number of prescribed activities the patient completed by the total number of prescribed activities. Parents of the patients were called 2 weeks after the clinic visit and asked if they could recall what was prescribed and then asked if they completed these interventions. The compliance score for the physician-treated group was 96.7% with a range of 50% to 100%. For the NP group, the compliance score was 97.2% with a range of 67% to 100%. Since \( t(68) = 0.96, p < .05 \), the researcher determined there was no significant difference in compliance for the two groups.

Table 2

Compliance of Parents by Health Care Provider

<table>
<thead>
<tr>
<th>Provider</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>( t )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician</td>
<td>39</td>
<td>0.967</td>
<td>0.096</td>
<td></td>
</tr>
<tr>
<td>NP</td>
<td>29</td>
<td>0.972</td>
<td>0.115</td>
<td>0.963</td>
</tr>
</tbody>
</table>

Research question 3. Does positive parent satisfaction correlate with higher levels of compliance to prescribed medications and other interventions? To answer
this question, the Pearson product-moment correlation was used to determine the strength of the correlation between satisfaction and compliance for both the physician and NP treated groups. Since weak negative correlations emerged, $r (68) = -0.17$, for the physicians and $r (68) = -0.08$ for the NPs, the researcher determined there is no significant correlation between satisfaction and compliance.
Chapter V

Outcomes

The purpose of this study was to determine if there was a difference in satisfaction and compliance in physician and NP-treated groups. Another goal was to determine if there was a correlation between satisfaction and compliance in either group. Pender’s (1995) Health Promotion Model was used as the theoretical framework of this research. The following three research questions guided this study:

1. Is there a difference in parent’s satisfaction between care provided by a physician and an NP?
2. Does patient compliance to a prescribed treatment plan differ when initiated by a physician or an NP?
3. Does patient satisfaction correlate with compliance to prescribed medications and other interventions?

A researcher-developed tool which measured patient satisfaction and compliance was used to collect the data. The researcher was present when the patient was seen by
the provider and noted the number of interventions prescribed for the patient. Two weeks later the parents of the patients were telephoned and asked if they could recall what was prescribed during the clinic visit. After determining what was prescribed, the parents were asked if the prescribed treatments were completed. A score was calculated by dividing the number of prescribed treatments by the completed to ascertain compliance.

Summary of the Findings

The sample (N = 68) included patients who presented to a pediatric care clinic in a city in Mississippi. Data were collected on one of three nonconsecutive days. The children who comprised the sample ranged in age from newborn to 23 years old with a mean age of 3.6 years. The sample was equally matched male to female and consisted of approximately the same numbers of African American (n = 30) and Caucasian (n = 38) children, as well as an equal number of Medicare (n = 31) and privately insured (n = 31) children.

The first research question addressed patient satisfaction. No significant difference (p < .05) between the satisfaction of the physician and NP-treated groups emerged. The second question addressed compliance to
prescribed treatment. No significant difference ($p < .05$) was found in compliance between the physician and NP-treated groups. The third research question sought to determine the strength of the relationship between satisfaction and compliance. With both the physician and NP-treated groups, there were weak negative correlations between satisfaction and compliance.

Discussion

The first research question sought to determine if there was a difference in satisfaction between a physician- and practitioner-treated group. The present study found no difference in satisfaction scores in physician and practitioner treated groups. This was in agreement with Powers et al. (1984) who found that emergency room patients were equally satisfied between physician and practitioner care.

The present research supports the notion that satisfaction possibly was not a product of the provider’s educational preparation and preparation (i.e., physician as opposed to practitioner) but was resultant from other factors. Perhaps satisfaction was due to interpersonal factors between patient and provider. Age, gender, and other yet to be discovered entities might be more
important than educational background in determining how satisfying a relationship will become. These theories could be further investigated by replicating this study with elders or adult patients or changing from a suburban to urban setting.

There may have been another reason that there was no statistically significant difference in satisfaction between patients managed by NPs and physicians. The patients may have been truly equally satisfied with the care received by both primary care providers. This supposition would lend credence to use of NPs as providers of primary care in medically underserved areas, since patients appeared to be as satisfied with NP care as with physician care. These findings are supported by results of studies conducted by Koch et al. (1992) and U.S. Congress Office of Technology Assessment (1986) which suggested the equity of outcomes provided by physicians and practitioners.

The second research question asked whether compliance differed when treatment was instituted by a physician or practitioner. The results of the current study indicated no difference in compliance. Patients, according to compliance scores, equally understood treatments and
medication regimens given by the NP and physician. Since compliance was not significantly different between the groups, patients treated by the NP or the physician achieved relatively the same outcome of care as measured by following through on prescribed treatments. Treatment regimes were as equally likely to be carried out by patients in either group, thereby reinforcing the notion that patients are cared for equally by physicians and NPs in primary care setting. Brown and Grimes (1995) found this when they performed a meta-analysis on existing studies to determine, among other things, how physicians and practitioners compared regarding outcome. These authors found equal, or in some cases superior, outcomes in the practitioner treated group as compared to the physician treated group. Brown and Grimes's (1985) research compares favorably with the present study which also found no difference in compliance between a physician and practitioner treatment.

The third research question dealt with a correlation between satisfaction and compliance. A direct relationship between these two variables had not been studied, although a number of the authors suggested a possible link (Phillips, 1996; Ramsey et al., 1982). Day et al. (1970)
suggested that the increased time spent with patients by the practitioner would lead to better understanding of treatment and improve compliance. The present study does not support the previous findings that higher satisfaction will result in better compliance.

The findings from the current study related to satisfaction and its relationship with compliance revealed a week negative correlation. It is likely there was a reverse effect of compliance on satisfaction. An example might be that when a patient had completed part of a prescription for antibiotics, they became satisfied with the treatment and stopped taking the medicine, and thereby became noncompliant. Additional study will be needed to quantify the relationship between satisfaction and compliance. On the other hand, the two outcome measures may be totally unrelated to each other in determining quality of care. A patient could be totally compliant and not satisfied or totally satisfied and not compliant.

Instrumentation may have biased the results as the researcher-developed tool had no established reliability. Subjects noted a very high degree of satisfaction for both physicians and practitioners. It may be unlikely that all consumers in a group would be very satisfied with the care
they received. Subjects lacked the understanding of how to score satisfaction on the tool. Although there was poor discrimination between levels of satisfaction, the results provided evidence to the assumption that there was no difference between physician care and practitioner care in regard to satisfaction. However, responses may have been a result of difficulty in understanding how to mark the visual analogue scale. The use of one site may have weakened the findings. Further, since both providers were working under one roof, there may have been cross contamination between medical doctor and NP treated groups.

Conclusions

Findings of this study supported the findings of many of the previously cited studies (Brown & Grimes, 1995; Butz et al., 1992; Day et al., 1970; Powers et al., 1984; Ramsey et al., 1982; Trotter & Danaher, 1994). Specifically, when based on outcome criteria, there was no difference between physician and NP-treated patients. Moreover, there was no significant difference in satisfaction between groups, and there was no significant difference in compliance between the two groups.
Additionally, there appeared to be no relationship between satisfaction and compliance.

Implications for Nursing

Expanding the scope of services provided will serve to strengthen nursing’s bond with the society the profession serves.

Practice. Patients lack accessible affordable primary health care, yet NPs remain underutilized. Due to a lack of information, consumers and decision makers rely on a model of health care that tends to exclude nonphysician providers. NPs provide a level of care in which the outcome matches the outcomes produced by physicians. This information must be disseminated by NPs in practice to policymakers, and consumers which will enable them to make informed decisions that will best serve health care needs.

Research. Over the past 30 years multiple studies have favorably compared NPs to physicians. In spite of this preponderance of evidence, practitioners are not used to the fullest extent. Additional studies, such as the current investigation, need to be undertaken to provide additional data on multiple outcomes measures between physicians and NPs. More importantly, the findings of these studies need to be disseminated to health care
consumers. Fact sheets might be an appropriate vehicle to spread the information to consumers. Community meetings could be used to enlighten consumers of the efficacy of practitioners. In addition, a better tool needs to be created to quantify differences in outcomes. Compliance is a difficult concept to quantify as there are many mitigating factors and many shades of gray between full compliance and noncompliance.

**Theory.** Research expands the bounds of nursing and provides insights into constantly improving the profession. Slight improvements in compliance, when magnified by thousands of patients across the country, may result in major cost savings. Pender’s Health Promotion Model (1996) was used as a guide for this research, as the author embraced Pender’s assumption that satisfaction and compliance are health-promoting behaviors, and provided insights as to why patients did or did not peruse health promoting activities. Pender’s Modifying Factors, such as demographic characteristics, were at work with the subjects of the present research. Pender’s Cognitive/Perceptual Factors were also involved. Perceived barriers to health-promoting behavior can affect where or even if a patient seeks health care. Research such as the
current study provides evidence that NPs as primary health care providers are not perceived as a barrier to care.

Recommendations

The following recommendations were made based on findings of this study:

1. Replication of this study with a larger more diverse sample in various settings.

2. Publication of this study to further strengthen the efficacy of NPs in primary care.

3. Exploration of new methods of disseminating information to consumers and policy makers, such that research findings are better utilized in decision making.

4. Implementation of research using the Burnette Questionnaire to establish validity and reliability.
REFERENCES
References


and prediction of their exercise behavior. Journal of School Health, 65(6), 213-220.


APPENDIX A

BURNETTE QUESTIONNAIRE
Burnette Questionnaire

Name: ____________________________________________

Code Number: __________

Child was seen by a:    ___ Physician    ___ Practitioner

Number of interventions ordered: __________

Describe each:

Prescriptions                  Tests/Diagnosis

Referrals                     Diet/Fluid

Other Therapeutic Interventions

__________________________________________________________

Phone Follow-up (2 weeks later)

Code Number: __________

Recall of interventions ordered: __________

Describe intervention and, if followed, completely or partially

Prescriptions                  Tests/Diagnosis

Referrals                     Diet/Fluid
APPENDIX B

APPROVAL OF THE COMMITTEE ON USE OF HUMAN SUBJECTS IN EXPERIMENTATION OF MISSISSIPPI UNIVERSITY FOR WOMEN
February 28, 1997

Mr. Ken Burnette  
c/o Graduate Program in Nursing  
Campus  

Dear Mr. Burnette:

I am pleased to inform you that the members of the Committee on Human Subjects in Experimentation have approved your proposed research provided the following conditions are met.

Your consent form must be amended to include a statement assuring that care will not be affected by a party's non-participation. The consent form also should state that the participant may withdraw at any time.

I wish you much success in your research.

Sincerely,

Susan Kupisch, Ph.D.  
Vice President  
for Academic Affairs  

cc: Mr. Jim Davidson  
    Dr. Mary Pat Curtis  
    Dr. Rent  

Where Excellence is a Tradition
APPENDIX C

PERMISSION TO CONDUCT STUDY
April 14, 1997

Mr. K. Burnette  
c/o MUW  
P.O. Box W 910  
Columbus, MS 39701

Dear Mr. Burnette,

While I have some concerns as to whether our clients will be able to complete the requirements for your study, this letter is to inform you that I would be happy for you to use this clinical site, Children's Health Center of Columbus, Inc., for your data collection. Because of the high volume of clients that we see each day, I do request that you set up specific times to collect data so that we can best serve you and our clients. Thank you.

Sincerely,

Dr. Linda Sullivan RN, CS, DSN
APPENDIX D

INFORMED CONSENT
Informed Consent

Dear Participant:

My name is Ken Burnette. I am a registered nurse enrolled in the graduate nursing program at Mississippi University for Women in Columbus, MS. As part of the requirements for graduation, I am conducting a study comparing outcomes of patients seen by nurse practitioners or physicians. I would appreciate it if you would agree to participate in my study. I will need you to answer a few questions about yourself and your child prior to your visit with the physician or nurse practitioner. After your child has been seen, I will ask you to rate how satisfied you were with the care your child received. Finally, in 2 weeks I will call you. It will take approximately 10 minutes to ask you some questions about the care of your child. Your participation will be anonymous (no one will know your name nor the name of your child). The doctors and nurses here at the clinic will not know who said what; the results will be reported as a group. The care you receive here at the clinic will not change if you decide to or decide not to take part in the study. If you decide to take part in the study you can withdraw at any time. The questionnaire today, and phone call in 2 weeks, will take about 15 minutes of your time.

Your participation in the study will be appreciated and help us to learn more about how to provide the best Healthcare.

Your signature below indicates your willingness to participate in the study.

Sincerely,

Ken Burnette

I agree to participate in this research study.

Signature:_____________ Print Name:_____________

Thank you.
Please turn form over and answer questions on top half of the form.
Name:_______________________________

Name of child:_______________________________

Telephone number: (  ) ________________________

Age of child: _____

Sex of child: Male____ Female____

Race of child: ____ Black ___ White ___ Asian
___ Native American ___ Other (Please specify):

Insurance coverage:
___ No insurance
___ Medicare
___ Medicaid
___ Private insurance

Parent’s Employment:
___ Both employed
___ One parent employed
___ Neither parent employed

STOP
After you have been seen by the practitioner or doctor, fill out the rest of this form and turn it to the receptionist.

Make a mark on the line to show how satisfied or dissatisfied you were with the care you received:

Dissatisfied_________________________________________Satisfied

What did you like about the care your child received?

_____________________________________________________

_____________________________________________________

What did you not like about the care your child received?

_____________________________________________________

_____________________________________________________

To complete my research I must talk to you 2 weeks from today.

At what telephone number can I call you 2 weeks from today?__-_____

What is the best time to call? ___ AM ___ PM