

Spring 4-5-2004

# What Specific Characteristics Influence Patients To Receive Their Health Care From A Physician Assistant?

Christine L. Rogers  
*Augsburg College*

Follow this and additional works at: <https://idun.augsburg.edu/etd>



Part of the [Medicine and Health Sciences Commons](#)

---

## Recommended Citation

Rogers, Christine L., "What Specific Characteristics Influence Patients To Receive Their Health Care From A Physician Assistant?" (2004). *Theses and Graduate Projects*. 572.  
<https://idun.augsburg.edu/etd/572>

This Open Access Thesis is brought to you for free and open access by Idun. It has been accepted for inclusion in Theses and Graduate Projects by an authorized administrator of Idun. For more information, please contact [bloomber@augsbu.edu](mailto:bloomber@augsbu.edu).

**What Specific Characteristics Influence Patients To Receive Their  
Health Care From A Physician Assistant?**

**CHRISTINE L. ROGERS**

Thesis Submitted in partial Fulfillment  
Of the Requirements for the  
Degree of Masters of Science  
Physician Assistant Studies

**AUGSBURG COLLEGE  
MINNEAPOLIS, MINNESOTA**

**May 2004**

MASTER OF SCIENCE IN PHYSICIAN ASSISTANT STUDIES  
AUGSBURG COLLEGE  
MINNEAPOLIS, MN

CERTIFICATE OF APPROVAL

This is to certify that the Master's Thesis of

Christine L. Rogers

has been approved by the Thesis Committee for the Master of Science in  
Physician Assistant Studies Degree

Date of oral defense: April 5, 2004

*Chris Bosquez*

---

Chris Bosquez MPAS, PA-C  
Thesis Advisor

*Dawn B. Ludwig*

---

Dawn B. Ludwig, PhD, PA-C  
PA Department Chair

## **DEDICATION**

This thesis is dedicated to my loving family.

Without their support this project would not have been possible.

Their encouragement and guidance is the reason I strive  
to be a better person everyday of my life.

## FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT REQUIREMENTS

In accordance with the Family Educational Rights And Privacy Act, Augsburg College is required to advise students in advance that their projects will be made publicly available as part of the curriculum requirements.

Please sign below to indicate that you have been informed of this requirement and agree that your project will be made available as a research source for the academic community through the college's library.

CHRISTINE L. ROGERS  
Name

Christine L. Rogers 04-20-04  
Signature Date

## Acknowledgements

My successful completion of this program and its thesis requirements was because of my loving family; my son Ellis, my mother Lucille, father Richard, my sister Carrie and niece and nephew Taylor and Sivan. My family has been my sole support and strength throughout this process.

My backbone in my life is my son Ellis. He has sacrificed his time and countless fun activities because of my commitment to medicine. He has always been there for me and understood when I needed a quiet stress free environment. He has always believed in me and made it evident that he wanted this career for me as much as I wanted it. His unconditional love and support has made me strong and is the reason why I strive to be a good person in my life. I love you Ellis.

My mom and dad have given Ellis and I financial and emotional support our entire lives. They have put their lives on hold to make sure my life was in order. This is the true definition of parents, wanting more for their children than they want for themselves.

My sister Carrie is my best friend, and I can only hope to be as strong as her someday. She is a perfect example of someone who sets positive examples everyday for others. She is a leader, an admirable mother, a successful business woman and someone who knows how to enjoy every moment in life. Her support and encouragement these last four years will stay with me for a lifetime. She never stopped believing in her little sister. Her children, Taylor and Sivan have taken my mind off school and put a smile on my face every time I am with them.

I am grateful for the opportunity to become a Physician Assistant and take an oath to care for patients to the best of my ability as long as I practice medicine.

## **Abstract**

*Background.* This research investigated patient satisfaction with physician assistants in a primary health care. The literature reviewed concluded high patient satisfaction ratings resulted because of the clinicians strong interpersonal skills, easy accessibility, adequate time was spent, were good listeners, explained medical issues well, and were courteous and respectful. The study looked at what specific characteristics influenced high patient satisfaction ratings with physician assistants. It also looked at the top three characteristics that were important to the patient and whether the patient would see the PA again.

*Methods.* A patient satisfaction survey was given to 92 patients at Allina clinic of Hastings, who were scheduled to see a PA that day. Descriptive and inferential statistics were used to calculate frequencies, modes, and correlations using statistical package of social sciences on the 42 completed surveys.

*Results.* The most important characteristic of PAs was courtesy at 56.4%, followed by understanding the medical issue, clear explanations and being respectful. Confidence in the PA and overall patient satisfaction were strongly correlated with the amount of time the PA spent with the patient, how courteous the PA was, and how well the PA listened to the patient. Patients whom were willing to see a PA again rated overall patient satisfaction high.

*Conclusion.* The literature reviewed and the research findings supported the hypothesize that when patients experienced a PA with strong interpersonal skills, good communication skills, were competent decision makers, and spent adequate time with patients, the outcome was a positive health care experience.

## Table Of Contents

|  | <b>Page</b> |
|--|-------------|
| Certificate of Approval                    | i           |
| Dedication                                 | ii          |
| Family Educational Rights and Privacy ACT  | iii         |
| Acknowledgements                           | iv          |
| Abstract                                   | v           |
| Table of Contents                          | vi          |
| <br>                                       |             |
| <b>CHAPTER 1: Introduction and Problem</b> |             |
| Introduction to the study                  | 1           |
| Background                                 | 2           |
| Purpose of the study                       | 3           |
| Research question/statement of the problem | 5           |
| Terminology/definition of terms            | 5           |
| Assumptions and limitations of the study   | 6           |
| Summary                                    | 7           |
| <br>                                       |             |
| <b>CHAPTER 2: Review of the Literature</b> |             |
| Introduction                               | 8           |
| Interpersonal skills                       | 9           |
| Quality of care                            | 13          |
| Accessibility                              | 16          |



### **CHAPTER 3:        METHODOLOGY**

|                            |    |
|----------------------------|----|
| Description of methodology | 20 |
| Design of the study        | 20 |
| Sample and population      | 21 |
| Instrumentation            | 22 |
| Data collection            | 23 |
| Data analysis              | 24 |

### **CHAPTER 4:        DATA PRESENTATION**

|                              |    |
|------------------------------|----|
| Introduction                 | 25 |
| Presentation of data         | 25 |
| Descriptive statistics       | 26 |
| Correlation data             | 27 |
| Confidence in PA's           | 28 |
| Overall patient satisfaction | 28 |
| Willingness to see a PA      | 28 |

### **CHAPTER 5:        DATA ANALYSIS**

|                 |    |
|-----------------|----|
| Frequencies     | 30 |
| Correlations    | 31 |
| Recommendations | 34 |
| Summary         | 35 |

|                     |    |
|---------------------|----|
| <b>BIBLIOGRAPHY</b> | 36 |
|---------------------|----|

## **APPENDIX**

|                                     |    |
|-------------------------------------|----|
| Opening Letter To Participant (A)   | 39 |
| Clinical Site Permission Letter (B) | 40 |
| Patient Satisfaction Survey(C)      | 41 |
| Independent Review Board Letter (D) | 43 |

## Chapter One

*Introduction*

Throughout the twentieth century physicians were the principle providers of patient care in the United States. However, these physicians were being challenged by a growing number of non-physician clinicians (Cooper, 2001). Today there are several types of health care providers available to patients for their health care needs. This is because there are more providers to choose from who are adequately trained to provide health care services. Today's clinics are filled with collaborative practice teams, which include nurse practitioners, physician assistants, and nurse midwives, commonly referred to as *physician extenders* (DeAngelo, 1994). These health care providers can ensure patients' needs for accessible, quality health care services are met (Anders, 1997).

This research investigated patient satisfaction with physician assistants (PAs) in a primary health care setting. This research focused on characteristics of the physician assistant's interpersonal skills, such as courtesy, respectfulness, understanding patient problems, good explanation of medical issues, using words that were easy to understand, good listening skills, accessibility, time spent with the patient, and quality of care. Several articles on patient satisfaction with medical doctors, nurse practitioners, nurse midwives, and physician assistants were reviewed. All articles reviewed, in some way or another, concluded that high patient satisfaction ratings resulted because of the clinician's strong interpersonal skills, easy accessibility, spending time with the patient and receiving competent care. The research study question answered, "What specific characteristics resulted in high patient satisfaction ratings with physician assistants? The assumption was that patients continued medical care with physician assistants because they had strong interpersonal skills, were competent and accessible, and spent adequate time with the patient. This resulted in high patient satisfaction ratings and returned health care visits.

A study conducted by Perry in 1995 stated, "Patients are enthusiastic about physician extenders" (Perry, 1995, p. 58). The study emphasized that physician assistants contribute to quicker appointments and were good listeners. Respondents in this study voiced confidence that physician assistants were competent and patients were enthusiastic about them (Perry, 1995).

This research specifically focused on physician assistants who were working in primary care clinics. This research investigated the patient's perception of physician assistants in a health care setting, specifically looking at interpersonal skills, accessibility, the amount of time spent with the patient, and the quality of care. In chapter one of this research thesis I discussed the background to the study, stated the problem or area of concern, the purpose of the study, definitions or terms, assumptions and limitations of the study.

### *Background*

A physician assistant (PA) provides primary care under the supervision of a licensed physician. Physician assistants are educated in formal academic programs that are usually associated with medical schools. PAs deliver a broad range of medical and surgical services to diverse populations in both rural and urban settings throughout the United States. Their focus is patient care, and their practice may include, education, research, and administrative activities. PAs are highly skilled professionals educated to use the same medical procedures as their physician counterparts. PAs practice in virtually every medical specialty-from family practice to surgery (Cooper, 2001, Baker, 2000, AAPA, 1998, Jones and Crawley, 1994, DeAngelo, 1994).

Today, the typical physician assistant student has completed four years of undergraduate studies usually in, but not limited to, premedical studies. All students need several hundred health care experience hours prior to applying to a program. Students admitted to a physician assistant program have many diverse experiences and backgrounds in health care. Upon admission, students undergo a rigorous education to become a PA, with the majority of programs offering a masters degree in physician assistant studies.

The physician assistant profession has been in existence since 1965. This profession has grown considerably in the last several decades. Employment opportunities exist in research,

teaching and countless specialty medical practices. Literature reviewed reported 97% of patients were satisfied with the care they received from physician assistants (Perry, 1995).

Choosing the right health care provider for many patients is not always an easy decision to make. Many times patients are not aware that physician assistants or other non-physician clinicians are the people who are providing their health care. For example, a patient may call to schedule an appointment with their primary doctor and due to appointment shortages; an appointment is made with the physician assistant. It is during this patient-physician assistant encounter when patients recognize the qualities in health care providers that are important to them. It is this first encounter with a PA that makes a lasting impression on the patient. The literature reviewed demonstrated that this first impression was positive and met with a high degree of patient satisfaction. This research investigated the characteristics that contributed to patient satisfaction.

#### *Purpose of the Study/Goals of this Research*

The purpose of this research was to determine how satisfied patients were with their physician assistants by surveying patient satisfaction with characteristics such as being courteous, respectful, understanding the medical issues, explaining medical issues well, using easy words patients understand, good listening skills, spending time with the patient, and quality of care. This information will benefit clinicians who may want to incorporate PAs in their practice. The information generated will be used to further the knowledge of the physician assistants who are contributing to the patient satisfaction ratings, as well as identification of qualities that resulted in patient satisfaction. This research topic will provide the physician assistant educators with what qualities of a physician assistant are important as they prepare the future PA students entering this profession.

There is a need for health care plans to attract and retain members and when patients are satisfied with the care they receive, this goal will be more easily accomplished. Satisfied patients were more likely to have participated in decision-making and were more likely to follow through on those decisions opposed to patients who were not satisfied (Hooker, Potts, Ray,

1997). Satisfaction with patient-clinician communication also improves adherence to treatment regimens and decreases the risk of malpractice lawsuits (Chester, 1991 and Brown, Boles, 1999). This study investigated the top three most important characteristics that patients appreciated in their PA's. Finally this study evaluated if the patient was willing to see a PA again for their health care needs.

Why does it matter that patients rate physician assistants high in quality of care, interpersonal skills, accessibility and spending time with the patient? Jarski stated, "patients have a wide range of needs and expectations of health care providers, and these providers must be able to accurately perceive these needs in order to positively impact health care delivery" (Jarski, 1988, page 218). It seems fair to say that physician assistants adequately meet patient's needs and expectations.

In summary, use of this information may potentially demonstrate the importance of incorporating a physician assistant in medical practice; help the health care community understand the physician assistant's role within the health care setting. Patients who better understand the PA profession may be more likely to make informed decisions regarding who they may want to see for their health care needs. Literature regarding patient and physician assistant relationships stated that as patients learned more about the roles of the PA, there was an increase in the number of patients who were willing to schedule future health care visits with a PA (Baker, 2000, American Health Consultants, 1998, Frampton and Wall, 1994, Smith, 1981). Patients need to know that physician assistants are an appropriate choice as a health care provider. Educators may use this information to increase the chances of success in their future physician assistants by incorporating techniques in the curriculum that can enhance characteristics like empathy, sympathy, courtesy, respect, understanding of the problem, explaining medical issues well, using words that the patients understand, listening well, and quality of care, taking time with patients during patient education and being accessible (Brown, Boles, Mullooly, and Levinson, 1999, Jarski, 1988).

*Research Questions/Statement of the Problem*

The research questions were:

- 1) What specific characteristics influenced high patient satisfaction ratings with physician assistants?
- 2) Report the top three characteristics that patients appreciated during their health care visit with a physician assistant.
- 3) Would patients see a physician assistant again for their health care needs?

*Terminology/Definition of Terms*

Accessibility is the patient's perceived amount of time the physician assistant spent with the patient. Accessibility was also used in the literature reviewed as how easy or convenient it was to get in to see a PA for healthcare needs.

Communication is the information relayed between health care provider and patient during the medical visit.

Empathy is defined as knowledge or comprehension of another's condition or state of mind without actually having experienced that person's condition (Jarski, 1998).

Interpersonal skills; is a term used broadly to represent characteristics such as empathy, sympathy, courtesy, respect, and spending time with the patient. Interpersonal skills also included good communications style such as good explanations of medical issues, understanding the medical issues, using words that were easy to understand, and good listening skills.

Patient perception is defined as how happy or unhappy the patient was during their visit with a physician assistant. What is it about the physician assistant that the patients liked or disliked?

Patient satisfaction was defined as the amount of contentment and/or fulfillment that the patient was aware of at the time of the health care visit with the physician assistant.

Physician extender, midlevel practitioner, non-physician providers or non-physician clinicians; are all terms that were found in the literature, which were used to describe or title a physician assistant.

Qualities were defined as an attribute; a characteristic, which constitutes someone's being.

Quality of care is defined as the standard of care a physician assistant is expected to possess. This included adequate knowledge, reflected by education, training and experience, and to apply acceptable diagnostic methods in a truly diligent and careful manner. Resulting in a positive health care experience for the patient. Quality is evaluated on the patient satisfaction survey in question number 8, "how much confidence do you have in the physician assistant's ability or competence?"

#### *Assumptions and Limitations of the Study*

There were limitations to this research project. This research only looked at physician assistants in Minnesota and within a small suburban population. The specific populations of patients studied were exposed to three physician assistants. Though the data obtained was representative of the population being studied, it did not represent all populations where physician assistants were employed. There was no sample taken from patients who had stopped coming to Allina Clinic of Hastings to see a physician assistant that may have been dissatisfied in some way with the care they received, nor did these surveys sample patients who had never been to Allina Clinic of Hastings. Due to the fact that all surveys will be given only to patients seeing a physician assistant that day, the data obtained may be biased towards favorable responses. Furthermore, no attempt was made to control for race, age sex, and socio-economic or marital status.

The patient population used in this study was 18 years of age and older. This age range targeted all adults, but there may have been differences in the perception regarding the role of PAs from the younger patients to older patients. The younger adult patients may have always had access to a PA, therefore may have felt more comfortable answering patient satisfaction questions regarding PAs. As compared to the older patients (60 or older) who may have not had prior opportunities to see a PA while they were growing up, making their experience with PAs fairly new. This may have impacted how patients older than sixty answered their patient



satisfaction survey. This generation of patients received medical care during a time when doctors were the only providers available.

The study population was limited to 92 participants. This was approximately 1 % of the population that visited the Hastings Allina Clinic. This number generated enough data to do an adequate data analysis.

I made the assumption that all patients who filled out the survey were telling the truth about their experience with the physician assistant. I assumed that there was no reason for dishonesty. It was also a possibility that patients were overly positive in their responses regarding the care they received because in general, people have the desire to please.

The survey used in this research asked patients to remember their visit with a physician assistant. This visit may have been the day they filled out the survey or it may have been sometime in the past. The fact that the questions were retrospective questions may have had an affect on how well the patient recalled their experience with the physician assistant.

This research topic was of special interest to me because I am currently enrolled in a masters program in physician assistant studies. For this reason, I chose to research what characteristics in a physician assistant were rated high in patient satisfaction. I would like to use the information gained in my literature review, and through my survey, to enhance my professional performance as I near practicing as a physician assistant.

### *Summary*

Physician assistants have been and will continue to be integral parts of the health care system. For this reason, this research demonstrated how imperative it was for a physician assistant to provide the patient with competent care while displaying strong interpersonal skills in order to continue high patient satisfaction ratings.

This paper continued with a review of literature, a description of the research methodology. The appendix included opening letter to participant, clinical site permission letter, patient satisfaction survey, and the independent review board approval letter.

## Chapter Two/Review of Literature

*Introduction*

The literature reviewed reported patient satisfaction with physician assistants, nurse midwives, nurse practitioners, and medical doctors in health care. Specific areas examined were interpersonal skills, patient accessibility, the time spent with the patient, and the quality of care. Interpersonal skills included characteristics such as courtesy, respect, sympathy, empathy, understanding of the medical issues, and good listening skills.

There were several articles that discussed the cost-effectiveness of incorporating a physician assistant into practice. Other articles discussed how little patients know about the physician assistant field, and the PAs role in healthcare. Both issues are of importance, however this research investigated, in greater depth, the characteristics and attributes that a physician assistant displayed during healthcare visits with their patients, and how satisfied the patients were with the healthcare visit performed by the PA.

One area reviewed and rated high by patients was accessibility. This term was defined in chapter one as, how easy or convenient it was to obtain an appointment with the physician assistant. One study reported that incorporating a PA in a medical practice reduced the patients perceived waiting time and that patients perceived the time the PA spent with them to be longer (Oliver, 1996).

Several articles reported patient perceptions regarding quality of care the patient received from the physician assistant. Quality of care included characteristics such as professionalism, and competency when performing routine examinations and diagnostic procedures. Brown, *et al* stated that in a competitive healthcare environment, clinicians and healthcare plans are eager to achieve the highest quality of care and the highest level of patient satisfaction (Brown, Boles,

Mullooly, Levinson, 1999). The literature reviewed demonstrated the quality of service received from a physician assistant had a high patient satisfaction rating.

Several other characteristics found in the literature that were rated high by patients were interpersonal skills, such as empathy, communication style, sympathy, understanding the medical problem, and good listening skills. Bikel concluded in a study done in 1987 that interpersonal skills were important aspects of patient care and were essential clinical skills (Bikel, 1987).

### *Interpersonal Skills*

Many studies evaluated patient satisfaction with physician assistants and specifically looked at interpersonal skills. This research defined interpersonal skills to include, sympathy, empathy, respectfulness, understanding patient problems, good explanation of medical issues, using words that were easy to understand, good listening skills, accessibility, time spent with the patient, and quality of care. Baker stated that a large Kaiser study done in 1996 evaluated patient satisfaction with PAs, nurse practitioners (NPs), and physicians in a managed care setting. This study concluded that patient satisfaction with interpersonal care depended on communication style and not on type of provider (Baker, 2000). A study done by Brown, Boles, Mullooly, and Levinson stated, modern medical practice demands close and accurate communication between clinicians and their patients in order to have high patient satisfaction outcomes. Satisfaction with patient-clinician communication also improved adherence to treatment and decreased risk of malpractice suits (Brown, Boles, Mullooly, Levinson, 1999).

An editorial written to medical doctors regarding provider and patient communication stated, “although I realize that the standards of care are excellent in many institutions, I would urge all doctors to critically analyze their communication with their patients, nurses and colleagues-in-training and to teach trainees to formulate a clear management plan which can be

easily explained to patients. In these times of increasing litigation it is imperative that we all address these issues” (Chester, 1991, page 725). This editorial addressed the lack of communication between clinician and patient and the importance of communication as a fundamental principle that influenced patient satisfaction outcomes.

Several studies reiterated that communication was important to the patient because it was the basis for understanding one another, especially when medicine was not always easy to understand (Anders, 1997). A study conducted by Cooper reported that non-physician clinicians (PAs) emphasize patient education and most non-physician clinicians come from a culture that is rooted in holistic approach to understanding patients (Cooper, 2001). These characteristics, which historically have been integral parts of “doctoring”, are easy to delegate (Cooper, 2001, page 60). There is a danger that, in an era of efficiency and shared responsibility, physicians will rely on non-physician clinicians to dispense adequate time, sympathy, and understanding that are central to the physician’s relationship with their patients (Cooper, 2001).

Another component of a clinician’s interpersonal skills that influenced patient satisfaction was empathy. Empathy was defined as knowledge or comprehension of another’s condition or state of mind without actually having experienced that person’s condition (Jarski, 1988). Jarski stated, affective skills such as empathy was investigated in clinical teaching centers because these skills were found to be related to patient satisfaction with healthcare services and to patient compliance with therapeutic regimens (Jarski, 1988). This study found empathic skill levels were associated with both patient satisfaction and compliance. It was observed that during patient counseling, empathy was a major determinant of successful outcomes. The patient’s perception of a clinician’s empathy was an essential part of the therapeutic relationship. This study concluded that if the patient does not perceive the clinician to be empathic, a positive

therapeutic outcome is not likely (Jarski, 1988). Empathic skills were found to have influenced patient satisfaction ratings to be high.

In the article “Attuned to our Patients” Meyer stated that most doctors had little time to listen to the patient and these doctors were quick to come to an assumption after the patient’s first sentence. The article stated the reasons to improve doctor-patient communication were compelling. Patients who understood their treatment did better medically. Patients, who knew their clinician listened and explained all aspects related to the care they received, rarely sued” (Meyer, 1998, page 2). This article discussed the importance of communication between clinician and patient in order to ensure a positive healthcare outcome for both. Though this research did not specifically address the relationship between communication or “lack of” and litigation. It is important to mention that lack of communication can lead to patient-clinician misunderstandings and possibly result in an outcome such as litigation.

A randomized, controlled trial conducted by Brown consistently showed effective communication between clinicians and patients as a critical determinant of patient satisfaction. (Brown, 1999). This article stated physician extenders enhanced care and patient satisfaction by improving communication with patients and their families. This was mostly accomplished by taking the time to explain the treatment plan and follow-up visits with the patient. For example, taking time with patients was something that was taught in the PA curriculum to students and provided the student with adequate training regarding patient education during every medical visit. This was accomplished through students practicing this skill during graded case studies with a faculty member. The patient education component of a PA student’s curriculum allowed the student to practice what they would say to the patient if it were an actual patient /PA interaction. Practicing patient education during the PA curriculum sets the standard of care a PA

follows with every patient. Because of this exposure to role-playing, PAs graduate with strong communication skills, which may be the reason patients view physician assistants as attentive with strong communication skills. The component of patient education and the amount of time physician extenders take to talk with their patients can then free up time for the medical doctors to see critical or chronic patients without compromising patient care.

Another study reported that physician extenders were popular with the experts, too. Most practice management consultants were as enthusiastic about physician extenders as patients were and for many of the same reasons. Experts say that nurse practitioners, physician assistants, and nurse midwives were particularly good at making patients feel comfortable and explaining health issues, both of which were vital components of patient satisfaction and risk management. “Patients aren’t as intimidated by midlevel providers as by physicians, so they’ll talk more openly, ask more questions, and be more willing to admit that they don’t understand something,” says Judy Bee, head of California-based Practice Performance Group (Perry, 1995, p. 63).

A study conducted by Oliver *et al* evaluated patient satisfaction with the physician assistant’s competency (completeness of examination), interpersonal skills (politeness and courtesy), the physician assistant’s explanation of healthcare problems to the patient, and the amount of time the PA spent with the patient. Patients reported greatest satisfaction with interpersonal skills. This study also reported the ratings for interpersonal skills differed between men and women and their education level. It was found that women rated PAs higher than men (Oliver, Conboy, Donahue, Daniels, McKelvey, 1986). This study looked at high patient satisfaction ratings in areas such as interpersonal skills, accessibility, time spent with the patient and quality of care, however it compared the results of patient satisfaction ratings and how they

differed between men and women. Though these results were significant, this research did not account for race, age, sex, and socio-economic or marital status in the patient satisfaction survey.

Another difference in this article was the author evaluated patient satisfaction and how it related to the severity of the medical problem in which the physician assistant was to address. Total satisfaction ratings were nearly identical across the range of severity of medical problems. Very routine tasks such as blood pressure, pulse, and temperature were rated the highest and complex tasks such as delivering babies and rectal examinations were rated the lowest in patient comfort levels. Comfort levels overall rated high (Oliver *et al*, 1986).

Oliver also documented a relatively high level of patient satisfaction with physician assistant services and showed that this was related to characteristics such as age, education level, social, and marital status (Oliver, 1986). This research did not investigate whether there was a relationship between these variables and patient satisfaction.

### *Quality of Care*

This research project defined quality of care as the standard of care a physician assistant is expected to possess. This included adequate knowledge, reflected by education, training and experience, and to apply acceptable diagnostic methods in a truly diligent and careful manner, resulting in a positive health care experience for the patient. Nelson, Jacobs, and Johnson reported the results of an attitudinal study survey in 1974. This study looked at a physician assistant's technical capabilities, professionalism, and quality of care relating to patient satisfaction. The results were as follows: of the 835 patients surveyed, 89% of patients in this study felt that physician assistants were technically competent, 86% felt PAs acted professionally, and 71% reported improvement in quality of care. In addition, 79% felt that access to care was improved (Nelson *et al*, 1974). Though this study documented a high

acceptance rate of physician assistants, little attention was given to degrees of acceptability in various clinical situations.

A study conducted by Perry reported physician extenders allowed a practice to see more patients, and patients were enthusiastic about physician extenders. Nearly one-quarter of respondents said their doctor visits were sometimes handled by non-physicians. Nearly nine in ten of the people surveyed said they were “very” or “somewhat” satisfied with the care they received from a PA. This was nearly 97% of the patients who said they were satisfied with their doctor’s medical know-how (Perry, 1995). This study found both sexes were equally likely to see an extender. More women (92%) than men (84%) reported being either somewhat or very satisfied. “Best doctor I ever saw” (Perry, 1995, page 67) exclaimed fifty year-old professional women of her PA.

The proliferation of physician extenders suggests that patients accept these health care providers and that patient satisfaction with the care supplied by physician extenders is high (Jones and Crawley, 1994). In one study respondents were asked to report their use of non-physician providers for medical advice or treatment within the past two years. Of providers with formal health care training, physician assistants were the most widely used. Respondents tended to have a high degree of satisfaction with the treatment and advice provided by physician assistants. Ninety-two percent of those using physician assistants reported being either “somewhat satisfied” or “very satisfied” with the treatment or advice rendered (Mainous, Bertolino, Harrell, 1992).

There were three studies that discussed patient satisfaction with the physician assistant’s ability to diagnose and treat certain health conditions. The patient satisfaction ratings were based on the patient’s comfort level. Patients reported being more comfortable with physician



assistants performing routine examinations and basic medical procedures such as suturing, casting, and venipuncture. Patients comfort level decreased as the patients need for more complicated procedures increased, such as delivering babies. In summary, this study further documented that physician assistants were generally well accepted by patients. The patients reported being more comfortable, however, when they knew the physician closely supervised the PA functions (Jones and Crawley, 1994, Oliver, 1986, Smith, 1981).

Most of the articles reviewed reported a high patient satisfaction rating with the quality of care received by physician extenders (Cooper, 2001, Baker, 2000, Counselman, 2000, Meyer, 1998, Anders, 1997, Hooker, 1997, Perry, 1995, DeAngelo, 1994, Chester, 1991). There was one article that reported ratings for medical competence slightly lower (Nelson, Jacobs and Johnson, 1974). This finding may have reflected the fact that the study was conducted in the early seventies and that this was the era when most people saw the doctor and had very little knowledge about physician assistants.

Another study stated that nurse practitioners and physician assistants, over the last three decades, have proven themselves both cost effective and highly capable in the provisions of services within their range of competence (Framptom, Wall, 1994). This study discussed the importance of competence and patient satisfaction, but it also went into depth regarding how well patients understood the role of non-physician clinicians such as PAs and NPs. They conducted a telephone survey of 19,000 members on their impressions of NPs and PAs and their understanding of their roles. The results were 82.5% of respondents expressed some level of openness to receiving care from a NP or PA. This study also concluded that the women surveyed seemed more open on average than men to seeing NPs and PAs. Though there were a few studies that discussed a physician assistant's positive impact on healthcare costs, this

research strictly focused on qualitative characteristics. The survey used in this research did not address how well patients understood the role of the physician assistant in healthcare. However, there was documentation in the review of literature that suggested the more patients know and understand the role of physician assistants in healthcare, the more these patients will continue their health care visits with them (Baker, 2000, American Health Consultants, 1998, Framptom and Wall, 1994, Smith, 1981).

### *Accessibility*

Several articles looked at accessibility to the physician extender and its association with patient satisfaction. One study surveyed patient satisfaction after having received health care services from a physician assistant. This study also looked at whether the patients were willing to wait longer to see a medical doctor, opposed to a physician assistant in the emergency department (ED). The study determined that patients, overall, were “very satisfied” with the care received in the emergency department by the physician assistant, with an overall patient satisfaction score of 95%. This appeared to be true for all patients, regardless of age, sex, or insurance status. Similarly, the vast majority of these patients (88%) indicated they would not be willing to wait longer in the ED to be seen primarily by an emergency physician rather than a PA. Only 12% indicated that they would be willing to wait longer for the physician (Counselman, 2000). In this article, patients did not feel as if their healthcare would have been compromised had they chose the physician assistant for their healthcare needs. This article demonstrated that accessibility of medical services was an important component of patient satisfaction.

Another study reported that a physician assistant in medical practice reduced patients’ waiting time when scheduling medical appointments. This study also reported that patients

perceived physician assistants spent more time with them during their appointment. The study concluded that physician assistant's provided two significant contributions to medical practice: a high level of patient satisfaction and, from the patient's view, better office efficiency (Oliver, 1986).

A study conducted by Perry addressed how patients praised extenders for contributing to quicker appointments with shorter waiting time to be seen. The fact that physician assistants were easily accessible addressed patient convenience and decreased the amount of time the patient waited to see a health care provider (Perry, 1995). This allowed medical doctors to see more acutely ill patients by freeing up their schedule. The other important aspect of accessibility was patient's who felt they were able to spend more time with their provider, reported having adequate time to address questions and/or concerns. This contributed to high patient satisfaction ratings.

One particular study conducted by sekhon summarized patient satisfaction with physician assistants in areas such as wait time, quality of care, and patient provider preferences. This study examined patient acceptance by re-recording, over a two-week time period, patient refusal to be seen by a physician assistant at the time appointments were made. There were two physician assistants and three doctors of osteopathic medicine each seeing approximately twenty patients a day. The results were: two patients out of 170 (1.17%) preferred to see the physician. In both cases, the patients were already established patients of the physician. In the same study a survey was conducted to determine patient satisfaction with the PA providers. The survey yielded the following responses (Sekhon, 1998):

## Patient Satisfaction with Physician Assistants

| Technical skills  | Quality of care   | Overall visit     | Wait time      | See PA again            |
|-------------------|-------------------|-------------------|----------------|-------------------------|
| 90%-outstanding   | 90%-outstanding   | 85%-outstanding   | 65%-no wait    | 60%-all future visits   |
| 10%-above average | 10%-above average | 15%-above average | 35%-acceptable | 40%-some routine visits |

These results, as well as the results of several other studies reported in the review of literature, provided evidence that high patient satisfaction ratings with physician assistants correlated with several qualities perceived by the patient. These qualities included easy accessibility, which contributed to quicker appointments, quality of care which included competency in technical skills as well as a PAs medical know how, and interpersonal skills which included empathy, sympathy, courtesy, respect, understanding the medial issues, explaining the medical issues, using words that were easy to understand, and good listening skills. Sekhon found that 60% of the patients would see a PA again for all future visits and 40% would see a PA again for some routine visits.

An article printed in the Physician Relation Update stated that one of the prime benefits of having a physician assistant was to free up the doctor's schedule. This resulted in patients not having to wait as long to see the physician, as well as the physician having enough time to see urgent care patients (American Health Consultants, 1998). A key difference in this article, and the article written by Baker, was how a physician assistant had increased a physician's productivity and increased the physician's availability (Baker, 2000, American Health Consultants, 1998). This article did not look at other positive outcomes or characteristics that a physician assistant could bring to a clinic.

The literature reviewed demonstrated high patient satisfaction ratings with physician assistants. The areas reviewed included interpersonal skills, patient accessibility, and the quality of care. Some differences found in the articles reviewed; patient satisfaction ratings were correlated with the age, sex, marital, and socioeconomic status of the patient. This did not seem to change the fact the PAs still received a high rating, but the literature demonstrated women saw PA's more often than men. The next section includes a description of the methodology, design of the study, sample population, instrumentation, and data analysis.

## Chapter 3

*Description of Methodology*

This study used a descriptive, quantitative design to calculate patient satisfaction ratings with physician assistants. This research evaluated patient satisfaction with physician assistants by the use of a survey. In this study I investigated how patients perceived their healthcare from a physician assistant. There was extensive knowledge on patient satisfaction with clinicians in the literature. This included medical doctors, physician assistants, nurse practitioners, and nurse midwives. This research looked at patient relationships with physician assistants and what specific characteristics were related to high patient satisfaction ratings.

*Design of the Study*

This study employed an exploratory research design using a survey questionnaire. The survey was quantitative and was obtained through conducting a review of literature on patient satisfaction with clinicians. This survey was used in two studies, first by Hooker, Potts, and Ray in 1997, and by Brown, Boles, Mullooly, and Levinson in 1999. The original survey of eight questions was titled "The Art of Medicine Survey" and developed by Mehl, a pediatrician in the Kaiser Permanente Rocky Mountain Division.

I chose the survey method opposed to interviewing patients because with a survey, the patients that agreed to filling out the survey were able to take as much time as they needed in order to adequately address all questions. Secondly, in order to conduct an interview, I would have identified patients who were seen in the clinic by a physician assistant. Some patients may have viewed this as a lack of confidentiality by having their name exposed. If patients knew the researcher had identified them by name, they may have been afraid to report low satisfaction ratings with their PA, and therefore the results would be inaccurate. There was also the

possibility that patient's, if approached in person or by phone to complete the survey, would feel pressured to fill out the survey. Having the survey handed to the patient as they checked in, gave the patient the option to read the instructions and decline without someone waiting for their response. This resulted in accurate data without putting pressure on the patient and breaching any confidentiality issues.

This survey was made available in August of 2003. There was written instructions attached to each survey (see appendix A). These instructions assisted patients in accurately filling out the survey. There was a statement to all patients telling them their right to refuse participation in the study. Detailed instructions explained that dropping the survey in the designated drop box at the clinic site was the patients consent for use of their data in the analysis, summary, conclusions, and recommendations of all survey findings.

#### *Sample and Population*

The sampling groups were patients who received health care from a physician assistant. Procedures for data collection were through Allina Clinic of Hastings patient check in area (permission letter in appendix B). Patients who were scheduled to receive health care from a physician assistant received a survey when they checked in for their appointment. The surveys were made available to 92 participants within Allina Clinic of Hastings. In order for the data to be statistically significant, this study surveyed no less than one percent of the total patient population at Allina Clinic of Hastings. This site was selected because it employed three physician assistants who worked in primary care. This was important because it allowed patient accessibility and exposure to physician assistants, which was needed in order to complete the survey.

There were twelve medical doctors, one doctor of osteopathic medicine, and three physician assistants who were employed full-time at Allina Clinic of Hastings. Each provider saw approximately 25 patients a day. This resulted in a total patient population in one week of 1,600 patients. Each physician assistant saw approximately 25 patients per day. This represented approximately 75 patients who came to Allina Clinic of Hastings each day for their healthcare needs. There were approximately 375 patients seen at Allina Clinic by a PA a week (Tracy Pfeifer, Clinic Manager). The number of patients a physician assistant sees in one week represents approximately 23 % of the total patient population. If I survey one-eighth of the patient population seen by PAs in one week, it will represent 2.8% of the total patient population. In order to survey 2.8% of the population, 46 completed surveys were needed. I assumed at least half of the patient population who received care from PA's filled out the survey; therefore I made 92 surveys available to the patients at Allina clinic.

The town of Hastings represented a suburban population. Suburban populations typically employ a diverse group of practitioners. I did not choose a rural environment because the patients who lived in a rural area may not have been able to distinguish the care received from a PA from the care of other health care providers, like medical doctors. This may be because many patients in rural health care settings may only have access to a physician assistant, rather than a medical doctor, for most of their health care needs. Rural patients may perceive their health care to be adequate regardless of the type of provider based on their limited exposures.

### *Instrumentation*

The data collection instrument is titled "Patient Satisfaction Survey" (Appendix C) and was an eleven (11) question survey that asked patients to rate qualities (using a scale from one to nine) of the physician assistant that were perceived by the patient during their health care visit.



Qualities of physician assistants to be evaluated on this survey were; courtesy, respectfulness, level of understanding of the problem, ability to give reasonable explanations, use of simple words, listening skills, the perceived amount of time spent, and the patients confidence level in the physician assistant. Using the same rating scale the survey asked overall how satisfied the patient was with the PA. The next question on the survey asked the patient to rate (one being the most important and three being the least important) the most important qualities of a physician assistant. The final question asked the patient whether or not they would see a PA again for their health care needs.

This survey was used in ten Kaiser Permanente regions. This survey was extensively tested (Hooker, 1997). For this research project, the original survey was modified and titled “patient satisfaction survey”. Some of the modifications made were as follows: in the survey used by Hooker *et al* the word clinician was used as a broad term that implied several different health care providers. In the study conducted by Hooker, the original survey questions were worded so the patient would answer the questions regarding their clinician. For the purpose of this research project, the word “clinician” was changed to “physician assistant”. Using the title of “physician assistant” will exclude the possibility of patients, responding based on impressions formed from their medical doctor, nurse practitioner, or nurse mid-wife. Rather focus on the care received from a physician assistant. This manipulation of the survey did not change the content of the survey or the data that was obtained.

#### *Data Collection*

This study was conducted at Allina Clinic, a primary care clinic in Hastings. The receptionist identified all patients who were scheduled to receive care by a physician assistant and a survey with instructions was given to them. There was a brief instruction sheet (appendix

A) attached to the survey explaining everything the patient needed to do in order to complete the survey accurately. The participant was asked to return the completed survey to the designated drop box area at the main reception area. Dropping the survey in the designated box was the patients consent to use all data in the survey for analysis. I collected all data in August of 2003. All of the completed surveys were placed in a designated, locked drop box that was labeled Patient Satisfaction Survey. The Institutional Review Board (IRB) at Augsburg College reviewed my IRB application and approved this research project on December 12, 2002. IRB approval number is 2002-44-2. This IRB approval number is printed on the IRB approval letter, which is attached as appendix (D).

#### *Data Analysis*

All raw data was entered into a statistical package of social sciences (SPSS). The data was analyzed first by descriptive statistics calculating frequencies of patient responses in order to generate the top three most important characteristics of patient care from the physician assistant. The mode was calculated to generate the number of patients who answered yes, no, or unsure to whether they would see a PA again for their health care needs. The data was examined using inferential statistics to observe trends and correlations between the variables. There were nine variables analyzed. The dependent variable was overall patient satisfaction, quality of care, and whether the patient would see a physician assistant again for their health care needs. The independent variables were interpersonal skills, which included courtesy, respect, understanding the medical issues, explaining medical issues well, using words that were easy to understand, good listening skills, and spending adequate time with the patient.

*Chapter Four**Introduction*

This chapter presents the results from the patient satisfaction with physician assistant's survey. The population demographics included 39 patients who saw physician assistants for their health care needs. The clinic was Allina Clinic of Hastings, Minnesota. The data obtained represented a suburban patient population who had access to physician assistants for their health care needs. Of the 92 surveys made available to this patient population, 39 completed surveys were used in the data analysis. This represented a return rate of 43%. All patients that completed the survey were 18 years of age or older and had access to three physician assistants.

*Presentation of Data*

This chapter presents the results of the student survey using descriptive and inferential statistics. Pearson's Correlation analysis, frequencies, and the mode were obtained. Pearson's correlation is a point estimate of the strength of the association between two variables. The correlation coefficient has a range of possible values from  $-1$  to  $+1$ . A correlation coefficient of zero indicates no relationship between variables. A correlation coefficient of  $1.0$  indicates two variables are strongly correlated and therefore statistically significant. Weak correlations range from  $0.1$  to  $0.3$  and moderate correlations range from  $0.4$  to  $0.7$ , and strong correlations are  $0.8$  to  $1.0$ . Positive correlation coefficients indicate that as one variable increases, the other variable increases. A negative correlation means that as one variable increases the other variable decreases.

The independent variables in this study were courtesy, respect, understanding of the medical issue, explaining the medical issues, using words that were easy to understand, good listening, and spending adequate time with the patient. The dependent variables were overall

patient satisfaction and whether the patient would see the physician assistant again for their health care needs. The findings answered the questions to research study questions 1 – 3 in chapter one of this thesis. What specific characteristics resulted in high patient satisfaction ratings with physician assistants? What were the top three out of eight characteristics that patients appreciated during their health care visit with the physician assistant? Would the patient see a physician assistant again for their health care needs?

### *Descriptive Statistics*

Using the Statistical Package of Social Science (SPSS), frequency tables were generated in order to calculate the top three characteristics patients thought were important aspects of patient care from physician assistants. Characteristics included: courtesy, respectfulness, understanding, clear explanations, simple use of words, good listening skills, spending time with the patient, and confidence in the physician assistant. Reporting the top three characteristics important to patients .00 was used to denote “NO”, the patient filling out the survey did not think the characteristic was one of their top three characteristics important to overall satisfaction with the physician assistant during the health care visit. A 1.00 was used to denote “YES”. The percent of patients that thought the characteristic was one of top three important characteristics was recorded in table 1. This percent was calculated from the 39 patients that participated in the completion of the patient satisfaction survey.

**Table 1**

| <b>Characteristics</b>     | <b>Percent</b> |
|----------------------------|----------------|
| Courtesy                   | 56.4%          |
| Understand the problem     | 51.3%          |
| Explain medical issue well | 51.3%          |
| Respectfulness             | 48.7%          |
| Good listening skills      | 43.6%          |
| Confidence in the PA       | 30.8%          |
| Spending adequate time     | 20.5%          |
| Simple use of words        | 10.3%          |

*Correlation Data*

Questions 1-9 of the patient satisfaction survey were used to calculate the correlations. All data from questions 1-9 were entered into SPSS and correlation data was completed. The correlations were recorded in table 2 as r-values.

Table 2

| <b>Characteristics</b>    | <b>Confidence in the PA<br/>r value</b> | <b>Overall patient satisfaction<br/>r value</b> |
|---------------------------|---|---|
| Spends adequate time      | .528                                    | .873  |
| Courteous                 | .513                                    | .733  |
| Respectfulness            | .406                                    | .724  |
| PA listens well           | .453                                    | .633  |
| Confidence in competence  |   | .567  |
| Understands medical issue | .370                                    | .287  |
| Words easy to understand  | .350                                    | .451  |
| Explains issue well       | .279                                    | .400  |

### *Confidence in Physician Assistants*

After correlating all eight characteristics with having confidence in the physician assistant, it was found that being courteous, having good listening skills and spending adequate time with the patient had a strong association with confidence in the physician assistant with r-values of 0.513, 0.453 and 0.528 respectively. These findings suggested that there were a moderate correlation between the patient's confidence in the physician assistant and how courteous the PA was, how well the PA listened to the patients needs, and that the PA spent adequate time with the patient.

### *Overall Patient Satisfaction*

After correlating all eight characteristics with overall patient satisfaction with the care received from the physician assistant, it was found that being courteous, having good listening skills, and spending adequate time with the patient had a strong association with overall patient satisfaction with r values of 0.733, 0.633, and 0.873 respectively. These values suggested that overall patient satisfaction was strongly correlated with how courteous the PA was, how well the PA listened, and that the PA spent adequate time with the patient.

### *Willingness to see a Physician Assistant*

Using descriptive statistics in SPSS the mode was calculated from question 11 of the patient satisfaction survey. The mode was the number of times the answer or number appeared in the data set. Of the 39 patients that completed the patient satisfaction survey 37 patients said "yes" they would see a physician assistant again for their health care needs, and 2 patients said they were "unsure". Zero people marked "no" they would not see a physician assistant again for their health care needs.

To evaluate whether there were differences in satisfaction across participants who said that they would see a physician assistant again and those who said they were unsure, I conducted a simple analysis of variance (ANOVA) where the between subjects factor was “yes” verses “unsure”, and the outcome variable was satisfaction ( $P = .051$ ). A trend emerged, where participants who said they would see a physician assistant again (mean = 8.65, SD = .72) had higher satisfaction ratings than those who were unsure (mean = 7.5, SD = 1.5).

Chapter five will conclude this thesis with the analysis of the data, trends that were observed, and how the research questions were answered. Followed by a summary and recommendations for further evaluation of patient satisfaction with physician assistants.

## Chapter Five

*Data Analysis/Frequencies*

Frequencies were calculated for characteristics such as courtesy, respectfulness, understanding the medical issue, clear explanations, simple use of words, good listening skills, spending adequate time with the patient, and confidence in the physician assistant. The frequency was used to determine how many people, out of 39 who completed the survey, thought that any one of the characteristics was important to the patient during their health care visit. The data obtained from the frequencies was used to determine the top three characteristics of importance to the patient during the health care visit. Courtesy was rated the highest at 56.4%. More than half of the study population thought courtesy was one of the top three characteristics of importance during the health care visit with the physician assistant. This finding was similar to the findings by Oliver *et al*, concluded courtesy was an important characteristic in the physician assistant-patient relationship and resulted in high patient satisfaction ratings with PA's.

Understanding of the medical issue and clear explanation of the medical issue came in second at 51.3% of the top three most important characteristics in a physician assistant. More than half of the patients thought characteristics like being able to understand the medical problem and giving clear explanations of the medical problem were extremely important to the patient.

Respectfulness was rated the third most important aspect of a PA during the health care visit. Forty-eight percent of the patients thought it was important for their PA to be respectful during the health care visit. The least important characteristic to patients was whether the PA used words that were easy to understand. 10.3% of the patients thought using simple words was not as important and therefore not included in the top three most important characteristics of their physician assistant.



The analysis was interesting because I thought that confidence in the PA would be one of the top three and only 12 patients or 30.8% thought confidence in the PA was one of the most important aspects. Though confidence in your PA was important and was highly correlated with overall patient satisfaction, it was not one of the top three. Jones and Crawley, 1994 reported that physician assistant's have been shown to provide care indistinguishable in quality from care provided by physicians. It may just be assumed by the patients that if the PA is providing care, quality health care was expected which placed a higher value on other aspects of medical care like interpersonal skills.

Some assumptions made while analyzing the frequencies were: the possibility that patients thought all characteristics were important for their PA to exhibit, but could not state that while filling out the survey because the survey specifically asked the patient to rate only the top three most important characteristics. I am also assuming that patients expected their PA's to be quality health care providers based on the fact that the PA was employed as a medical provider at Allina. As consumers of health care, most people expect competency and good bedside manner is a bonus. I also assumed that all patients that filled out the survey adequately understood the question and truly chose the top three out of the eight. A limitation to this data is the size of the population surveyed N=39, though it is a representative sample, it did not represent everyone.

### *Correlations*

Characteristics such as courtesy, respect, understanding of the medical issue, explaining the medical issue well, using words that were easy to understand, good listening skills, and spending adequate time with the patient were correlated with both confidence in the PA and overall patient satisfaction. The stronger the correlation, the closer the r-value was to 1.0.

Confidence in the physician assistant and overall patient satisfaction were both strongly correlated with the amount of time the PA spent with the patient, how courteous the PA was and how well the PA listened to the patient. The strongest correlation with confidence in the PA and overall patient satisfaction was whether the PA spent adequate time with the patient with an r-value of 0.873. The term adequate referred to the amount of time the PA spent with the patient. Each person who filled out the survey may have interpreted the term adequate differently. For most people the term adequate implied that the PA did not rush through the visit and that the patients felt they were listened to which resulted in resolution of their health care concern. The fact that patients thought their PA spent adequate time with them may be associated with the fact that patients feel the more time a provider spends with a patient the higher the patient satisfaction rating (Oliver *et al*, 1986).

Understanding the medical issue and explaining the medical issue was two of the top three most important characteristics to the patient during their health care visit yet were weakly correlated with patient confidence in the PA and overall patient satisfaction. The difference noted during this comparison may be due to the fact that patients were limited in the number of characteristics they could choose that were important. It was evident in this data analysis that confidence in the PA and overall patient satisfaction were strongly correlated with the amount of time the patient perceived was spent with the patient during the health care visit. I assumed that patients who perceived adequate time was spent with them felt they were listened to, respected, understood the medical issue, and therefore were more satisfied with their health care visit and were confident in their health care provider.

This finding correlated to a study done by Lawrence, Jarski, Anders, and Perry who found that PA's improved communication with patients and families. They also found that

patients had better health care outcomes when they were listened to, respected, and felt adequate time was spent with them.

The research study question answered, “What specific characteristics resulted in high patient satisfaction ratings with physician assistants? These characteristics were found to be spending adequate time with the patient with an r-value of 0.873, being courteous with an r-value of 0.733, and being respectful with an r-value of 0.724. The observation was, patients continued medical care with physician assistants because they had strong interpersonal skills, were competent, and spent adequate time with the patient. This research demonstrated that all characteristics surveyed rated high in patient satisfaction with the lowest correlation being understanding of the medical issue with an r-value of 0.287. All eight characteristics surveyed highly correlated with confidence in the physician assistant and overall patient satisfaction. These high patient satisfaction ratings resulted in 37 patients stating they would see their physician assistant again for their health care needs and 2 stating they were unsure.

The top three characteristics that patients appreciated during their health care visit with a physician assistant were courtesy at 56.4%, followed by understanding the medical problem and explaining the medical problem well which were both 51.3%, and respectfulness was the third most important characteristic at 48.7%.

The last research question was whether the patient filling out the survey would see a PA again for their health care needs. Thirty-seven out of the 39 patients or 94.8% stated they would see a PA again and 2 or 5.2% stated they were unsure. The patients who said they would see a physician assistant again for their health care needs (mean 8.65) had higher patient satisfaction ratings than those patients who were unsure with a p-value of 0.051. This finding is statistically

significant and the trend observed demonstrated that the patients whom were willing to see a PA again rated overall patient satisfaction high.

### *Recommendations*

This study distributed surveys to patients who were seeing a PA that day for their health care needs. It was assumed that most of those patients were already familiar with the role of their PA and therefore were able to base their survey answers on prior experiences and knowledge of the PA. Recommendations for further study of patient satisfaction with physician assistants are, surveying patients who access medical doctors for their health care needs and who may only access a PA occasionally. This recommendation is based on some earlier studies that suggested the more patients knew about the role of the physician assistant the more comfortable they were with seeking medical care by the PA.

Some problems that were encountered during the data analysis were that the majority of the patients surveyed were extremely satisfied with the care they received from their PA that it was difficult to observe any trends or differences between the patients that were not satisfied in the care they received from their PA. It may have been helpful to survey patients who did not regularly access a PA for their health care in order to make these comparisons in patient satisfaction ratings. Assuming that the patients who do not understand the role of a PA in health care are the patients who see medical doctors opposed to PA's. Because of this lack of exposure to a PA, the patient may view their health care experience with the PA with less patient satisfaction and therefore may not be willing to see a PA again. It may have been beneficial to broaden the distribution of the patient satisfaction survey to all patients being seen in the clinic regardless of the title of the provider.

*Summary*

This research investigated patient satisfaction with physician assistants (PAs) in a primary health care setting. This research focused on characteristics of the physician assistant such as interpersonal skills, which included courtesy, respect, understanding the medical issues, good explanation of the medical issues, using words that were easy to understand, good listening skills, adequate time spent with the patient, and quality of care. Several articles on patient satisfaction with medical doctors, nurse practitioners, nurse midwives, and physician assistants were reviewed. All articles reviewed, in some way or another, concluded that high patient satisfaction ratings resulted because of the clinician's strong interpersonal skills, easy accessibility, spending time with the patient and receiving competent care. The literature review findings supported the trends observed in the data analysis. It was apparent that patients who sought health care by physician assistants were highly satisfied with their care, which resulted in seeing a PA again for future health care needs.

## **Bibliography**

American Academy of Physician Assistants, (1998). Q & A about physician assistants. Educational Pamphlet.

American Health Consultants, Inc. (1998). Physician assistant concept takes off. *Physician Relations Update*, 7(9), 102-103.

Anders, KT. (1997). "The doctor is out--and the extender is in." *Contemporary Long Term Care*, 20(7), 37.

Baker, K.E. (2000). Will A Physician Assistant Improve Your Dermatology Practice? *Seminars in Cutaneous Medicine and Surgery*, 19(3), 201-203.

Brown, JB., Boles, M., Mullooly, J., Lewinson, W. (1999). Effect of clinician communication skills training on patient satisfaction. *Annals of Internal Medicine*, 131(11), 822-829.

Chester, S. (1991). Communication between doctors and patients. *The medical Journal of Australia*, 155(10), 724-725.

Cooper, R.A. (2001). Health Care Workforce for the Twenty-first Century: The Impact of Non-Physician Clinicians. *Annual Review of Medicine*, 52, 51-61.

Counselman, F. L., Graffeo, C., Hill, J. (2000). "Patient Satisfaction with Physician Assistants in an Emergency Department Fast Tract." *The American Journal of Emergency Medicine*, 18(6), 661-665.

DeAngelo, L. (1994). Collaborative Practice. *Medical Group Management Journal*, 41(6), 12, 14, 16.

Frampton, J., Wall, S. (1994). Exploring the Use of Nurse Practitioners and Physician Assistants in Primary Care. *HMO Practice*, 8(4), 165-170.

Hooker, S., Potts, R., Ray, W. (1997). Patient Satisfaction; comparing physician assistants, nurse practitioners, and physicians. *The Permanente Journal*, 1 (1), 38-42.

Jarsk, R.W. (1988). An Investigation of Physician Assistant and Medical Student Empathic Skills. *Journal of Allied Health*, 17(3), 211-219.

Jones, P.E., Cawley, J.F. (1994). Physician assistants and health system reform: Clinical capabilities and practice activities and potential. *The Journal of American Medical Association*, 271(16), 1266-1272.

Lawrence, D. (1978). Physician assistants and nurse practitioners: their impact on health care access, costs and quality. *Health and Medical Care Services Review*, 1(2), 3-12.

Mainous, A.G., Bertolino, J.G., Harrell, P.L. (1992). Physician extenders: who is using them. *Family Medicine*, 24(3), 201-204.

Meyer, C.R. (1998). Attuned to our Patients. *Minnesota Medicine*, 81(2), 2.

Nelson, E.C., Jacobs, R.A., Johnson, G.K. (1974). Patients acceptance of physician assistants. *Journal of American Medical Association*, 228(1), 63-67.

Oliver, D.R., Conboy, J.E., Donahue, W.J., Daniels, M.A., McKelvey, P.A. (1986). Patients satisfaction with physician assistant services. *Physician Assistant*, 10(7), 51-54, 57-60.

Perry, K. (1995). Why patients love physician extenders. *Medical Economics*, 72(16), 58, 63, 67.

Sekhon, LJ. (1998). Medical practice evaluation: adding a physician assistant. Delaware Medical Journal, 70(5) 253-255.

Smith, CW. Patient attitudes towards physician assistants. The Journal of Family Practice, 13(2), 201-204.



## Appendix A

Research Study Participant,

You are invited to be in a research study of patient satisfaction with physician assistants in healthcare. You were selected as a possible participant because you are a patient at Allina Clinic of Hastings and have exposure to physician assistants for your health care needs.

This study is being conducted by Christine Rogers as part of a master's thesis in Physician Assistant Studies at Augsburg College. If there are any questions you may contact the investigator at 612-330-1399. If you would like to contact the investigator's thesis advisor, her name is Chris Bosquez, and she can be reached at 612-330-1519.

The risks to you if you participate in this survey are very minimal; however, the survey may contain sensitive information that may cause emotional stress. If at any point during the survey you feel you cannot continue to answer questions you may discontinue completion of the survey or skip any questions without consequences.

There are no direct benefits to you if you fill out this survey. The indirect benefits to you for your participation and completion of this survey are that your information is contributing to the furthering of knowledge in the study of patient satisfaction with physician assistants in healthcare.

The records of this study will be kept private and the survey is anonymous, therefore there will be no way to identify you.

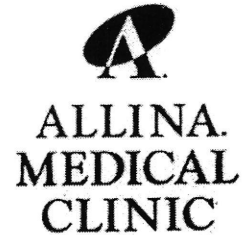
Please follow the directions listed in filling out the survey.

1. There are 11 questions to answer.
2. If at anytime during the survey you are uncomfortable with the questions you may skip any question without consequences.
3. Your completed survey will serve as record of you consent to participate.
4. Upon completion of the survey, please put the survey in the designated box at the main reception desk area.
5. If anyone would like more information regarding the physician assistant profession, you can go to Minnesota Academy of Physician Assistants at [www.mapaonline.info.com](http://www.mapaonline.info.com)
6. Survey results and analysis will be cataloged at Augsburg College Library.

Thank you for your time,

Christine Rogers  
Principal investigator

Hastings  
1210 First Street West  
Hastings, MN 55033-1085  
651-438-1800  
1-800-831-3635  
Fax 651-438-1894 Administration  
Fax 651-438-1837 Medical  
www.allina.com



October 9, 2002

Christine Rogers  
17125 Kendell Ave. S.  
Hastings, MN 55033

Dear Christine:

I am writing to you in response to your request for conducting a patient survey at our clinic. After review of the proposed questions, your survey has been approved for our clinic. All patients need to be given the option to refuse the survey or some of the questions.

We look forward to working with you and know you will enjoy your time here.

If you have any additional questions, please feel free to contact me at 651.438.1686.

Sincerely,

A handwritten signature in cursive script that reads "Tracy Pfeifer".

Tracy Pfeifer  
Clinic Manager

Appendix C  
**PATIENT SATISFACTION SURVEY**

Please indicate your answer to each question by circling the number on the scale for questions 1-9. Fill in the blank for questions 10 and 11.

1. How **courteous** was the physician assistant?

|            |   |   |   |   |   |   |   |              |
|------------|---|---|---|---|---|---|---|--------------|
| 1          | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9            |
| Not at all |   |   |   |   |   |   |   | As courteous |
|            |   |   |   |   |   |   |   | as possible  |

2. How **respectful** was the physician assistant?

|            |   |   |   |   |   |   |   |               |
|------------|---|---|---|---|---|---|---|---------------|
| 1          | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9             |
| Not at all |   |   |   |   |   |   |   | As respectful |
|            |   |   |   |   |   |   |   | as possible   |

3. How well did the physician assistant **understand** your problem?

|            |   |   |   |   |   |   |   |             |
|------------|---|---|---|---|---|---|---|-------------|
| 1          | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9           |
| Not at all |   |   |   |   |   |   |   | As much     |
|            |   |   |   |   |   |   |   | as possible |

4. How well did the physician assistant **explain** to you what he/she was doing?

|            |   |   |   |   |   |   |   |             |
|------------|---|---|---|---|---|---|---|-------------|
| 1          | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9           |
| Not at all |   |   |   |   |   |   |   | As much     |
|            |   |   |   |   |   |   |   | as possible |

5. Did the physician assistant use words that **were easy** for you to understand?

|            |   |   |   |   |   |   |   |             |
|------------|---|---|---|---|---|---|---|-------------|
| 1          | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9           |
| Not at all |   |   |   |   |   |   |   | As much     |
|            |   |   |   |   |   |   |   | as possible |

6. How well did the physician assistant **listen** to your concerns and questions?

|            |   |   |   |   |   |   |   |             |
|------------|---|---|---|---|---|---|---|-------------|
| 1          | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9           |
| Not at all |   |   |   |   |   |   |   | As much     |
|            |   |   |   |   |   |   |   | as possible |

7. Did the physician assistant **spend enough time** with you?

|            |   |   |   |   |   |   |   |             |
|------------|---|---|---|---|---|---|---|-------------|
| 1          | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9           |
| Not at all |   |   |   |   |   |   |   | As much     |
|            |   |   |   |   |   |   |   | as possible |

IRB #2002-44-2

TURN OVER

Appendix C  
**PATIENT SATISFACTION SURVEY**

8. How much **confidence** do you have in the physician assistant's competence?

|               |   |   |   |   |   |   |   |                  |
|---------------|---|---|---|---|---|---|---|------------------|
| 1             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9                |
| No confidence |   |   |   |   |   |   |   | Total confidence |

9. Overall, how **satisfied** are you with the services that you received from the physician assistant?

|              |   |   |   |   |   |   |   |                          |
|--------------|---|---|---|---|---|---|---|--------------------------|
| 1            | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9                        |
| Dissatisfied |   |   |   |   |   |   |   | As satisfied as possible |

10. Please rate your top three characteristics of what you are looking for in a physician assistant for your health care, with 1 being the most important and 3 being less important.

\_\_\_\_\_ Courtesy

\_\_\_\_\_ Respectfulness

\_\_\_\_\_ Understanding your problem

\_\_\_\_\_ Clear explanation

\_\_\_\_\_ Simple use of words

\_\_\_\_\_ Good listening skills

\_\_\_\_\_ Spending time with you

\_\_\_\_\_ Confidence in the physician assistant

11. Would you see a physician assistant again for your health care needs?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

\_\_\_\_\_ Unsure

December 12, 2002

To: Christine Rogers

From: Norma C. Noonan, Chair



I am pleased to inform you that the IRB has approved your application the project: Why Do Patients Who Receive Health Care from Physician Assistants Continue To See Physician Assistances for their Health Care?

as submitted

as revised

with the following conditions:

Please use the departmental phone number, rather than a personal phone number, for inquiries about your project.

Your IRB approval number which should be noted in your written project and in any major documents alluding to the research project is as follows:

**2002-44-2**

I wish you success with your project. If you have any questions, you may contact me: 612-330-1198 or [noonan@augsborg.edu](mailto:noonan@augsborg.edu).

c. Professor Chris Bosquez