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COMPETITION WITH CIVILIAN MEDICAL ORGANIZATIONS CHALLENGES MILITARY ORGANIZATIONS TO BECOME MORE CUSTOMER ORIENTED. MILITARY MEDICAL ORGANIZATIONS MUST PROVIDE EFFICIENT QUALITY CARE IF THEY ARE TO SURVIVE IN THE EVER INCREASING COMPETITIVE ENVIRONMENT. THIS REQUIRES RELIABLE MEASUREMENT OF THE QUALITY OF CARE BEING PROVIDED AS PERCEIVED BY THE PATIENT. THE MANAGEMENT PROBLEM CONFRONTED BY THIS STUDY WAS THAT NO COMPREHENSIVE STUDY HAD EVER BEEN CONDUCTED TO DETERMINE WHICH FACTORS LEAD THE CHAMPUS SECONDARY BENEFICIARIES TO RECEIVE CARE OUTSIDE OF WILLIAM BEAUMONT ARMY MEDICAL CENTER. THE PURPOSE OF THIS STUDY WAS TO IDENTIFY THESE FACTORS. PATIENT SATISFACTION VARIABLES AND PATIENT DEMOGRAPHICS WERE MEASURED AND COMPARED BETWEEN WBAMC AND CIVILIAN MEDICAL FACILITIES. ANOVA STATISTICS WERE USED TO ANALYZE THE STUDY. THE RESULTS OF THIS STUDY INDICATE THAT THE CHAMPUS SECONDARY POPULATION SEEKS CARE OUTSIDE OF WBAMC DUE TO LACK OF MEDICAL ACCESS, LACK OF PROVIDER CHOICE, LACK OF CONTINUITY OF CARE, AND LACK OF STAFF INTERPERSONAL CARE AT WBAMC. THIS STUDY SUCCESSFULLY IDENTIFIED PATIENT SATISFACTION DOMAINS THAT WBAMC CAN IMPROVE TO BETTER SERVE THE NEEDS OF THE CHAMPUS SECONDARY POPULATION.

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U.S. ARMY-BAYLOR UNIVERSITY GRADUATE PROGRAM

IN HEALTH CARE ADMINISTRATION

GRADUATE MANAGEMENT PROJECT

A STUDY TO DETERMINE WHY CHAMPUS SECONDARY BENEFICIARIES ELECT TO RECEIVE MEDICAL CARE OUTSIDE OF WILLIAM BEAUMONT ARMY MEDICAL CENTER (WBAMC)

SUBMITTED TO THE FACULTY

IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF HEALTH ADMINISTRATION

BY

CAPTAIN JESUS H. RUIZ

Medical Service Corps

EL PASO, TEXAS

May 1995

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ABSTRACT

Competition with civilian medical organizations challenges military medical organizations to become more customer oriented, especially during this time of budget reductions. Military medical organizations must provide efficient quality care if they are to survive in the ever increasing competitive environment. This requires reliable measurement of the quality of care being provided (as perceived by the patient).

The management problem confronted by this study was that no in-depth comprehensive study had ever been conducted to determine which factors lead the CHAMPUS secondary (self insured) population to receive care outside of William Beaumont Army Medical Center (WBAMC). Therefore, no improvements could be made to the WBAMC health care delivery system to better serve the health care needs of this population.

The purpose of this study was to determine the reason(s) why the CHAMPUS secondary beneficiaries elected to receive healthcare outside of WBAMC. General questions on reasons why this population did not receive most of their medical care from WBAMC in the past year were asked. Additionally, patient satisfaction variables and patient demographic variables were measured and compared between

WBAMC and civilian medical facilities for patients who had used both types of medical facilities for their health care needs. ANOVA paired t-test statistics were computed to determine significant statistical differences.

The results of this study indicate that the reasons the CHAMPUS secondary population elects to seek care outside of WBAMC are due to lack of accessibility to specialists and inpatient care, lack of provider choice and continuity of care by same provider, problems with making appointments by telephone, excessive waiting time for a provider at the hospital, excessive length of waiting time for appointments, and the lack of interpersonal care by the staff. This study successfully identified patient satisfaction factors that can be improved, if WBAMC is to better serve the CHAMPUS-Secondary population.

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I. INTRODUCTION

Patient satisfaction is an important dimension in evaluating the quality of care provided by health care institutions. Evidence is emerging that links patient satisfaction with the improvement in the health status of the patients (Hjortdahl 1992). Successful hospitals in today's competitive environment must satisfy their primary customers, the patients. Patient satisfaction is defined as the "patient's cognitive evaluation and emotional reaction to their experience in obtaining health care" (Charles 1994).

Hospital staffs and managers should be concerned with patients' views of care rendered because patients' experiences in obtaining care are predictive of future behavior. An unsatisfied patient may not follow treatment guidelines or may not return for future care. Either alternative can have negative consequences for both patient and health care organization (Charles 1994).

As competition between health care facilities intensifies, providing quality health care services becomes key in maintaining a viable and progressive organization. Patient satisfaction with care rendered must be measured and

evaluated in order to assess the quality of care being delivered. The importance of patient satisfaction in measuring quality of care is being emphasized by the new 1994 Joint Commission on Accreditation of Healthcare Organizations (JCAHO) standards. The JCAHO guidelines require the JCAHO surveyors to interview patients in hospital wards to see if they are being provided quality medical care (JCAHO 1994).

Background

William Beaumont Army Medical Center (WBAMC) is a 500 bed, acute and tertiary medical center located in El Paso, Texas. This facility is one of two trauma centers located within the city. William Beaumont is the headquarters for the Department of Defense (DOD) TRICARE 7th Region which includes all DOD medical facilities in Southwest Texas, New Mexico, Arizona and Nevada. WBAMC is also the headquarters for the Army's Southwest Health Service Support Area (HSSA) which includes all Army medical facilities in Southwest Texas, New Mexico, Arizona, Nevada and Southern California. Additionally, William Beaumont Army Medical Center maintains the only fully operational Bio-Research Laboratory in the Southwest. The laboratory supports the medical center's Graduate Medical Education Program (GME) and enhances the patient care mission.

The mission of William Beaumont Army Medical Center is to provide quality healthcare to our patient population in any environment through a well managed military healthcare system.

The vision statement of WBAMC is as follows:

"First to Care"

First in military medical readiness; first in healthcare management and delivery; first in healthcare quality; first in healthcare education and research. The vision statement was derived from the motto of the Air Defense Artillery ("First to Fire") which is headquartered at Ft Bliss in El Paso, Texas.

Conditions Which Prompted This Study

In this era of health care reform in which DOD hospital budgets continue to shrink, Managed Care departments have been established within medical centers as a tool to provide efficient quality care at the lowest cost possible. The Department of Managed Care at WBAMC determined that a large number of CHAMPUS beneficiaries have their own health insurance and use their CHAMPUS benefits as a secondary source for medical coverage. A large percentage of this population prefer to use civilian healthcare facilities for their inpatient care rather than receive care at WBAMC. WBAMC could obtain large amounts of funds from third party

collections by providing care to CHAMPUS secondary beneficiaries (insured patients). This population does not require a statement of non-availability from WBAMC as they are self-insured, insured through their present employer or have other means of health care coverage.

WBAMC leadership is concerned with the large percentage of CHAMPUS secondary beneficiaries who elect to receive inpatient health care outside of WBAMC without first considering WBAMC as their primary source for medical treatment. WBAMC's top leadership requested that a study be conducted to determine the factors responsible for this population choosing to receive inpatient medical care outside of WBAMC.

Statement of the Research Problem

The rising cost of health care has prompted employers and individuals to become more selective in choosing where they obtain their health care. The identification of factors which lead patients to select medical facilities for their needs has become important to all health care organizations in marketing their services to consumers.

This study identifies consumer satisfaction and consumer demographic factors which have led the William Beaumont Army Medical Center (WBAMC) CHAMPUS secondary beneficiary population to receive care outside of WBAMC.

Literature Review

In order to stay competitive, organizations must provide a quality product or service to consumers. The same holds true for health care organizations when providing medical services to patients. Healthcare up to 1960 was based solely on the physician's medical judgment. Quality medical care was defined as what doctors perceived and directed that patients needed. This was based on provider competence to coordinate available technology, skill and judgment to improve the health of patients. The idea that health care providers know what is best for the patient may not be considered quality care from the patients' perspective especially when the patients are left out of decisions which involve their personal health (Palmer 1991).

Other studies define the traditional health care model as being focused on the health status of the patient as the end result and based solely on technical quality. The new way of assessing health care delivery is based on the interaction between provider and consumer. Technical quality as well as how care is experienced by the consumer is becoming more important in the delivery of health care. How well the medical services interaction meets consumer expectations has become of primary importance as an outcome measure (Lanning and O'Conner 1990).

During the 1960's, the government became more involved in the quality of care provided to the nation. The idea that "more is better" surfaced as an attempt to improve the quality of care. It was soon learned that once a plateau is reached, further expenditures on medical care produce no greater gains in the outcome of health. In fact, excessive use of services causes a decline in the quality of care. Therefore, the old adage that "more care is better" did not necessarily prove to be true either. Physicians agree that costs could be decreased even while improving quality of care (Palmer 1991).

As healthcare costs continue to climb, providers autonomy to determine quality is increasingly being challenged. Major purchasers of healthcare (government, insurers, and employers) are finding themselves forced into the quality definition gap due to the run away costs of healthcare (Lanning 1990).

Active consumer involvement in the quality of care received did not surface until 1985, when large organizations such as the American Association of Retired Persons (AARP) began lobbying Congress and complaining about the decline in the quality of health care due to the Prospective Payment System (PPS). Under the PPS, patients were being discharged quicker and sicker (Palmer 1991).

Experts were concerned that the PPS and managed care delivery systems contained incentives that withheld needed medical care for economic reasons. This in fact proved to be a valid concern. Accounts of premature discharges of patients under the Prospective Payment System surfaced in a General Accounting Office study in early 1985. These findings of premature discharges resulted in Congressional hearings and federal legislation in 1986. Legislation resulted in quality provision enactment and quality review of HMOs and competitive medical plans (Graham 1987).

Patients demanded a change in the quality of care that was being rendered by health care organizations. Consumers wanted to be involved in their care and participate in decisions involving treatment, cost and self care (Cesta 1993).

As consumers of health care are becoming more aware of the quality of medical care they are receiving, they are also becoming more vocal and selective of where they receive their health care. Patients are seeking not only technically correct health care, but improved health and satisfaction with the care rendered (Palmer 1991).

According to Palmer and Donabedian, improving patient satisfaction has become a goal of health care organizations (Palmer 1991). Patient feedback has grown in importance in judging the quality of care provided. Satisfied patients

will return to health care organizations for their health care needs and provide positive word of mouth information about the organization to other potential health care consumers (Nelson 1990).

Patient satisfaction may be considered to be one of the desired outcomes of care, even an element in health status itself. Information about patient satisfaction should be as indispensable to assessment of quality as to the design and management of health care systems (Donabedian 1988).

Health care organizations and individual health care professionals have conducted numerous studies to determine patient preferences. Literature is replete with patient satisfaction studies that have surveyed patient satisfaction domains and patient demographic characteristics. This vast volume of literature demonstrates that patient satisfaction and patient demographics are of great importance in measuring and improving quality medical care.

The importance of surveying population demographics is evident in a study conducted by Ross in 1993 on the importance of patient preferences in measuring their satisfaction. This study measured access to care, availability of services, technical quality of care, interpersonal care, communication, finance of care, overall patient satisfaction and sociodemographic factors. The findings of his study point out that sociodemographic

factors are very important in determining patient satisfaction.

Ross's study points out that it is possible for individuals to base their satisfaction on sociodemographic characteristics such as education and availability to finance their care. In this case, "need alone" and "not what patients would prefer" is the deciding factor of patient satisfaction. Individuals with limited means of paying for their medical care are satisfied with lower quality of health care than individuals with greater economical means. Populations respond differently to satisfaction with the quality of care received based on the sociodemographic characteristics of the population (Ross 1993).

Other studies have concentrated on relationships between consumer satisfaction and provider continuity of care as a measurement of patient satisfaction. A study conducted in 1983, by Marquis et al., focused on actual patient behavior rather than on patient intention to maintain provider continuity. Persons for the study were selected based on use of physicians' services one year prior to the study. A multivariate analysis confirmed that patient level of satisfaction causes provider change. Of the population studied, sixty six percent of "least satisfied" patients changed providers, fifty two percent of

"middle satisfied" patients changed providers and forty two percent of "highly satisfied" patients changed providers (Marquis et al 1983).

Continuity of care has long been held to be the cornerstone of primary care and an antecedent to patient satisfaction. To measure the effect of continuity of doctor care, Hjortdahl conducted a study in 1992. The study results found that when the doctor was considered to be responsible for some of the patient's needs, satisfaction increased by fifty percent compared with new relationships and patient satisfaction doubled if the doctor was considered to be responsible for all of the needs. Thus, continuity of care greatly influences patient satisfaction (Hjortdahl 1993).

Other areas of patient satisfaction involved patient information. Providing information to patients is becoming more important in measuring patient satisfaction. Patient satisfaction due to information may correlate with treatment outcomes, treatment compliance and possibly the frequency of lawsuits. To determine the importance of information in patient satisfaction, a study was conducted of one hundred eighty six emergency departments in 1993. Two groups of patients were formed to compare results in this study; a control group and a study group. Eleven items were selected for the study, of these eleven items nine reached

statistical significance between the two groups at the .05 level, with the level of patient satisfaction being significantly higher by the study group that was provided the most information. Information which addresses patients' concerns and anxiety increases patient satisfaction and their perception of quality of care (Krishel 1993). This in fact proves to be true. Studies have shown that often the problem is a perception by patients of insensitivity to their needs or lack of respect for their view point (Messner 1993).

Other studies that support the importance of communication and information between patient and doctor were conducted in Canadian hospitals. The findings show similar results. Dissatisfied patients, due to lack of information about their personal care, will perceive the quality of care to be lower than informed patients (Charles 1994).

When measuring technical quality of care, access to care in terms of waiting time, and courtesy of medical staff, studies have shown that demographics such as sex, age, race or type of medical coverage are not statistically significant. However, waiting time is extremely important, especially to patients with insurance. This insured population reported a shorter waiting time of twelve minutes compared to twenty seven minutes or more for other

populations. Although, this population had a shorter waiting time they were still the least satisfied with the waiting time. Eighty two percent of the patients in this population were dissatisfied with the waiting time (Kurata 1992).

Studies show that patients consider healing "good" if service interaction was good. Satisfied patients tend to follow doctor's orders more closely than unsatisfied patients and they tend to return for further care. Evidence favors the use of satisfaction as an outcome measure in evaluating health and medical services (Bursch 1993). Press (1991) points out that satisfaction with care leads to reduced stress which enhances healing leading to shorter hospital stays and reduced resource consumption. An added benefit is that satisfied patients tend not to transform medical incidents into malpractice claims. The bottom line is that patients satisfied with hospital services add to the financial well being of the institution (Press, Ganey and Malone 1991).

Quality of care is now being defined as "the satisfaction of patient requirements and aspirations, real and perceived, with the lowest consumption of resources," according to Holthof (1991). How patients perceive that the services provided meet their needs determines their satisfaction with the care received. These perceptions are

not only influenced by the quality of services for actual medical care received but by the friendliness of the hospital staff as well (Holthof 1991).

Identifying consumer attitudes toward hospital services has gained importance in recent years. Hospitals should establish baseline data that allows management to focus on specific case issues by administering patient surveys routinely (Lemke 1987).

Patient information can be obtained by means of personal interviews, telephone surveys or mailed surveys. Personal interviews are very costly, time consuming and hard to administer. The mailed questionnaire is favored over the personal interview because large amounts of data can be gathered more economically than the personal interview. Additionally the mailed survey protects the identity of the patient from the person administering the survey (Baker 1985).

The mailed questionnaire is also preferred over the telephone interview. In a hospital satisfaction study in which both mailed surveys and telephone surveys were used, results showed that telephone responses provided "acquiescent response." These patients tended to be reluctant to criticize medical care received and to admit dissatisfaction with care received due to loss of anonymity (Walker and Restuccia 1984).

Purpose

The purpose of this study was to identify significant patient satisfaction and patient demographic variables that could predict why the William Beaumont Army Medical Center (WBAMC) CHAMPUS secondary population elects to receive both inpatient and outpatient medical care outside of the Army Medical Center.

The objectives of this study were to select and administer a questionnaire that would provide unbiased data on the delivery of health care to our CHAMPUS secondary population, identify factors which could be improved to capture the CHAMPUS secondary population, and to present the findings of the study to the WBAMC Command Group.

Hypotheses

1. H_o = Patient's satisfaction/dissatisfaction with the care rendered has no effect on the choice of medical facility selected for individual medical needs.

H_a = Patient satisfaction with the care rendered affects the choice of medical facility selected for individual medical needs.

2. H_o = Patient demographics have no effect on the choice of medical facility selected for individual medical needs.

H_a = Patient demographics effect the choice of medical facility selected for individual medical needs.

Hypothesis One

The dependent variable for hypothesis one was choice of medical treatment facility selected for healthcare needs. The independent variables associated with hypothesis one consisted of patient satisfaction domains in the areas of convenience of location, access to care, waiting time, availability of services, staff interpersonal skills, outcome of treatment, overall quality of care, information by medical staff, continuity of care, and assistance with medical expenses and finance arrangements.

Hypothesis Two

The dependent variable for hypothesis two was choice of medical treatment facility selected for healthcare needs. The independent variables associated with hypothesis two consisted of patient demographic characteristics and included gender, beneficiary category, marital status, educational experience, health status, age, and rank of patient or sponsor.

II. Methods and Procedures

Since the purpose of this study was to identify significant factors leading to choice of medical facility selected for personal care, a quantitative approach to this study was used. In quantitative research studies, data is collected and then analyzed to determine which variables significantly influence customer behavior.

Conceptual Model

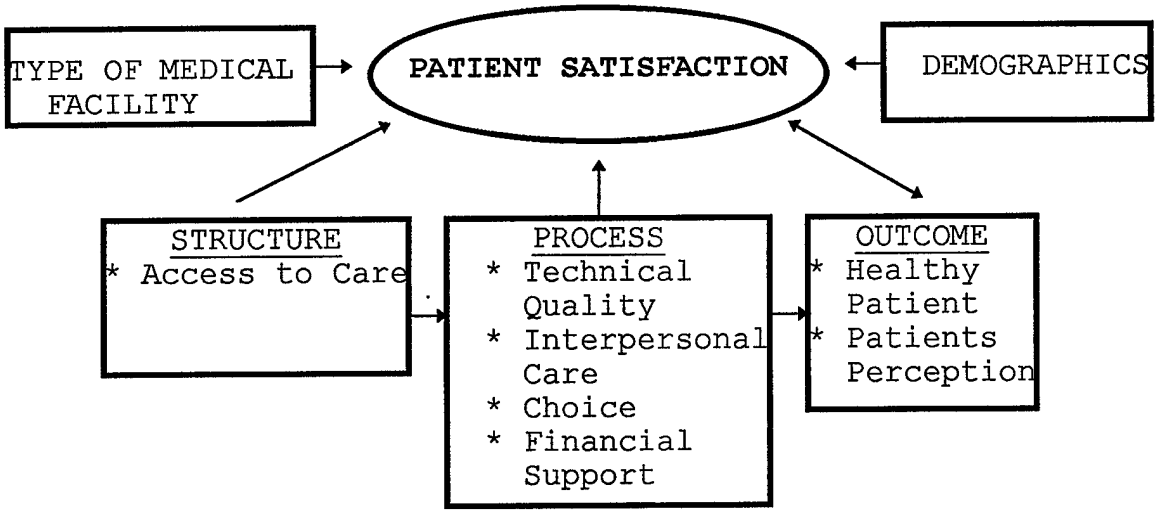
The conceptual model used in the development of this study was the patient satisfaction model of quality of care (Donabedian 1980). This model is presented in Figure 1. The major domains of the model are structure, process and outcome. The structure domain consists of access to care. Variables measured for access to care are: convenience of location, clinic hours, access to healthcare at any time, access to specialists, access to inpatient care, ease of making appointments, waiting times, advice by telephone, and pharmacy service availability.

The process domain consists of four dimensions: technical quality, interpersonal care, choice and financial support. Variables measured for the technical quality

domain include skills of healthcare providers, providers ability to diagnose health problems, thoroughness of examination, and treatment. Variables measured for the interpersonal care domain include attention and advice provided by healthcare provider, courtesy by administrative staff and healthcare providers, providers concern for the patient and for their privacy, reassurance by provider, and arrangements of time during visit. Variables measured for the choice domain include ability to choose provider and ease of seeing provider of choice. Variables measured for financial support include protection against hardship and help with financial problems.

The outcome domain measures health status of patient and the quality of care from the patients' perspective. Additionally, the model measures patient demographic variables of gender, age, overall health status, category of patient, pay grade of sponsor, pay grade if active duty or military retired, marital status, and education. Type of medical facility selected for care and type of insurance coverage were added to the model to account for and study their effect on patient satisfaction variables.

Figure 1. Conceptual Model for Predicting Satisfaction



Data Collection

Subjects for this study were selected randomly from a data base compiled by the William Beaumont Army Medical Center (WBAMC) Department of Managed Care. The data base contains the names of CHAMPUS patients and CHAMPUS secondary patients. CHAMPUS patients must receive their medical care benefits in military medical facilities or receive a statement of non-availability of services because the military system is paying for their care. CHAMPUS secondary patients have benefits to go to military healthcare facilities but can elect to go elsewhere for their healthcare needs because they have insurance other than CHAMPUS that can pay for their medical bill.

Only CHAMPUS secondary patients were selected for this study since these patients can freely elect which medical

facility, military or civilian to receive care from. Data was obtained in cooperation with the six local hospitals in the El Paso area over an eight month period. The first hundred names of a two-hundred and thirty-four patient list were selected for the study.

Patient addresses were not provided by the civilian hospitals. The WBAMC Hospital Information System (HIS) was used to obtain patient addresses. Seven of the patients selected for the study did not have an address on file and therefore were not included in the study. Three of the patients selected were in the same household, therefore, they were dropped from the study list to ensure no more than one survey was conducted per household. A total of ninety patients fitting the needs of the study were surveyed.

Survey Instrument

Literature review provided a variety of survey instruments available for data gathering. Additionally, three surveying tools available within WBAMC were inspected but were found too narrow in scope and not adequate for this study. Further research revealed that a surveying tool being used in Tri-service studies supported the conceptual model of this study. The Tri-service survey was used as the basis for gathering data for this study. The Tri-service survey was modified from the Group Health Association of

America (GHAA) Consumer Satisfaction Survey for use with military populations by Dr. A. David Mangelsdorff (Mangelsdorff 1989).

This surveying tool was selected for this study because it measured the major dimensions and subdimensions of patient satisfaction. Additionally, the surveying tool provided substantial variance for scores, which is important to gaining useful patient information for statistical relationship measurement (Ware 1981).

The survey headings of the Tri-service survey were modified to meet the needs of this study. A total of fifty six questions were used in this study. These questions measured domains of location for health care, means of paying for healthcare, reasons for not receiving care at William Beaumont Army Medical Center, access to healthcare, technical quality of healthcare provided, interpersonal care, choice for healthcare, financial support, outpatient services and outcome of medical care.

According to Kerlinger, reliability can be defined as consistency, dependability and predictability. The ability of the survey instrument to accurately measure satisfaction can not be understated (Kerlinger 1986).

Validity and reliability of the surveying instrument were assured by using a tool which had previously been used in other patient satisfaction studies (Smith 1993). Face

value validity and reliability were also assured by studies on patient satisfaction conducted by a leading authority on patient satisfaction studies(Dr. A. David Mangeldorff, Center for Healthcare education and Studies (HSHA-MH) Army Medical Department Center and School personal communication, October 3, 1994). The survey instrument was reviewed and approved by the Commanding Officer of William Beaumont Army Medical Center prior to its administration. The surveying instrument is included in appendix 1.

Survey Structure

The survey instrument consisted of three sections which are as follows:

Section I (Use of Medical Services): This section consisted of questions 1 through 4, which gathered information on places usually selected for medical care, type of insurance coverage used, payer of insurance, and reasons why patients elect not to receive most of their care from WBAMC.

Section II (Satisfaction with Healthcare): This section consisted of questions 5 through 48, which gathered information on the type of facility used during the past 12 months. Questions 6 through 18 measured satisfaction with access to health care. Questions 19 through 22 measured satisfaction with quality of care. Questions 23 and 24

measured satisfaction with outcome of healthcare. Questions 25 through 34 and 37 measured satisfaction with interpersonal care. Questions 38 and 39 measured satisfaction with financial support. Questions 40 through 48 measured satisfaction with outpatient services received.

Section III (General Demographic Information): This section consisted of questions 49 through 56 which gathered demographic information on gender, age, present health status, category of patient, pay grade of sponsor, pay grade if active duty or retired military, marital status, education level and also provided space for comments or concerns.

Surveying Process

Advance written notice of the study was provided to the ninety participants one week prior to the actual survey mail-out. A week later, the actual surveying tool was mailed to each of the participants. The survey packet contained the survey, a personal letter signed by the WBAMC Commanding Officer, instructions for survey return and a return addressed stamped envelope. A follow up letter was sent to non-respondents two weeks after the survey mail-out, again a survey was enclosed with an addressed envelope. Two days later a letter thanking all ninety participants

(respondents and non-respondents) for their participation in the study was mailed.

Survey Return Rate

Eight of the ninety surveys mailed out were returned as undeliverable. Forty-five surveys were completed and returned for a total response rate of fifty five percent. Eight of the surveys returned were returned after the follow-up letter for an eighteen percent increase. Although the survey was anonymous, sixty seven percent of the respondents elected to have their identity be known without being asked.

Data Coding

Under Section I (Use of Medical Services) of the surveying instrument, question 1 replies were coded 1 through 8 for type of facility usually selected for medical care. Question 2 replies were coded 1 through 6 for type of insurance coverage. Question 3 replies were coded 1 through 5 for payer of health insurance. Question 4a replies were coded as dichotomous variables with 1 for yes answers and 2 for no answers. Question 4b was coded 1 through 14 for reasons given for not receiving most of the healthcare needs from William Beaumont Army Medical Center.

Under Section II (Satisfaction with Healthcare) of the survey instrument, question 5 replies were coded 1 through 3 for organization used for healthcare needs. Responses where

use of both WBAMC and civilian services were annotated were coded 1 for WBAMC and 2 for civilian facilities. Questions 6 and 7 were 5 point Likert scale of equal intervals. These questions were coded as follows: strongly agree = 1 agree = 2 neither agree nor disagree = 3 disagree = 4 disagree = 5. Questions 8 through 48 were 6 point Likert scale of equal intervals. These questions were coded as follows: excellent = 1 very good = 2 good = 3 fair = 4 poor = 5 not applicable = 6.

Under Section III (Demographic Information) of the surveying instrument, question 49 replies were coded as dichotomous variables with 1 for males and 2 for females. Question 50 replies on age were written in by the participants. Question 51 replies were coded 1 through 5 for health status. Question 52 replies were coded 1 through 5 for category of patient. Question 53 replies were coded 1 through 26 by columns, starting in the left column. Question 54 replies were coded 1 through 26 by columns starting in the left column. Question 55 replies were coded 1 through 5 for marital status. Question 56 replies were coded 1 through 8 for level of education. Write in comments were coded per category as follows: Lack of access = 1, Interpersonal skills = 2, Satisfied with care = 3.

Statistical Analysis

The statistical analysis was performed using Statistical Package for the Social Sciences (SPSS). Descriptive statistics were used to measure for trends, frequencies and to summarize the data. Analysis of variance was used to test for significant patient satisfaction between WBAMC and civilian healthcare facilities, paired t-test value of $p \leq 0.05$ was considered significant.

III. RESULTS

Descriptive Statistics for Study Sample (N = 45)

Table 1 is a summary of type of facility used for medical services and type of insurance coverage used by the sample population for their medical care.

WBAMC was selected by 2.9 percent of the sample population as the sole facility for providing most of their medical care within the past 12 months. Use of only civilian hospitals was selected by 29.4 percent of the sample. Use of both WBAMC and civilian hospitals for medical care in the last 12 months was selected by 67.6 percent of the surveyed sample population.

CHAMPUS insurance coverage was carried by 86.8 percent of the sample. One person marked that he was covered by Medicare, this was obviously an error as none of the respondents were of Medicare age. Supplemental insurance was carried by 27.9 percent of the sample population. Private health insurance was carried by 69.1% of the sample population. Other forms of health insurance were carried by 10.3 percent of the sample population.

Cost for private health insurance was self paid by 9.1 percent of the respondents. Over 70 percent of the

respondents stated that their insurance coverage cost was either shared by current or former employer or the current or former employer paid the full cost. Other means of paying for health insurance were stated by 3 percent of the sample.

TABLE 1.--TYPE OF MEDICAL FACILITY, INSURANCE COVERAGE AND PAYER OF INSURANCE USED DURING THE LAST 12 MONTHS

Type of Medical Facility	Frequency of Responses	Percentage
WBAMC	2	2.9%
Civilian Hospitals	20	29.4%
WBAMC & Civilian Hospitals	46	67.6%

Insurance Coverage	Frequency of Responses	Percentage
CHAMPUS	59	86.8%
Medicare	1	1.5%
Supplemental Insurance	19	27.9%
Private Health Insurance	47	69.1%
Other	7	10.3%

Insurance Payer	Frequency of Responses	Percentage
Does Not Apply	10	15.2%
Paid by Self	6	9.1%
Family & Current or Former employer	41	62.1%
Current or Former Employer	7	10.6%
Other	2	3.0%

Reasons for going outside of WBAMC to receive medical care are presented in table 2.

TABLE 2.--WHY MOST HEALTHCARE IS NOT RECEIVED AT WBAMC

	Reason	Frequency of Responses	Percent Total
1.	Never tried to use WBAMC	1	1.5%
2.	WBAMC lacks the services that I need	19	27.9%
3.	WBAMC is not in a good location	0	0.0%
4.	WBAMC personnel have been rude to me	5	7.4%
5.	WBAMC providers are not through in examination	7	10.3%
6.	Not the same provider in every visit to WBAMC	29	42.6%
7.	WBAMC care not as good as civilian care	5	7.4%
8.	Personal time conflict with time for care at WBAMC	6	8.8%
9.	Live to far from WBAMC	4	5.9%
10.	Hard to get an appointment at WBAMC	32	47.1%
11.	Wait to long to see a provider at WBAMC	28	41.2%
12.	Referred to civilian facility by WBAMC	6	8.8%
13.	Simply prefer another source of care	4	5.9%
14.	Some other reason	4	5.9%

Table 3 is a summary of the demographic information of the sample population. The respondents consisted of 52.9 percent males and 47.1 percent females. The ages ranged from 25 years of age to 64 years of age, the mean age for the sample was 52 years of age. The highest health status percentage expressed was good health by 41.2 percent of the sample, 7.4 percent rated their health as excellent and 10.3

percent expressed their health as poor. Approximately 3 percent of the sample were active duty. About 15 percent were family members of active duty. Retired service members included the largest category with 48.5 percent. The second largest category was family member of retired/deceased service member with 33.8 percent. Sponsor pay grade ranged from E-1 to O-5, with the lowest percentage response rate being O-4 at 1.5 percent, and the highest percentage response rate being E-7 at 19.1 percent. Pay grade for active duty or military retired respondents ranged from E-5 to O-5, with the lowest percentage response rate being E-6 at 1.5 percent and the highest percentage response being E-7 at 22.1 percent. Over 95 percent of the sample were married, 1.5 were divorced and 2.9 percent were widowed. Education level ranged from High School Education level at 2.9 percent of sample population to Master's Degree or higher at 16.2 percent of the sample, the highest percentage of education level for the sample was "some college but no graduation" at 30.9 percent (Appendix 2).

INSERT TABLE 3 about here

Questions 5 through 48 were based on satisfaction with healthcare domains. These questions asked the sample population to describe use of civilian and military

healthcare services during the last 12 months. Less than five percent (4.4%) of the sample stated that they had used only healthcare provided by WBAMC. Almost forty-five percent (44.4%) used services provided only by civilian medical facilities. Medical services were received from both WBAMC and civilian medical organizations by fifty-one percent (n=23) of the sample population (n=45). Frequencies and percentages are presented in Table 4.

TABLE 4--USE OF MEDICAL FACILITIES (n=45)

Type of Facility	Number of respondents	percent total
WBAMC Only	2	04.4%
WBAMC & Civilian Hospitals	23	51.1%
Civilian Hospitals Only	20	44.4%

Patient satisfaction responses for the twenty-three respondents who used both WBAMC and civilian hospital for their healthcare needs were entered twice. Once for WBAMC satisfaction responses and once for civilian hospital satisfaction responses to compare satisfaction responses between facility type.

ANOVA Paired T-Test

To determine whether any statistical significance existed between facility type and patient satisfaction and demographic variables paired t-test comparisons were conducted between hospital type and the dependent variables

of patient satisfaction and patient demographics for patients who used both WBAMC and civilian healthcare facilities for their medical needs.

The Analysis of Variance measures for differences between the sample responses using the F statistics. For large values of F, the hypothesis of equal means is rejected, for values close to one the null hypothesis is accepted because groups start becoming similar and no difference can be determined (Knapp 1985).

Patient satisfaction variables found to be significant with hospital type at the .05 level using ANOVA paired t-test comparisons were as follows: Access to specialist, access to inpatient care, ease of making an appointment for healthcare by telephone, length of time having to wait at office to see healthcare provider, length of time having to wait between making an appointment for routine care and the date of visit, thoroughness of examination, provider's explanation of health care procedure, thoroughness of treatment, overall quality of healthcare, provider's explanation of health care procedures, attention of provider to what patient has to say, advice provider gives you about ways to avoid illness and stay healthy, courtesy shown by receptionist, provider's concern for patient as a person, healthcare provider's personal interest in the outcome of patients problem, ability to choose healthcare provider,

ease of seeing provider of choice, and help with arrangements to get healthcare needed without financial problems. Outpatient services showing statistical significance between hospital type at the .05 level with paired t-test comparison was OB/GYN services.

Patient satisfaction variables found to be statistically significant, with paired t-test comparisons, $p \leq .05$, are presented in Appendix 3, Table 5-1 through 5-3.

No statistical significance was found between type of hospital used and patient demographics at the .05 level with paired t-test comparisons.

IV. DISCUSSION

Hypothesis #1

There was a significant difference in patient satisfaction with the care rendered based on the type of medical facility selected for individual medical needs (ANOVA paired t-test comparison, $p \leq .05$). Therefore, the alternate hypothesis is accepted. By studying the significant differences in patient satisfaction domains WBAMC management can make decisions that will enhance the medical center's ability to service this population.

Use of Medical Services

The results of this study indicate that the main reasons for the CHAMPUS secondary population electing not to receive most of their medical care from WBAMC were lack of access into WBAMC and lack of continuity of care by the same provider. Sixty-seven percent of the study sample stated that they had not received most of their health care needs from WBAMC in the past year. The most adverse rating was appointment problems (with forty-seven percent response rate). The next most adverse rating was not being able to see the same provider (with forty-three percent response

rate). The waiting time response rate was forty-one percent and the lack of "services for needs" was also high with a 28 percent response rate. All other reasons selected for not electing to receive care from WBAMC in the past year were low in response rate and none exceeded nine percent rate of response.

The high percentages in accessibility to medical care demonstrate the lack of commitment to the retired population and their family members which comprise most of the CHAMPUS secondary population. The sample population consisted of eighty-two percent retired service members and their family members. The lack of access may be due to the fact that military medical facilities exist to support a combat ready force. The health of active duty service members is given first priority, followed by their family members and then the retired population and their family members. The medical priorities by beneficiary type places CHAMPUS secondary as last priority and therefore this population may not be able to access the system readily.

Lack of continuity of medical care by the same provider was one of the primary reasons given for going outside of WBAMC for healthcare services by the CHAMPUS secondary population. Based on the mean age of the sample (52 years of age) it can be expected that this population will have a greater need for medical care and therefore a greater need

for continuity of care than the younger active duty population. Military hospitals function similar to an HMO, continuity of care by the same provider is not assured, therefore it can be expected that dissatisfaction with continuity of medical care will continue.

Almost seventy-seven percent of the sample population were covered by private health insurance. It is not known whether the lack of access into WBAMC and lack of continuity of medical care at WBAMC motivated this population obtain private insurance as this was not the main focus of this study.

Patient Satisfaction/Quality of Care

CHAMPUS secondary patients receiving care from both WBAMC and civilian healthcare facilities accounted for sixty-eight percent of the sample population. To determine how these patients rated the quality of care in each facility type a series of patient satisfaction questions were asked. Responses found to be statistically significant (ANOVA t-test comparison $p \leq .05$) were in the dimension of access to care, technical quality, out come, interpersonal care, choice of provider, finance and outpatient services.

With the exception of finance, civilian healthcare facilities rated higher in all areas of patient satisfaction that were found to be statistically significant.

According to the findings of this study WBAMC management and WBAMC staff should be more attuned to the needs of the CHAMPUS secondary population in order to improve the quality of patient care to this population.

Hypothesis #2

There were no significant differences found in type of hospital used for medical care based on patient demographics (ANOVA, t-test comparisons, $p \leq .05$). Therefore, the alternate hypothesis is rejected. Because of this finding it can be concluded that gender, health status, pay grade of sponsor, marital status, and education level of sample do not influence choice of medical facility. Hospital management does not have to be concerned or waste marketing resources in this area, as patient demographics do not impact choice of medical facility selected for health care needs by this population.

The major findings of this study are supported by previous research in which continuity of care has been shown to be a cornerstone of patient satisfaction (Hjortdahl 1993). Other studies support timely access to medical care as important to patient satisfaction, especially to insured patients (Kurata 1992). The findings of this study are also supported by studies that show interpersonal relationship between patient and provider as important to overall patient

satisfaction (Kirshel 1993). As in previous studies (Kurata 1992), this study did not show any statistically significant findings with demographics. The only shortcoming of this study was the small sample size used. This study can serve as a pilot study for a similar study that utilizes a larger population sample.

V. CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to identify patient satisfaction and patient demographic variables which lead the William Beaumont Army Medical Center (WBAMC) CHAMPUS secondary population to receive healthcare outside of WBAMC. Through the use of a reliable survey instrument this study successfully identified patient satisfaction variables that significantly influence choice of medical facility by the CHAMPUS secondary population within the WBAMC catchment area.

Although outcome of healthcare and overall quality of healthcare between WBAMC and civilian hospitals was not significant in this study, there are several patient satisfaction areas that were found to be statistically significant and which can be improved. This areas include: access to specialist, access to inpatient care, ease of making appointment by telephone, length of time having to wait at office to see healthcare provider, length of time having to wait between making an appointment for routine care and the date of visit, thoroughness of examination, provider's explanation of healthcare procedures, attention of providers to what patient has to say, courtesy shown by

receptionist, providers concern for patient as a person, healthcare provider's personal interest in the outcome of patients problem, ability to choose healthcare provider, and ease of seeing provider of choice

This study did not find any statistically significant patient demographic variables. This study serves only as a starting point to providing quality care. Identification of patient satisfaction areas needing improvement can not alone improve the quality of care provided to this population. The WBAMC leadership should act on the findings of this study (if the CHAMPUS secondary population is to be captured). This study offers WBAMC an opportunity to improve the healthcare delivery system to this population.

All significant findings of this study can be improved through the continued implementation of Total Quality Management (TQM) and Total Quality Improvement processes. The findings provide the WBAMC leadership reliable scientific information that can be used to improve the quality of medical services to the CHAMPUS secondary population and to other WBAMC beneficiary populations.

APPENDIX 1.

WILLIAM BEAUMONT ARMY MEDICAL CENTER

PATIENT SATISFACTION SURVEY

DATE ???

Clinical Support Division

Just N. Example
Patient Address
El Paso, Texas 78830

Dear CHAMPUS Beneficiary:

Your healthcare needs are important to the medical staff of William Beaumont Army Medical Center. We are interested in determining which factors are most important to you in receiving medical care at our facility. Your participation in this survey will greatly assist us in improving our services. Thank you for taking the time to complete this survey.

Your feedback is **confidential** and will be used to improve our quality of care to you and other hospital patients.

Please use the enclosed envelope to return this survey to Captain Jesus H. Ruiz, Medical Service Corps, in the Clinical Support Division. Telephone numbers 569-2477 or 569-1670.

Sincerely,

COLONEL J. SCULLEY
Colonel, Medical Corps
Commanding

Enclosures

SECTION I: *YOUR USE OF MEDICAL SERVICES*

1. Which of the following places do you USUALLY go to when sick or when advice is needed about your health? DO NOT include places you go for dental care. MARK ONLY THE ONE BEST ANSWER.

O William Beaumont Army Medical Center
O Veterans Administration (VA) hospital
outpatient clinic
O Civilian Doctor's office
O Civilian hospital emergency room
O Another type of military place (specify)

_____

O Another type of civilian place (specify)

_____

O I do not have a usual source of care
O Don't know

2. Are you now covered by any of the following health insurance programs? MARK ALL THAT APPLY.

O CHAMPUS
O Medicare
O Supplemental Insurance (Medicare Insurance you usually get through military or retiree associations. It helps pay the amount due after Champus or Medicare pays its Share of charges for medical care.)
O Private health insurance (Blue Cross/Blue Shield, prudential, AARP, etc. Or a prepaid health plan or HMO (Health Maintenance Organization)
O Other (specify)

_____

O Don't know

3. If you are covered by private health insurance or by a private health plan or HMO (Health Maintenance Organization) who pays for this insurance.

O Does not apply; do not have this type of plan
O Cost paid entirely by myself or my family
O Cost shared by my family and current or former employers
O Cost paid entirely by current or former employers
O Other (specify)

_____

4a. Did you receive most of your medical care from William Beaumont Army Medical Center(WBAMC) during the last 12 months?

O Yes----GO TO QUESTION 5
O No

4b. What reasons (or reasons) explain why you did not received most of your medical care from William Beaumont Army Medical Center(WBAMC)

O I have never tried to use WBAMC
O WBAMC lacks the services that I need
O WBAMC is not located in a good place
O WBAMC personnel have been rude to me
O WBAMC providers are not very through in their examination
O I do not get to see the same provider each time I go to WBAMC
O WBAMC care is not as good as civilian care
O My schedule conflicts with the times that WBAMC offers care
O I live to far from WBAMC
O It's to hard to get an appointment at WBAMC
O I wait to long to see a provider at WBAMC
O I was referred or sent by WBAMC staff to a civilian facility
O I simply prefer another source of care
O Some other reason(specify)

_____

SECTION II; SATISFACTION WITH YOUR HEALTH CARE

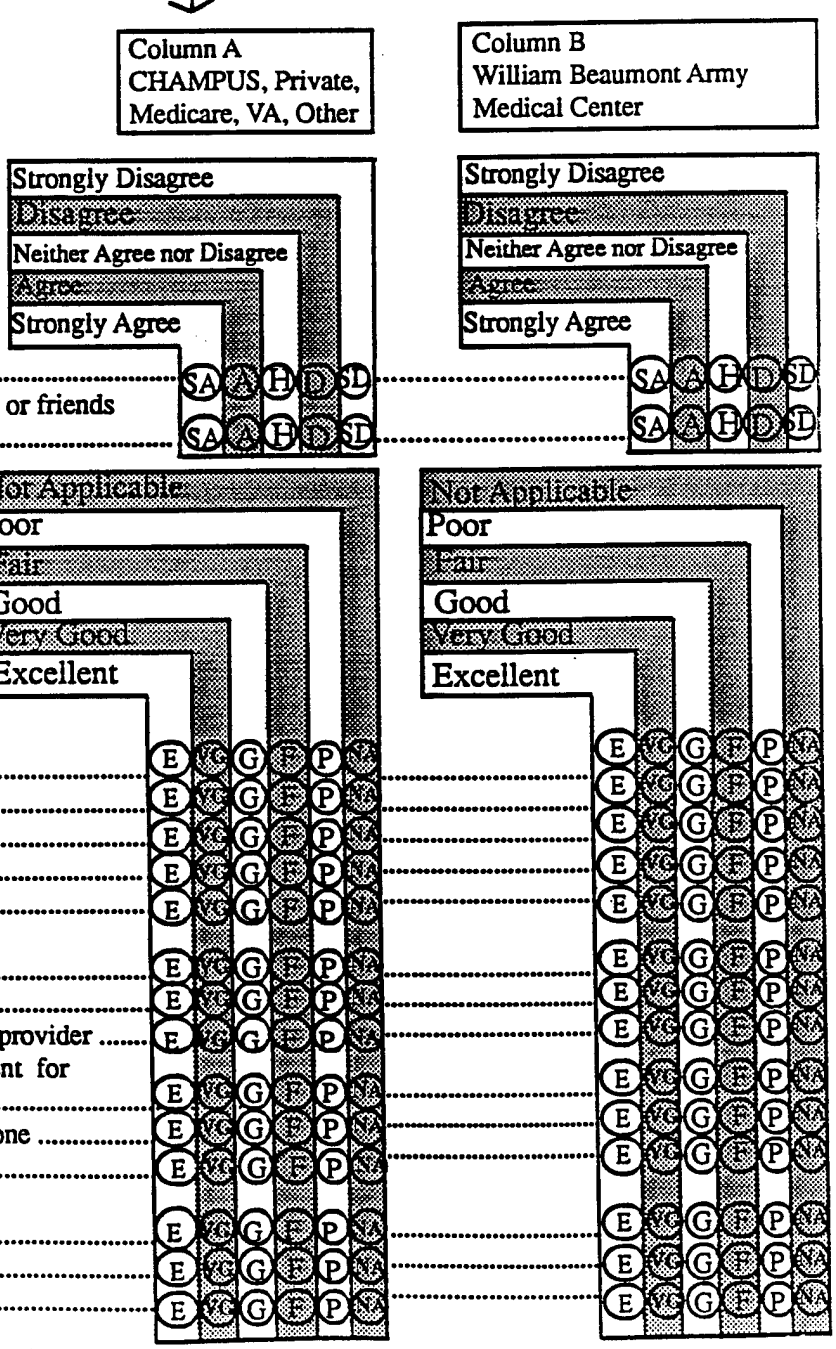
This section asks about how you feel about the health care you have received during the PAST 12 MONTHS. Your responses should be based only on the health care you as an individual received.

5. Please mark the one statement that best describes your use of civilian and military health care services during the past 12 months and follow the instructions. Your answer to this question will decide how you answer questions 6 to 48. MARK ONLY THE ONE BEST ANSWER AND THEN FOLLOW THE INSTRUCTIONS.

   ○ I have used <u>only</u> health care or services provided by William Beaumont Army Medical Center(ANSWER QUESTIONS 6 - 48 IN COLUMN B ONLY)

   ○ I have used health care or services provided <u>both</u> by CHAMPUS, private insurance, Medicare, VA, or other sources and by William Beaumont Army Medical Center(ANSWER QUESTIONS 6 - 48 IN <u>BOTH</u> COLUMNS A AND B)

   ○ I have used <u>only</u> health care or services provided by CHAMPUS, private insurance, Medicare, VA, or other sources (ANSWER QUESTIONS 6 - 48 IN COLUMN A ONLY)



Please indicate how much you agree or disagree with the following.

6. I am satisfied with the health care I received.....
7. I would recommend this type of health care to my family or friends who needed care.....

Please rate the following aspects of your health care.

8. Convenience of location of treatment .....
9. Convenience of hours .....
10. Access to health care whenever you need it.....
11. Access to a specialist if you need one.....
12. Access to inpatient hospital care if you need it .....
13. Access to medical care in an emergency .....
14. Ease of making appointments for health care by phone.....
15. Length of time you wait at office to see the health care provider .....
16. Length of time you wait between making an appointment for routine care and the date of your visit.....
17. Availability of health care information or advice by phone .....
18. Services available for getting prescriptions filled .....
19. Thoroughness of examination .....
20. Ability to diagnose my health care problems .....
21. Skill of health care providers .....

Please rate the following aspects of your health care.

	Column A CHAMPUS, Private, Medicare, VA, Other	Column B William Beaumont Army Medical Center
	Not Applicable / Poor / Fair / Good / Very Good / Excellent	Not Applicable / Poor / Fair / Good / Very Good / Excellent
22. Thoroughness of treatment	E VG G F P NA	E VG G F P NA
23. The outcomes of your health care (how much you are helped)	E VG G F P NA	E VG G F P NA
24. Overall quality of health care	E VG G F P NA	E VG G F P NA
25. Provider's explanation of health care procedures	E VG G F P NA	E VG G F P NA
26. Provider's explanation of medical tests	E VG G F P NA	E VG G F P NA
27. Attention provider gives to what you have to say	E VG G F P NA	E VG G F P NA
28. Advice provider gives you about ways to avoid illnes and stay healthy	E VG G F P NA	E VG G F P NA
29. Courtesy shown to you by administrative staff (e.g., receptionists)	E VG G F P NA	E VG G F P NA
30. Courtesy shown to you by health care providers	E VG G F P NA	E VG G F P NA
31. Provider's concern for you as a person	E VG G F P NA	E VG G F P NA
32. Provider's concern for your privacy	E VG G F P NA	E VG G F P NA
33. Reassurance and support offered to you by health care providers	E VG G F P NA	E VG G F P NA
34. Amount of time with health care providers during a visit	E VG G F P NA	E VG G F P NA
35. Ability to choose health care providers	E VG G F P NA	E VG G F P NA
36. Ease of seeing the health care provider of your choice	E VG G F P NA	E VG G F P NA
37. Health care providers' personal interest in the outcome of your problem	E VG G F P NA	E VG G F P NA
38. Protection you have against hardship due to medical expenses	E VG G F P NA	E VG G F P NA
39. Help with arrangements to get the health care you need without financial problems	E VG G F P NA	E VG G F P NA

Thinking about your own health care during the past 12 months, how would rate the following OUTPATIENT SERVICES? (If you did not use a specific service, please mark Not Applicable)

	Column A CHAMPUS, Private, Medicare, VA, Other	Column B William Beaumont Army Medical Center
	Not Applicable / Poor / Fair / Good / Very Good / Excellent	Not Applicable / Poor / Fair / Good / Very Good / Excellent
40. Family practice/primary care	E VG G F P NA	E VG G F P NA
41. Emergency Room	E VG G F P NA	E VG G F P NA
42. OB/GYN	E VG G F P NA	E VG G F P NA
43. Surgery	E VG G F P NA	E VG G F P NA
44. Optometry	E VG G F P NA	E VG G F P NA
45. Mental Health	E VG G F P NA	E VG G F P NA
46. Physical Therapy	E VG G F P NA	E VG G F P NA
47. Laboratory	E VG G F P NA	E VG G F P NA
48. Pharmacy	E VG G F P NA	E VG G F P NA

SECTION III: *INFORMATION ABOUT YOU*

This section will be used to study differences in responses bases on categories of beneficiaries. This will not be used to identify you personally.

49. Are You?

O Male
O Female

50. What age were you on your last birthday? _____

51. In general, would you say your health is:

O Excellent
O Very good
O Good
O fair
O Poor

52. Which category best describes you?

O Active duty service member
O Family member of active duty service member
O Retired service member
O Family member of retired/deceased service member
O Other (specify)
_____

53. Specify the pay grade of your sponsor (if you are a family member)

O E-1	O E-8	O O-1	O O-8
O E-2	O E-9	O O-2	O O-9
O E-3	O W-1	O O-3	O O-10
O E-4	O W-2	O O-4	
O E-5	O W-3	O O-5	
O E-6	O W-4	O.O-6	
O E-7	O W-5	O O-7	

O Cadet/Midshipman
O Not sure

54. Specify your pay grade (if you are active duty or retired).

O E-1	O E-8	O O-1	O O-8
O E-2	O E-9	O O-2	O O-9
O E-3	O W-1	O O-3	O O-10
O E-4	O W-2	O O-4	
O E-5	O W-3	O O-5	
O E-6	O W-4	O.O-6	
O E-7	O W-5	O O-7	

O Cadet/Midshipman
O Not sure

55. Which of the following best describes your current marital status?

O Never married
O Married
O Separated
O Divorced
O Widowed

56. What is the highest school grade or academic degree that you have?

O Less than 12 years of school (no diploma)
O GED or other high school equivalency certificate
O High school diploma
O Some college, but did not graduate
O 2- year college degree (AA/AS)
O 4-year college degree (BA/BS)
O Some graduate school, but no degree
O Master's, doctoral degree, or professional school degree (MA/MS/Ph.D./MD/JD/DVM)

Thank you very much for completing this important survey.

Your comments or concerns.

_____
_____
_____
_____
_____
_____
_____

APPENDIX 2.

FREQUENCY OF DEMOGRAPHIC CHARACTERISTICS

TABLE 3.--SAMPLE DEMOGRAPHIC CHARACTERISTICS

Sample Demographics		Frequency of Responses	Percentage
Gender	Male	36	52.9%
	Female	32	47.1%
Age	< 24 Years	0	0.0%
	25-34 Years	5	7.5%
	35-44 Years	7	10.5%
	45-54 Years	19	28.7%
	55-64 Years	37	53.0%
	> 65 Years	0	0.0%
Health Status	Excellent	5	7.4%
	Very Good	18	26.5%
	Good	28	41.2%
	Fair	10	14.7%
	Poor	7	10.3%
Category of Beneficiary	Active Duty (AD)	2	2.9%
	AD Fam. Member	10	14.7%
	Retired Service Member (RSM)	33	48.5%
	RSM Fam. Member	23	33.8%
	Other	0	0.0%
Pay Grade of Sponsor	E1-E4	0	0.0%
	E5-E6	6	17.6%
	E7 E9	20	58.8%
	WO1-CW4	2	5.5%
	O1-O3	1	2.9%
	O4-O5	5	14.7%
	O6 O9	0	0.0%
	Cadet/Midshipman	0	0.0%
	Not Sure	0	0.0%
Pay Grade if Active Duty or Retired from AD	E1-E4	0	0.0%
	E5-E6	5	7.4%
	E7-E9	19	27.9%
	WO1-CW4	2	2.9%
	O1-O3	3	4.4%
	O4-O5	2	2.9%
	O6-O9	0	0.0%
	Cadet/Midshipman	0	0.0%
	Not Sure	0	0.0%

TABLE 3 (CONTINUED).--SAMPLE DEMOGRAPHIC CHARACTERISTICS

Sample Demographics		Frequency of Responses	Percentage
Marital Status	Single	0	0.0%
	Married	65	95.6%
	Separated	0	0.0%
	Divorced	1	0.0%
	Widowed	2	2.9%
Highest Grade or Academic Degree	< 12 Grade	0	0.0%
	High School Equivalent	2	2.9%
	High School Diploma	10	14.7%
	Some College	21	30.9%
	2-Year College Degree	10	14.7%
	4-Year College Degree	12	17.6%
	Some Graduate School-No Degree	2	2.9%
	Master's or Higher Degree	11	16.2%

APPENDIX 3.

ANOVA

PAIRED T-TEST COMPARISON

TABLE 5-1.--PATIENT SATISFACTION VARIABLES STATISTICALLY SIGNIFICANT BETWEEN WBAMC AND CIVILIAN HOSPITALS ANOVA PAIRED T-TEST, $P \leq .05$

SATISFACTION VARIABLE	P-VALUE
ACCSPC11	.009
ACCIPT12	.012
ACCAPP14	.007
ACCCTM15	.000
ACCVST16	.000
TQEXAM19	.009
TQDIAG20	.053
TQPROV21	.057
TQTMT22	.053
OCQLT24	.013
ICPRO25	.029
ICATTN27	.002
ICADV28	.011
ICCTSY29	.003
ICCON31	.006
CHCHO35	.001
CHCSNG36	.000
ICPROV37	.008
FPROT38	.012
FHELP39	.000
OSOBGY42	.000

TABLE 5-2.--HOSPTYP 1 (WBAMC DESCRIPTIVE STATISTICS)

NUMBER OF VALID OBSERVATIONS (LISTWISE)= 2.00

VARIABLE	MEAN	STD DEV	MINIMUM	MAX	VALID N	LABEL
FHELP39	1.58	.69	1	3	19	
FPROT38	2.05	1.15	1	5	20	
TQEXAM19	2.32	.95	1	4	22	
TQPROV21	2.43	.95	1	5	23	
TQDIAG20	2.48	1.12	1	5	23	
OSOBGY42	2.50	1.22	1	4	6	
TQTMT22	2.52	1.20	1	5	23	
ICADV28	2.55	1.34	1	5	22	
OCQLT24	2.57	1.20	1	5	23	
ICPRO25	2.61	1.12	1	5	23	
ICATTN27	2.61	1.20	1	5	23	
ACCIPT12	2.75	1.21	1	5	20	
ICCTSY29	2.83	1.23	1	5	23	
ICCON31	2.87	1.29	1	5	23	
ICPROV37	3.14	1.42	1	5	22	
ACCSPC11	3.14	1.35	1	5	21	
ACCAPP14	3.22	1.31	1	5	23	
CHCHCP35	3.55	1.50	1	5	20	
ACCCTM15	3.68	1.17	1	5	22	
ACCVST16	3.74	1.25	1	5	23	
CHCSNG36	4.00	1.48	1	5	21	

TABLE 5-3.--HOSPTYP 2 (CIVILIAN HOSPITALS DESCRIPTIVE STATISTICS)

NUMBER OF VALID OBSERVATIONS (LISTWISE)= 2.00

VARIABLE	MEAN	STD DEV	MINIMUM	MAX	VALID N	LABEL
TQEXAM19	1.83	.89	1	3	23	
ACCIPT12	1.90	.77	1	3	21	
CHCSNG36	1.90	1.30	1	5	21	
ICATTN27	1.91	.90	1	3	23	
ICCTSY29	1.96	.98	1	4	23	
OCQLT24	1.96	.93	1	4	23	
ICPRO25	1.96	.88	1	3	23	
TQPROV21	2.00	.95	1	4	23	
TQDIAG20	2.00	.90	1	3	23	
OSOBGY42	2.00	1.41	1	3	2	
TQTMT22	2.04	.98	1	4	23	
ICADV28	2.13	1.14	1	5	23	
CHCHCP35	2.13	1.32	1	5	23	
ACCSPC11	2.15	.93	1	4	20	
ICCON31	2.17	.98	1	4	23	
ACCAPP14	2.22	1.20	1	5	23	
ICPROV37	2.22	1.09	1	4	23	
ACCVST16	2.43	1.12	1	4	23	
ACCCTM15	2.61	.99	1	4	23	
FPROT38	2.70	1.42	1	5	20	
FHELP39	3.30	1.56	1	5	20	

REFERENCE LIST

Baker, Constance M. 1985. Maximizing Mailed Questionnaire Responses. Image. The Journal of Nursing Scholarship. VXVII (4) (Fall): 118-121.

Bursch, Brenda, Joseph Beezy and Ruth Shaw. 1993. Emergency Department Satisfaction: What Matters Most? Annals of emergency Medicine. 22 (30: 586-591.

Charles, Cathy, et al. 1994. How Was Your Hospital Stay? Patients' Reports About Their Care in Canadian Hospitals. Canadian Medical Association Journal. 150 (11): 1813-1821.

Donabedian, Avedis. 1980. The Definition of Quality and Approaches to its Assessment. Ann Arbor, MI: Health administration Press.

Donabedian, Avedis. 1988. "Quality Assessment and Assurance Unity of Purpose, Diversity of Means." Inquiry. 25 (Spring): 173-192.

Graham, Judith. 1987. Quality Gets a Closer Look. Modern Healthcare. (February): 20-31.

Hjortdahl, Per. and Even Laerum. 1992. Continuity of Care in General Practice: Effect on Patient Satisfaction. BMJ. 304: 1287-1290

Holthof, Bruno 1991. Total Quality in Acute Care Hospitals: Guidelines for Hospital Managers. Health Policy. 18: 243-250.

Joint Commission on Accreditation of Healthcare Organizations (JCAHO). 1994. Accreditation Manual for Hospital(standards). Oak brook Terrace, Ill: JCAHO

Kerlinger, Fred N. 1986. Foundation of Behavioral Research. New York: CBS Publishing.

Knapp, Rebecca Grant. 1985. Basic Statistics for Nurses. New York: A Wiley Medical Publication.

Krishel, Scott. and Larry J. Baraff. 1993. Effect of Emergency Department Information on Patient Satisfaction. Annals of Emergency Medicine. 22(3): 568-572.

Kurata, John. H., et al. 1992. Patient and Provider Satisfaction with Medical Care. The Journal of Family Practice. 35(2): 176-179.

Lanning, Joyce A. 1990. The Health Care Quality Quagmire: Some Signposts. Hospital and Health Services Administration. 35 (1) (Spring): 40-54.

Lemke W. Robert. 1987. Identifying Consumer Satisfaction Through Patient Surveys. Health Progress. 68 (2): 56-58.

Mangelsdorff, David A. 1990. Patient satisfaction survey 1989-1990. Fort Sam Houston, TX: U.S. Army Health Care Studies and Clinical Investigation Activity. (Consultation Report No. 90-003).

Mangelsdorff, David A. 1991. Patient satisfaction Survey. 1990-1991. Fort Sam Houston, TX: U.S. Army Health Care Studies and Clinical investigation activity. (Consultation Report No. 91-010).

Marquis, Susan. M., et al. 1983. Patient Satisfaction and Change in Medical Care Provider: A Longitudinal Study. Medical Care. 21(8): 821-829.

Messner, Roberta L. 1993. What Patients Really Want From Their Nurses. AJN. (August): 38-41.

Nelson, Carl. W. 1990. Patient Satisfaction Surveys: An Opportunity for Total Quality Improvement. Hospital & Health Services Administration. 35(3) (Fall): 409-425.

Palmer, Heather R., et al. 1991. Striving for Quality in Health Care: An Inquiry into Policy and Practice. Ann Arbor, Michigan: Academic Press.

Press, Irwin., Rodney F. Ganey and Mary P. Malone. 1991. Satisfied Patients can Spell Financial Well-Being. Healthcare Financial Management. 106: 34-42.

Ross, Caroline. K., et al. 1993. The Importance of Patient Preferences in the Measurement of Health Care Satisfaction. Medical Care. 31 (8): 1138-1149.

Smith, Dorothy A., 1993. An Assessment of Customer Satisfaction: Using Patient Information for Quality Improvement Tripler Army Medical Center Hawaii. Defense Technical Information Center, Cameron Station, Alexandria, Virginia 22304-6145.

Snedecor, George W. and William G. Cochran. 1980. Statistical Methods. Ames, Iowa: The Iowa State University Press.

Walker, Ann H. and Joseph D. Restuccia 1984. Obtaining Information on Patient Satisfaction with Hospital Care: Mail Versus Telephone. Health Services Research. 19 (3): 291-306.

Ware, John E. 1981. Research Methodology. Drug Intelligence and Clinical Pharmacy. 3 (November): 892-899.